

Introduction to “The Demand for Child Care Quality: An Hedonic Price Theory Approach,” by Alison P. Hagy, *Journal of Human Resources*, Summer 1998. Annotated by Paul Dudenhefer, EcoTeach Writing Tutor, Duke University

Note use of statistics—one way to indicate importance and scope of topic.

More than 28 million children, or nearly 60 percent of all children under age 13 in the United States today, have mothers in the labor force (Hayes, Palmer, and Zaslow 1990, 3, 18). This number is expected to rise, reflecting a continuing increase in the number of mothers entering the labor force. This trend has been particularly striking for women with young children. The labor force participation rate of married women with children under age six rose from 18 percent in 1960 to 57 percent by 1988 (Robins 1991, 12). With this growth in dual-career households, young children have increasingly come to rely on care provided by individuals outside their families. Between 1965 and 1990 care for the preschool children of employed mothers by nonrelatives increased from 38 percent to 53 percent (Hofferth et al. 1991, 100). Since familial care has been the traditional form of child care in our society, concern has been raised about the quality of care provided by others.

**Move 1:
Establish a
research
territory.**

Introduce your topic and indicate its importance, either to human welfare, or to the economics discipline, or both.

Note how paper uses a discussion of policy to work up to the research question. This is one way to get from Point A (introduction of topic) to Point B (in this case, a research question).

Much of this concern has been channeled toward pressuring government to ensure quality in the child care market. States regulate the quality of child care by mandating minimum standards with respect to key features of the arrangement that developmental psychologists have found to be associated with positive developmental outcomes in children. These features include group size, staff-to-child ratio, and provider training. The minimum standards, however, often fall far short of professional recommendations. Further, there is tremendous variation in minimum standards across states. For example, Rhode Island mandates a 1:8 staff-to-child ratio for three year-olds, while Florida requires only a 1:15 staff-to-child ratio (Hayes, Palmer, and Zaslow 1990, 320-21).

The government also subsidizes child care in an attempt to improve the quality of care purchased in the market. These subsidies are available in several forms. The Dependent Care Tax Credit, under certain assumptions, effectively increases the recipient's wage rate, while the proposed Child Tax Credit may be considered a pure income subsidy. Direct purchase-of-service contracts or voucher programs, by subsidizing only those providers that satisfy state regulatory requirements, effectively lower the implicit price of the regulated attributes, such as staff-to-child ratio. Do these subsidies (and tied subsidies in particular) influence parents to purchase higher quality care as measured by the regulated attributes?

Here is the author's research question: the question her study will try to answer.

Move 3: Identify a niche.
Here, the niche is the dearth of studies.

There is no available research that directly addresses this question. In fact, from the work that has been done, very little can be said about the implications for the quality of care purchased in the market. One strand of literature focuses on mode choice in child care arrangements. In these studies, the consumer chooses from a set of three or four mutually exclusive and exhaustive modes of care, such as relative care, family day care, and center-based care. Recent studies include work by Leibowitz, Waite, and Witsberger (1988), Lehrer (1989), and Hofferth and Wissoker (1992). This strand of literature may be broadly interpreted as revealing something about the demand for quality in child care since the typical bundle of attributes of care varies systematically across types of providers. For example, family day care has higher staff-to-child ratios on average compared to center-based care but is less likely to have a trained provider. Yet, attributes of care vary substantially even within mode, limiting the conclusions one might draw about the demand for quality when examining mode choice alone.

Move 2: Review the literature.

Blau (1991) examines the determinants of the attributes of care chosen by parents. In particular, he examines the determinants of child-to-staff ratio and provider training separately by the respondents who use family day care homes and center-based arrangements. His results suggest that consumers do not necessarily have a strong willingness to pay for these particular dimensions of quality. This study comes closest to addressing how subsidies might influence the demand for quality care. Blau's study does not, however, include measures of implicit prices for the quality attributes. As a consequence, he cannot draw any conclusions about the potential effectiveness of subsidies tied to these regulated attributes.

Move 3: Identify a niche.
Here, a more particular niche is identified: the lack of measures of implicit price. Presumably, the present paper will fill that niche—why else bother to tell us about it?

Move 4: Occupy the niche. Tells us that the paper will fill the gap identified in Move 3.

In this paper, I employ hedonic techniques to derive an implicit price for staff-to-child ratio. I use this price, in turn, as an explanatory variable in attribute demand equations for staff-to-child ratio. Hedonic techniques have been applied in the context of the child care market previously, but the second-stage estimation of demand has never been attempted. Two complementary surveys, the National Child Care Survey, 1990 (NCCS) and the Profile of Child Care Settings Study (PCS), collect consumer and provider data within the same geographic area and during the same time period. Together these surveys provide a unique opportunity to match individual consumers with the implicit prices they face in the geographic market in which they live and presumably purchase child care. Estimates of the parameters of these demand equations have implications for the

Methodology briefly described.

Data sources identified

Unique feature of study explicitly pointed out.

effectiveness of government subsidies, particularly tied subsidies, to improve the quality of care purchased in the market.

Initially, I estimate the demand for staff-to-child ratio across all types of arrangements. However, since the typical bundle of attributes varies systematically across types of provider, choice of mode is likely to be a crucial aspect of the demand for quality in child care. Therefore, I also analyze parents' choice of arrangement between center- and noncenter-based care. I find that the strongest determinants of demand for staff-to-child ratio across all types of arrangements are also the most significant predictors of the household's choice of arrangement. These variables include the age of the youngest child, the presence of siblings in the household in various age groups, and the availability of a relative in the area. Of the economic variables in the model, only the mother's wage rate is statistically significant in either of these regressions. Finally, I estimate the demand for staff-to-child ratio across the subsample of households that chose center-based care, correcting for self-selection into this type of arrangement. Demand for staff-to-child ratio within centers is largely insensitive to the factors that influenced the household's choice of arrangement. Only the series of variables indicating the age of the youngest child is jointly statistically significant in the model. None of the economic variables matter: the mother's wage rate, her spouse's annual earnings, and the implicit price of staff-to-child ratio have almost no influence on the demand for staff-to-child ratio. The implication for public policy is that government subsidization, regardless of its form, is unlikely to have a very significant effect on the quality of care purchased in the market.

Takes reader briefly through the steps of the estimation process.

Here, the research question is answered. This is the paper's thesis.

In Section II, I describe a model of child care choice that provides a basis for estimating demand for the attributes of care that characterize a child care arrangement. I describe the data that are available in the NCCS and the PCS in more detail in Section III. In Section IV, I present the econometric model and discuss issues of identification. In Section V, I present the estimation results. Section VI concludes the paper.

Introduction concludes with a preview of the rest of the paper. This is standard in economics papers.