

EDUCATION AND CONTRACEPTIVE CHOICE:
A CONDITIONAL DEMAND FRAMEWORK*

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1. INTRODUCTION

In recent years economists have been devoting attention to measuring the effects of schooling on skills which are not traded in the market and thus not directly reflected in wage earnings (Welch [1970]; Huffman [1975]; Leibowitz [1974]; Rosenzweig [1982]). The more rapid adoption of a new contraceptive technology, the pill, by more educated women in the early 1960s, documented by Ryder [1972], has been cited as one example of the role of schooling in improving allocative abilities in the household sector (Huffman [1976]). Examination of the available evidence on the relationship between schooling and contraceptive choice, however, suggests that the hypothesized advantages of schooling in lowering the costs associated with contraceptive decisions is not well established. Unless it is assumed that the pill dominated all other contraceptive techniques, that it was efficient for all women to adopt the pill independently of family size desires, one cannot interpret the correlations between female education and pill use unambiguously. For example, if less educated women tend to want larger families because, say, their time costs are lower, adoption of a contraceptive device such as the pill may not be optimal for them; the overall positive association between schooling and pill adoption may thus simply reflect the underlying determinants of the demand for children.

Michael [1973] and Michael and Willis [1975], based on an economic model of contraceptive choice, have estimated the determinants of contraceptive use by women within parity groups and conditional on measures of birth intentions. The estimated associations between the schooling levels of women and the use of the pill or other efficient techniques in these studies are generally much weaker than the unconditional (on parity or intentions) or "reduced form" correlations, casting some doubt on the existence of any direct effects of schooling on the costs of contraceptive choice. However, both parity and total birth intentions are treated as exogenous variables in these studies, which may mean that the results are not unbiased; moreover, only women in closed birth intervals are included in the samples, resulting in selectivity bias.² Finally, no studies have taken into

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² The criterion for the inclusion in the sample of a woman with given parity was that she had to have an additional birth. It is obvious that the more effective contraceptors were thus selected out, particularly in the higher closed-interval sub-samples. This selectivity is likely to have biased downward the estimated coefficients of schooling on the choice of effective contraceptive techniques.