

An Economic Perspective on Child Care Policy

David M. Blau

1. Introduction

Child care is an issue of great interest to families, employers, and policy makers in the United States. Labor force participation by mothers of young children (ages 0-5) more than doubled from 30.3 percent in 1970 to 62.8 percent in 2000. The questions of who will take care of children while mothers work and how such child care should be financed are very important in the United States as well as in other high-income, low-fertility societies. Among such societies, the United States is an outlier in its child care policy, as in many other areas of social policy. Japan and many European countries include publically-provided and heavily subsidized child care in a portfolio of policies that provide support for families with young children. There is significant public funding of child care in the U.S., although much less in per-child terms than in Japan and Europe, but it occurs in the context of a private market for child care that is the main institution through which child care arrangements are made. Child care markets appear to be much more limited in most high-income low-fertility societies other than the U.S. A large majority of child care arrangements in Europe are in preschools such as “*ecoles maternelles*” in France, and “*scuola materna*” in Italy. In those countries, even home-based family day care providers are often part of networks that receive substantial public funding and technical assistance (Waldfogel, 2001).

This paper presents an economic perspective on U.S. child care policy in the context of the child care market. The tools of economic analysis are well-suited to analyzing markets and evaluating market outcomes such as price, quantity, and quality from the perspective of their “social optimality.” Section 2 of the paper presents a brief overview of trends in labor force participation, child care arrangements, child care quality, and public policy toward child care in the U.S. Section 3 discusses research findings on child care in the U.S. The discussion covers traditional economic issues such as demand, supply, cost, price, and labor force participation of mothers. But it also includes some developmental psychology issues about which economists usually have little to say, such as the determinants of the quality of child care and the impact of child care quality on children. These are critical issues for understanding the child care market, and economic analysis can be fruitfully applied to these issues. Section 4 then addresses the following questions: (1) How, if at all, does the child care market fail to allocate resources efficiently? That is, what is the source of the child care market imperfection that justifies public policy intervention? (2) How effectively does current public policy toward child care in the U.S. deal with the sources of market failure? (3) How, if at all, should the U.S. change its child care policy? Conclusions are presented in Section 5.

2. Trends in Employment, Child Care, and Public Policy

A. Employment Trends

Child care is an issue in the U.S. because of the tremendous growth in labor force participation by mothers of young children. Figure 1 illustrates this growth for the half century from 1948 to 2000. In 1948, 11% of married mothers of preschool-age children (ages 0-5) were in the labor force (employed or actively seeking employment). As recently as 1966, fewer than one quarter of such mothers were in the labor force. In 2000, 62.8% of married mothers of preschoolers were labor force participants, and over 70 percent of single mothers of preschoolers were in the labor force. Child care is an issue even for the very youngest children in the U.S.: 58.3 percent of married mothers with children under the age of one year were in the labor force in 2000 (U.S. Census Bureau, 2001, p. 373). Labor force participation by married mothers of school-age children (6-17) has grown rapidly as well, and today over three quarters of such mothers are in the labor force. School-age children may require before-school and/or after-school child care, but school itself occupies children for the bulk of the day, so child care demand for school-age children is lower than for preschool-age children. And it is easier to arrange work schedules so that a family member is available for child care outside of school hours than it is for full-day child care.

B. Child Care Trends

Children in the U.S. today spend much more of their time in the care of adults other than their parents than did children in the past. Among the 12.2 million children aged 0-5 with employed mothers in 1999, 80 percent had their primary child care arrangement (the arrangement in which they spent the most hours) with someone other than a parent. These children spent an average of about 40 hours per week in child care. The 22.0 million children aged 6-14 with an employed mother spent an average of 22 hours per week in the care of someone other than their parents during before-school and after-school hours.

Table 1 shows trends in the number of children aged 0-4 of employed mothers and their child care arrangements during the period 1977-1999. During this 22 year period, the number of preschoolers with an employed mother increased from 4.4 million to 10.5 million. In 1999 one quarter of these children were cared for by a parent, similar to the fraction in 1977. Within this category, the fraction cared for by the mother while working fell from 11.4% to as low as 3.3 percent in 1997. Today most parent care while the mother works is by the father, much of which is made possible by the parents working different hours during the day. The share of children cared for by a relative other than a parent (predominantly grandparents, but also older siblings, aunts, etc.) fluctuated between 21 and 31 percent during this period, with no obvious trend. In total, 53.8 percent of preschool age children of employed mothers were cared for a parent or relative in 1999, down only slightly from 56.7 percent in 1977. The biggest change in the child care market during this period is the shift away from "informal" non-relative care arrangements in the child's home or another home toward care in an organized facility such as a day care center, nursery school, or

preschool. Informal non-relative care, including family day care homes (a provider who cares for several children in her home), babysitters, nannies, friends, and neighbors, accounted for 20.8 percent of primary child care arrangements in 1999, down from 29.4 percent in 1977, while the share of organized facilities rose from 13.0 percent to as high as 31.0 percent in 1993 before falling to 25.4 percent in 1999.

Despite the growth in the share of organized child care facilities, in 1999 about three quarters of primary child care arrangements for preschool age children of employed mothers were in a home. In 1999, 45.6 percent of all primary child care arrangements for young children involved a cash payment, including 23.5 percent of relative care arrangements, 90.1 percent of informal non-relative care arrangements, and 78.9 percent of organized facility care arrangements.

Child care during before-school and after-school hours for children ages 5-14 is predominantly informal. In 1999, 37.0 percent of children aged 5-14 with an employed mother were cared for primarily by a parent during non-school hours, 36.3 percent by a relative, 9.6 percent by a non-relative, and 17.1 percent in an organized facility. As children grow older, the organized facility is increasingly likely to be an after-school club, lesson, sports program or other organized activity. Children also become increasingly likely to care for themselves as they grow older: among children of employed mothers, 1.1 percent spend any time in self-care at age 5, 8.1 percent at age 9, and 44.8 percent at age 14.

On the supply side of the child care market, the number of for-profit day care centers increased by 143% from 18 to 44 thousand between 1982 and 1997. Receipts and payroll increased by factors of 3.6 and 3.8 in real (inflation-adjusted) terms, while the number of paid employees increased by a factor of 3.2. The non-profit day care center sector grew more slowly, with the number of establishments increasing by 43% from 12.7 to 18.1 thousand, receipts and payroll by factors of 2.3 and 2.0 in real terms, and the number of paid employees by 77%. (U.S. Census Bureau, 2000) This suggests that the for-profit sector is more responsive to increased demand for child care than is the non-profit sector. Non-profit day care centers often rely on donated space and volunteer labor, and therefore cannot easily expand in response to increased demand. The more limited information on family day care homes indicates that the number of such establishments more than doubled from 1987 to 1992, from 221,880 to 489,054.

C. Child Care Quality

Two main approaches have been used to characterize the quality of child care. One is based on “structural” features of the child care setting that are thought to affect the developmental appropriateness of the care received by children. These features include the size of the group in which care is provided, the ratio of adult caregivers to children in the group, the overall education level and specialized early childhood training of the providers, and the stability of the setting as measured by the turnover rate of the care providers. The other approach to measuring quality uses direct observation of the developmental appropriateness of the care received by children, as recorded by trained observers using standardized instruments. The ratings made by the observers are subjective in the

sense that the observer makes a judgement about where on a given ordinal scale a child care setting lies. However, raters can be trained so as to produce ratings that are highly correlated with ratings of the same settings by other observers. And these “process” measures of quality are more directly related to child development outcomes. Examples of the types of items measured and rated in these instruments include routines for greeting children, meal times, and naps; diaper and toilet procedures; appropriateness of the furnishings and room arrangements; understanding and using language; fine and gross motor activities; creative activities; social development; and the tone of interactions between adults and children (Harms and Clifford, 1980).

There are no nationally representative studies of child care “process” quality in the U.S., and available data do not track trends in quality over time. The best available data are from two studies in 1989 and 1993 that measured process quality in site-specific samples of day care centers that are representative of centers in the selected sites. The Cost, Quality, and Outcomes Study (CQOS) and the National Child Care Staffing Study (NCCS) used the Early Childhood Environment Rating Scale (ECERS) and its infant-toddler counterpart (ITERS). These instruments take about three hours to complete, and rate each observed classroom on 30-35 items using a scale of 1-7 for each item. As a guide to the intended interpretation of the scores, ratings of 1, 3, 5, and 7 are designated by the instrument designers as representing inadequate, minimal, good, and excellent care, respectively (Harms and Clifford, 1980; Harms, Cryer, and Clifford, 1990). Summary scores are obtained by averaging over the items. The overall average rating of the quality of care in day care centers in both studies is just under 4, or about halfway between minimal and good. The authors of the CQOS report refer to this level of quality as “mediocre” (Helburn, 1995, p. 1). Quality varies substantially across locations, with the highest-quality sites rated about one standard deviation above the lowest-quality sites. Classrooms with preschool age children are almost always rated to be of significantly higher quality than infant-toddler rooms. With only a few exceptions, non-profit centers receive higher average quality ratings than for-profits. Most of the centers in these samples are in compliance with state regulations governing structural features such as group size, staff-child ratio, and teacher training.¹

There is less systematic information on process quality in family day care homes. Kontos et al. (1995) studied about 200 family day care homes and relatives providing child care. They concluded that the majority of providers were providing care of adequate quality, about one third were providing inadequate quality care, and only 9% were providing good quality care.

¹ Data collected in the nationally representative 1991 telephone survey Profile of Child Care Settings (Kisker et al., 1991) indicates that the average group size in day care centers was 16 (with a range of 7 for infants to 17 for 3-5 year old children), the average child-staff ratio was 9, 47 percent of teachers had completed college, half of all centers experienced some teacher turnover during the previous 12 months, with an average turnover rate among those center that experience any turnover of 50 percent. The data for regulated family day care homes (which are a small fraction of all such homes) show an average group size of 7, an average child-staff ratio of 6, and only 11 percent of teachers with a college degree.

D. Child Care Policy

Public subsidies for child care in the U.S. grew slowly until the mid 1990s, and began to grow much more rapidly only with the advent of welfare reform in the mid to late 1990s. In 1999, public child care subsidies were estimated to be \$21 billion (Blau, 2001, p. 155), only one third of the approximately \$60 billion in total child care expenditure in the U.S.² In contrast, 70-100 percent of child care expenditures were supported by government subsidies or were made directly by public institutions in most European countries (Waldfogel, 2001). Subsidies have been increasingly targeted to low-income families in the U.S., but a large majority of such families remain unserved by existing programs.

Child care subsidies help parents pay their expenses for non-parental child care and preschool, and help child care providers pay the cost of providing such care.³ There are several large child care subsidy programs in the U.S., and dozens of smaller ones. Some of the subsidy programs are restricted to employment-related child care expenses, while others have no employment requirement. The latter are often part-day part-year programs designed to improve the cognitive development of disadvantaged children. The goals and structure of employment-related child care subsidy programs are quite different from those of early education preschool programs. Nevertheless, the two types of programs are closely related. A subsidy for work-related child care expenses may affect the quality of child care purchased, whether or not this is a goal of the subsidy program; and an early education program may affect the work incentives of the parents, whether by design or not. All such programs can be thought of as being located on a two-dimensional spectrum with respect to the restrictions on the use of the subsidy. One dimension is the employment requirement of the program, with one end of the spectrum requiring full-time parental employment in order to be able to receive a subsidy, and the other end not requiring any employment. The other dimension is the quality of child care required in order to be eligible for a subsidy, with one end of the quality spectrum having no restriction on the quality of care, and the other end allowing the subsidy to be used only for care that meets rigorous quality specifications. The choice of where to locate a program in this spectrum is a policy decision. In 1999, only one third of child care subsidies were in programs with a major focus on quality, while the other two thirds were in programs with little emphasis on quality, but strong employment requirements.⁴

² Computed from the 1999 Survey of Income and Program Participation data.

³ Another important form of government intervention in the child care market is regulation. In the U.S., child care regulations are determined by the states rather than the federal government. Enforcement budgets are relatively small, and evidence suggests that regulations do not have much impact on the child care market. Regulations are not discussed in this paper, but see Blau (2001, chapter 9).

⁴ The quality-related programs are Head Start, Title IA Preschool, and state-funded pre-Kindergarten programs. The employment-related programs include the Child Care and Development Fund, Title XX Social Services Block Grant, the Dependent Care Tax Credit, and the Exclusion of Employer-Provided Dependent Care Expenses.

3. Research Findings

A large and rapidly growing literature analyzes issues associated with child care policy. The main issues of concern here are: (A) How important is the cost of child care in a mother's decision to participate in the paid labor force? (B) How important are family income and the cost of child care in a family's decision on the type and quality of child care to purchase? (C) Is the private child care market capable of providing large amounts of high quality child care? And (D) How important is the quality of child care in determining the cognitive, social, and emotional development of children? There are other interesting economic and psychological issues involving child care, but I focus on these four because of their direct relevance for policy.

A. The effect of the cost of child care on labor force participation of mothers

There have been many studies of this issue, and with few exceptions the results show that a higher cost of child care reduces employment of mothers of young children. Most recent studies have found a relatively small impact, with elasticities estimated to be in the range of $-.06$ to $-.20$ (see Blau, in press, for a review). Some evidence suggests that the effect is larger for lower-wage women. This evidence implies that child care subsidies increase work incentives of mothers, a finding confirmed by a small number of studies that analyze the impact of subsidy programs on employment (Blau, in press).

B. What determines the type and quality of child care for which parents are willing to pay?

There is a considerable amount of evidence that family income and the price of alternative types of child care influence the type of care chosen by families. For example, when the price of care in a center is high relative to the price of other types of care, parents are less likely to choose center care, other things equal (Blau and Hagy, 1998; Chaplin et al., 1999). A higher price of child care discourages use of any form of paid child care and increases use of unpaid care by relatives. As family income rises, parents are more likely to choose a paid arrangement in a center, family day care home, or the child's home, and are less likely to use care by relatives, neighbors, friends, and the other parent. Parents may prefer centers because they offer reliable and convenient child care, and centers may be perceived to offer higher-quality care for children approaching school age. However, the evidence also suggests that higher-income parents do *not* choose higher quality care on average, within a given type of care. That is, among users of day care centers, there is no systematic relationship between family income and the quality of child care used, controlling for other factors. (Blau, 2001, chapter 4). This is true whether the quality of care is measured by structural characteristics such as group size, staff-child ratio, and teacher training, or process measures such as the ECERS described above. These findings suggest that parents are either unable to discern the quality of care, unwilling to pay the additional cost associated with higher quality care, or both.

C. The supply of quality in the child care market

It is often asserted that there is a shortage of high quality child care in the U.S., because the private child care market cannot or will not provide a sufficient amount of such care at an affordable price. However, the limited amount of evidence on the behavior of child care providers does not support this view. The evidence indicates that the marginal cost of higher quality care is modest. Blau and Mocan (2002) estimated a cost function for day care centers using 1993 data from the CQOS. Their estimates imply that increasing quality from 4 to 5 on the ECERS would increase the annual cost of an average daycare center by \$17,108, or 11.4 cents per child hour. If this cost increase were passed on to consumers, the cost of daycare for 40 hours per week for 52 weeks would increase by \$237, from \$4,104 to \$4,341. This is not a large increase in cost for an increase in quality from “mediocre” to “good”, but there is little evidence that consumers are willing to pay even this much. Estimates in Blau (2001, Chapter 6) show that higher quality child care does not command a higher price in the market, suggesting that quality as measured by ECERS is not a high-priority item for consumers. This evidence indicates that the primary cause of the low average quality of child care in the U.S. is lack of demand, not lack of supply. This conclusion is supported by the analysis of Blau and Mocan (2002), who estimate the price elasticity of quality supply to be .66 in the for-profit sector, meaning that a 10 percent increase in price would lead to a 6.6 percent increase in the average quality of care in for-profit centers.

D. How does the quality of child care affect children?

Several random assignment demonstration projects have evaluated the impact of high-quality pre-school programs for disadvantaged children. A comprehensive review of these early childhood interventions by Karoly et al. (1998) concludes that such programs can provide significant benefits to participating children in the form of lower school dropout rates, higher earnings, and fewer out of wedlock births; and can reduce future public expenditures on welfare, criminal justice, and special education. This evidence is compelling, but it is based on very intensive and costly programs that are of exceptionally high quality and are targeted at highly disadvantaged children. It is unclear whether child care of moderately high quality provides positive but proportionately smaller developmental benefits, or whether there exists a threshold of quality below which benefits are negligible. It is also unclear from these studies how the quality of child care affects children who are not disadvantaged. Another type of evidence is from observational studies of children placed by their parents in child care arrangements of varying quality. In non-experimental studies that follow children over time, high-quality child care, as measured by the developmental appropriateness of care using instruments such as the ECERS, is associated with better developmental outcomes in the short run (1-3 years). However, it remains uncertain to what extent this is a causal impact. Recent studies that control for many other factors that might be associated with both child care quality and child development find that the quality-development association is reduced in magnitude but remains significantly different from zero compared to models with fewer controls (NICHD and Duncan, 2002). Some evidence suggests bigger

effects of high-quality child care for the most disadvantaged children (Currie, 2001). These observational studies have not yet followed children long enough to determine the long run effects of high-quality child care.

Evidence reviewed in Blau (2001, chapter 7) indicates that group size and staff-child ratio have little or no association with process quality or child development outcomes, once other confounding factors are controlled. There is robust evidence that having had workshop-based training or having taken a college course in early childhood education in the past year increased the ECERS score by a modest amount (around one fifth of a standard deviation). Many other measures of teacher education and training were examined, and none had consistent and robust effects.

The lack of robust evidence of beneficial effects of small groups and high staff-child ratios is consistent with evidence from European countries such as France, Germany, Spain, and Portugal, in which highly trained teachers provide care in relatively large groups. The group size used in preschool classrooms in these countries would not meet regulatory standards in many U.S. states, yet child development outcomes are in some cases better than in the U.S. (Bergmann, 1996, Cryer et al., 1999).

4. Is public child care policy in the U.S. optimal?

A. Why is a public child care policy needed?

Three main arguments have been used in support of government intervention in the child care market. The arguments are based on alleviating shortages, attaining economic self-sufficiency, and child care market imperfections.

Alleviate Shortages. It is often claimed that there are shortages of child care of particular types such as center care for infants, weekend and night-shift care, high-quality care, and care for sick children. Subsidies to providers of such types of child care might increase the quantity available. In economic terms, a shortage of a service exists if the amount of the service offered for sale at the market price is less than the amount consumers wish to purchase at that price. For example, if the market price in a particular city for full-time center care of a specified quality (for example, an ECERS score of 5 or more) for infants is \$100 per week, and there are more infants whose parents would like to purchase care at this price than there are spaces available in centers at this price, then a shortage exists at the price of \$100. It is unlikely that such a shortage would persist indefinitely. If centers can expand their capacity and provide additional infant slots with the specified quality at a weekly cost of less than \$100 per slot, we would expect them to do so since they can make additional profit. If parents would rather pay, say, \$120 for care of the specified quality than not be able to purchase it at all, we would expect the price to increase. In this case, firms that could not profitably offer care at \$100 per week but could do so at \$120 per week would enter the market, helping to alleviate the shortage. These standard arguments suggest that shortages will be the exception rather than the rule, and will be temporary when they do occur.

Assertions of shortages often implicitly or explicitly refer to a situation in

which providers are not willing to supply much child care of a given type or quality at a price that most consumers are willing to pay. Referring to the previous example, suppose that most consumers are not willing to pay more than \$100 per week for infant care - they would rather not purchase child care of the specified quality than purchase it for more than \$100. They are therefore unwilling to bid the price up. Suppose also that the cost of providing additional slots for infants would exceed \$100, because, for example, centers would have to raise wages to attract more staff. Perhaps a few slots for infants are available at a price of \$100 or less in non-profit centers that use donated space or labor. But additional slots would only be available at higher cost in for-profit centers, because the non-profits cannot expand their capacity. Is there a shortage of infant care in this scenario? No: the absence of infant care slots simply reflects the fact that consumers do not feel they receive enough value from the service to be willing to pay a price that covers the cost of providing the service. In this situation, there is no rationale for the government to provide a subsidy *for the purpose of alleviating a shortage*, because there is no shortage.

Self-Sufficiency. Child care subsidies might help low-income families be economically self-sufficient. Self-sufficient in this context means employed and not enrolled in cash-assistance welfare programs. Self-sufficiency might be a desirable goal because it may increase future self-sufficiency by inculcating a work ethic and generating human capital through on-the-job training and experience, and it may therefore save the government money in the long run (Robins, 1991, p. 15).⁵ These arguments explain why many child care subsidies require employment or work-related activities such as education and training. Subsidies for child care and other work-related expenses paid to employed low-income parents may cost the government more today than would cash assistance. But if the dynamic links suggested above are important, then these employment-related subsidies could result in increased future wages and hours worked and lower lifetime subsidies than the alternative of cash assistance both today and in the future. Note that this argument has nothing to do with the effects of child care on children, and there are few restrictions on the type and quality of child care that can be purchased with employment-related child care subsidies.

A recent study by Gladden and Taber (2000) provides some useful evidence about wage growth of low-skill workers in the U.S. The authors use longitudinal data to analyze wage growth of individuals with at most a high school education, over the first ten years after completing schooling. They find that wage growth rates with experience are modest for low-skill workers, and do not seem high enough to lift low-skill workers out of poverty. For example, high school dropouts averaged 4.4% real wage growth per year of actual work experience over the first ten years of work. Thus, if the average high school dropout began working at the minimum wage of \$5.15 per hour, after ten years of work experience her wage rate would have increased to \$8.00. This is not negligible but is also not enough to significantly reduce dependence on welfare.

⁵ Employment may also be considered a desirable goal for its own sake, aside from any future benefits it brings. It may increase self-esteem and provide children with a good role model.

Middle and upper income families are generally not at risk of going on welfare, so why should the government provide subsidies for the employment-related child care expenses of such families? One argument is that taxes on labor income reduce the incentive to be employed, and subsidies for child care and other work expenses can help offset this distortion (Barnett, 1993; Joint Committee on Taxation, 2000, p. 105-107). In my view, this is not a compelling rationale. Child care subsidies certainly increase employment incentives, but they introduce another distortion by providing an incentive to use paid rather than unpaid child care. A more logical solution to the distortion of labor market incentives caused by taxes on labor income is to remove those taxes and replace them with a consumption or value-added tax that does not distort labor market incentives.

Market Imperfections. The third main argument for child care subsidies is the existence of imperfections in the child care market. The imperfections that are often cited are imperfect information available to parents about the quality of child care, and positive external benefits to society generated by high-quality child care.⁶ Imperfect information in the child care market exists because consumers are not perfectly informed about the identity of all potential suppliers, and because the quality of care offered by any particular supplier is not fully known. A potential remedy for the first problem is government subsidies to Resource and Referral (R&R) agencies to maintain comprehensive and accurate lists of suppliers. However, this may not solve the problem in practice because of very high turnover and unwillingness to reveal their identity among informal child care providers. The second information problem arises because consumers know less about product quality than does the provider, and monitoring the provider is costly to the consumer. This can lead to moral hazard (hidden action) and/or adverse selection. Moral hazard is a plausible outcome in day care centers (for example, waiting to change diapers until just before the parent arrives to pick up the child). Adverse selection of providers is plausible in the more informal family day care sector. Family day care is a very low-wage occupation, so women with high wage offers in other occupations are less likely to choose to be child care providers. If the outside wage offer is positively correlated with the quality of care provided, then women who chose to work in child care would offer lower-quality care than would the potential care-givers who chose other occupations.

Is there evidence that child care consumers are not well informed? Walker (1991) reports that 60-80 percent of child care arrangements made by low-income parents are located through referrals from friends and relatives or from direct acquaintance with the provider. This suggests that consumers may not be well-informed about a wide range of potential providers, but it does not prove that a sub-optimal amount of information is used by consumers. If consumers have strong preferences for acquaintance with the provider, then limited information may be optimal from the parents' perspective, though not necessarily

⁶ Walker (1991) spells out these points in detail; the discussion here follows his arguments closely. See also Blau (2001), Council of Economic Advisors (1997), Magenheimer (1995), Robins (1991), and Vandell and Wolfe (2000).

from a social perspective if acquaintance is uncorrelated with the quality of care. Cryer and Burchinal (1995) report a direct comparison of parent ratings of various aspects of their child's day care center classroom with trained observer ratings of the same aspects, using data from the CQOS. The results show that parents give higher average ratings on every item than do trained observers, by about one standard deviation on average for preschool age classrooms and by about two standard deviations on average for infant-toddler rooms. The instrument containing these items (ECERS) is of demonstrated reliability when administered by trained observers, so this suggests that parents are not well-informed about the quality of care in the arrangements used by their children.

Child care subsidies targeted at high-quality providers could induce parents to use higher- quality care by reducing the net price to consumers of such care compared to the price of lower-quality care. This would not necessarily solve the information problem, but would deal with a consequence of that problem, namely a level of child care quality that is sub-optimal from the perspective of society.

The externality argument is a standard one that closely parallels the reasoning applied to education. High-quality child care leads to improved intellectual and social development, which in turn increases school-readiness and completion. This reduces the cost to society of problems associated with low education: low earnings, unstable employment, crime, drugs, teenage childbearing, and so forth. If parents are not fully aware of these benefits, or account for only the private rather than the social benefits of high quality child care, then they may choose child care with less than socially optimal quality. This argument could rationalize subsidies targeted to high-quality providers, such as Head Start, and could rationalize similar programs for middle and upper income children.⁷

B. Does current U.S. child care policy adequately address problems in the child care market?

The discussion in the previous section suggests that the main problem in the child care market is the potential risk to the development of children from being exposed to many hours of low-quality child care. The evidence described above indicates that child care quality is relatively low in the U.S. because of low willingness to pay by parents, not because of a failure on the supply side of the market. Low willingness to pay could arise from lack of information by parents concerning how to distinguish high and low quality care, or from lack of awareness of the benefits of high quality care and the risks of low quality care. Even parents who are fully informed may choose child care of less than optimal quality from a social perspective, if parents fail to account for the benefits to society at large from high-quality child care.

⁷ Another argument for government child care subsidies is based on equity. Bergmann (1996) argues that high quality child care can be thought of as a "merit good, something that in our ethical judgement everybody should have, whether or not they are willing or able to buy it" (page 131). This would justify in-kind subsidies targeted to low-income families. This argument is based solely on the moral grounds that it is unethical to deprive any child of the optimum conditions for development if society has the resources to provide such conditions.

The problem of low quality of child care is not an *employment* problem. Yet, the majority of child care subsidy funds in the U.S. are available only to employed parents, and do not place significant restrictions on the quality of care. There is no obvious economic inefficiency in the child care market for which these subsidies are a logical remedy. They encourage employment of both parents in two-parent families and of the single parent in one-parent families, but it is not clear why society should wish to provide such encouragement. They increase the well-being of families in which both parents are employed, but do not provide benefits to families in which one parent stays home to take care of children. Even in the case of low-income families, a policy that deals with the direct cause of welfare dependence, low labor market skills, would be more appropriate than a child care subsidy.

Head Start and Title I-A are the only major subsidy programs that require high quality child care. These programs account for about one third of all child care subsidies, and a much smaller proportion of all children in subsidized child care. Head Start and Title IA are usually not even thought of as child care subsidies, but rather as early education programs for disadvantaged children. They are not designed to facilitate parental employment and are therefore generally not classified as child care programs. But setting aside labels, employment-related and child-development-related programs both subsidize care of a child by someone other than the parent, which reduces the cost to the parent of being employed, whether by design or not. And they affect child development via the quality of the care provided, again whether or not this was intended. Viewed in this way, the problem with current child care policy is clear: two thirds of subsidy dollars require employment but not quality. This imbalance does not address the fundamental problem in the child care market.

C. How should the U.S. change its child care policy?

Child care subsidies that require employment increase the quantity of child care demanded but do not increase the quality of care demanded. Improving the quality of child care is not very expensive, though it could become more costly if there is a large increase in the amount of high-quality child care demanded. Demand for high-quality child care will not increase unless consumers have better information about child care quality and stronger incentives to purchase higher-quality care. The quality of child care is not the most important determinant of child development and well-being, but it is a potentially important factor, particularly for low-income children. And child care quality may be easier to change through policy than are aspects of the home environment that affect child development. The following proposals for child care policy are evaluated from the perspective of how they address the key issue of quality.

1. Replace child care subsidies with an unrestricted child allowance (Blau, 2001; Walker, 1996). This approach would replace subsidies tied to use of non-parental child care with subsidies that can be used by parents for any purpose. The rationale is that parents know best what is good for their children. If parents feel that their children would benefit from high quality child care services, they can use the cash from a child allowance to purchase such services. If they prefer

to use lower-quality services, perhaps because they feel that they can make up for any negative consequences of low-quality care, they would be free to do so. If they believe that having a parent stay at home is the best option for their children, they can use the allowance to finance an extended period out of the labor force. Unrestricted child allowances are common in Europe, and have many attractive features, including increasing the options available to parents. However, they do not directly address the problem of low quality in the child care market. A child allowance may be a very useful *complement* to a policy that deals directly with the quality problem, but it is not a *substitute* for such a policy.

2. Expand funding for low-income child care (Children's Defense Fund, 2002; Helburn and Bergmann, 2002; Sawhill and Thomas, 2001). The end of the economic boom of the late 1990s is making it increasingly difficult for low-income workers to move toward economic self-sufficiency through employment. As a result, many observers feel that increased funding for the main child care subsidy program for low-income families - the Child Care and Development Fund (CCDF) - is critical to sustain the employment and income gains made by low-income families in the 1990s. This option could alleviate the problem of insufficient funding of child care, but it does nothing to address the problem of low quality of care. Low-income families face particularly strong competing demands for scarce financial resources, and it is unlikely that increased CCDF subsidies that are not tied to use of high-quality care will result in a significant improvement in child care quality. Hence, this option does not address the key problem in the child care market.

3. Expand funding for Head Start, Title I, and Public Pre-Kindergarten (Duncan and Magnuson, 2002; Committee for Economic Development, 2002). Expansion of these programs to serve more low-income children as well as to provide full-day year-round care would address the problem of insufficient funding of high-quality child care, and is therefore an attractive option. One caveat is that there have been few, if any, rigorous evaluations of the long run impact of Head Start and related programs on child development. Hence it is important to ensure that additional funding is tied to rigorous impact evaluation, and that the programs do in fact have beneficial long run effects on children. With this proviso, increased funding for Head Start and similar programs should be a high priority for child care policy. Government policy should seek to provide services to all eligible children, expand the amount of service per child by extending programs to full day year round care, and should consider whether the income eligibility standard should be raised.

4. Transform child care into a European-style public system. One proposal along these lines is to provide child care in public schools (Finn-Stevenson and Zigler, 1999). Another is to require child care providers to receive the same amount of training and education as public school teachers, and to be certified like public school teachers (Kagan and Cohen, 1996). There are at least two problems with these approaches. First, they would be much more expensive than other approaches, because they would provide universal services and would dramatically increase the average pay of child care providers. Both of these outcomes might be desirable in principle, but they would make the solution to the

child care problems of low-income families so expensive as to significantly reduce the feasibility of funding. A second problem is that public school systems are often perceived as inefficient, as a result of lack of incentive to use resources efficiently. This approach is also inconsistent with a long U.S. tradition of using markets to allocate child care resources. Hence, this approach is unlikely to be viable in the U.S.

5. Introduce quality-related child care vouchers (Blau, 2001). This approach would provide vouchers with a value that increases with the developmental quality of child care purchased. Quality would be defined by process measures such as ECERS rather than (or in addition to) structural features, and would be certified by an independent accreditation organization. Quality-related vouchers would give parents an incentive to seek child care of high quality, and the purchasing power to afford it. This in turn would give child care providers an incentive to improve quality in order to attract consumers with the greatest purchasing power. The value of the voucher would have to be high enough to cover the cost of high-quality care, and relatively low (perhaps zero) if used for low-quality care. This approach would give parents an incentive to be employed *and* to seek high quality child care, unlike existing programs which encourage one or the other but not both. This approach could be implemented with a new program, or through transformation of existing programs. The cost of such an approach could be quite high, but it directly addresses the key problem in the child care market without abandoning the market system.

5. Conclusion

The child care market provides care for over half of all preschool age children of employed mothers and about one quarter of school age children of employed mothers in the U.S. The market is very diverse in terms of types of child care arrangements and quality, both within and across types. The for-profit sector of the child care market has grown the most rapidly in recent years, and seems likely to be the sector most readily able to expand further in response to increased demand. Thus the context in which public policy toward child care will be made in the U.S. for the foreseeable future will in all likelihood include continued heavy reliance on the private market.

The quality of child care may have important consequences for the development of young children. The fact that the average quality of child care is “mediocre” in day care centers thus warrants concern. The child development literature does not provide clear guidance on the threshold below which child care quality becomes a serious risk to the development of children. But it seems safe to conclude that low child care quality is potentially an important concern in the private child care market in the U.S.

The dramatic transformation of work and family life in the U.S. since the 1950s has brought many benefits to society but has created problems as well. However, these problems also can be viewed as an opportunity: many millions of children spend long hours in child care. Relatively few of these children in the U.S. have the opportunity to enroll in a high-quality full-day program that provides developmental benefits as well as child care services that allow parents

to be employed full time. If children were exposed to high-quality child care, their development might be significantly enhanced, providing benefits to them and to society at large. We have largely failed as a society to take advantage of this opportunity, and many children spend long hours away from their parents in unstimulating mediocre-quality child care. This is the challenge to public policy in the U.S.

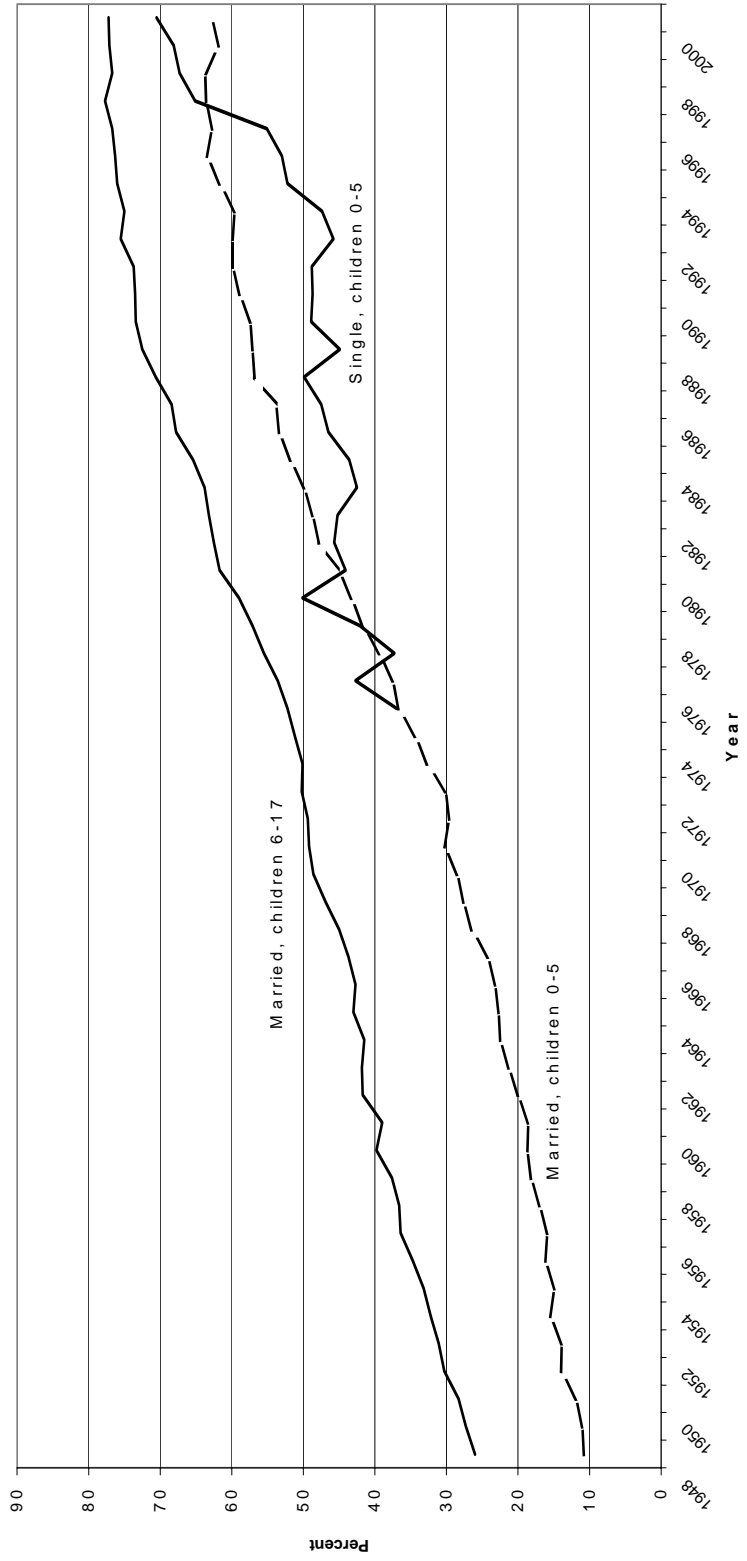
Table 1: Trends in Child Care Arrangements of Children Aged 0-4 with an Employed Mother

	Number of children (millions)	Percent Distribution				
		Mother while at work	Father	Relative	Non-relative	Organized facility
Fall 1977	4.37	11.4	14.4	30.9	29.4	13.0
Winter 1985	8.17	8.1	15.7	24.1	28.2	23.9
Fall 1988	9.48	7.6	15.1	21.1	28.9	27.3
Fall 1990	9.63	6.4	16.5	23.1	25.1	28.7
Fall 1991	9.85	8.7	20.0	23.5	23.3	24.7
Fall 1993	9.94	6.2	15.9	26.0	21.6	31.0
Fall 1995	10.05	5.4	16.6	21.4	28.4	25.7
Spring 1997	10.12	3.3	19.0	25.8	22.1	23.7
Spring 1999	10.54	7.9	17.0	28.9	20.8	25.4

Source: Casper (1997), Smith (2000, 2002) and tabulations from wave 10 of the 1996 Survey of Income and Program Participation (Spring 1999).

Notes: Relative include grandparents, siblings, and other relatives. Non-relative includes family day care, nannies, babysitters, friends, and neighbors. Organized facility includes day care centers, preschools, and Head Start. Beginning in 1995, the SIPP child care module was changed to allow “no regular arrangement” as a response. These cases are classified here as parent care. In 1997 they were 6% of all cases. Because of the Spring (April-July) interview date in 1997 and 1999, some children who normally are cared for in a preschool that operates on a school calendar may have been cared for in some other arrangement because many schools are closed in June and July. Figures are weighted to be nationally representative.

Figure 1: Labor Force Participation Rate of Mothers in the U.S. by Marital Status and Age of Children, 1948-2000



Source: U.S. Department of Labor, various years; Jacobs (1999, p. 132), U.S. Census Bureau (2001, p. 373).

References

- Barnett, W. Steven (1993). "New Wine in Old Bottles: Increasing Coherence in Early Childhood Care and Education Policy," *Early Childhood Research Quarterly* 8 (4): 519-558.
- Bergmann, Barbara (1996). Saving Our Children from Poverty: What the United States Can Learn From France, New York: Russell Sage Foundation.
- Blau, David M. (2001). The Child Care Problem: An Economic Analysis, New York: The Russell Sage Foundation.
- Blau, David M. (In press). "Child Care Subsidy Programs," Forthcoming in Means-Tested Transfer Programs, Robert Moffitt (ed.), University of Chicago Press for the NBER.
- Blau, David M. and Alison P. Hagy (1998). "The Demand for Quality in Child Care," *Journal of Political Economy* 106 (1), February: 104-146.
- Blau, David M. and H. Naci Mocan (2002). "The Supply of Quality in Child Care Centers," *Review of Economics and Statistics* 84 (3), August:.
- Casper, Lynne M. (1997). "Who's Minding Our Preschoolers? Fall 1994 Update," U.S. Bureau of the Census, Current Population Reports P70-62, Washington D.C., November, <http://www.census.gov/population/www/socdemo/childcare.html>.
- Chaplin, Duncan D., Philip K. Robins, Sandra L. Hofferth, Douglas A. Wissoker, and Paul Fronstin (1999). "The Price Elasticity of Child Care Demand: A Sensitivity Analysis," Working Paper, Washington D.C., The Urban Institute.
- Children's Defense Fund (2002). "Low-Income Children bear the Burden of State Child Care Cutbacks," Washington D.C., <http://www.childrensdefense.org>, September.
- Committee for Economic Development (2002). "Preschool for All: Investing in a Productive and Just Society," New York, http://www.ced.org/docs/report/report_preschool.pdf.
- Council of Economic Advisors (1997). "The Economics of Child Care," Washington D.C., December.
- Cryer, Debbie, and Margaret Burchinal (1995). "Parents as Child Care Consumers," in Suzanne W. Helburn (ed.) "Cost, Quality, and Child Outcomes in Child Care Centers, Technical Report," Denver: Department of Economics, Center for Research in Economic and Social Policy, University of Colorado at Denver, June: 203-220.
- Cryer, Debby, Wolfgang Tietze, Margaret Burchinal, Teresa Leal, and Jesus Palacios. 1999. Predicting Process Quality From Structural Quality in Preschool Programs: A Cross-Country Comparison," *Early Childhood Research Quarterly* 14 (3):339-361.
- Currie, Janet (2001). "Early Childhood Intervention Programs: What Do We Know?" *Journal of Economic Perspectives* 15 (2), Spring: 213-238.
- Duncan, Greg, and Katherine Magnuson (2002). "Policies to Promote the Healthy Development of Infants and Preschoolers," working paper, Northwestern University, September.
- Finn-Stevenson, Matia, and Edward Zigler (1999). Schools of the Twenty First Century: Linking Child Care and Education. Boulder CO: Westview Press.
- Gladden, Tricia, and Christopher Taber (2000). "Wage Progression Among Less Skilled Workers," in Finding Jobs: Work and Welfare Reform, Rebecca M. Blank and David Card, eds., New York: Russell Sage Foundation: 160-192.
- Harms, Thelma, Deborah Cryer, and Richard Clifford (1990). Infant/Toddler Environment Rating Scale. New York: Teachers College Press.
- Harms, Thelma and Richard Clifford (1980). Early Childhood Environment Rating Scale. New York: Teachers College Press.
- Helburn, Suzanne W. (ed.) (1995). "Cost, Quality, and Child Outcomes in Child Care Centers, Technical Report," Denver: Department of Economics, Center for Research in Economic

- and Social Policy, University of Colorado at Denver, June.
- Helburn, Suzanne W., and Barbara R. Bergmann (2002). America's Child Care Problem: The Way Out, New York: Palgrave, for St. Martin's Press.
- Jacobs, Eva E., ed. (1999). Handbook of Labor Statistics, 3rd Edition, Lanham Md.: Bernan Press.
- Joint Committee on Taxation. 2000. "Description of Revenue provisions Contained in the President's Fiscal Year 2001 Budget Proposal," Committee print JCS-2-00, March 6, U.S. Government printing Office.
- Kagan, Sharon L. and Nancy Cohen (1996). "A Vision for a Quality Early Care and Education System," in Sharon Kagan and Nancy Cohen (eds.), Reinventing Early Care and Education: A Vision for a Quality System, San Francisco: Jossey-Bass.
- Karoly, Lynn A., Peter W. Greenwood, Susan S. Everingham, Jill Houbé, M. "Investing In Our Children: What We Know and Don't Know About the Costs and Benefits of Early Childhood Interventions," Santa Monica CA: RAND Report MR-898-TCWF, <http://www.rand.org/publications/MR/MR898/>.
- Kisker, E., S. L. Hofferth, D. A. Phillips, and E. Farquhar. 1991. "A Profile of Child Care Settings: Early Education and Care in 1990." Report prepared for U.S. Department of Education by Mathematica Policy Research.
- Kontos, Susan, Carollee Howes, Marybeth Shinn, and Ellen Galinsky. 1995. Quality in Family Child Care and Relative Care, New York: Teachers College Press.
- Magenheim, Ellen B. (1995). "Information, Prices, and Competition in the Child Care Market: What Role Should Government Play?" in J.M. Pogodzinski (ed.) Readings in Public Policy, Cambridge MA: Blackwell.
- NICHD Early Childhood Research Network and Greg J. Duncan (2002)> "Modeling the Impacts of Child Care Quality on Children's Preschool Cognitive Development," working paper, Northwestern University.
- Robins, Philip K. (1991). "Child Care Policy and Research: An Economist's Perspective," in David Blau (ed.) The Economics of Child Care, New York: Russell Sage Foundation: 11-42.
- Sawhill, Isabel, and Adam Thomas (2001). "A Hand Up for the Bottom Third: Toward A New Agenda for Low-Income Working Families," Brookings Institution, Washing to D.C., <http://www.brookings.org/dybdocroot/views/papers/sawhill/20010522.pdf>.
- Smith, Kristin. 2000. "Who's Minding the Kids? Child Care Arrangements, Fall 1995," U.S. Census Bureau, Current Population Reports, P70-70, October. <http://www.census.gov/population/www/socdemo/childcare.html>
- Smith, Kristin. 2002. "Who's Minding the Kids? Child Care Arrangements, Spring 1997," U.S. Census Bureau, Current Population Reports, P70-86, July. <http://www.census.gov/population/www/socdemo/childcare.html>
- U.S. Census Bureau (2000). Establishment and Firm Size (Including Legal Form of Organization, 1997 Economic Census, Health Care and Social Assistance Subject Series, EC-97S62S-SZ, <http://www.census.gov/prod/ec97/97s62-sz.pdf>.
- U.S. Census Bureau (2001). Statistical Abstract of the United States, Washington D.C., <http://www.census.gov/statab/www>.
- U.S. Department of Labor (various years). Handbook of Labor Statistics, Washington D.C.: U.S. Department of Labor.
- Vandell, Deborah Lowe, and Barbara Wolfe (2000). "Child Care Quality: Does It Matter and Does It Need to be Improved?" Institute for Research on Poverty Special Report no. 78, Madison, November, <http://www.ssc.wisc.edu/irp/sr/sr78.pdf>.
- Waldfoegel, Jane (2001). "International Policies Toward Parental Leave and Child Care," *The*

Future of Children 11 (1): 99-111,

http://www.futureofchildren.org/usr_doc/vol11no1ART7.pdf.

Walker, James (1991). "Public Policy and the Supply of Child Care Services," in David Blau (ed.) *The Economics of Child Care*, New York: Russell Sage Foundation.

Walker, James (1996). "Funding Child Rearing: Child Allowance and Parental Leave," *The Future of Children* 6 (2), Summer/Fall: 122-136,

http://www.futureofchildren.org/usr_doc/vol6no2ART6c.pdf.

Acknowledgements

Prepared for presentation at the International Workshop/Seminar on Low Fertility and Social Policy, National Institute of Population and Social Security Research, Tokyo, Japan, November 20-22, 2002. Comments welcome at david_blau@unc.edu.

David M. Blau

(Department of Economics and Carolina Population Center University of North Carolina at Chapel Hill)

david_blau@unc.edu