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Ethnic Differences in Child Care Selection: The Influence of Family Structure, Parental Practices, and Home Language

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Recent work reveals sharp disparities in which types of children participate in center and preschools. Enrollment rates are especially low for Latino children, relative to Black and Anglo preschoolers, a gap that remains after taking into account maternal employment and family income. Early attempts to model parents' likelihood of enrolling their youngster in a center have drawn heavily from the household-economics tradition, emphasizing the influence of cost and family income. Yet we show that, after controlling for household-economic factors, the household's social structure and the mother's language, child-rearing beliefs, and practices further help to predict the probability of selecting a center-based program. Children are more likely to be enrolled in a center when the mother defines child rearing as an explicit process that should impart school-related skills--reading to her youngster, frequenting the library, teaching cooperative skills, and speaking English. After taking these social factors into account, ethnic differences in center selection still operate: African American families continue to participate at higher rates for reasons that may not be solely attributable to family-level processes, such as greater access to Head Start centers or state preschools. In addition, the lower center selection rate for Latinos appears to be lodged primarily in those families which speak Spanish in the home, further pointing to how cultural preference are diverse and interact with the local supply of centers. These findings stem from an analysis of whether, and at what age, a national sample of 3,624 children first entered a center, using discerete-time survival analysis. We discuss how center selection can be seen as one element of a broader parental agenda, linked to parents' acculturation to middle-class Anglo commitments and involving the task of getting one's child ready for school.

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The growth of child care centers and preschools, has been remarkable over the past four decades.[1] This boom, of course, has followed closely behind the rise in women's labor force participation. In 1950, only 14% of all mothers with children under 6 were working outside the home. By 1997, this proportion had climbed to over 60%. The number of center-based programs rose rapidly, from about 13,600 licensed organizations in 1960, to over 80,000 in 1990 (Hofferth, 1991; Willer, Hofferth, Kisker , Divine-Hawkins, Farguhar, & Glantz, 1991).

This vibrant sector is comprised of a diverse population of organizations nationwide supported by parental fees, direct subsidies to organizations in poor communities, and vouchers and tax-credits allocated to families. The federal government now provides $11 billion in aid for child care, ranging from centralized Head Start funding to tax credits for the middle class. State governments spend another $4 billion each year (Fuller & Holloway, 1996; General Accounting Office, 1999).

Similar to other mixed markets, access to child care centers has evolved in an uneven manner. The entire sector is so decentralized that only recently have national data become available that enable analysts to map variation in enrollment rates across social-class and ethnic groups or across local communities. For example, one recent national household survey revealed that enrollment rates of children age 3 to 5 were twice as high (49%) for affluent families with earnings over $75,000, relative to children in low-income families (24%) with annual incomes between $10,000 and $20,000 (West, Wright, & Hausken, 1995). Although 56% of Latino children age 3 to 5 were enrolled in a center in 1991, enrollment rates were significantly higher for African American and Anglo children (71% and 65%, respectively).

These striking differences have sparked a line of research that attempts to understand why many families are not "choosing" to enroll their child in a center or preschool, or simply may not have access to such organizations. This line of research on the parental selection process is especially relevant for developmentalists when they examine claims related to child-level benefits of Head Start and other center-based programs. Selection bias was rarely taken into account until recently, even though we knew that many home factors that predict positive child outcomes also predict that parents select center-based programs, easily leading to misspecification of child care effects (Fuller, Holloway, & Liang, 1996). Researchers may be *overestimating* child-level effects of center interventions by not controlling on the effects of selection, or *underestimating* these effects by not focusing on how the organized "treatment" interacts with elements of the home that remain unspecified (Phillips & Cabrera, 1996; Singer, Fuller, Keiley, & Wolf, 1998).

Researchers, attempting to identify the discrete effect of child care settings on early development, have recently endeavored to more adequately control for maternal or home factors that predict selection of center-based care (rather than home-based forms of care). Studies of early child care have started to employ OLS (Ordinary Least Square) models that include "control variables" that move beyond earlier reliance on maternal education or other proxies for social-class position. These controls relate to the home environment, economic income-to-needs ratio, and the mother's reported beliefs about child care and work (Burchinal, 1996; Peth-Pierce, 1998). Although inclusion of such controls represents an improvement, better methods are well

established for better taking into account selection bias, including random-assignment experiments (e.g., the current evaluation of Early Head Start) and the instrumental-variables approach for nonexperimental design.

The present paper investigates economic and social factors at the family level that help explain the likelihood that parents select center-based care. We first review the relevant literature on how center selection has been theorized. Second, we propose a model of selection that focuses on social forces emanating from within the family, including basic structural features of the household and parental commitments related to getting children ready for school. In particular we focus on how these factors may differ among ethnic groups. Third, we present our empirical findings. Finally, implications for child care policy and future research are discussed, taking into account family selection processes.

ECONOMIC AND SOCIAL CONCEPTIONS OF FAMILY SELECTION

We begin by reviewing earlier work on family-level determinants of child care selection. But first let us sketch the disparities in which types of parents are more likely to select center-based care. Our analysis draws from the school readiness component of the 1993 National Household Education Survey (NHES), a nationally representative sample of parents (mainly mother) who had children age 3 to 7, conducted by the National Center for Educational Statistics (NCES) in 1993. Our analysis is based on the 3,624 children who were 3 to 5 years old when their mothers were interviewed. This sample allows us to estimate national enrollment rates for different ethnic and family-income groups.

Figure I illustrates the percentage of children, age 3 to 5, who were enrolled in a center at the time of the survey. Black children are most likely to enroll in a center,-based program, regardless of family income. Within each ethnic group, children with higher income parents are more likely to be enrolled. A growing literature on child care selection helps illuminate the independent force of these and other family-level determinants.

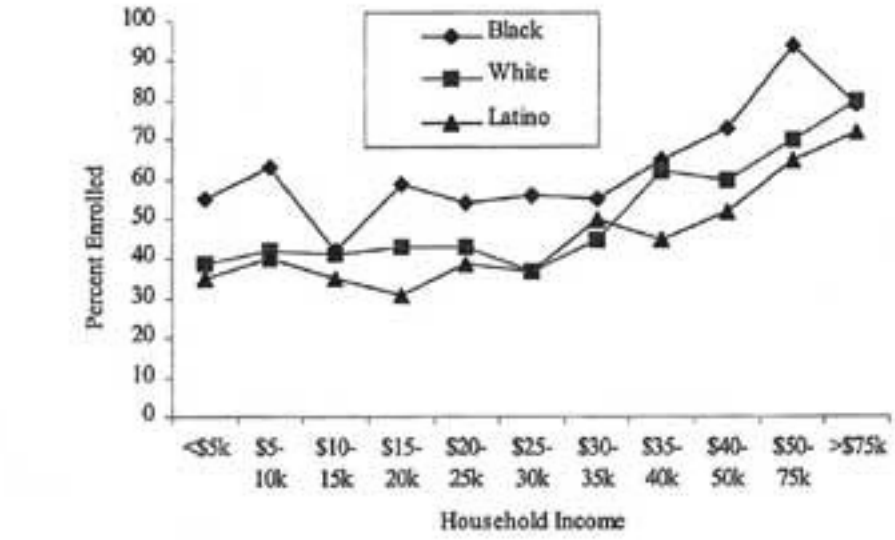

Figure 1. Share of 3 to 5 year-olds who are enrolled in center by family income and ethnicity (1993).

Why Study Family Selection Processes?

Serious study of child care selection is important for at least three reasons. First, developmentalists and policy researchers have invested considerable resources in trying to determine the magnitude with which (and the types of children for which) exposure to quality child care programs can advance early learning and social development. But since we know that certain parenting practices related to positive child outcomes also predict selection of a center-based program, researchers can easily attribute child outcomes to programs, when insufficiently taking into account parental attributes and home practices (Fuller, Kagan, Lubotsky, Caspary, & Gascue, 1999).

Second, the parental practices that influence selection of center care may *interact* with the qualities of programs to constrain or intensify their effectiveness (Holloway & Fuller, 1999). For example, parents' reading practices, an emphasis on respect for adult authority, or commitment to learning through play may match or conflict with the "curricular" philosophy of a given center. The simple opportunity for their young children to converse in Spanish is a vivid goal of many parents. By looking only at the effect of child care qualities, we will continue to undertheorize the multiple settings that influence early development.

Third, child care policies and spending are founded on competing assumptions regarding how to reduce constraints on child care selection (such as vouchers to boost purchasing power) or to build a particular type of organization (expansion of center-based programs). But these policies--admimbly aimed at equalizing access--often are built on little understanding of family-level factors that are driving demand for alternative types of child care.

We emphasize that this paper does not join the argument over whether centers yield stronger developmental effects overall, compared to home-based settings. We do know that quality centers and preschools can yield significant developmental effects for children from low-income families and that the quality of center care accessed by low-income parents, relative to home-based options, is often higher (Fuller et al., 1999). But our starting point is simply that many public policies and subsidy streams aim to increase selection of center-based programs. In this context, it is important to understand prior parental factors that operate on selection, independent of policy initiatives.

Economic Factors that Influence Center Selection

Fairly flat enrollment rates for families with incomes under $30,000 suggest that earnings do not exert a simple linear influence on the likelihood that young children will be enrolled in centers. This is partially explained by the successful moderation of price effects, via rising subsidies for low-income and working-poor families (Fuller et al., 1996). The impact of maternal employment is also mixed. Many well-educated, nonemployed mothers from middle-class or affluent households select center care. One analysis (drawing on national data for 1991) found that center-based programs provided the primary arrangement for the identical proportion of children, age 3 to 5, whether the mother was employed full-time or was not employed outside the home (44%; West, Wright, & Hausken, 1995).

The household-economics tradition continues to influence how economists theorize family selection. If private child care costs can be offset through subsidies, especially for low-income mothers, then jobs and income-earning opportunities would become more attractive. So, economists and demographers have set out to assess the elasticity of child care demanded with respect to subsidy levels, often embedded in evaluations of income-maintenance or welfare reform experiments (Heckman, 1974; Blau & Robins, 1988).

Improvements have been made in modeling the influence of family income and maternal employment on the odds of selecting center care. It is now understood that such influence may be curvilinear: center enrollment rates are relatively high for poor families, especially when single mothers are working, then dip down for working-class households (Fuller, Holloway, & Liang, 1996). Hofferth and Wissoker (1992) also show how income supplements allow lower income parents to select higher quality child care organizations within their communities, another rational response to parents' (publicly aided) gains in discretionary income.

Social Cultural Factors that Influence Center Selection

Family Structure Demographers and sociologists have moved beyond the household-economics frame to assess how elements of family structure may shape the likelihood that parents select center care. For instance, the age of children in the household is consistently related to parental selection of center care. About one fifth (22%) of all 1 year-olds, attended a center-based program in 1993, versus 42% of all 4 year-olds (Casper, 1996).

The presence of siblings also may affect the propensity of parents to select child care organazations. Mother with more children rely more heavily on fathers, kin members, and baby-sitters (Leibowitz, Waite, & Witsberger, 1988; Hofferth, West, & Henke, 1994). One study found that among working mothers, having a second child did not significantly lower the probability of selecting nonparental care of any type; but having a third child did (Singer, Fuller, Keiley, & Wolf, 1998). The private cost for parents of enrolling multiple children in center-based care, in the absence of any public subsidy, is very high. At the same time, mothers bearing more children may hold traditional beliefs or commitments that emphasize staying at home and raising one's youngster. That is, family structure may be endogenous to certain maternal beliefs and role conceptions.

In general, theoretical confusion marks how we have conceptualized the link between family structure and child care selection. The enrollment effects of father absence, or scarcity of nearby kin, have been theorized as a social support or social capital process: the mother is mom likely to enter the child care market when the family' social capital is constrained, because of father-absence or family transience and corresponding erosion of kin support. Coleman's (1990) original work of single-parenthood as a central case for how the lack of social capital led to reliance on, or substitution of, public organizations for "services" that once were held as family obligations. Indeed, after the mother, fathers and other kin remain the principal child care provider in 35% of all families nationwide (Casper, 1996). Several studies have shown that the presence of nonparent adults in the household, nearby kin, and lower rates of geographic mobility all lower the likelihood of selecting a child care center. This is because the levels of kin support (one form of social capital) are relatively strong for those families (Hofferth & Wissoker, 1992; Fuller et at., 1996; Fuller et al., 1999).

But a competing theoretical explanation arises when we observe that enrollment rates in centers are highest among affluent two-parent households, independent of whether the mother is employed outside the home or not. The average age at which children are placed in their first nonparental child care arrangement equals just over 3 years, for married mothers who are college graduates (Singer et al., 1996). And the likelihood of selecting a center is positively related to both family income and maternal education levels. This pattern follows Gary Becker's classic conception of household-economics: parents with the strongest preference for education and the lowest budget constraint will invest most in early schooling. Formal child care is not viewed as a *substitute* for social capital, but as an intention-filled *investment* in child's development. We will return to this theoretical framework, which argues that center selection emanates from a constellation of parental beliefs or "preferences" regarding their child's early learning. Here parents' understanding of when and where child development takes place and their resource base determine whether they select a center-based program.

Ethnicity Descriptively we know that the family's propensity to select a center is related to their ethnic membership. Yet ethnicity is a global attribute, masking covariation in maternal employment rates, family structure, social support, and parents' integration with the wider society. Hofferth, West, and Henke (1994) found

Black families select centers at a higher rate than other ethnic groups, controlling for family income. Among impoverished families, children with non-English speaking parents are less likely to enter a center (reviewed in General Accounting Office, 1993). After taking into account maternal employment and other demographic factors, selection rates continue to vary among ethnic groups: Latino children with mothers working full time participate in center based programs at a rate that is 23 percentage points below that of African Americans and I I points below that of Anglos (Fuller et al., 1996).

Do certain family-level characteristics underlie these ethnic differences in the selection of centers? Two sets of forces may be at work. First, as introduced above, particular ethnic groups display mean differences in social-structural and economic characteristics in ways that keep them off the child care market. For example, Black and Latino households are more likely than Anglo households to include a resident grandparent or adult kin member (Harrison, Serafica, & McAdoo, 1984). Another variable showing significant ethnic differences is whether or not mothers work full time or part time: Black mothers with young children are significantly more likely to work full time than are Anglo mothers; Latino mothers are more likely to be nonemployed (Folk & Beller, 1993).

Language and Family Integration One can think of Latino families as holding particular beliefs or cultural preferences related to child rearing that may mitigate against selection of institutional forms of child care. Yet in our earlier work--focusing on distinct contrasts between Latino and other ethnic groups and their propensities to select center care--we have not looked at the internal diversity of Latino subgroups (Fuller, Holloway, & Liang, 1996).

This present paper differentiates between Latino parents who report that Spanish is the primary language spoken in the home versus those that report mainly use of English. This may help locate what subgroup(s) are most likely to shy away from center care, or which parents confront scarcity in basic availability of centers. Home language certainly signals parents' degree of integration into the English-speaking community. One survey of Latino families in southern California found that foreign-born parents preferred placing their child in a center-based program at an older age (between 3 and 4 years-old), compared to native-born Latinos (1 year earlier on average; Hurtado-Ortiz, 1997).

Parental Beliefs and Practices Another facet of eflunicity cuts to the core of this paper. Ethnic differences in the probability of center selection may be related to cultural differences in child-rearing beliefs and practices. Families in certain ethnic or social-class groups may shy away from formal child care programs when they appear to promote counternormative socialization practices and values. To the extent that Latino families are family-oriented, endorse warm parenting practices, and emphasize collective forms of obligation over individualism and self-assertion (Hashima & Amato, 1994), they may prefer kin members or family day care, where caregivers are familiar with, or at least of similar background. One study found that teachers in centers serving low-income families are more likely to be didactic and direct, relative to centers serving affluent families (Phillips, Voran, Kisker, Howes, &

Anglobook, 1994). Latino parents, disproportionately represented among poor families, may be motivated to avoid center-based care. One qualitative study found that Latino mothers often complain that teachers in child care centers did not speak Spanish and appeared to be cold and impersonal in their interactions with parents and children (Holloway, Fuller, Rambaud, & Eggers-Pierola, 1997).

Social theorists have further broadened our thinking about variation in parents' beliefs and practices regarding child rearing, including the legitimacy of placing one's child in a formal center. If we view the historical spread of formal schooling as now extending into the preschool years, both government and a widening number of parents--notwithstanding ethnic differences--come to see formalized child care institutions as legitimate and preferable places for their youngsters to be socialized and "educated" (Thomas & Meyer, 1984; O'Connor, 1992; Fuller & Holloway, 1996). But families vary in their social proximity to these modernizing beliefs, these middle-class conceptions of new maternal roles and how best to "develop" one's child.

Social psychologists and anthropologists studying maternal child-rearing practices--across different societies and social classes--have detailed variability in the extent to which child rearing is viewed as an explicit set of maternal behaviors directed at the individual child, aimed at furthering the youngster's learning or development (Whiting & Edwards, 1988; LeVine et at., 1996; Holloway et at., 1997). Beyond economic and social features of the family, parental beliefs and practices explicitly aimed at developing the child in ways that address school readiness may help to explain enrollment in center-based programs. Parents who do not link child rearing to specific cognitive skill development, or who remain more distant from upper middle-class orientations, may be less likely to connect with formal center-based programs.

We hypothesize parents vary in the extent to which their beliefs and practices focus on the explicit task of advancing their young child's early cognitive growth and development. These specific beliefs and practices include reading to one's young child, taking trips to the library, and teaching behaviors that are viewed as getting one's child "ready for school" (Fuller et al., 1996). At the other end of the spectrum, parents that are more distant from such conceptions of explicit child development and less likely to exhibit these parenting behaviors may be less likely to select formal centers. We will, for example, assess whether Latino mothers who speak Spanish at home--who are presumably less acculturated to middle-class Anglo norms--are less likely to select center care.

Overall, we argue that parents' propensity to select a child care center is a logical outgrowth of this constellation of pro-development and readiness commitments, as defined by mainstream groups. We are *not* suggesting that there exists one optimal way in which child rearing should be defined, nor are we assuming that parents' child development practices are static or covary perfectly with ethnic membership. In short, we empirically assess which types of families display more explicit child-rearing practices that have been linked to early cognitive growth and school readiness, and how this cluster of parental beliefs and practices is predictive of center selection.

Table 1. Age of Sampled Children by Ethnic Group

Age	Total	Anglo	Black	Latino
3	1552	1098	199	255
4	1665	1147	227	291
5	407	299	43	65
% enrolled	55	65	71	56

METHODS

To help operationalize this theoretical framework we specifically focus on the question, *How do family structure, parental beliefs and practices, ethnicity and home language influence whether, and at what age, parents select a child care center?* These factors are studied using survival analysis techniques, after taking into account the influence of conventional geographic and household-economy predictors. Our theoretical objectives are two-fold. First we seek to extend the family selection literature beyond some scholars' reliance on household-economics. Second, we examine the social factors that lay behind previously revealed ethnic disparities in center enrollment. These family-level factors may vary among families and *within* ethnic groups. The special case of internal variability about which we are curious is whether home language among Latino subgroups--as an indicator of social proximity to middle-class Anglo models of child rearing--helps to explain their propensity to select center care.

Data and Sample

A total of 63,844 parents were initially contacted by phone in 1993, using random digit dialing methods for widely dispersed clusters of phone prefixes. This yielded a nationally representative sample of families, after adjusting for the 10% of families with young children estimated by NCES who do not have working telephones. The screening interview identified 12,905 children, age 3 to 9, for the school readiness component of the NHES survey. The overall response rate for the screener equaled 82%; the percentage of eligible sample children for whom the school readiness interview was completed equaled 90% (Brick, Collins, Nolin, Ha, & Levinsohn, 1994). Our analysis is based on data provided by mothers of young children, age 3 to 5. Given that our analysis is at the family level, when a mother reported having more than one child in this age range (observed in 524 households), we randomly selected one child.

Table 1 reports basic features of the resulting sample of center-age children by ethnic group. Of the complete child sample (n = 3,624), 13% are Black (n = 469) and 17% are Latino *(n = 611*). The Latino disparity in center enrollment, revealed in earlier work, is again evident in this national sample: 56% of Latino children attended a center at the time of the survey, versus 67% of Anglo and 71 % of Black children. An unknown number of 3 year-olds entered a center program following the survey;

similarly, an indeterminate number of children exited a center following the survey date, so called right-censoring of observations. This is one reason why discrete-time survival analysis is used, rather than ordinary regression model.

Estimating Center Selection: A Discrete-time Survival Model

The NHES survey data provide the reported date at which each sampled child first entered a center. Discrete-time survival analysis is employed to investigate how family-level factors are related to the timing of first center entry. This analytic method not only focuses on the timing of event occurrence--in this case, when a child is placed into a center program--it also helps solve at least two related difficulties that conventional techniques cannot fully address. Namely, early cross-sectional methods have mishandled "censored" data and time-varying predictors (Singer & Willet, 1993).

One difficulty in analyzing survival data are that the event of interest (entering center) may not have occurred before the time of survey; that is, children may have not yet entered center programs, but they may do so in the future. In our sample, there are 1,268 (35%) children who have not yet enrolled but who might enter a center in the future. Their time of first entry to center remains unknown. This phenomenon is referred to as "right censoring," since events can be pictured as happening along a time-line where the censored or unobserved future is to the right. Restricting the sample only to children who have enrolled in center before the time of the survey would seriously underestimate the average age of entry into center programs. On the other hand, it is also wrong to set age of entry for these children at their current age, as they may actually enroll much later after the time of the survey, or not at all.

Cross-sectional OLS models also fail to capture the influence of time-varying explanatory variables. These predictors have different values in each time period, such as maternal employment or number of siblings, as opposed to other predictors, such as ethnicity, which are constant over time. Because the NHES is a cross-sectional data set, most of the variables must be assumed to be time-invariant.

Discrete-time survival analysis overcomes these two methodological difficulties by modeling mathematical transformations of duration that remain meaningful even if some of the data are right-censored, instead of focusing directly on duration itself. It models the probability that an event--first entry into a center program--occurs in each discrete time period, given that the event did not occur in an earlier period. This new outcome is known as hazard. The profile of conditional probabilities is known as the hazard function (Allison, 1984; Singer & Willet, 1993). We estimate hazard functions describing the probability that a child will enroll in a center program at each 6-month time period from birth to age 5.[2] Then sets of predictors, corresponding to family structure, parental beliefs, and ethnicity, are added to the baseline model to assess whether we can better predict the probability of center selection. To identify which predictors help to explain whether and when children enter a center we will fit a series of discrete time hazard models, linking hazard to predictors in the following way:

$$\text{Logit}(h_j) = f\ (EC, L, FS, P, E)$$

where the hazard conditional probability of entering center for child *j* at age *i* is expressed as a logistic function of the family's economic conditions, EC, geographic and urban location, L, family structural characteristics, FS, parental beliefs and practices related to "school readiness" as defined by NCES, P, and ethnic membership, E. This allows us to estimate the probability of enrolling in a center for each of the time period. The time period at which 50% of sample children are enrolled in a center is the median age of entry. This allows us to estimate not only *whether* the event (center entry occurs) but also *when*, at what child age, parents with certain characteristics are more likely to choose center care.

Measures

Regional and Urban Residence Earlier work has shown that the probability of selecting nonparental child care, including centers, varies by geographic region and in some states by urban versus rural residence. These differences may be explained by variability in the organizational supply of centers (Fuller & Liang, 1996). The present paper focuses on family-level determinants of selection, but we should control for family location differences in our baseline model. We include dummy variables for region of residence, using the South as the base, where center enrollment rates have been found to be highest (Hofferth & Wissoker, 1992). We also enter whether the family resides in a city or a suburban area, as defined in the 1990 census.

Family Economic Characteristics The next set of predictors represents basic facets of the household's economic resources and status. The NHES data only provide information on current maternal employment, not work status before the child's birth or selection of a center. Because this may be endogenous to center selection, we have chosen not to include maternal employment as an exogenous predictor. That is, mothers may take a job only after they find a child care provider. Similarly, current household income could well be endogenous. Yet we must control for the family's basic economic wealth. To do this, we identified family-economy measures that would not be as sensitive to short-term shifts in maternal employment: whether the family owned their current home, the number of rooms in their house or apartment, and whether the family lived in a community with different levels of poverty (from less than 5%, to less than 20%, of local households living in poverty). In addition, maternal education is included as proxy for family social class.

Family Structure Specific elements of the family structure can be seen as providing human resources for childcare and supervision (Astone & McLanahan, 1991). These elements include whether the mother is a single parent, whether a grandparent resides in the home, and whether another nonparent adult is resident. Other predictors represent need or parental demand for child care, particularly those pertaining to siblings for which care also must be provided. We studied possible effects stemming from the number of siblings, the target child's birth order, and the

age of siblings. The latter variable proved unrelated, after taking into account the first two, and was dropped (see Appendix for all variables originally included in the analysis). The target child's gender also was included in our model.

Parental Beliefs and Practices Related to School Readiness The NHES survey included a battery of questions related to how important various literacy and social skills were for one's child to be "ready for school," that is, for entry into kindergarten or first grade. In addition, mothers were asked whether a parent engaged in a variety of explicit activities that have been empirically related to children's early learning and development, from frequency of reading to the child to the regulation of television viewing. These measures allowed us to assess whether parents who see child-rearing as an explicit activity, including an emphasis on school-related skills, are more likely to select a center program and to do so when their child is younger.

Parental *beliefs* about school-readiness skills were scored on a five-point scale, ranging from I to 5 in their level of agreement. We focused on four items: the importance placed on developing the child's early numeracy and reading skills, taking turns and sharing, being enthusiastic and curious, and verbal communication skills. Parental *practices* included actual behaviors reported by the mother: frequency with which a parent read to the child, number of children's books in the home, amount of television viewing by the child each day (in hours), attendance at church, and frequency of a composite of other pro-development activities (such as visiting a library or a museum).[3]

Interactions with Time In estimating hazard functions, we began by assuming that the effects of all predictors are constant across the child's young life. However, this initial assumption may be an unnecessary restriction in that the effects of some predictors may differ with the child's age. Therefore, we tested the probability that each of the target predictors interacted with time (Singer & Willet, 1993) and included these terms in the final model.

Sample Design Effect

To assess possible underestimations of the standard errors resulting from homogeneity in the phone number clusters, Liang (1996) compared logistic regression coefficients without any adjustment against those derived after adjusting for this possible design effect (using SUDDAN). The more covariates that are included in the model, the likelihood of covariate omission decreases and adjusted estimates become increasingly similar to the unadjusted ones. For the final model, after taking into account the weighting and clustering, all significant predictors remained significant and all nonsignificant predictors remained nonsignificant. The change in the coefficients for significant predictors is negligible. For example, the odds of entering a preschool for a child from single-parent household are 1.23 times greater in the unadjusted estimate, compared to 1.29 times greater in the adjusted estimate. Thus, in this paper we present only the nonadjusted coefficients.

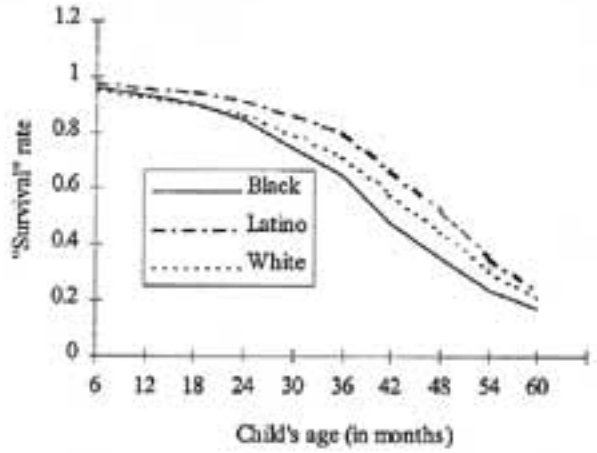

Figure 2. Probability of not entering a center, "survival rate," by ethnicity and by age.

RESULTS

Baseline Models

Figures 2 and 3 display baseline survival and hazard plots for the full sample, after controlling for family economic characteristics and areas of residence (both region and urbanization). In Figure 2 we present the percentage of children who "survive," that is, did not experience the event, entering a center by age 5. As children grow older, reaching 30 or 36 months of age, fewer "survive" and a growing proportion enter centers. We have split these plots by ethnicity, showing the gap in center selection. We see that the greatest share of Latino children remain outside of centers at most age periods whereas Black children make up the largest proportion of those who enter a center. Figure 3 presents the corresponding "hazard" function, which estimates the probability of entering center in each discrete time period, among those children who had not yet entered a center.

The baseline hazard model, including the control predictors, appears in Table 2, Model 1. The southern advantage found in earlier work is again observed: children in all other regions are less likely to be attending a center, compared to youngsters in the South. Children living in urban areas are more likely to enter centers, compared to rural youngsters. The significant interaction terms (suburban by age) mean that suburban children start to catch up with urban children as they grow older. The other significant predictor in the baseline model is maternal education. This association remains significant even after controlling for all other household-level variables in later models. The odds of entering a center are about 1.13 times greater with each additional year of maternal education. To illustrate, for children who have remained at home until age 54 months, the estimated probability of entering a center is 24% for

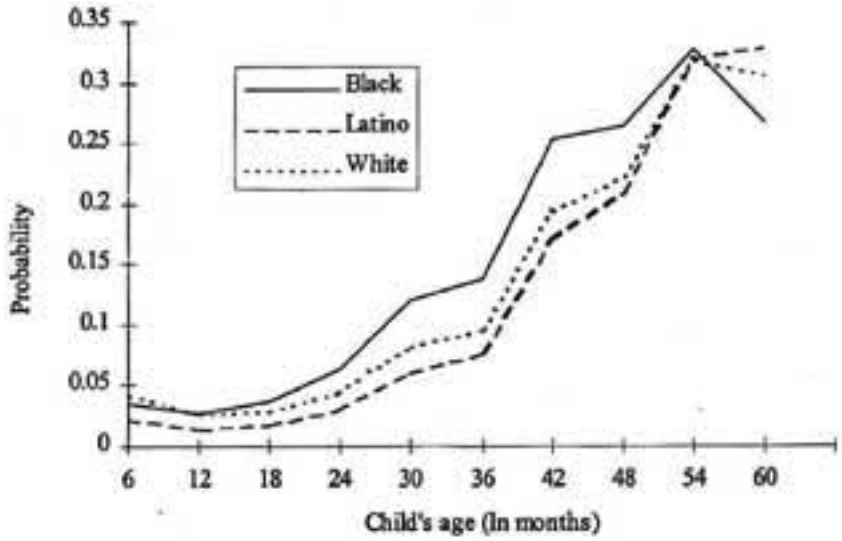

Figure 3. Probability of entering a center, "hazard rate," by ethnicity and by age.

those whose mother had only 10 years of schooling, but 40% for those whose mother had completed 16 years of schooling.

Family Structure

Table 3 displays family structural characteristics by ethnicity. The three groups differ mostly in the presence of grandparents and other adults in the household, and whether the family is headed by a single parent. African American families are most likely to be headed by a single parent and to have a grandparent or other nonparent adult living in the household.

Controlling for location and family economic attributes, the analysis reveals that family structure adds explanatory power to the variation in whether and when parents select centers (Table 2, Model 2). Children who are first-borns are consistently more likely to enter a center before age 2 than those who have an older sibling. The odds of entering a center are 1.5 times greater for a first-born child, relative to all other children in the first 2 years of life. The differential ranges between 1 to 2 percentage points during this time period. However, after 24 months there is virtually no difference. Children who have more siblings are consistently less likely to enter centers than those with fewer siblings. The odds of entering a center are 0.8 times less with each additional sibling. By the age of 45 months, half of all children without siblings have entered a center, but it took 55 months for half of the children with three siblings to enter a center, controlling for region and urbanization, social class and poverty, and family social structure.

Table 2. Models of Influence of Controls, Family Structure, and Parental Beliefs and Practices on the Hazard Function [n = 3,624 families]

Predictors	Model 1	Model 2	Model 3
Baseline: Child's Age			
0-5 months	-5.04***	-5.41***	-6.10***
6-11 moths	-5.54***	-5.89***	-6.58***
12-17 months	-5.40***	-5.75***	-6.44***
18-23 months	-4.96***	-5.27***	-5.96***
24-29 months	-4.22***	-4.30***	-4.98***
30-35 months	-4.05***	-4.11***	-4.79***
36-41 months	-3.22***	-3.27***	-3.94***
42-47 months	-3.04***	-3.06***	-3.73***
48-53 months	-2.59***	-2.54***	-3.19***
54-59 months	-2.62***	-2.56***	-3.21***
60 months over	-2.80***	-2.70***	-3.36***
Controls: Region, Family Economy and			
Social Class			
Region (baseline-South)			
Northeast	-0.25***	-0.24***	-0.27***
Midwest	-0.39***	-0.31***	-0.40***
West	-0.34***	-0.37***	-0.37***
Urbanization (baseline-Rural)			
Urban	0.32***	0.32***	0.34***
Suburb* 0-23 months	0.59***	0.62***	0.61***
Suburb* 24-47 months	-0.00	-0.01	-0.01
Suburb* 48 months and over	0.31	0.31	0.30
Own home	0.00	0.03	0.00
Number of bedrooms	-0.03	0.11**	0.09**
Living in areas where: (baseline-20 or more)			
below 5 living in poverty	5.18	0.12	-0.04
5-9 living in poverty	0.04	0.01	-0.11
10-19 living in poverty	-0.12	-0.14	-0.23*
Years of maternal education	0.14***	0.13***	0.16***
Family Structure			
Child's gender (baseline-female)		0.10	0.02
Number of siblings		-0.22***	-0.19***
Grandparent present in household		-0.14	-0.12
Other adult person in household		-0.05	0.03
Single-parent household		0.66***	0.74***
First born* 0-23 months		0.45***	0.46***
First born* 24-47 months		0.07	0.08

First born* 48 plus months		-0.07	-0.05
Single-parent* number of bedrooms		-0.17***	-0.19***
Parental Beliefs and Practices			
importance of numeracy and literacy			0.03~
of taking turns and share			0.10*
of being enthusiastic and curious			-0.04
of verbal communications			0.04
Amount of TV hours			-0.04***
Number of books child has			0.33**
Frequency of reading to child			0.04
Frequency of various pre-literacy			0.03
activities			
attended community and church event			-0.15**
TV hours* maternal education			0.002*
number of books* maternal education			-0.02*
Number of child-period observations	24784	24784	24784
-2 LOG L	13476.7	13330.5***	13212.1***
	(control model)		
Degree of Freedom (DF)	24	33	44
Change in Chi-sq		146.2	118.4
Change in DF		9	11
Critical Chi-sq		16.9	19.7
Baseline model		1	2

Notes ~ $p \leq .10$, * $p \leq .05$, **$p \leq .01$, ***$p \leq .001$.

Children from single-parent households have a greater probability of enrolling in a center than those from two-parent households, after accounting for earlier covariates. This association is more pronounced for low income families than for affluent families. Among poor families with only one bedroom available at home, the odds of choosing a center are 1.6 times greater for a single-parent household than for a two-parent household at any time period. The association shrinks in magnitude among more affluent families. The odds of choosing a center is only 1.02 times greater for an affluent single-parent household than for a similar two-parent household (almost equal probabilities).

Parents' Beliefs and Practices

In Table 4 we report bivariate relationships between ethnicity and parental belief and practices. Black parents place the most importance (mean = 7.92 on a 10-point scale) on the child's ability to count to 20 and recite the alphabet, followed by Latino parents (mean = 7.56) and Anglo parents (mean = 7.16). Anglo parents place the most importance on child's understanding of sharing and taking turns (mean =

4.25, 5-point scale), compared to Black (mean = 4.22) and Latino parents (mean = 4.17).

The home educational environment also differs among ethnic groups. African American children spend significantly more time watching TV, averaging 26.6 hours per week, than Latino and Anglo children (22.1 and 21.3 hours, respectively). Anglo families read most frequently to their children. They also organize learning activities with their child most frequently, including telling a story, crafts projects, and visiting a zoo, museum, or library. Anglo children possess significantly more books, averaging more than 50, than do Latino or Black children.

Table 3. Family Structure Variables by Ethnicity (means and standard deviations)

Variables	Total (n = 3,624)	Anglo (n = 2,544)	Black (n = 469)	Latino (n = 611)	F value (df= 2,3621)
1. Percent of children who:					
Are first-borns or only child	45.6(0.50)	46.2(0.50)	45.2(0.50)	43.2(0.50)	0.92
Have a sibling below 3	32.8(0.47)	33.3(0.47)	28.8(0.45)	33.9(0.47)	2.00
Have a sibling between 3-5	14.0(0.35)	13.5(0.34)	15.1(0.36)	15.2(0.36)	0.91
Have a sibling over 12	14.3(0.35)	12.2(0.33)	19.8(0.40)	19.0(0.39)	16.7***
Have a grandparent living in the household	7.3(0.26)	4.6(0.21)	19.0(0.39)	9.7(0.30)	65.6***
Have another adult living in the household (excluding grandparents	12.7(0.33)	8.5(0.28)	24.1(0.43)	21.3(0.41)	70.8***
Are in single-parent family	20.4(0.40)	14.3(0.35)	50.3(0.50)	22.7(0.42)	174.7***
2. Percentage male	51.8(0.50)	51.5(0.50)	51.8(0.50)	53.0(0.50)	0.22
3. Number ofsiblings	1.27(1.03)	1.24(0.98)	1.30(1.18)	1.40(1.11)	6.22**

Notes ~ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

These parental beliefs and practices linked to child development offer additional explanatory power to our model (Table 2, model 3). Specifically, parental belief regarding their child's understanding of sharing and taking turns is significantly associated with the probability of center selection. The odds of entering a center for children whose parents think highly of sharing are 1.5 times greater than those whose parents consider sharing less important. The seemingly small differential in probability accumulates into rather substantial difference in the median age of entry:

47.1 months for the former and 52.4 months for the latter, almost half a year's difference.

Parents who place higher importance on the acquisition of basic numeracy and alphabet skills are less likely to enroll their children in a center ($p < .065$). This association becomes significant at $p < .05$ once ethnicity is taken into account. This appears counterintuitive at first. Yet, remember that parental belief in sharing and taking turns is positively associated with center entry. This could mean that belief in "developmentally appropriate" practices, rather than rote learning, is positively associated with center enrollment, and held most highly by Anglo and upper middle-class families.

Table 4. Parental Beliefs and Practices by Ethnicity (means and standard deviations)

	Total (n = 3,624)	**Anglo (n = 2,505)**	**Black (n = 462)**	**Latino (n = 605)**	**F value (df= 2,3621)**
1. Parental beliefs in:					
Basic numeracy and literacy skills	7.33(1.62)	7.16(1.65)	7.92(1.33)	7.56(1.53)	52.1***
Being enthusiastic and curious	4.06(0.64)	4.07(0.65)	4.04(0.59)	4.06(0.59)	0.75
Verbal competence	4.23(0.58)	4.23(0.60)	4.23(0.53)	4.20(0.52)	0.88
Understanding sharing	4.23(0.60)	4.25(0.62)	4.22(0.54)	4.17(0.55)	5.12**
2. Hours spent watching TV per week	22.13 (12.99)	21.32 (12.24)	26.60 (15.15)	22.05 (13.49)	33.4***
3. Frequency of reading to child	3.26(0.92)	3.42(0.80)	3.00(0.98)	2.82(1.13)	134.8***
4. Number of books child has at home	4.82(1.13)	5.14(0.90)	4.12(1.09)	4.02(1.35)	433.3***
5. Whether attended community or religious event	0.51(0.50)	0.53(0.50)	0.53(0.50)	0.42(0.50)	11.5***
6. Index of educational activties	2.20(1.19)	2.29(1.15)	1.96(1.29)	1.99(1.26)	27.6***

Notes ~ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

After controlling for beliefs, parental practices still remain significantly associated with center selection. The amount of television a child is allowed to watch and the number of books the child owns are both significantly associated with center attendance. The strength of both relationships varies with maternal education.

For children of mother with only 10 years of education, the odds of entering a center are 0.98 times lower for each additional hour spent on watching TV. For children of mother with 16 years of education, the odds of entering a center are just 0.99 times lower for each additional hour spent on watching television. The

seemingly small difference in the odds of entry for each additional hour spent watching television can be translated into a large difference as the disparity in hours increase. To illustrate, among children whose mother had completed 10 years of schooling, it took 47.1 months for half of those who watch television 8 hours per week to enter a center program, almost 10 months earlier than those who spend 40 hours per week watching television (56.8 months). Among children whose mother have 16 years of education, it takes 40.3 months for half of those who spend 8 hours per week watching television, only 4 months earlier than those who spend 40 hours per week. Similarly, the positive association between the number of books a child has and the probability of first center entry is more pronounced for less educated households, and less so for better educated households.

Table 5. Main and Interaction Effects of Ethnicity on the Hazard Function, Controlling on All Other Variables [n = 3,264]

Additonal Ethnic Variables	Model 4	Model 5	Model 6
Original Model	Model 1	Model 2	Model 3
Black	-0.36	-0.34	-1.04
Latino	-0.67***	-0.62**	-2.45***
Black* linear time	0.30**	0.29*	0.30*
Black* linear time*	-0.03**	-0.03**	-0.03**
linear time			
Latino* linear time	0.07*	0.06*	0.08**
belief in share* black			0.15
belief in share* Latino			0.28*
reading* black			0.05
reading* Latino			0.20**
Number of child-period observations	24784	24784	24784
-2 LOG L	13433.3***	13290.8***	13144.4***
Degree of Freedom (DF)	29	38	53
Change in Chi-sq	43.4	39.7	67.7
Change in DF	5	5	9
Critical Chi-sq	11.1	11.1	16.9
Baseline Model	Model (1)	Model (2)	Model (3)

Notes ~ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Parental involvement in community and church-sponsored activities is another factor that is negatively associated with the likelihood of center selection. The odds of center enrollment for children whose family had not attended such an event during the past week are 1.2 times greater than those from families that did attend such an event. This effect is constant over time.

Explaining Ethnic Variation in Center Enrollment

This section tests the hypothesis that previously observed disparity in center use across ethnic groups can be attributed to the variation in observable factors such as household economic indicators or the family's social structure. Ethnic effects also may diminish after we take into account parental beliefs and child-rearing practices. Table 5 summarizes the remaining effects of ethnic membership in our fitted hazard models. In this analysis, the Anglo sample is treated as the reference group to which Black and Latino families are compared.

Ethnic Variation Partially Explained by Household Economic Factors When controlling for economic attributes and maternal education, although a Latino child is still less likely to enroll than a Anglo child, the difference in enrollment probability becomes smaller (Table 5, model 4). This suggests that lower Latino enrollment rates are partially attributable to the fact that these families are simply poorer than Anglo parents and parental education levels are lower. Certainly Latino parents' lower demand for centers is constrained by their lower purchasing power.

However, the Black-Anglo disparity cannot be explained by differences in family-economy and maternal education levels. African Americans generally have lower annual incomes, fewer bedrooms per home, a lower probability of owning a house, and lower maternal education than the Anglos. After controlling for these characteristics, African Americans become even more likely to select center care. This means that if the African American parents held the same economic and educational status as the Anglo population, the probability of center selection would be even higher. Looking at one African American and one Anglo child within the same social-class stratum, the African American child is much more likely to enroll in a center than the Anglo child. The difference is greatest at age 42 months, when the probability of an African American child entering a center is almost one in three, whereas for the average Anglo child is less than one in five.

Ethnic Variation Partially Explained by Family Structure Compared to Anglo families, Latinos tend to have more kin members and other adults living in the same households. Once we control for family structure, Anglo-Latino difference in center enrollment largely diminishes (Table 5, model 5). On the other hand, African American families are twice and three times more likely to be headed by a single-parent, compared to Anglo and Latino families. Controlling for single-parent status further reduces selection disparities between African American and Anglo families. This finding that family structure is able to explain away some of the ethnic disparity in center enrollment patterns supports the earlier argument that ethnic groups vary in the strength with which social support and family obligations operate. In turn, these culturally situated levels of family support influence child care selection.

Ethnic Variation Partially Explained by Parental Beliefs and Practices The relationship between Latino membership and center enrollment continues to be negative, but it becomes even smaller once we control for the frequency with which parents read to their child and the importance they place on the development of

sharing and taking turns. This finding shows that parental beliefs about child development and child-rearing practices play a significant role in explaining inter-ethnic differences. For Latino children whose families adopt more mainstream middle-class Anglo practices, such as reading frequently to the child, the likelihood of entering a center is virtually equal to that observed for similar Anglo children.

In contrast, the Black-Anglo difference remains substantial. Among parents with similar beliefs, Black children still display a higher probability of center enrollment than Anglo children. This is true at any age between the ages of 1 to 5 years old. Thus, the ethnic effect cannot be explained away by the family-level factors included in our model. One possible explanation is that the family-level measures used here are not rich enough (particularly for the African American sample) to fully describe the complex web of factors that parents consider when making child care decisions. An obvious example is that we have not taken parents' attitude toward formal centers into account. Another explanation may be that organizational factors, such as the availability or density of center programs, differ between Black and Anglo communities.

Use of Home Language and Center Selection among Latino Families

The NHES survey was conducted in either English or Spanish with 154 parents requesting the Spanish version (equaling about one-fourth of all Latinos interviewed). Fully 40% of all Latino mothers reported that Spanish was the main language spoken at home. To better understand how parental practices and proximity to upper middle-class patterns might affect center selection, we compared enrollment patterns between Latino families who speak Spanish at home and those who speak English. Table 6 summarizes the fitted hazard models.

Controlling for family economic factors, the odds of first entering a center are about 0.6 times lower for Latinos who speak Spanish at home than for those who speak English (Table 6, Model 7). Therefore, the disparity between the two groups of Latinos is partly attributable to differences in family wealth.

After family structure predictors are added into the model, the disparity between the two groups of Latino families further declines: the odds of center entry for the Spanish-speaking group is only 0.71 times lower than for English-speaking Latinos (Table 6, Model 8). This may be attributable to the fact that children in English-speaking Latino families have fewer siblings and thus are more likely to be first-borns. Finally, when parental beliefs and practices are entered, the likelihood of center enrollment for a Latino child in a Spanish-speaking home no longer differs significantly from a similar child in an Englishspeaking home (Table 6, Model 9). The inclusion of parental beliefs and practices is able to explain the remaining difference in center selection between the two groups of Latino families.

This analysis reveals how the disparity between groups of children can be decomposed into specific family attributes, as well as beliefs and practices that vary among diverse Latino parents. Latino families who speak Spanish at home on average are less likely to own their residence, have fewer bedrooms, and are less likely to live in rich areas where only 5% or fewer residents live in poverty. These

mothers are less educated, and they bear more children, than those who speak English at home. More importantly, Spanish-speaking Latino mothers hold views about child development and engage in parenting practices that are more distant from typical patterns expressed by upper middle-class Anglo parents. In short, the lower rate of center selection exhibited by Spanish-speakers stems not only from economic factors but also from (evolving) cultural norms that are linked to fertility and child-rearing practices, further strengthening the argument that social-cultural factors play an important role in determining center enrollment.

Table 6. For Latino Families, Influence of Controls, Family Structure, Parental Factors, and Home Language on the Hazard Function (n = 611 Latino families)

Predictors	Model 7	Model 8	Model 9
Baseline: Child's Age			
0-5 months	-5.65***	-6.21***	-7.15***
6-11 moths	-5.99***	-6.54***	-7.49***
12-17 months	-5.85***	-6.38***	-7.33***
18-23 months	-5.01***	-5.49***	-6.43***
24-29 months	-4.85***	-4.64***	-5.60***
30-35 months	-4.23***	-4.01***	-4.95***
36-41 months	-3.57***	-3.36***	-4.26***
42-47 months	-3.24***	-3.03***	-3.88***
48-53 months	-2.40***	-2.10***	-2.92***
54-59 months	-2.57***	-2.28***	-3.15***
60 months over	-2.19***	-1.85***	-2.90***
Controls: region, family social class and economy			
Social Class			
Region (baseline-South)			
Northeast	0.23	0.21	0.20
Midwest	-0.38	-0.31	-0.28
West	-0.20	-0.19	-0.32*
Urbanicity (baseline-Rural)			
Urban	0.18	0.15	0.09
Suburb	-0.08	-0.13	-0.19
Living in areas where: (baseline-20 or more)			
Below 5 living in poverty	0.003	-0.10	-0.25
5-9 living in poverty	-0.01	-0.08	-0.12
10-19 living in poverty	-0.43*	-0.46*	-0.51**
Own home	0.04	-0.01	-0.10
Number of bedrooms	-0.04	0.01	-0.03
Years of maternal education	0.16***	0.14***	0.13***

Family Structure			
Child's gender (baseline-female)		0.03	0.02
Number of siblings		-0.13	-0.08
Grandparent present in household		0.07	-0.03
Other adult person in household		-0.01	0.06
Single-parent household		-0.17	-0.11
First born* 0-23 months		1.19***	1.15***
First born* 24-47 months		0.08	0.10
First born* 48 plus months		-0.10	-0.05
Parental Beliefs and Practices			
importance of numeracy and literacy			-0.06
of taking turns and share			0.50***
of being enthusiastic and curious			0.02
of verbal communications			-0.25
Parental Child-Rearing Practices			
Amount of TV hours			-0.02***
Number of books child has			0.19**
Frequency of reading to child			0.15*
Frequency of various pre-literacy			0.23**
activities			
attendance of religious event			-0.23
Speaking Spanish at home	-0.41***	-0.36*	-0.05
Number of child-period observations	4597	4597	4597
-2 LOG L	1947.4	1921.6	1872.9
Degree of Freedom (DF)	23	31	40

Notes ~ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, ***$p \leq .001$.

DISCUSSION

We conclude by highlighting the contributions made by this analysis, extending earlier work on selection theory and empirical patterns. Second, we discuss how this emerging knowledge on which types of parents select center care, and how early in their child's life, should play a stronger role in how researchers advance claims about developmental effects of home and child care settings. Third, we speak to the policy implications of these new findings.

This analysis has confirmed and extended earlier findings, using a new data set and applying survival analysis, an important method for understanding the timing of key events in a young child's life. As with earlier work, we observe that affluent and well-educated mothers are the most likely to select center-based care. Yet family income does not operate on selection in a linear manner. Perhaps because of decades of expanding the Head Start and state-funded center programs, selection rates are high among some low-income populations, especially Black families.

Particular elements of the family's social structure also help to explain the likelihood of selecting center care, including some factors that are not necessarily related to positive developmental outcomes. Single-parent households are consistently more likely to enroll their children. Children who are first-born in the family and children who have fewer siblings are also more likely to enroll.

Most important for the selection debate is that we find that parents--from all ethnic groups--who hold explicit beliefs and practices related to early literacy development, engage in educational activities with the child, and control television viewing are more likely to select center care. This finding is robust after taking into account a variety of other family economic and social structural factors. More fine-grained observations inside homes could illuminate how these mechanisms operate.

We further decomposed what it is about Latino families that is related to their lower propensity to select centers. When Spanish is spoken in the home we see a lower selection rate. But this relationship largely disappears when we add the measures of explicit early literacy and educational activities. In addition, Latino mothers who reported a more intense interest in having their children learn skills, like sharing, are more likely to select center care. In short, language may be a proxy for parents' acculturation to middle-class Anglo norms of child rearing (e.g., Tropp, Erkut, Alarcon, Coll, & Garcia, 1995).

More broadly, we see that when child rearing is viewed as an explicit process, replete with distinct educational activities, parents display a higher likelihood of placing their child in a center and often earlier in the child's life (LeVine et al., 1996; Holloway et al., 1997). This is reinforced by the family's "proximity" to, or integration with, child rearing practices displayed by upper middle-class parents. Although ethnicity encapsulates these kinds of child rearing commitments, they are not static, nor are they insulated from interventions that seek to expand access to center-based programs. For example, the growing home visiting element of Head Start exhibits attempts to alter parents' child-rearing beliefs and practices.

Relevance for the Child Care Selection Debate

The understandable eagerness of some researchers to demonstrate that center care reults in stronger developmental outcomes (relative to home-based arrangements) tends to eclipse the field's earlier recognition of the home environment's effects. Recent work by the NICHD Early Child Care Consortium, for instance, has provided an important corrective, demonstrating that parental effects are much stronger than child care effects, with the important exception of young children from very impoverished home environments (Peth-Pierce, 1998).

Ideally, research designs would include instrumental variables that can independently predict selection of center care but are not correlated with child outcomes. The field's default has been to add control variables into simple OLS models, then claim that selection processes have been taken into account. But the present paper extends our understanding of a panoply of home factors that drive selection, some of which are obviously related to child developmental outcomes. By

omitting these predictors, researchers may be wrongly attributing developmental outcomes to child care settings.

On the other hand, we have identified certain home factors that help to predict selection but which may not predict child outcomes, including the child's birth order. In addition, there are counterintuitive selection findings. Black parents are more likely to select centers but also exhibit lower levels of preliteracy parenting practices. This creates the conditions for a natural experiment in which priori selection processes operate in ways that do not bias estimates of child care's influence on developmental outcomes. Another example: research designs could look at how high quality centers affect Latino child outcomes in areas where center programs have been historically absent from local neighborhoods, controlling for selection opportunities.

And this growing selection literature reminds us that theory building should focus on how home practices and child care settings interact to produce developmental outcomes. Looking at one setting in isolation from the other fails to recognize the complete social ecology in which the child grows and learns.

Policy Implications

Another facet of the selection debate has arisen over the past decade in the vibrant world of child care and early education policy. Since 1990 most federal child care aid comes in the form of vouchers and tax credits, driven by the argument that parents know best, not early childhood professionals and center directors, when it comes to selecting child care. Yet the advocacy community combats this perspective, pushing for expansion of Head Start and, most recently, the drive to make preschool universally available for 3 and 4 year-olds. The first national goal for education is to make every child "ready to learn" by the time he or she enters a public school. In a sense, the child care center is becoming the new frontier for pushing formal schooling down to younger children (O'Connor, 1992).

Our findings show that not all parents share this desire to move every child into a formal center-based program. We illuminate selection patterns and home practice that are quite variable across and within ethnic groups. And it is important to recognize that parenting practices explicitly aimed at school readiness and selection of center care are held most strongly by middle-class, mostly Anglo parents. The dilemma is that by not confronting these parenting practices, low-income and particularly Latino parents may be constraining their young children's development and ability to do better in the early grades. Yet, by failing to respect the commitments and preferences for less institutional forms of child care, expressed by many of these parents, we may make centers and preschools even less inviting.

NOTES

1. We use the terms "preschool" and "child care center" interchangeably. This includes organizations that serve children, age 2 to 5, before kindergarten and offer

structured activities or a curriculum that variably focuses on cognitive and social development (Kisker, Hofferth , Phillips, & Farquhar, 1991).

2. Initially we wished to analyze the data in its continuous monthly form. But preliminary analyses show that respondents, retrospectively recalling the age when their child first entered preschool, tend to report ages at 6 month values (e.g., 6 months, 12 months, 18 months) arid not the intermediate values.

3.This composite variable is created by summing up several dummy variables including whether there is an adult in the household that told the child a story, organized a craft activity, taken the child to the zoo or museum, or visited a library

APPENDIX: VARIABLES AND DEFINITIONS

Predictors	Definitions
NORTH	Family lives in Northeast region
MIDWEST	Family lives in Midwest region
WEST	Family lives in the West region
URBAN	Family lives inside urbanized area (UA)
SUBURB	Family lives outside urbanized area
POOR5	Whether less than 5% living below poverty
POOR10	Whether between 5-9% living below poverty
POOR20	Whether between 10-19% living below poverty
OWNHOME	Whether family owns the dwelling house or rents
HBEDRMS	Number of bedrooms available in the house
MOMGRADE	Years of maternal education
GENDER	Boy (gender = 1) or girl (gender = 0)
BIRTHORD	Whether the child is a first born or only child (I = yes, 0 = no)
SIB02	Whether or not the target child has a sibling below 3 years old
SIB35	Whether or not the target child has a sibling between 3 to 5 years old
SIB12	Whether or not the target child has a sibling over 12 years old
NUMSIB	Number of siblings residing in the same household
GRANDPA	Whether the target child has a grandparent residing in the house
HH18OVER	Number of nonparent people over 18 years old in the household
SINGLE	Whether the family is headed by a single-parent (I = yes, 0 = no)
KPAL_COU	How important it is that a child knows the letters of the alphabet or can count up to 20 (2 = Extremely important, 10 = Not important)?
KPSHARE	How important it is that a child takes turns and shares (1 = Extremely important, 5 = Not important)?
KPCURIOUS	How important it is that a child is enthusiastic and curious (1 = Extremely important, 5 = Not important)?
KPVERBAL	How important that a child communicates his or her needs, wants, and thoughts verbally (1 = Extremely important, 5 = Not important)?
READTIME	Number of time someone in the house read to the target child during the past week (1 = not at all, 2 = once or twice, 3 = 3 or mote times, 4 = everyday)
MOCHURCH	Whether attended an event sponsored by a community or religious group during the past month
ACTIVITY	Whether someone in the family has told the child a story, done arts and crafts with the child during the past week, whether

	visited a library, zoo, and museum with the child during the last month (0 = nothing, 5 = has done all the above)
TVHOURS	How many hours does the child watch TV every week?
HABOOKS	Number of books the child has (I = none, 2 = I or 2 books, 3 = 3 to 9 books, 4 = 10 to 25 books, 5 = 26 to 50 books, and 6 = more than 50 books).

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