

*I am not a feminist per se nor a bleeding heart liberal, though many people think I am. I am an opportunist, a pragmatist to the nth degree. There is no benefit in this company that we don't feel doesn't have a bottom line advantage or payback.*

—Company owner whose family-owned firm operates an on-site child care center for 85 employee children and grandchildren, including his own grandchild.

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## Introduction

### Policy Issues and Research Questions

The last 25 years have witnessed a decline in the growth rate of the U.S. population. There have also been economic and social forces, such as welfare reform, an expansion of the Earned Income Tax Credit, and the continuing stagnation of wages of men with less than a college education, which have encouraged women to enter the labor market in ever-increasing numbers. As a result, much of the growth in the U.S. labor market has come from women and, in recent years, from a dramatic increase in the labor force participation of mothers with young children. The increased participation of this segment is also expected to be a substantial component of growth in the labor force for the next two decades. This trend has created a rising demand for child care and a greater level of work/family conflict for U.S. families with young children. All indications are that these effects of increasing women's labor force participation will continue in the near future.

Firms in the 1990s faced an inherently tighter labor market than they had in the past because of changing demographics in the United States and due to the strong economy. To satisfy their staffing needs, employers strove to entice those not in the labor force to enter. Among the groups consciously targeted have been the elderly and women with young children. In terms of the latter group, one strategy used by a small but growing number of firms is to provide employer-sponsored child care (ESCC) as part of a menu of employee benefits. In 1978, the

U.S. Department of Labor identified 105 ESCCs among U.S. companies. Since then, this number has increased dramatically. A 1998 survey found approximately 8,000 firms with on-site centers (McIntyre 2000).

These trends, which are presented in more detail in Chapter 2, raise important questions about the benefits of on-site child care. Why do some firms choose to offer ESCC while most do not? What is the value to the firm of offering ESCC? What is the value to employees of working for a firm with on-site child care? While we cannot answer all of these questions fully in this study, we take important steps in that direction. Chapter 3 explores economic theory with an eye to understanding why some firms choose to offer employer-sponsored on-site child care while others do not. The theoretical analysis is a general one that is widely applicable in the U.S. economy. Our empirical work, however, is limited to a case study approach in which we analyze two firms with on-site child care centers and one that does not have an on-site center, all in the same industry. The analysis provides some evidence as to why these companies have made the choices that they have about benefits, but we cannot generalize more widely from three firms the set of characteristics that lead some firms to offer ESCC while others do not. Similarly, while we explore the issue of the value to the firm of offering ESCC, the challenge of measuring the full benefits of on-site child care for employers is great, given the complex interaction between working conditions, productivity, compensation, and the makeup of one's labor force. Employers offering child care benefits often report positive impacts of child care programs on workers' performance, as well as reductions in turnover, absenteeism, and recruitment costs. Indeed, there has been substantial media coverage of employer and employee perceptions about these potential benefits of some of the higher-visibility programs. We review the literature on such cost savings in Chapter 3 and provide some anecdotal evidence from the firms we studied that points to benefits in these areas. However, given the information available at our study sites, we are not able to systematically analyze potential effects on productivity, turnover, or recruitment that may lead to cost savings for firms offering ESCC.

The primary contribution of this study is to analyze the value of employer-sponsored on-site child care to the employee. This is not often mentioned in firms' public rhetoric, but we expect that it is a sub-

stantial part of the cost savings of ESCC: the value to the employee of the benefit should translate directly into wage savings on the part of firms (Woodbury 1990). Chapter 3 explores the theoretical model that points to the importance of employee valuation in assessing the benefit of ESCC to the firm. Chapter 5 provides an indirect measure of employee valuation by analyzing who is using (or not using) the on-site center. If parents choose on-site center care when it is available over other options, consumer choice theory tells us that they must be better off with the on-site center. Which employees are more likely to select the on-site option? This information is important to human resource managers considering an on-site center and to policymakers evaluating possible approaches to helping parents with child care expenses. The next section of this chapter outlines the basic research questions of this indirect approach and previews our findings from Chapter 5.

We also offer a second approach to estimating employee valuation of ESCC, which is detailed in Chapter 7. This method uses a contingent valuation technique for eliciting the worth of the benefit directly from employees. Again, human resource officers and policymakers should be interested in the answer to the question, "What value does the average employee or recent hire place on the benefit of having an on-site center?" Both approaches expand our understanding of the benefit of employer-sponsored on-site child care to the employee and, therefore, to the employer as part of a compensation package. Both methods of analysis lead to the conclusion that employees derive substantial benefits from on-site centers, beyond what they would receive from a community-based child care center, and that the benefits from ESCC accrue to employees beyond the users of the on-site center. Given the difficulty firms have in assessing the value of ESCC, we believe our strategy makes an important contribution in providing an example that any medium-sized or large firm could follow to assess the potential value of ESCC to its employees.

The valuation of ESCC is also important from a public policy perspective. Child care has become a topic of intense public debate in the United States. In 1976, Congress enacted the Child and Dependent Care Tax Credit, and since then there has been a dramatic increase in federal spending on child care.<sup>1</sup> However, the Dependent Care Credit is only one of a wide variety of government programs subsidizing child

care expenditure.<sup>2</sup> Welfare reform has also increased the pressure on states to coax low-income mothers into the labor market. In recent years, a number of proposals before Congress have involved tax breaks for companies offering ESCC.<sup>3</sup> This raises the question of why the government would need to encourage employers to do something that is in the firm's interest. If firms were better able to measure the benefits of ESCC, perhaps the tax incentive would not be necessary. On the other hand, if the positive externalities of a child receiving quality care and the reduction of work/family conflict are large enough, government incentives in this area might be justified, whatever the value to firms.<sup>4</sup> Regardless of one's perspective on this issue, a better measure of the value of ESCC to employees would inform decisions about optimal levels of provision and of tax incentives.

### **AN INDIRECT APPROACH TO VALUING EMPLOYER-SPONSORED ON-SITE CHILD CARE: PARENTAL CHOICE WHEN AN ON-SITE CENTER IS AVAILABLE**

*Hard to find good day care that you can trust.*

—A 48-year-old female production worker explaining why she values her employer's on-site center.

*Convenient for people who use it.*

—A 22-year-old female production worker with no children yet, but who plans to use the company on-site center when she does have children.

While there is extensive literature that analyzes women's participation in the labor force and the type of child care selected by parents in the United States,<sup>5</sup> very little is known about parental choice of on-site center care. This is not surprising because most studies make use of nationally representative samples of households and the incidence of on-site center use, while increasing, is still so small as to be practically invisible, even in relatively large samples. However, ESCC is too important to ignore simply because it cannot be studied with conventional data sets. Instead, we have elected to use a case study approach, analyzing the child care arrangements of employees at three firms in the same local labor market and in the same industry.

Firms that offer on-site child care seem to be of two types. One does so as part of a corporate culture of “caring,” a culture that is reflected by many aspects of the firm’s benefits package and working conditions. The other offers child care as a response to a particular target employee population and/or as a response to a very tight labor market. We specifically looked for the latter type, without a full menu of family-friendly benefits because, while they have received less attention than some high-profile family-friendly firms, we feel that they hold more insights into “typical” firm behavior. Also, for companies that do not offer a wide array of family-friendly benefits, the effect of on-site child care is less intertwined with the impacts of other benefits.

Employees at two of the three firms we study have access to on-site child care, while employees at the third firm do not, allowing us to make comparisons of child care choice across these two scenarios. In addition, we collected from the employees of these three firms more detailed information than is often available about alternative sources of child care in the respondent’s area, particularly the availability of relatives as potential care givers. This provides an opportunity to evaluate how the employee’s individual menu of child care options affects his or her child care choice, a dimension of analysis that is often missing. Furthermore, household-level surveys usually are not extensive enough to gather information about the multiple strategies that parents often have in place to guard against the breakdown of child care arrangements and other unanticipated circumstances that create conflict between employment and caring for one’s young children. The data we collected also address this gap in the literature on the determinants of child care choice.

Our findings on the use of on-site centers are quite clear. The presence of the on-site center option makes a substantial difference in the child care choices made by families with young children. A much higher percentage of parents employed at the two firms with on-site child care enrolled their children in a day care center in comparison to the employees of the firm without an on-site center. Thus, the presence of the on-site center did not simply divert attendance from community-based centers, but rather moved children out of home day care and relative care into center-based care. Also important is our finding that parents of infants are likely to use the on-site center, as are those with older children. This suggests that at least some of the national differen-

tial between modes of care for infants and preschoolers comes from a lack of slots for infants at child care centers rather than from parental preference, or that parents may value ESCC differently than other center care for infants. Although those with relatives available for providing child care are less likely to use the on-site center, there are still a number of families that reported using the center despite the availability of relatives.

Users of the on-site center are also less likely to have secondary child care arrangements, suggesting less concern about breakdown in the primary arrangement. When secondary arrangements are used, they are almost always unpaid and with relatives. Workers at the firm without an on-site center are more likely to be juggling two regular child care arrangements, which might be expected to add to the stress of the work/family balancing act.

For the two firms with on-site centers, employee job tenure is found to be positively related to on-site center use. This relationship between job tenure and center use may be evidence of a lower turnover rate for center users, but it also could be the result of the allocation of a limited number of slots on a first-come, first-served basis. Education is also found to be positively related to the use of the on-site center, which substantiates company officials' claims that having the center has been especially important for recruiting and retaining young managers, especially young women managers.

It is important to note that the cost of the on-site centers to parents, while somewhat lower than the average cost of other center-based care in the area, was about equal to the average cost for all paid child care in the area at the time of our survey. Thus, enrolling one's child in the on-site center did not represent a significant saving for most parents and may have resulted in a substantial increase in expenses for those with no-cost relative care available. This suggests that quality, reliability, and convenience are important factors in the decision making of working parents; parents get extra value from the employer-sponsored and on-site aspects of ESCC. The added value of these characteristics seems to be enough for many more employees to use the on-site center than would ordinarily use center-based care. This extra value is a part of the benefit of ESCC to the employee and, thus, to the employer.

## A DIRECT APPROACH TO EMPLOYEE VALUATION OF EMPLOYER-SPONSORED ON-SITE CHILD CARE

*Benefit to society.*

—Non-user of center who voted yes.

*I took care of my kids.*

—Non-user who voted no.

*Convenience of location, I trust people here, inexpensive.*

—User of center who voted yes.

*Not fair—Don't think everyone should have to pay for it.*

—User who voted no.

Turning to the direct estimation of the benefit of ESCC to employees, we apply a contingent valuation strategy. Chapter 6 discusses some of the vast body of literature on using contingent valuation for nonmonetized commodities in the environmental and natural resources field and discusses its application to the case of employer-sponsored on-site child care. The contingent valuation technique has seldom been applied to employee benefits; nonetheless, we argue that it is appropriate for determining the value that employees derive from a benefit. Like many environmental amenities, there may be a non-use or existence value to individuals of working for a company that offers an ESCC, as well as a use value to parents who have children enrolled in the center. We test this hypothesis using data collected from the three sample firms.

The findings presented in Chapter 7 indicate that price is a significant determinant of employees' votes on whether they would be willing to pay for the continued existence of the on-site center in the case of the firms that have a center, or would be willing to pay part of the cost of running a center in the case of the firm that does not have a center. We find substantial evidence of a non-use value even for employees with no young children. The results also indicate a greater valuation among recent hires than among longer-term employees, as expected. Using the statistical results, we calculate the total value that employees receive from the center, as well as the value to subgroups of employees. Any firm engaging in this exercise could then compare the cost of the benefit with the direct value to its employees, recalling that other gains such as reduced turnover, absenteeism, or recruitment costs

that accrue to the firm but not directly to the employees are not included in these calculations.

## **RESEARCH DESIGN**

Our empirical analysis is based on a case study approach involving three firms in the same labor market and in the same industry. Two of the firms offer on-site child care to employees, while the third does not. This case study approach has important advantages. Because the firms' employees live in the same area, their market child care options are identical; their menus of child care choices differ only in the availability of on-site care, and of relatives willing to provide child care, and in their access to means-tested government subsidy programs. Sampling within a relatively small geographic area also controls for other unobservables such as differences in the cost of living and regional unemployment rates. Furthermore, very simply, the concentration of sampling within firms that have on-site child care renders this type of analysis feasible when the incidence of on-site child care use is still almost imperceptible in the population as a whole.

We recognize, however, that there is also a disadvantage to using firms in the same local labor market in that employees may choose among firms based on the benefits available at each company. This might be exactly a firm's intention in offering on-site child care, but it introduces endogeneity between who works for which firm and parental choice of child care. Accounting for the endogeneity of firm choice is beyond the limits of a three-firm case study. Instead, we try to be cautious in the interpretation of results, emphasizing the unique aspects of these data while exploring the effects of an on-site center in parental decision making and deriving estimates of the value of ESCC.

An employee survey, which is discussed more fully in Chapter 4, was used to gather information about current child care arrangements for employees with young children, alternative child care options, basic socioeconomic and demographic characteristics of all sample employees and their households, and contingent valuation responses. Our survey includes 904 employees of whom 259 have a child under age six. The employees represented by our data all work for one of

three light manufacturing firms in the same industry in the area of a midsized city in the Southeast of the United States. Women represent the vast majority of the production workers in this industry. Survey responses were collected through in-person interviews on company time. We spent time in each firm during working hours, interviewed workers on all shifts, and talked informally with supervisors and plant managers. We spoke extensively with the human resource officers and top administrators at each of the three firms regarding their choices about benefit spending and particularly about ESCC. Thus, with this unique case study, we are able to contribute interesting insights about several largely unexplored aspects of ESCC, most importantly, parental decisions related to the use of on-site centers versus other child care options, and the economic value to employees of ESCC.

The study proceeds as follows. Chapter 2 provides background information on trends in women's labor force participation, the use of nonparental child care, and employer sponsorship of child care in the United States. Chapter 3 develops a theoretical framework for understanding why firms might choose to offer a benefit such as ESCC, and for identifying the sources of employee benefits from employer-sponsored on-site child care. Chapter 3 also summarizes the limited research that has focused on ESCC, providing an overview that cannot be found elsewhere in the literature. The study sites and data collection, which are common to both of our analyses of ESCC, are discussed in Chapter 4. Chapter 5 presents the indirect analysis of employee benefits from ESCC, a comparison of use patterns for employees with and without an on-site child care option. Chapters 6 and 7 focus on the direct measurement of employee valuation of the benefits of ESCC. Chapter 6 contains an overview of the contingent valuation methodology and how we use it for our specific case. Chapter 7 discusses the estimated contingent valuation equations for the three firms in our study and describes the resulting willingness-to-pay estimates. Finally, Chapter 8 summarizes the history of government policy regarding child care funding, focusing particularly on ESCC and concludes with recommendations to firms that are considering offering ESCC and to government policymakers who are thinking about providing tax incentives or other interventions to encourage employer-sponsored on-site child care.

## Notes

1. In 1999, the cost of the Child and Dependent Care Credit was estimated to be \$2.8 billion (Blau 2000).
2. See Blau (2000) for a history of major government programs that subsidize child care.
3. There is currently no federal tax incentive for companies offering ESCC, but several states give tax credits to employers for costs related to ESCC.
4. See Vandell and Wolfe (2000) for a full discussion of potential externalities of child care quality.
5. See, for example, Blau and Robins (1988), Blau and Hagy (1998), Brayfield and Hofferth (1995), Connelly and Kimmel (2003), Duncan and Hill (1977), Folk and Beller (1993), Han (1999), Hofferth and Wissoker (1992), Johansen, Leibowitz, and Waite (1996), Kimmel (1995, 1998), Lehrer (1983, 1989), Leibowitz, Waite, and Witsberger (1988), Mason and Kuhlthau (1989), and Ribar (1992, 1995).