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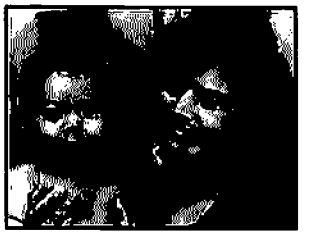

An Unfair Head Start:
California Families Face Gaps in Preschool and Child Care Availability

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A report from the *Growing Up in Poverty Project,* a research initiative of the Berkeley-Stanford PACE Center, Yale University, and the California Child Care Resource and Referral Network.

An Unfair Head Start:
California Families Face Gaps in Preschool and Child Care Availability

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An Unfair Head Start:
California Families Face Gaps in Preschool and Child Care Availability

Summary

This report details stark inequities in how preschool and child-care opportunities are distributed *among* four California counties, across communities situated *within* these counties, and among the state's 200 localities with the most families receiving welfare benefits.

Despite spending $1.2 billion each year on preschool and child-care programs, no single state agency has been able to assess the overall supply of these programs or the distribution of supply. Over half of California's 3.3 million preschool-age children (age 0-5 years) live in households with a working mother. Half these youngsters are enrolled in a licensed preschool, center, or family child-care home, or cared for by someone other than kin. Thousands of additional youngsters are enrolled in preschool programs, independent of their mother's job status. We use the terms *preschool* and *center* synonymously; some offer only half-day educational programs.

Early in 1997, uniform data finally became available on the state's 8,831 licensed preschools and 30,730 family child-care homes. Together, these organizations serve almost 800,000 children in California. Our analysis reveals these patterns:

☐ A family's opportunity to enroll their youngster in a preschool or child-care program depends largely on their income and where they live. In some counties, most notably Los Angeles, affluent parents are twice as likely to find a preschool or child care slot in their community than those residing in poor areas. These odds are just slightly better for blue-collar and many middle-class children.

☐ Counties vary enormously in their supply of early education and child-care programs. For instance, preschool supply levels in the *poorest* communities of San Francisco and Santa Clara counties are equal to average supply levels observed in the *wealthiest* communities of Los Angeles County. Looking only at the state's poorest areas, such cross-county disparities also are apparent. Alameda County, for example, has four times the number of slots in family child-care homes (per capita) than Los Angeles County.

☐ Only San Francisco has been able to de-link family income from local availability of preschool and child-care programs. Other counties with high average supply, such as Santa Clara County, display unequal availability of preschool and child-care supply between affluent and poor communities.

☐ Latino children are hit hardest by this disparity in early education opportunities. Lower supply is apparent even after taking into account indicators of need or demand, such as Latina mothers' lower average rate of employment. Among the state's poorest communities, preschool supply in predominantly Latino areas is half the average supply observed in low-income black or Anglo communities; the supply of slots in family child-care homes is just one-third the average supply level observed in poor black or white communities. This gap in availability for Latino children exists even in counties with more ample supply overall, including San Francisco and Santa Clara counties.☐

Contents

1. Rising Family Demand for Preschooling and Child Care

Demand for early education and child-care programs has skyrocketed in recent decades. The share of mothers with children under age 6, who are employed, climbed from 14 percent in 1950, to just over 60 percent nationwide in 1991.[1] With rising maternal employment and widening interest in the early learning of preschool-age youngsters, the demand for child care has climbed dramatically. The child-care enterprise nationally has become a mixed market of over 80,000 preschools or centers displaying widely varying levels of quality.[2] Many states also license thousands of family child-care (FCC) homes, numbering 118,000 in 1990, typically run by a woman who takes in several children, financed by parental fees or public subsidies.[3]

By 1993 over 60 percent of all children under age 6 -- totaling 8.4 million youngsters nationwide -- were receiving care or early education by someone other than a parent on a regular basis.[4] Early schooling has become a major element of the public school system, as well. More than 4.1 million children now attend pre-K or kindergarten programs, representing almost 10 percent of total public school enrollment.[5]

In California, growth in preschool organizations and child-care organizations has been equally robust. In 1995 over half of all California children under age 6 lived in households with two employed parents or a single parent who worked outside the home. Of these 1.7 million young children, the Census Bureau estimates that about 840,000 have child-care providers outside the family. Another 460,000 children statewide, age 6-13, receive after-school care from individual babysitters or attend formal programs.[6]

A large portion of these children are served in licensed preschools and child-care organizations. In 1996, the state's first-ever survey of all known organizations yielded data for 8,831 licensed preschools and centers, operating over 530,000 child slots. An additional 235,000 child slots were offered by 30,730 licensed FCC homes, each serving up to 6 or 12 children, depending upon the number of child-care workers present.[7]

Remarkable growth in government support of child care, since the 1960s, has followed acceleration in parental demand. Table 1 summarizes growth in spending for preschool and child-care programs, funded through a variety of mechanisms from grants to public school districts and preschool programs to rapid growth in parental vouchers. Between fiscal years 1988 and 1998 total federal and state spending grew from $324 million to over $1.2 billion for preschool and child-care programs. This excludes federal Head Start centers on which about $400 million is spent annually in California. State taxpayers -- mainly middle-class families -- also benefit from about $350 million in child-care tax credits.

Policy Interest in Early Education:
Widespread Parental Demand for Preschooling and a Linchpin in Welfare Reform

Rising rates of maternal employment certainly explain much of this growing demand for child care. But two additional forces are driving expansion of early education programs. First, a rising number of parents -- across social classes and ethnic groups -- have become more focused on how to advance the early development and learning of their preschoolers. As young children turn 3 or 4 years old, more parents are enrolling them in formal preschools or centers -- independent of whether the mother is employed outside the home or not.[8]

We know that the age at which parents first place their infant or toddler in any type of (nonparental) child care is sharply affected by whether the mother is employed.[9] But this effect of maternal employment shrinks as children grow older and they approach entry to preschool. If we focus on the proportion of all families with children, age 3-5, who report that centers or preschools provide their main child-care arrangement nationwide, the effect of maternal employment disappears: 44 percent of these children are attending a preschool or center among families with a mother employed full-time, 45 percent when the mother is employed part-time, and 44 percent with a nonemployed mother.[10] In short, many parents enroll their child in a formal preschool regardless of the mother's employment status.

Government, too, is expressing greater interest in early childhood development and preschooling. Federal Head Start spending has tripled over the past decade, now equaling over $4.5 billion annually. Detached largely from anti-poverty programs, the U.S. Department of Education has developed a number of initiatives aimed at raising the "school readiness" of all young children. The first national education goal articulated by the nation's governors in 1989: "By the year 2000 all children in America will start school ready to learn." This is backed by specific policy objectives, such as, "... all children will have access to high quality... preschool programs."[11] In turn, state investments in preschooling have soared upward, more than tripling from $600 million in 1991 to $2.3 billion in 1994.[12] Over the past year spending levels rose further as welfare reform preoccupied many state legislatures. In California, total preschool and child-care spending will rise by over $300 million in 1997-98, totaling about $1.2 billion annually.

Indeed, the second strong force driving expansion of early education and child care is welfare reform. California, under federally imposed employment targets, must put 500,000 welfare recipients to work over the next few years, over 60 percent of whom are single mothers with at least one preschool-age child. This will require a huge increase in the number of child-care slots, be they provided by individual babysitters (who may or may not receive voucher subsidies), FCC homes, or preschools. Within the August 1996 federal welfare bill, Congress consolidated child-care programs into a single block grant and raised funding by $1 billion to over $3 billion annually. Some states, including California, saw this increase as insufficient in meeting federally mandated welfare-to-work requirements and have further boosted child-care investments.[13]

2. Do Families Have Equal Access to Preschools and Child Care?

The robust expansion of preschooling and child care is being set on top of an already fragile and highly uneven set of local organizations. It's a bit like dropping a lead ball on a house of cards. The simple availability of early education programs still depends largely on a family's income and where they live. Quality remains highly variable.[14] Information about options remains scarce, particularly in low-income and working-class communities. Thousands of women on

welfare fail to even utilize their child-care entitlement as they move into jobs, either assuming that they must find their own babysitter or their social worker fails to fully explain their options and available subsidies. In Santa Clara County, for example, there are 6,000 welfare recipients who are working at least part-time; only 300 are utilizing the child-care subsidy to which they are entitled.[15]

What Do We Know about the Distribution of Early Education and Child-Care Opportunities?

This report focuses on one key policy question -- one that holds implications for every parent of a young child: *Is the availability of slots in preschool and child-care organizations distributed equally across different types of communities in California?* Ideally, we would like to know whether supply matches need for preschooling or child care, across local areas. "Need" is a slippery concept. For instance, advocates of universal preschooling argue that expansion would benefit all children in terms of advancing their early development and school readiness. Others suggest that "parental demand" is a better indicator of need. Not all parents want to place their child in a nonparental child-care or early education arrangement prior to starting kindergarten. This report focuses on the *availability* or *supply side*, assessing how the available capacity of preschools and family child-care (FCC) homes varies across counties and local communities. All supply data are expressed in terms of "child slots," the licensed capacity of a preschool or child-care organization, whether all slots were filled or not when the survey was conducted (1996).

We then statistically examine how supply differences correspond to indicators of local need, such as child population size, maternal employment rates and the incidence of female-headed households. We discovered that after taking into account these logical determinants of supply, additional factors correspond to supply inequalities, such as the locality's average family income level, the concentration of Latino families, levels of community organization, and the county in which families reside. If preschool and child-care availability was spread fairly between counties and among localities within counties, such factors would not be related to supply. No one would argue, for example, that access to elementary school should be determined by these factors.

Relevant to our key policy question, let's briefly review what is already known about the distribution of child-care supply nationwide. In 1993 about 9.9 million preschool-age youngsters were in need of child care, given that their mothers were working. Just under half (48 percent) were cared for by the father or a kin member while the mother was working. Centers and preschools were the next most common type of care, serving nearly one-third of these children. FCC homes and paid non-kin provide services for the remaining 21 percent.[16] Very little is known about the availability, private cost, and quality of child care provided by kin members or paid babysitters across different kinds of communities. We do know that low-income families rely much less on preschool programs and more on family members. Just 33 percent of parents at or below the poverty line enroll their preschooler in a center or FCC home, versus 49 percent of non-poor parents.[17] We will return to how this plays out in California.

Recent national studies -- focusing on access to preschools and child-care centers -- have revealed sharp disparities in family-level enrollment rates. In 1995 the rate at which young children were enrolled in preschool programs was almost twice as high for children from affluent families (earning over $75,000 annually), compared to youngsters from poor families (with earnings under $20,000). These enrollment rates equaled 49 percent and 25 percent, respectively.[18] Even if we look at all forms of nonparental child care, this disparity persists: 77 percent of affluents kids were spending part of each week with a nonparental child-care provider, versus 50 percent of all low-income youngsters.

Participation in preschools is substantially lower for Latino families, relative to other ethnic groups. In 1995 just 17 percent of all Latino preschoolers under age 6 were enrolled in a preschool, compared to 33 percent of all African-American and non-Latino white children.[19] Part of this difference is explained by the fact that larger shares of Latina mothers with preschool-age children are either not employed or working part-time; Latino fathers and kin also provide more child-care help, compared to black or Anglo families, on average.[20] But even after taking into account maternal employment status, the *gap* between Latino versus black children's preschool enrollment rate is 23 percentage points. We also know that the use of nonparental child care is

lower in the West, relative to the Northeast and Midwest, in part due to high concentrations of Latino families.

Do these disparities stem from differing parental preferences and attitudes toward child care, or simply from the unequal supply of preschool and child-care organizations? This strikes to the heart of the present study. If the local supply of preschools, centers, and FCC homes is constrained, then parents are forced to rely on less formal types of care -- or mothers remain unable to enter the workforce. If preschool supply levels vary across local communities, young children's early development and learning will be driven by the family's social-class position and where they live.

Do Disparities in Preschool and Child-Care Supply Constrain Enrollment Rates?

What do we know about disparities in the supply of preschool and child-care slots? One study that compared per capita availability of preschools across 100 counties nationwide revealed wide inequality in basic supply. Among the 25 most affluent counties, one preschool class was operating for every 45 children, age 3-5 years. In the poorest counties, one preschool class was available for every 77 children.[21] This county-level disparity was most strongly related to mean family income, presence of single-parent households, and population growth. Counties with higher per capita supply of preschool slots also displayed higher average quality levels.

A second study focused on smaller community units -- areas defined by zip codes -- to assess supply differences in Massachusetts. This state has historically spent more per child on early education and care than any other. Yet the per capita supply of preschool slots was found to be one-third greater in affluent suburban communities, relative to poor inner-city areas. Availability was somewhat lower in working and middle-class communities, as well.[22] An earlier study, conducted in Chicago, found that no child-care centers operated in some economically depressed localities.[23]

Local institutional factors and patterns of community organizing also shape whether parents face abundant or scarce preschool and child-care options. Communities with more developed public services in general display higher supply of child-care and preschool programs per capita. Initial evidence also suggests modest substitution effects between types of child-care organizations. For instance, in communities where activists have established more Head Start centers, fewer programs are being offered by other nonprofit or state-funded organizations.[24] This holds implications in the California context where the Governor has urged higher spending for parental vouchers, often used to subsidize care by a kin member or babysitter. This rising component of the child-care provider market could well squeeze out preschool organizations or FCC homes where quality may be higher.

3. Study Design: Assessing the Distribution of Preschool and Child-Care Opportunities

Basic Policy Questions

Our analysis centers on three facets of the policy question posed above, each of which can be informed by the 1996 survey of California's preschool and child-care organizations:

☐ How does the supply of preschool and child-care organizations vary *among low-income, middle-class, and affluent communities*? This report focuses on preschools, FCC homes, and individual child-care providers who receive public subsidies to provide services.

☐ How does the supply of preschool and child-care organizations vary across *low-income communities with high concentrations of welfare recipients*? The ability of parents to move from welfare to work depends upon the availability of jobs and child care. We ask whether these low-income parents, primarily single mothers, have equal access to preschool programs.[25]

☐ When we observe disparities in the availability of preschool and child-care slots, *what factors explain these differences*? These antecedent forces may include maternal employment rates, average family income, ethnic composition of the locality, strength of community organizations, or the county in which families reside.

Weaknesses of Decentralized Preschool and Child-Care Markets: Scarce Data and Limited Planning Capacity

Abundant faith in many political circles is being expressed in the decentralization of social programs. Faith in "devolution" is on the rise, allegedly the silver bullet that promises to raise the effectiveness of education and anti-poverty programs by empowering families and local organizations. Preschool and child-care organizations have long been decentralized in the United States, what now can be seen as a robust and diverse mixed market of local "firms" and individual service providers, financed through public and private sources. The result, however, has not been entirely positive in that this population of preschool organizations manifests widely varying attributes, including unevenness in stability, quality, and cost.

Another side-effect of this decentralized "system" has been to stifle the development of planning capacity within Sacramento and many local governments. Until 1997, for example, very thin data existed that detailed the capacity California's preschool and child-care organizations. No one knew how many organizations still operated after being licensed, how many children they served, or the quality of teachers and staff members. The state licensing agency does little to assess variability in quality or how current supply matches parents' levels of express demand for preschool and child-care programs.

We still know very little about the thousands of individual babysitters or child-care providers who offer their services. This invisible corps of child-minders often receive (voucher) subsidies that cost taxpayers millions of dollars. No single agency knows how many providers benefit from child-care vouchers and almost nothing about their basic attributes. Voucher payments can equal $4,500 per child each year. In short, California taxpayers have been supporting a $1.2 billion preschool and child-care industry with almost no information about the supply of organizations and individuals supported or the quality of services that they provide.

This report builds from the state's first-ever comprehensive survey of all known preschools and child-care organizations, linked to a standardized data collection process put in place by local

resource and referral agencies. Initial results were published in early 1997 by the California Child Care Resource and Referral Network.[26] The report provided aggregate supply data for each of California's 58 counties. The present paper explores differences in supply among four specific counties, among local communities within each county, and among the state's poorest 200 zip codes, areas that are situated in 24 counties statewide. The contrasting counties included in this analysis are Los Angeles, San Francisco, Santa Clara, and Tulare.

Two Sub-Studies of Preschool and Child-Care Availability

Our findings are presented within two related sub-studies. First, we examine how the supply of preschool and child-care organizations is distributed among poor, middle-class, and affluent communities between and within counties. Second, we turn to the 200 zip codes statewide that contain the highest number of families receiving welfare support. This second sub-study focuses on the equity with which preschools and child care are distributed among the poorest California communities, holding direct implications for welfare reform.

Data sources. In the late 1980s, California's child-care resource and referral (R&R) agencies pulled together to remedy the gaping hole in basic information, with support from the state Department of Education. The R&R agencies, since the 1970s, had kept information in various ways on the supply of licensed child-care providers. These local agencies -- now totaling 61 and usually contiguous with county boundaries -- offer consumer information to parents who are searching for child care. In 1989, the Network spearheaded a project to standardize how each local agency described and updated information about all known preschools, centers, and FCC homes operating within their jurisdiction. Definitions for many descriptors and variables were standardized; local data bases were built and updated using common reporting protocols.[27]

One advantage of this central data set is that it contains data on every known preschool and FCC home provider, including how many children can be legally served (capacity), the ages of youngsters who fill these slots, whether odd-hour care is provided, whether staff speak languages

other than English, as well as state and federal sources of funding. It allows the opportunity to aggregate supply data to the zip-code level, making possible cross-community comparisons of preschool and child-care availability. The Network also maintains confidential data on individual licensed-exempt providers who receive subsidies for their services, individuals who must go through a criminal background check via the Trustline system.

Local data on welfare families also is more accessible, thanks to advances made by the Department of Social Services (DSS) in Sacramento. In the present study, we utilize counts of children under age 6 who resided in families receiving AFDC benefits in 1996. The DSS research office aggregates individual family data to the zip-code level which then is matched to our preschool and child-care data. DSS and the state legislature have been focusing attention on the poorest 200 zip codes in the state. In December 1996 these areas contained 58 percent of all young children resident in households aided by AFDC.[28] The Department of Education's most recent distribution of new child-care monies was largely targeted on these 200 zip codes.

Finally, we utilized census bureau data to obtain accurate counts of young children, households with working mothers, poverty levels, and other demographic features of families and organizations -- aggregated to the zip-code level. One major use of these demographic data is to standardize our measures of per capita supply. Preschool and child-care slots are likely to be more plentiful in counties with more young children. Thus child counts are required to construct per capita measures of supply, expressed as the *number of child slots* operating *per 1,000 resident children under 6 years-old.*[29] We studied local levels of preschool and child-care supply along five specific indicators:

☐ *Preschool and center supply.* The capacity of preschools in terms of the number of child slots the organization is licensed to operate for children under 6 years-old, aggregated to the zip-code level and expressed as slots per 1,000 resident children under 6.

☐ *Family child-care (FCC) home supply.* The capacity of FCC homes in terms of the number of child slots the organization is licensed to operate for children under 6 years-old, aggregated to the zip-code level and expressed as slots per 1,000 resident children under 6.

☐ *Total supply of preschool and child-care organizations.* The total capacity of preschools and FCC homes in terms of the number of child slots these organizations are licensed to operate for children under 6 years-old, aggregated to the zip-code level and expressed as slots per 1,000 resident children under 6.

☐ *Infant care supply.* The capacity of preschools and centers to serve infants, age 2 and younger, in terms of the number of child slots the organization is licensed to operate for infants, aggregated to the zip-code level and expressed as slots per 1,000 resident children, age 2 or younger.

☐ *Subsidized individual child-care providers.* The number of license-exempt individuals who receive (publicly financed) vouchers to provide child-care services for low-income working parents, aggregated to the zip-code level and expressed as the number of providers per 1,000 resident children under 6.

4. Substudy I - Supply Disparities Between and Within California Counties

We begin by focusing on supply differences observed *among* and *within* the four contrasting counties. These counties were selected based on their diversity in terms of population size, location, and ethnic composition. They also differ in terms of their historical push to increase the supply of preschool organizations. We wanted to explore how supply patterns might differ among counties, and how internal variability in supply levels might differ among communities within each county.

The issue of cross-county variation in availability of preschool and child-care programs is not a new issue in California. Recognizing between-county gaps in supply, the state legislature directed the Department of Education in 1980 to allocate new funding to reduce these disparities. Subsequent funding increases in 1985, 1991, and 1992 also were distributed to help ease these cross-county inequities. This progressive allocation strategy applied to new monies sent down to preschools and centers, as well as to county agencies distributing child-care vouchers ("alternative payment contractors").[30]

But as we detailed below, regional and local supply disparities still exist. This may be due to three factors. First, the private market of preschool and child-care organizations continues to expand as more middle-class and affluent parents demand (and pay for) expansion of their local programs. These market processes unfold independent of decisions about public subsidies. Second, counties with wealthier families or stronger tax bases can elect to allocate more public monies for early education and child care. Key Sacramento agencies have yet to describe this decentralized financing "system." Third, state agencies have not been able to assess supply disparities *within* counties. The August 1997 welfare reform bill does encourage local advisory councils to study the distribution and quality of programs across neighborhoods.[31]

Variation in Supply *Among* Four Counties

Let's first examine differences in preschool and child-care supply observed among contrasting counties. Our unit of analysis is the zip code. This allows us to examine supply differences across and within counties. It is a conception of "local community" that has advantages and limitations. Zip codes are not contiguous with the boundaries of natural neighborhoods that residents might define. Yet the larger zip-code unit is appropriate in that many parents seek out child care and preschool programs close to home but in a geographic area that is larger than their immediate neighborhood.

Our analysis asks whether zip-code areas that vary in their economic and demographic attributes also differ in their per capita availability of child-care organizations. Looking across different counties is one way to compare supply disparities. We can also group similar zip codes together -- say, in terms of wealth, ethnic characteristics, or maternal employment levels -- to see whether these factors are associated with supply levels.

In Figure 1 we focus on the issue of whether contrasting levels of supply, based in preschools and FCC homes, correspond to a community's relative level of wealth or poverty. We split the 312 zip codes from the four counties into quartiles, based on each zip code's median household income. The lowest quarter of zip codes are those with household incomes averaging less than $29,255 in 1990. The second quartile are those with median household incomes between $29,256-$36,990. These zip codes are fairly representative of the distribution of household income statewide: the median income level for California in 1990 equaled $35,798.[32] The highest quartile includes those affluent zip codes with median incomes over $46,698. We ran this analysis separating-out Los Angeles County which contains 237 of the 312 zip codes; findings for the other three counties (San Francisco, Santa Clara, and Tulare) are reported separately in Figure 1.

The four vertical white bars in Figure 1 represent the median supply of child slots in preschools, centers, and FCC homes for Los Angeles County zip codes. Within the poorest cluster of communities we observe 127 operating child slots for every 1,000 children under age 6. The white bars step-up steadily, showing a close correspondence between total supply and community wealth. Supply in the most affluent quartile of zip codes equals 269 operating slots per 1,000 child under age 6. In other words, total supply of child care is 212 percent higher in affluent areas, compared to the poorest zip codes.

Figure 1 also reveals that supply for every income range is lower in Los Angeles County, relative to the other three counties. In fact, total per capita supply in the *poorest* zip codes found in the three-county group (251 slots per 1,000 children) almost equals supply levels observed in the

richest quartile of Los Angeles zip codes (269 slots per 1,000 children). Per capita supply levels observed in San Francisco and Santa Clara counties are high, relative to most other California counties. In addition, supply is generally much lower in zip codes dominated by Latino families, many of which are concentrated in Los Angeles County. We will return to this issue of why supply is so low in Los Angeles, relative to other California counties.

Focusing on the three-county group, after taking into account relatively low supply in the poorest quartile, total supply is more equally distributed across quartiles 2, 3, and 4. The number of child slots per 1,000 youngsters equals 269, 343, and 388, respectively. The ability of San Francisco to significantly close income-based gaps in availability is an important success story, even in the presence of large numbers of Latino parents. It also suggests that by increasing the supply of preschools and FCC homes, enrollment rates for Latino children will rise.

Cross-County Differences in Early Education and Child-Care Availability

Figure 2 reports -- for each of the four counties -- the average number of child slots available in preschools and centers, FCC homes, and infant slots situated in centers. Again we see that Los Angeles lags behind San Francisco and Santa Clara county in preschool and center-based supply. The exact numbers equal 169, 322, and 253 slots per 1,000 young children, respectively. Supply in Tulare County equals 131 slots per 1,000 children under 6. The supply of child slots operated by FCC homes also is lowest within Los Angeles, falling below the supply level of rural Tulare County.

The mean number of slots operated for infants in centers is very low across all four counties. New welfare rules, approved by the legislature in August 1997, require that women move into job search, training, or employment after their infant turns 6-12 months of age. But infant care is extremely scarce. In Los Angeles County, the mean number of infant slots (in centers) operating in a typical zip code equals just 19. The median number of slots is 5. Infant care in rural Tulare County is extremely scarce. Tulare zip codes on average have just 3 infants slots in centers for

every 1,000 children, 2 years and younger; many localities have no licensed slots for infants. See Appendix 1 for a comparison of arithmetic means and medians as indicators of supply.

What Role Do Head Start Preschools Play?

The Clinton Administration has emphasized the steady expansion of Head Start centers -- to advance the early development of poor youngsters and, more recently, to support the aims of welfare reform. Yet the controversial question has returned over whether Head Start can feasibly move beyond half-day programs (most of which close down in the summer) Figure 2B reveals wide variation in the share of all preschool slots operated by Head Start. This analysis focuses on the 200 poorest zip codes statewide. In Los Angeles County, child slots operating in Head Start centers represent just 16 percent of all preschool slots in the poorest localities. Rural counties, such as Merced and Monterey, depend more heavily on Head Start. Santa Clara County stands out with a large Head Start presence, relative to all other types of preschools and centers (31 percent of all child slots). Yet in most urban and suburban counties, Head Start runs less than a fourth of all preschool slots.

Variation in Supply *Within* Four Counties

Very diverse communities, of course, are contained within the boundaries of counties. Our analysis reveals wide variation in the supply of preschool slots across zip codes within counties. These disparities become crystal clear as one maps different indicators of supply. If we look at Figure 3 [South], we have mapped availability of child slots for the southern region of Los Angeles County. The zip codes marked in red indicate that less than 200 preschool slots exist for every 1,000 young children resident in the zip code. The few zip codes marked in yellow have up to about 700 center slots operating for every 1,000 children. The green areas display moderate counts of child slots. (Color maps are available from PACE.)

Figure 3 [North] shows a similar pattern: zip codes on the west side of the San Fernando Valley tend to have higher preschool supply, relative to working-class and lower-income areas, roughly bounded by Interstate 5 and the 405 freeway.

Figure 4 presents a similar map for Santa Clara County. Here we plot the total supply of child slots, adding together spaces in preschools and FCC homes. The low-supply (red) zips are centered around central San Jose and the east side. Pockets of poverty and/or low supply also are apparent in certain sections of the north county area. Westside suburbs and affluent areas have robust markets of providers, both centers and FCC homes, relative to the number of young children residing in these zip-code areas.

What are the economic and demographic characteristics of zip codes that correspond to these disparities in supply? One way to answer this question is to split zip codes into contrasting groups, pegged to community attributes that might explain supply inequities. In Figure 5 we have divided all zip codes by median family income within each of the four counties. First we identified the median income across all zip codes within each county. Then we divided the zips in half, those below and those above the median.

For Los Angeles County, we see that the total number of child slots (summing slots in centers and FCC homes) is higher in the half of all zips that lay above the median income level. The total number of slots operating in these zip codes above the median equal 272 per 1,000 young children, a supply level which is 40 percent above the 194 slots operating per capita in those zips falling below the median income level.

San Francisco is an intriguing case: supply is high, relative to Los Angeles, and fairly equally distributed between high and low-income communities (after making this median split). Total supply in affluent areas of Santa Clara County is amongst the highest in the state: these zips average 470 child slots per 1,000 young children. The total number of child slots is relatively low in Tulare and unequally distributed: just 147 slots per capita in the poorest half of zip codes;

272 slots in the affluent half.

We know from prior research that Latino families, in general, tend to express less demand for center-based programs (or they find less supply), relative to other ethnic groups. Thus another way to contrast zip codes within a county is to split them in half, those below the median percentage of residents who are Latino and those above this median share.

This split reveals sharp disparities in Los Angeles (Figure 6). The half of all zip codes that fall below the median proportion, Latino, includes areas that are comprised largely of black or non-Latino white populations. On average, these zips have 306 child slots operating (including centers and FCC homes). In contrast, the half of all zip codes that have higher than average concentrations of Latino families display just 164 child-care slots per capita, a supply level 46 percent lower. This pattern is almost identical in rural Tulare County: 307 child slots on average in the low Latino zip codes, and just 156 slots in predominantly Latino communities.

Four-County Analysis: Multivariate Model of Factors Driving Supply Inequalities

This apparent correspondence between high Latino concentrations and lower child-care supply may be eclipsing underlying factors that constrain supply. For example, earlier research shows that Latino mothers with preschool-age children have lower rates of employment, benefit from greater kin support for child care, and engage in parenting practices that are less attuned to school readiness, relative to Anglo or black mothers, on average.[33]

In this section we examine how multiple factors may be influencing the total number of child-care slots that are operating across the 312 zip codes situated in the four counties. Figure 7 depicts how several economic and demographic facets of these zip codes might be associated with the wide variability in supply reported above. We analyzed the correspondence between supply levels and *four sets of explanatory forces*. First, the number of resident children and maternal employment rate of a zip code likely contribute to the demand for, and resulting supply

of, preschool and child-care organizations. On the other hand, poor urban communities have more women drawing welfare benefits, parents who display uneven employment patterns.

Poorer communities also may demonstrate less organizing capacity, relative to middle-class or affluent localities, including fewer civic activists with discretionary time. Such elements are necessary in mobilizing support and technical know-how for clearing regulatory hurdles and raising money to establish a preschool or child-care organization. This represents a second factor that may help to explain variability in supply. We utilized the number of churches operating in the zip code as one indicator of the community's organizing capacity.

Third, several demographic characteristics of the communities may influence supply levels: the number of female-headed households, average maternal education levels, and number of non-English speaking adults (given prior research on lower preschool enrollment rates among Spanish-speaking Latino families).[34] We also factored-in the propensity of families to participate in AFDC, an action that corresponds to lower employment rates and thus less demand for child care. To measure this "welfare propensity" we could not simply use the percentage of families on AFDC, since this indicator is highly correlated with the number of female-headed households. So, we calculated the residual value derived from statistically regressing AFDC participation on child population and the number of female-headed households. The resulting measure controls on family structure and child population, to better identify the propensity of families in a zip code to enter the welfare system.

Fourth, we entered into our explanatory models the county in which each zip code is located. We have seen how San Francisco and Santa Clara counties benefit from relatively high levels of supply. This may be the result of political activism, local government spending, or other county-specific factors that we are unable to measure. We will report on the added explanatory power represented by county differences.

Understanding how these four sets of factors explain supply disparities holds direct relevance for how state agencies might allocate new preschool and child-care monies -- a $300 million task currently confronting education and welfare departments in Sacramento. The current plan emphasizes AFDC family counts as the principal indicator of where new monies should be targeted. Our explanatory models show that maternal employment, ethnic composition, and community organizing capacity all contribute to higher (or lower) supply levels, especially for preschool organizations. If these factors are ignored within an allocation formula, supply gaps will not be effectively reduced.

The influence of maternal employment. We begin by asking whether a zip code's child population and count of working mothers (with preschool-age youngsters) help to explain preschool and child-care supply levels. Table 2 (Model 1A) reports a simple multivariate model entering these two possible predictors of preschool supply levels among zip codes (setting aside FCC homes for the moment). Both predictors are raw counts (children under 6 and mothers currently employed), so they are collinear. Notwithstanding this proviso, zip codes with more employed mothers, not surprisingly, have higher numbers of preschool child slots. Clearly, where maternal employment is higher, greater family demand is expressed to create preschool slots, either within the private market or via public financing. Once this factor is taken into account, zip codes with more young children actually have fewer child slots. This may be due to the fact that zip codes with high population density are poorer or less able to organize additional preschools and centers. Knowing only the child population and the number of working mothers, we can explain about one-fifth of all the variation in preschool supply (adjusted r^2=.22). Note that maternal employment counts are highly correlated with a zip code's median household income; thus the latter variable can not be included in these explanatory models.

The influence of family demographics. In Model 1B we add demographic characteristics that characterize the residents of our sampled zip codes. Three findings are noteworthy. The percentage of all households headed by a single woman in a locality is associated with higher preschool and child-care supply, again a function of greater need or demand for child care among

female-headed families. In addition, the estimated propensity of female-headed households to participate in AFDC predicts *lower* preschool supply. This is understandable, given that few mothers drawing AFDC benefits have been required to work; they often have stayed at home with their youngsters. Finally, the percentage of the population that is non-English speaking is associated with lower supply. This is consistent with the earlier research that has found a lower propensity for Latino families to express demand for preschooling, even after controlling on maternal employment and other demographic factors. After adding these factors, we can explain almost 40 percent of inter-zip code variation in supply (adjusted r^2=.39).

The influence of community organizing and county setting. We aimed to factor-in a community's propensity to mobilize and sustain civic organizations. Measures of this dynamic are limited. The best measure we could devise was the count of churches that operate in a zip code (from 1990 census data). This factor proved to be highly associated with preschool supply (Model 1C). This finding is, in part, tautological, given that many preschool programs operate within churches. But the presence of more churches may make organizing a bit easier when residents want to establish or expand a preschool. For every additional church in the zip code, we observe about seven additional child slots, on average.

We also asked whether supply levels differ systematically among different counties. Model 1C shows that supply is substantially higher in Santa Clara County, even after controlling on all other demographic and economic features. This further suggests that county-specific factors play a large role in determining local preschool and child-care supply. For example, the large presence of Head Start centers in Santa Clara County may help explain the county's relatively high supply overall, compared to other California counties. After entering these community-level factors, the model explains 45 percent of the variation in supply across the four counties (adjusted r^2=.45).

Do these factors explain variation in the supply of child slots in FCC homes? The short answer is, yes. A couple differences should be emphasized, however. The propensity of female-headed

households to enroll in AFDC is weakly related to the supply of child slots in FCC homes. This factor seems to depress the number of child slots in preschools and centers, but not FCC homes. Communities with large percentages of non-English speaking families also display lower supply in FCC homes. Some have argued that this subgroup tends to use family child care, rather than centers. We find supply is low for *both* types of organizations. And the number of churches makes little difference in driving FCC home supply. Both Santa Clara and Tulare counties have substantially higher supply, relative to Los Angeles County -- the pattern that we saw earlier in Figure 2. Despite large numbers of Latino families, Tulare County has effectively raised the supply of slots situated in FCC homes. Together, these factors explain 57 percent of the cross-county variation in FCC home supply.

A simpler way to estimate supply levels is simply to enter two factors that characterize the ethnic composition of the zip codes situated in these four counties. These reduced models appear in Appendix 2. The problem with this method is that it tells us little about what demographic features of these families are related to higher or lower supply; the simpler models just report ethnic-related effects. It is, however, important to note that the supply of child slots in preschools again is lower in zip codes with high numbers of Latino families, even after taking into account the influence of maternal employment. The supply of FCC home slots is higher in predominantly black communities.

How Many Voucher-Supported Individuals Are Providing Child-Care Services?

The fastest growing type of child care involves license-exempt individuals who receive publicly funded vouchers from local agencies. We took stock of voucher-supported child-care providers who went through the Trustline system, a criminal background check that until 1997 was *not* required for those supported through county welfare offices. The number of voucher-supported providers remained quite small in 1996, the latest year for which data are available. The 91 zip codes in Los Angeles County that reported any such providers supported just 8 individuals on average. The average number of such providers for Santa Clara and San Francisco counties was

just 9 and 11 individuals, respectively. The poorest 200 localities statewide averaged 14 individuals in the typical zip code.

These counts seem quite low, given that most women on welfare who have moved into jobs utilize a kin member or paid babysitter to care for their preschool-age child, not a preschool or FCC home. All such individuals must now go through the Trustline check, under recent legislation, to qualify for a child-care voucher. Unless stronger efforts are not made to ensure that women on welfare can find individuals who are willing to pass through this minimal regulatory process, these mothers will not be able to draw their child-care subsidy and re-enter the workforce.

5. Substudy II - Supply Disparities Among California's Poorest Communities

Planning activities and new child-care monies -- flowing from Sacramento's 1997 welfare reform legislation -- are being targeted on the state's 200 poorest zip codes. These areas are spread across 24 counties. Eighty-five (85) of the 200 are situated in Los Angeles County, 8 in Alameda, 5 in Santa Clara, and 16 in San Diego counties, for example. Table 3 reports basic characteristics of these generally impoverished, yet highly variable, localities. The share of families living below the poverty line across these 200 zip codes, on average, equals 18 percent; but this share ranges from 6 percent to 51 percent of resident families. Similarly, the median household income of these communities ranges from $11,889 to $46,163. In places like central San Jose, we see many families on welfare who reside in middle-class communities.

These 200 zip codes also differ widely in their present level of preschool and child-care supply. Figure 8 reports on the median number of child slots available in preschools and FCC homes for selected counties. Among the poorest 200 zips that are located in Alameda County, for instance, 170 slots per 1,000 young children are operating in preschools and another 106 slots in FCC

homes. This compares with just 97 preschool slots and 27 FCC home slots among the poorest communities in Los Angeles County. Preschool and child-care supply in Fresno, Sacramento, and Tulare counties out pace levels observed in Los Angeles. Other rural counties have very low levels of supply. Merced County, for instance, has only 49 child slots in preschools for every 1,000 young children. It is difficult to see how welfare-to-work efforts in such counties can succeed with such severe child-care scarcities.

Figure 9 illustrates how the supply of child slots can vary within a county, even among different low-income communities. This Santa Clara County map reports on a new ratio: the number of young children receiving AFDC benefits (in December 1996) for every one child-slot operating within FCC homes. Two zip codes in central San Jose have up to 10 AFDC children for every operating FCC home slot.

We can also examine variation in the top 200 AFDC zip codes by splitting them in half, the 100 below the median-income point and the other 100 which sit above the median (Figure 10). One important argument is that families residing close to working-poor or working-class families may fare better, compared to those living in communities that are isolated from jobs and neighbors who are employed. Yet we see little difference in child-care supply between these two halves of the impoverished 200 zip codes.

When we split the 200 localities along their relative concentrations of Latino populations, clear disparities surface. Ethnic composition continues to make a difference even when focusing just on these poor communities (Figure 11). Those zip codes with high Latino concentrations contain, on average, 106 slots in preschools and another 34 slots in FCC homes per 1,000 children. In contrast, zips with low shares of Latinos show 152 preschool and 80 FCC home slots. Impoverished communities that are predominantly Anglo or black have been able to expand supply more effectively than those communities made-up largely of Latino families.

Poorest 200 Analysis: Multivariate Model of Factors Driving Supply Inequalities

We built identical explanatory models to help identify those factors that may be driving supply disparities among California's poorest zip-code areas. For most analyses we had complete data for 195 of the 200.

Explaining preschool and center supply. Table 4 reports our findings, following the same order discussed in our four-county analysis above. Focusing on these impoverished zip codes we see that maternal employment makes a difference, but only in Model 3A. This effect is eclipsed, becoming statistically insignificant, as we add more fine-grained demographic features of these communities. The patterns are similar: supply in preschools is higher in zip codes with more female-headed households and where these families have a lower propensity to go on AFDC.

Importantly, the average education level of adults (the percentage with two years of college) is positively associated with supply levels. The strong association between the number of churches and supply continues to be observed among these impoverished zip codes. The combined effect of county location has a very small aggregate effect, moving the proportion of variance explained from 32 to 35 percent. We do observe that relative to Los Angeles County, most rural counties with zip codes in the top 200 have significantly lower levels of child-care supply. This means that families on welfare in rural areas will face inequitably low levels of supply.

Explaining FCC home supply. Table 4 also reports explanatory models for the number of child slots operating in FCC homes within this set of poor zip codes. Again, we observe the significant effect of mean educational attainment levels. Labor force participation is higher among low-income populations with higher schooling levels. Yet even after taking maternal employment into account, we see that education contributes to higher supply of child slots in FCC homes. The effect of churches is negligible, as observed above with preschool supply. Counties vary widely in their mean supply of FCC home slots. Relative to Los Angeles County, Kern and San Diego counties display significantly higher numbers of child slots in FCC homes.

Knowing the county in which a population is located raises the proportion of variance explained from 44 to 63 percent. This may be linked to variation in local counties' historical commitment to expanding child-care availability.

6. Implications for Policy: How to Reduce Unequal Opportunities for Early Education and Child Care?

In the early 1960s, the quality of schools in which children enrolled -- as measured by the level of resources available per pupil -- depended largely upon their parents' income and where they lived. A contentious debate ensued in California and nationwide over how government could equalize spending per pupil -- with the clear aim of de-coupling a family's social-class position from the quality of their neighborhood school. This great debate over school finance led to substantial progress in equalizing aid to elementary and secondary schools.

Our findings reveal that California's early education "system" displays the same disparities observed in the public schools over three decades ago. Despite soaring demand for preschooling and child care by parents and rising policy interest in how to boost children's early learning, the distribution of early education opportunities remains skewed toward affluent families. We are just beginning to document the extent of these inequities both across and within counties. Cross-county gaps in simple availability remain substantial.

Let us shine a bright light on the most basic findings. First, a California family's opportunity to enroll their youngster in a preschool or child-care program depends largely on their income and where they live. In some counties, most notably Los Angeles, affluent families are twice as likely to find an operating preschool or child care slot than are parents residing in low-income communities. These odds are only slightly better for blue-collar and lower middle-class children.

Counties vary enormously in their average supply of preschool and child-care programs. For instance, the *poorest* communities in counties such as San Francisco and Santa Clara display supply levels equal to the *wealthiest* areas of Los Angeles. Focusing on the state's poorest zip codes, Alameda County has four times the number of FCC home slots (per capita) as Los Angeles County.

Second, San Francisco County offers a success story -- a local government that has largely been able to de-link family income from preschool and child-care availability. Inequities do persist in selected communities. And other counties with relatively high supply, as Santa Clara County, continue to display internal maldistribution of programs, whereby opportunity remains tied to parents' income and whether they reside in an affluent or impoverished community.

Third, Latino children are hit hardest by this disparity in early education and child-care opportunities. This gap exists after taking into account Latinos' lower levels of income and maternal employment. Among the state's poorest communities, those populated largely by white or African-American families have almost twice the supply of preschool slots (and three times the number of slots in FCC homes) than poor Latino communities. This disparity in supply for Latino children exists even in counties with high overall supply, including San Francisco and Santa Clara counties.

Fourth, if welfare reform is going to work, many more individual child-care providers must be found. Counts of such individuals, subsidized through child-care vouchers, remain very low, even in zip codes where many women on welfare are transitioning into jobs. Governor Wilson and other policy leaders -- throughout the welfare reform debate -- have argued that vouchers maximize parental choice and supply responses to rising demand for child care as mothers move off public assistance. But vouchers will not automatically boost supply in preschool organizations.

Fifth, the empirical finding that supply is higher in zip codes with more churches is not entirely surprising. Many preschools and centers operate from churches, some administered by church authorities. Yet the finding suggests that local communities displaying greater cohesion and capacity to organize are more likely to expand their preschool programs. The flip-side is the fact that less cohesive communities have a difficult time organizing new child-care organizations -- raising funds, clearing regulatory hurdles, and attracting family clients. This may help to explain suppressed levels of supply observed among Latino communities -- containing populations that have grown rapidly following the community organizing heydays of the 1960s and 1970s when many Head Start centers and other child-care organizations were founded. Unless these organizing constraints are addressed, it becomes less likely that Latina women will be able to find child care and move from welfare to work.

Policy Suggestions

What can be done to reduce these sharp disparities in the likelihood that parents' can find early education and child-care places for their youngsters?

Inequities observed among counties can only be addressed through policy action in Sacramento. The legislature already requires the Department of Education to concentrate new monies on those counties with higher poverty levels and historically low levels of child-care supply. It is not clear, however, whether this attempt at equalization is keeping pace with parents' ability in more affluent counties to expand privately financed preschool programs. Private and local government investment should not be discouraged. But more assertive state action is required if the legislature wants to keep pace with the market dynamics which reinforce wealth-based disparities in availability.

The argument is heard that child-care dollars will increasingly follow parents -- via market oriented vouchers -- who are seeking early education and child care. This is partially true for women coming off welfare and moving into jobs. They will rely heavily on individual child-care

providers (at least when their infants and toddlers are less than 2 or 3 years of age). But if the policy goal is to boost early learning and development, expansion of formal preschools and center-based programs will be required.

State schools chief, Delaine Eastin, is exploring the possibility of universal preschooling for all 3 and 4 year-olds, similar to the French system. This effort could, over time, reduce the unequal access levels detailed above. Much of the local push for expanded preschooling is unrelated to rising maternal employment rates; instead it centers on middle-class and affluent parents' eagerness to raise their children's early development and school readiness. Vouchers will largely subsidize individual babysitters (serving impoverished children) who may, or may not, provide child-care settings of comparable quality. But unless gaps are closed in the supply of organized preschools and child care, California will continue to support a highly stratified early education system.

Concern is rightfully expressed over whether the early education and child-care system may drift toward a counter-productive form of centralization. But state agencies -- especially the Department of Education -- already make distributional decisions when they contract with preschools and centers, or when they target monies on the expansion of FCC homes. State contracts also are made with local agencies who distribute voucher funds to parents, be they welfare recipients, working-poor, or blue-collar families. These allocations are divided across counties as monies from the Department flow to "alternative payment contractors." The Department, following the 1980 legislation, has earnestly attempted to reduce supply inequalities and target monies on low-income communities. This effort has been partially successful. But until now, no agency has exercised the capacity to monitor how much progress has been made in equalizing the finance structure -- and the severity of remaining inequities.

Contained within Sacramento's 1997 welfare reform bill is funding to design a unified management information system, to be jointly developed between state education and welfare departments. One item high on this agenda should be the capacity to track how preschool and

child-care supply is changing over time -- for preschools, FCC homes, and individual subsidized providers. This should include an analysis of whether supply inequalities are shrinking as the system expands.

The legislature and state agencies continue to struggle with the question of whether constrained supply is the problem, or whether parental demand for early education should first be addressed. For Latino communities this goes back to the issue of whether families hold an *a priori* preference for having a parent stay home and out of the workforce, for relying on kin members for child care, or, instead, whether supply constraints are to blame for lower enrollment rates. We do know that preschool enrollment rates among Latino children rise with family income: middle-class Latino families pursue preschooling with greater vigor than low-income families (or the former group simply finds richer supply in their neighborhoods).[35]

What we do not know is whether spurring greater demand -- for example, through public information campaigns -- would result in supply gains, via expansion of preschools or FCC homes. Remember that poor and blue-collar families have insufficient purchasing power to push supply upward, as affluent parents are continuing to do. Focusing only on consumer information and demand-side policy strategies -- including the emphasis on vouchers -- will only frustrate parents if the supply and quality of child-care settings fail to rise.

Reducing supply inequalities within counties requires stronger *local* planning, as well. The recent welfare reform bill approved in Sacramento contains provisions aimed at strengthening local child-care advisory councils. This may aid efforts to expand preschool and child-care opportunities in communities where supply is particularly low. The data analyzed in this report were collected by the 61 local resource and referral agencies (often allied closely with their respective advisory councils). And we are seeing how these local agencies are working with their local data. Whether state-level agencies that allocate funds to local agencies will listen carefully to the distributional concerns of local councils remains to be seen.

These inequalities are difficult to tackle in part because the early education system is a highly decentralized patchwork-quilt, resulting from various policy aims pursued over the past five decades. The idea of universal preschooling is appealing, for it would guarantee that blue-collar and middle-class parents who now don't qualify for subsidies would have equal access to early education. At the same time, given scarce public resources, it is understandable why subsidies are targeted on low-income families, especially in the pressing context of welfare reform. But this plethora of policy aims and programs has resulted in several funding streams, confusion locally, and a segmentation of which types of parents and children qualify for different programs.

Finally, the welfare reform debate in Sacramento has rekindled debate over whether the early education system would benefit from more central planning, or is the answer more radical devolution and faith in market remedies. Historical decentralization has certainly resulted in a variety of preschool and child-care options. Local authorities are clearly empowered with wide discretion, within some bounds set in Washington or Sacramento. But thorough decentralization also has resulted in a non-system that displays gross disparities even in the basic availability of preschool and child-care programs. This report demonstrates that when the whole picture of supply and its distribution can be captured within a single frame, both the benefits and the costs of decentralization come into sharper focus.■

Endnotes

1. Hofferth, S. (1989) What is the demand and supply of child care in the United States? Young Children, July, 28-33. Government Accounting Office (1994) Child Care: Promoting Quality in Family Child Care. Washington D.C.: GAO/HEHS-95-36, December.

2. Kisker, E., Hofferth, S., Phillips, D., and Farquhar, E. (1991) A Profile of Child Care Settings: Early Education and Care in 1990. Princeton, N.J.: Mathematica Policy Research.

3. Kisker et al. (1991).

4. West, J., Hausken, E. G., and Collins, M. (1993) Profile of Preschool Children's Child Care and Early Education Program Experience. Washington, D.C.: National Center for Educational Statistics, NCES 93-133.

5. National Center for Educational Statistics (1997) The Baby Boom Echo: Here Come the Teenagers. Washington D.C.: United States Department of Education.

6. This analysis appears in: Siegel, P., Kipnis, F., and C. Schmidt (1997) The California Child Care Portfolio. San Francisco: California Child Care Resource and Referral Network. Primary sources of California data include: Bureau of the Census (1996) Who's Minding Our Preschoolers?" Washington D.C.: CPR, P70-53. Department of Finance (1996) "Population Projections, July 1996." Sacramento.

7. Siegel, Kipnis, and Schmidt (1997). As family demand continues to grow, the question of whether under utilized capacity often arises. Vacancy rates within FCC homes appear to be significant in some communities, although data are sketchy at best. Many women who run FCC homes often have children of their own and choose to serve a smaller group of children, well below their licensed capacity. Vacancy counts can change month to month, or simply suffer from poor reliability. One carefully constructed 1996 survey of centers in Santa Clara County found a vacancy rate equal to just 3 percent of all operating child slots. The vacancy rate in FCC homes, however, was 28 percent for preschool-age children (2-5 years of age) county wide. A similar survey in San Francisco, although limited by a low response rate, also revealed significant vacancy rates in FCC homes. Few report that they provide services during weekends or odd hours, early in the morning, or in the evening. This represents a serious obstacle for women on welfare who are being pushed into jobs that have evening or weekend shifts.

8. We use, as synonymous, the terms "child-care center" and "preschool." Most formal centers, be they financed through parental fees or government subsidies, offer a curriculum or set of learning activities. The old custodial care center in most cases has been upgraded to a richer preschool-like program (e.g., see findings on the curricular and programmatic character of centers in: Kisker et al. [1991]; Helburn, S. [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.

9. Singer, J., Fuller, B., Keiley, M., and Wolf, A. (1997) Early child care selection: Variation by geographic location, maternal characteristics, and family structure. Cambridge: Harvard University, Graduate School of Education (manuscript).

10. West et al. (1993).

11. For details on the federal government's initiatives, see: Kagan, S.L., Moore, T., and Bredekamp, S. (eds. 1995) Reconsidering Children's Early Development and Learning: Toward Common Views and Vocabulary. Washington D.C.: National Education Goals Panel.

12. Adams, G. and Poersch, N. (1994) State-by State Investments in Child Care and Early Education, 1994. Washington D.C.: Children's Defense Fund. Note that the way in which state matching funds are reported may vary. Stoney, L. and Greenberg, M. (1996) The financing of child care: Current and emerging trends, The Future of Children, 6, 83-102 (issue on financing child care).

13. Smith, S., Fairchild, M., and Groginsky, S. (1997) Early Childhood Care and Education: An Investment that Works. Denver: National Conference of State Legislatures.

14. A subsequent report on the quality of child-care providers in California is forthcoming. For national studies see: Helburn (ed. 1995); Galinsky, E., Howes, C., and Kontos, S. (1994) The Study of Children in Family Child Care and Relative Care. New York: Families and Work Institute.

15. Fisher, P. (1997) When mom gets a job, child care aid can't wait. San Jose Mercury News, August 31, p. 6P.

16. Casper, L. (1996) Who's Minding Our Preschoolers? Washington D.C.: Bureau of the Census (CPR-P70-53, March).

17. Casper, L. (1996), pp. 4-5.

18. In 1995 there were 7.4 million children living in families with incomes under $20,000 who were under age 6 nationwide. The number of preschool-age children in households with earnings over $75,000 equaled 2.2 million. See: West, J., Wright, D., and Hausken, E.G. (1995) Child Care and Early Education Program Participation of Infants, Toddlers, and Preschoolers. Washington D.C.: National Center for Educational Statistics (NCES 95-824).

19. West et al. (1995).

20. For review of these ethnic factors and their influence on Latino families' propensity to enroll their children in centers or preschools, see: Fuller, B., Holloway, S., and Liang, X. (1996) Family selection of child-care centers: The influence of household support, ethnicity, and parental practices. Child Development, 67, 3320-3337.

21. Fuller, B. and Liang, X. (1996) Market failure? Estimating inequality in preschool availability. Educational Evaluation and Policy Analysis, 18, 31-49.

22. Fuller and Liang (1996). The question of whether availability may be most constrained for working-poor, blue-collar, and middle-class families was first raised in the 1980s, as subsidies for low-income parents began to rise and affluent parents increasingly financed their own preschools through fees. Caught in between may be a large number of families who do not qualify for subsidies but can not afford high private fees. Within the new context of welfare reform, this picture becomes more complex. Supply in impoverished communities is low in part due to the lack of expressed demand by single mothers who did not have to go to work under old welfare rules. With this changing, demand for informal or organized child care will presumably rise in many poor neighborhoods. For an early review see: Whitebook, M., Howes, C., and Phillips, D. (1989) Who Cares? Child Care Teachers and the Quality of Care in America. Oakland, CA: Child Care Employee Project.

23. Siegel, G. and Loman, A. (1991) Child care and AFDC recipients in Illinois: Patterns, problems, and needs. St. Louis: Institute of Applied Research.

24. Edwards, J., Fuller, B., and Liang, X. (1996) Explaining inequality in preschooling: Local variation in family demand and organized supply. Economics of Education Review, 15, 149-161.

25. Our data on welfare participants come from December 1996 counts, when the program was still called, Aid to Families with Dependent Children (AFDC, now termed TANF, Transitional Assistance for Needy Families, at the federal level). Beginning January 1, 1998, the TANF program will be called CalWORKs (the California Work

Opportunity and Responsibility to Kids program).

26. Siegel, Kipnis, and Schmidt (1997).

27. This steady developmental work is detailed in *The California Child Care Portfolio*, published by the Network in early 1997 (Siegel, Kipnis, and Schmidt, 1997).

28. Appreciation is heartily expressed to Paul Smilanick in Sacramento for patiently and consistently providing these statistics.

29. Census Bureau data from CD-ROM and Website media. See: Bureau of the Census (1993) *Census of Population and Housing: Equal Employment Opportunity File* (CD90-EEO, CD-ROM). Washington, D.C.

30. Thanks are due Jack Hailey for educating us on the history of Sacramento's earlier attempts to equalize spending and child-care supply among counties. Currently about 70 percent of all early education funding going to the Department of Education is directed into contracts with preschools and child-care organizations. The remaining 30 percent goes into parental vouchers. This excludes child-care monies administered solely by the Department of Social Services.

31. Such cross-county disparities are attributable, in part, to historical differences in the ability of local governments and activists to organize and raise the funding necessary for expanding preschool and child-care programs, as well as how funding streams flow into these communities (e.g., Head Start funds are obtained from Washington, bypassing Sacramento). In addition, maternal employment rates vary among counties, leading to differential parental demand for child care; variable parental preferences among families who buy child-care services within the non-subsidized market; and ethnic variation, manifest largely in what proportion of Latino or Asian families express demand for child-care or preschool services.

32. Demographic Division, California Department of Finance, Sacramento.

33. Fuller, Holloway, and Liang (1996). Liang, X. (1996) Economic constraints, parental beliefs, or ethnicity? Explaining preschool enrollment in America. Unpublished doctoral dissertation, Harvard University. For review, see: Holloway, S., Fuller, B., Rambaud, M., and Eggers-Piérola (1997) Through My Own Eyes: Single Mothers and the Cultures of Poverty. Cambridge, MA: Harvard University Press.

34. Liang, X. (1996).

35. Fuller, Holloway, and Liang (1996).

Appendix 1. Comparison of Supply Means and Medians for Zip Codes in Four Counties

	Total child slots mean/median	Center slots mean/median	FCC home slots mean/median	Infant slots [centers] mean/median
Los Angeles [n=237 zips]	223/191	169/137	53/45	19/5
San Francisco [n=21 zips]	398/382	322/286	75/73	26/10
Santa Clara [n=43 zips]	361/369	253/242	106/104	45/36
Tulare [n=11 zips]	238/186	130/103	107/93	5/0

Note: Total child slots will not exactly equal the sum of center slots plus FCC home slots when data missing for one or more zip codes.

Appendix 2. Reduced Models Estimating Center and FCC Home Child Slots

[Four county and top 200 poorest zip samples; unstandardized ß coefficients and t-statistics]

	Four-County Zip Sample		Top 200 Zip Sample	
	Centers	FCCHs	Centers	FCCHs
Population & employment				
Child population (<6yrs)	.04	.06	.02	.01
	(1.39)	(5.05)***	(0.88)	(0.83)
Mothers employed	.21	.10	.16	.14
	(3.38)***	(3.96)***	(1.81)+	(3.35)***
Family demographics				
Child pop., black (<6yrs)	-.02	.02	.02	.05
	(-0.73)	(2.41)*	(0.75)	(3.04)**
Child pop., Latino (<6yrs)	-.11	-.09	-.06	-.03
	(-4.81)***	(-9.80)***	(-2.14)*	(-2.20)*
Education (% with 2 or 4 years of college)[1]	-104.2	10.91	340.6	882.7
	(-1.18)	(0.31)	(0.47)	(2.46)*
Community organization				
Churches	6.96	-.23	6.07	-.11
	(5.48)***	(-0.46)	(4.44)***	(-0.16)
Total equation				
Constant	131.4	-45.99	123.2	-224.1
F-value	27.86***	59.55***	4.64***	14.26***
df	9, 288	9, 288	29, 165	29, 164
Adjusted *r*-square including fixed county effects	.44	.63	.35	.66

*$p<.05$ **$p<.01$ ***$p<.001$ +$p<07$

1. For the 200 poorest zip codes, education is percentage of adult residents who have completed two years of college.

Table 1. Funding Increases for California's Preschool and Child-Care Program[1]

	FY 1987/88[2]	FY 1997/98
California Department of Education		
Preschool	$36,149,000	$121,042,000
Child Care Services	$200,331,000[3]	$826,295,000
Other Programs	$87,946,000[4]	$13,100,000[5]
California Department of Social Services		
CalWORKs & Other Supplemental Child Care Funding[6]		$182,237,000
Direct Child Care Services[7]		$29,444,000
Total Spending	**$324.4 Million**	**$1.17 Billion[8]**

1.) Data for FY 1987/88 from The Governor's Budget 1989-90, State of California, 1989, by Governor George Deukmejian: Data for FY 1997/98 from the CA Senate Office of Research, 1997-98 Child Care Budget: Education, 1997.
2.) The figures for FY 1987/88 do not report any possible transfer of funds from CDE to the CA DSS. The figures are shown as presented in the Governor's Budget.
3.) Child Care Services for FY 1987/88 refer to all comprehensive child development services for low income parents in work and training situations.
4.) Other Programs for CDE for FY 1987/88 include Campus Children's Center, High School Age Parenting, Migrant Day Care, Campus Child Care Tax Bailout, Protective Services Child Care Employment Act, California Child Care Initiative, Child Supervision Program and Extended Day Care.
5.) Other Programs for CDE for FY 1997/98 includes a minimum wage program for child care providers.
6.) Supplemental Programs for CA DSS for FY 1997/98 include CalWORKs Child Care, Cal-Learn Child Care, Child Care Administration and Community College Child Care Services.
7.) Direct Child Care Services for FY 1997/98 refer to all child development direct services, support services, and training.
8.) Of the total amount spent for Child Care Services within CDE and CA DSS combined for FY 1997/98, approximately 50% is for Contracts and 50% for the Alternative Payment Program.

Table 2. Factors Associated with Child-Care and Preschool Slots Among All Zip Codes in Four Counties
[*n*=298 zip codes; unstandardized ß coefficients and t-statistics reported]

	Centers and Preschools			Family Child-Care Homes		
	Model 1A	Model 1B	Model 1C	Model 2A	Model 2B	Model 2C
Population & employment						
Child population (<6yrs)	-.04	-.05	-.04	-.02	-.02	-.02
	(-2.85)**	(-2.48)*	(-2.37)*	(-3.62)***	(-2.15)*	(-2.69)**
Mothers employed	.37	.26	.24	.21	.18	.19
	(6.71)***	(4.09)***	(3.88)***	(7.98)***	(6.07)***	(7.33)***
Family demographics						
Female-headed households (%)	--	1140.2	1149.2	--	1303.0	1179.0
		(2.01)*	(2.12)*		(4.87)***	(4.99)***
Propensity to enroll in welfare program (residual estimate)	--	-107.9	-97.2	--	-24.1	-14.6
		(-5.30)***	(-4.97)***		(-2.50)*	(-1.71)
Education (% with 2 or 4 years of college)	--	-33.5	-89.1	--	1.75	-5.42
		(-0.37)	(-1.01)		(0.04)	(-0.14)
Population non-English speaking (%)	--	-861.2	-718.4	--	-872.4	-816.2
		(-4.13)***	(-3.54)***		(-8.85)***	(-9.23)***
Community organization						
Number of churches	--	7.58	7.76	--	.47	.80
		(6.47)***	(6.74)***		(0.86)	(1.60)
County membership (fixed effects)						
San Francisco	--	--	88.6	--	--	59.7
			(1.37)			(2.12)*
Santa Clara	--	--	272.9	--	--	136.6
			(5.74)***			(6.58)***
Tulare	--	--	-7.62	--	--	256.8
			(-0.09)			(6.97)***
Total equation						
Constant	237.6	234.9	201.4	36.45	32.07	-5.07
F-value	43.07***	28.61***	25.56***	57.29***	34.62***	40.43***
df	2, 295	7, 290	10, 287	2, 295	7, 290	10, 287
Adjusted *r*-square	.22	.39	.45	.27	.44	.57

*p<.05 **p<.01 ***p<.001

Note: Los Angeles County is the base for assessing fixed county effects.

Table 3. California's Poorest 200 Zip-code Communities

	Averages for 200 Zip Codes with Highest Counts of Families on Welfare, 1996
Median household income, 1990	$27,994
Percentage households earning under $13,000*	18%
Percentage of population, Latino	49%
Percentage of population, Black	15%
Number of churches operating	34

* Approximate poverty line for family of four in 1990.

Table 4. Factors Associated with Child-Care and Preschool Slots Among California's Poorest Zip Codes

[*n*=195 zip codes with highest counts of AFDC families and complete data; unstandardized ß coefficients and t-statistics reported]

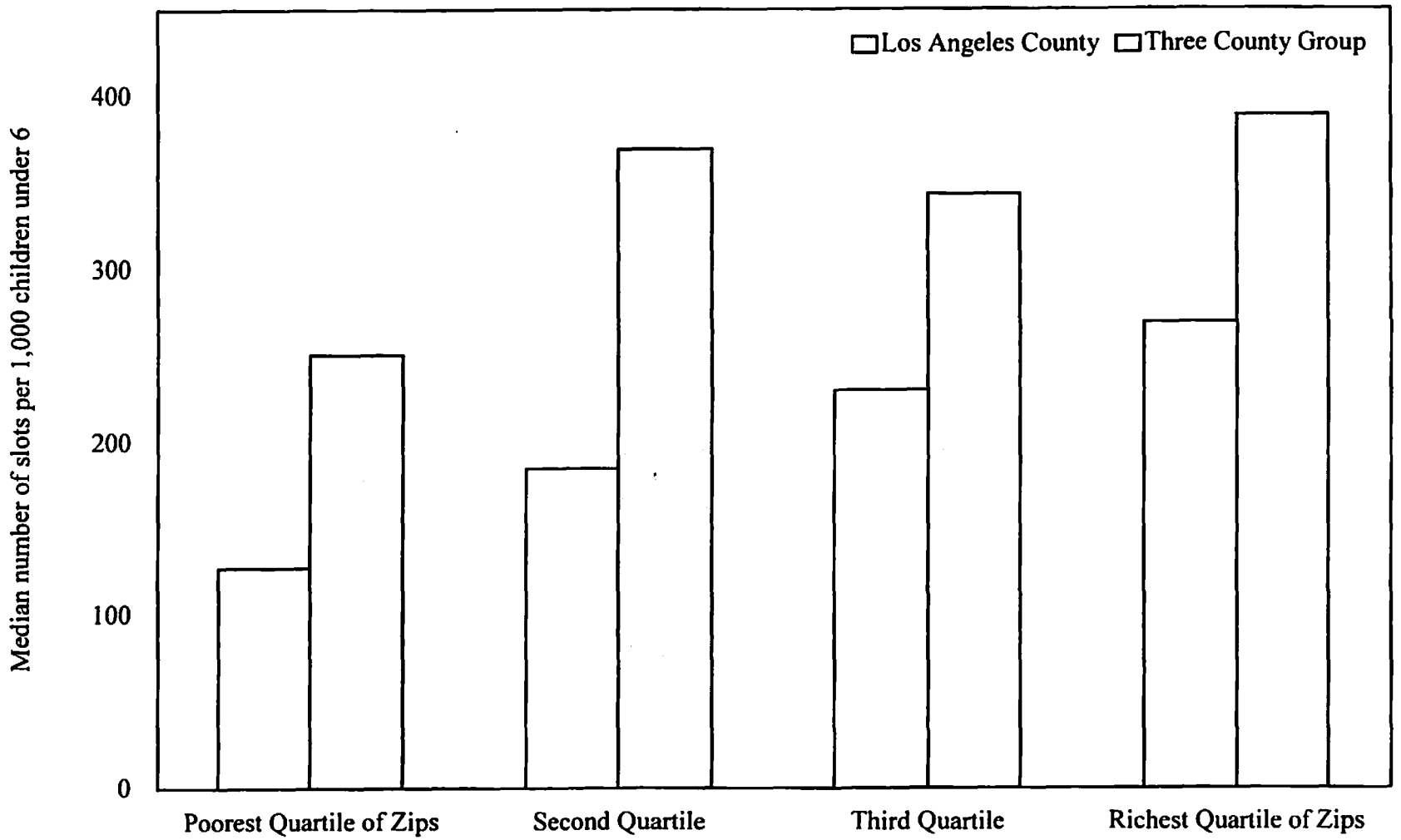
	Centers and Preschools			Family Child-Care Homes		
	Model 3A	Model 3B	Model 3C	Model 4A	Model 4B	Model 4C
Population & employment						
Child population (<6yrs)	-.004	.007	.002	-.04	.001	.001
	(-0.23)	(0.30)	(0.75)	(-3.26)**	(0.11)	(0.12)
Mothers employed	.18	.11	.13	.23	.11	.12
	(2.80)**	(1.34)	(1.32)	(5.55)***	(2.11)*	(2.34)*
Family demographics						
Female-headed households (%)	--	20.1	22.1	--	13.0	9.82
		(2.44)*	(2.44)*		(2.54)*	(2.10)*
Propensity to enroll in welfare program (residual estimate)	--	-52.8	-53.3	--	-6.22	-4.98
		(-2.04)*	(-1.87)+		(-0.38)	(-0.33)
Education (% with 2 years of college)	--	2011.1	2393.5	--	1726.2	1718.2
		(2.57)*	(2.82)**		(3.53)***	(3.91)***
Population non-English speaking (%)	--	-2.10	1.45	--	-4.37	-1.32
		(-0.48)	(0.29)		(-1.60)	(-0.51)
Community organization						
Number of churches	--	6.36	6.61	--	1.12	.85
		(5.12)***	(5.18)***		(1.45)	(1.28)
Total equation						
Constant	414.1	-419.2	-621.9	170.9	-403.6	-478.6
F-value	11.13***	14.53***	4.55***	18.46***	23.37***	12.09***
df	2, 192	7, 187	30, 164	2, 191	7, 186	30, 163
Adjusted *r*-square	.10	.32	--	.15	.44	--
Adjusted r-square with fixed county effects	--	--	.35	--	--	.63

Asterisks indicate statistical significance: *p<.05 **p<.01 ***p<.001

Note: Los Angeles County is the base for assessing fixed county effects.

Figure 1. Child-Care Supply in Rich and Poor Communities

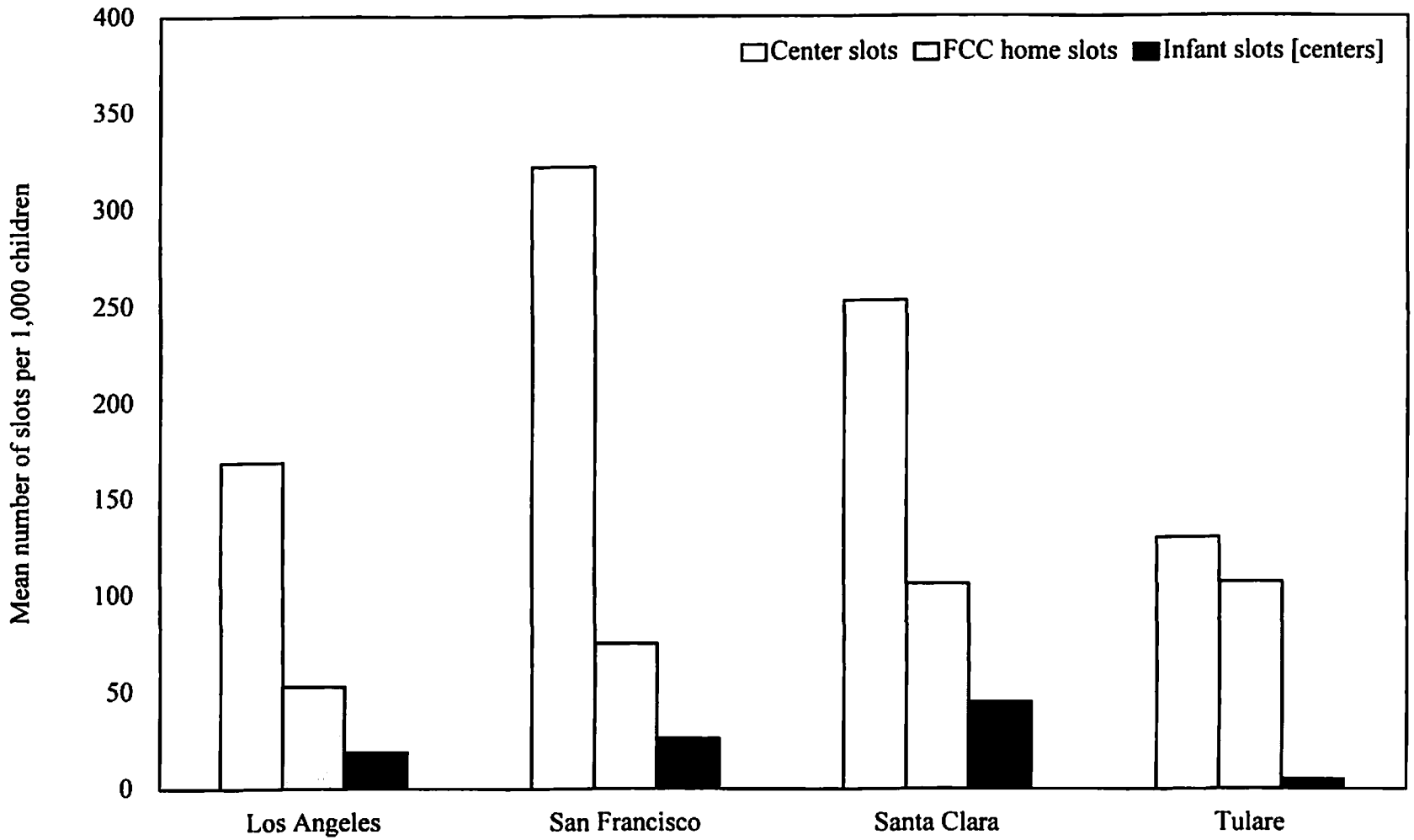
Total child slots (capacity) per capita in centers, preschools, and family child-care [FCC] homes combined by community economic status



Note: Medians are reported to moderate the effect of low and high values on averages. The total number of zip codes equals 237 for Los Angeles county, 43 for Santa Clara county, 21 for San Francisco county, and 11 for Tulare county. The poorest zip codes are those with median household incomes below $29,255 (in 1990); second quartile, $29,256-$36,990; third quartile, $36,991-$46,697; and richest quartile of zips, $46,698 and above.

Figure 2. Cross-County Differences in Child-Care Supply

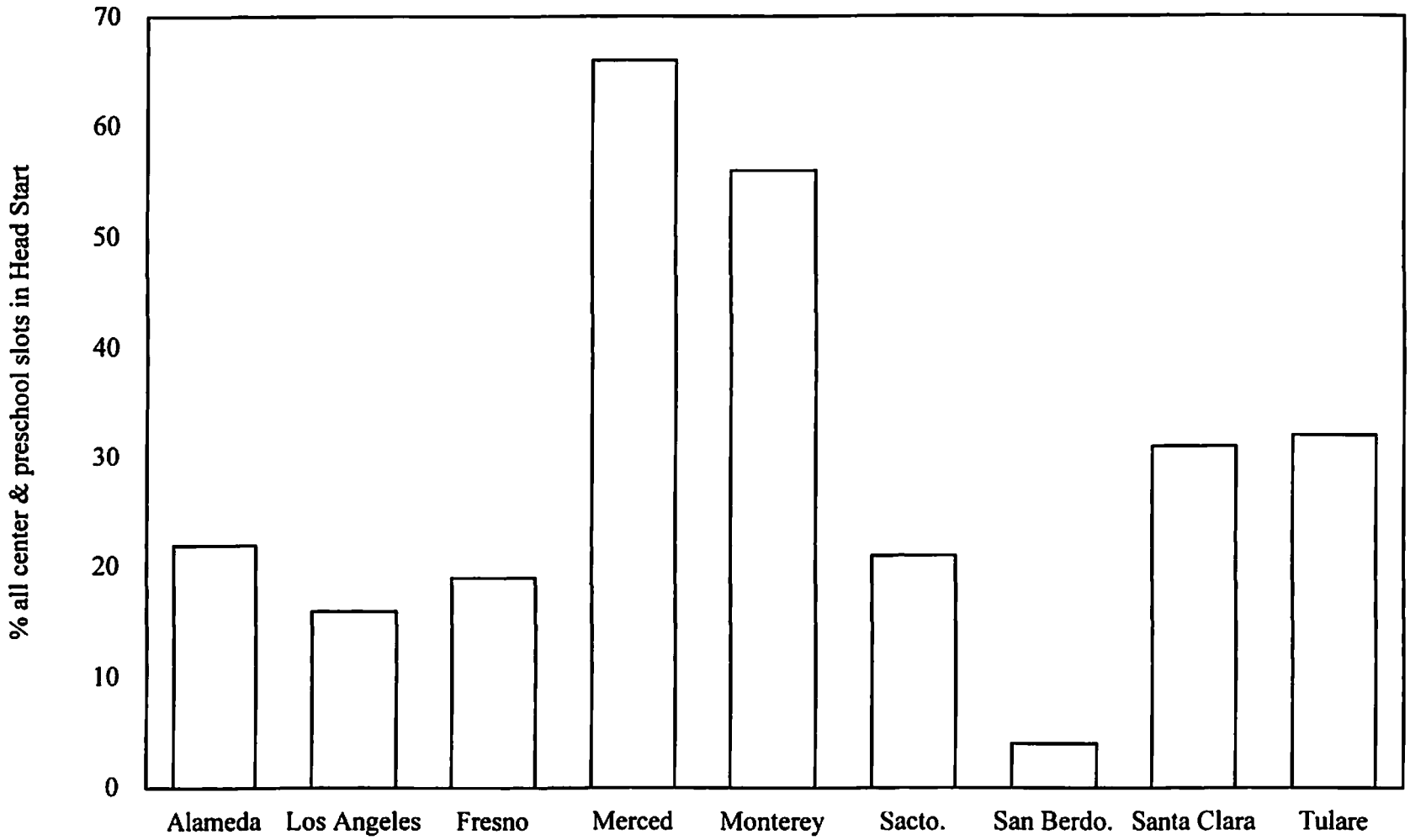
Child slots per capita in centers, preschools, and family child-care [FCC] homes



Note: See text for differences in median and mean values. Total number of zip codes equals 237 for Los Angeles county, 43 for Santa Clara county, 21 for San Francisco county, and 11 for Tulare county. The ratio of infant slots is for centers only and uses number of resident children, age 2 years and younger, in the denominator.

Figure 2B. Share of Center and Preschool Slots Located in Head Start Programs

% of all child slots [capacity] in child-care centers or preschools for poorest zip codes

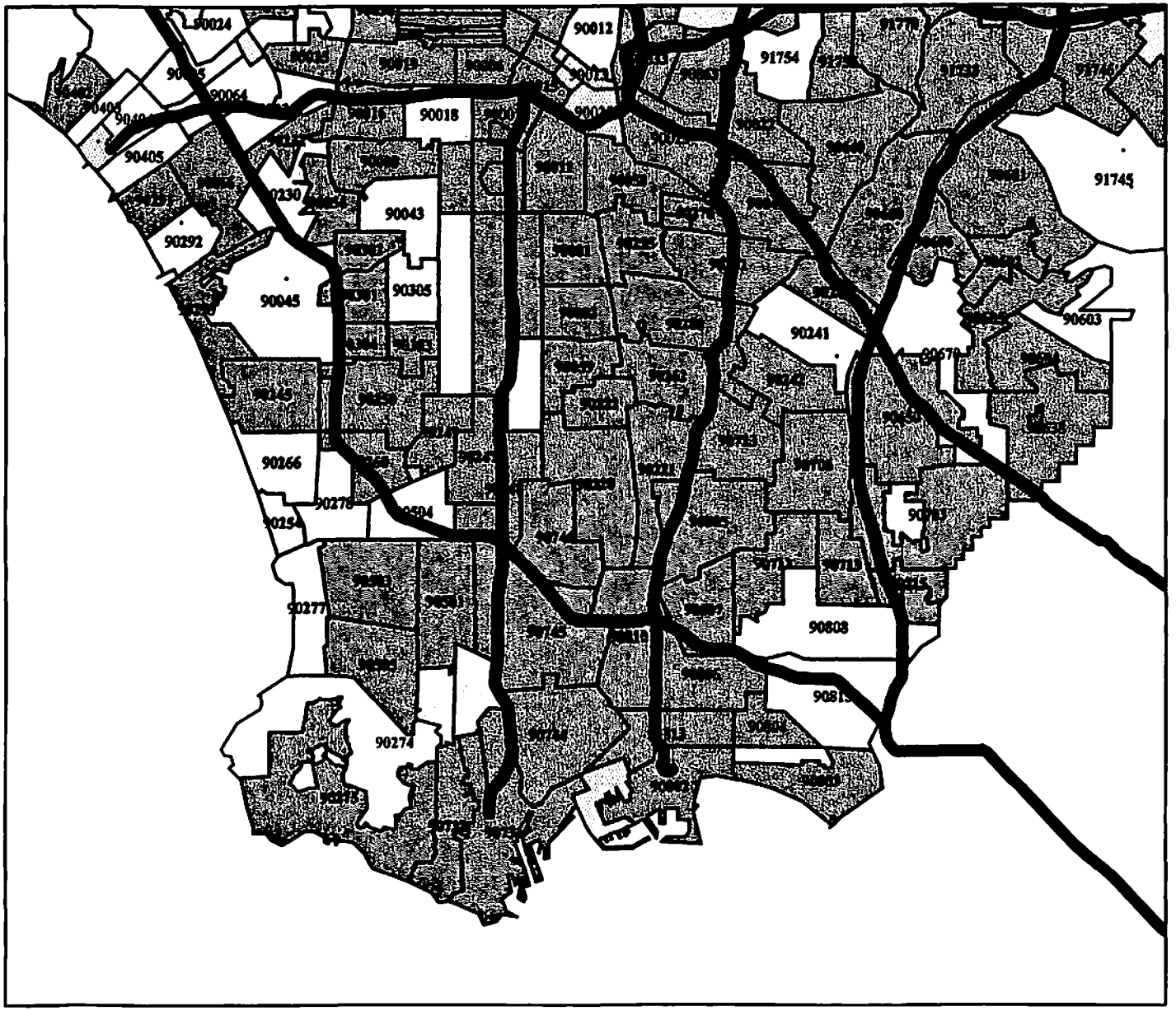


Note: Zip codes included if they are among the top 200 in terms of numbers of families receiving AFDC assistance in December, 1996. Six zip codes within Alameda County are among the top 200 poorest areas; 83 are in Los Angeles County; 8 in Fresno County; 2 in Merced County; 2 in Monterey County; 10 in Sacramento County; 15 in San Bernardino County; 5 in Santa Clara County; and 3 in Tulare County.

Southern Los Angeles County: Variation in Supply of Center Slots

Center Slots Licensed for Under 6 per 1000 Children Under 6

Source: California Child Care R&R Network and PACE



Center slots < 6 per 1000 Children < 6

.00 to	200.00
200.00 to	500.00
500.00 to	700.00
Missing	

Figure 3 South

[L.A. County]

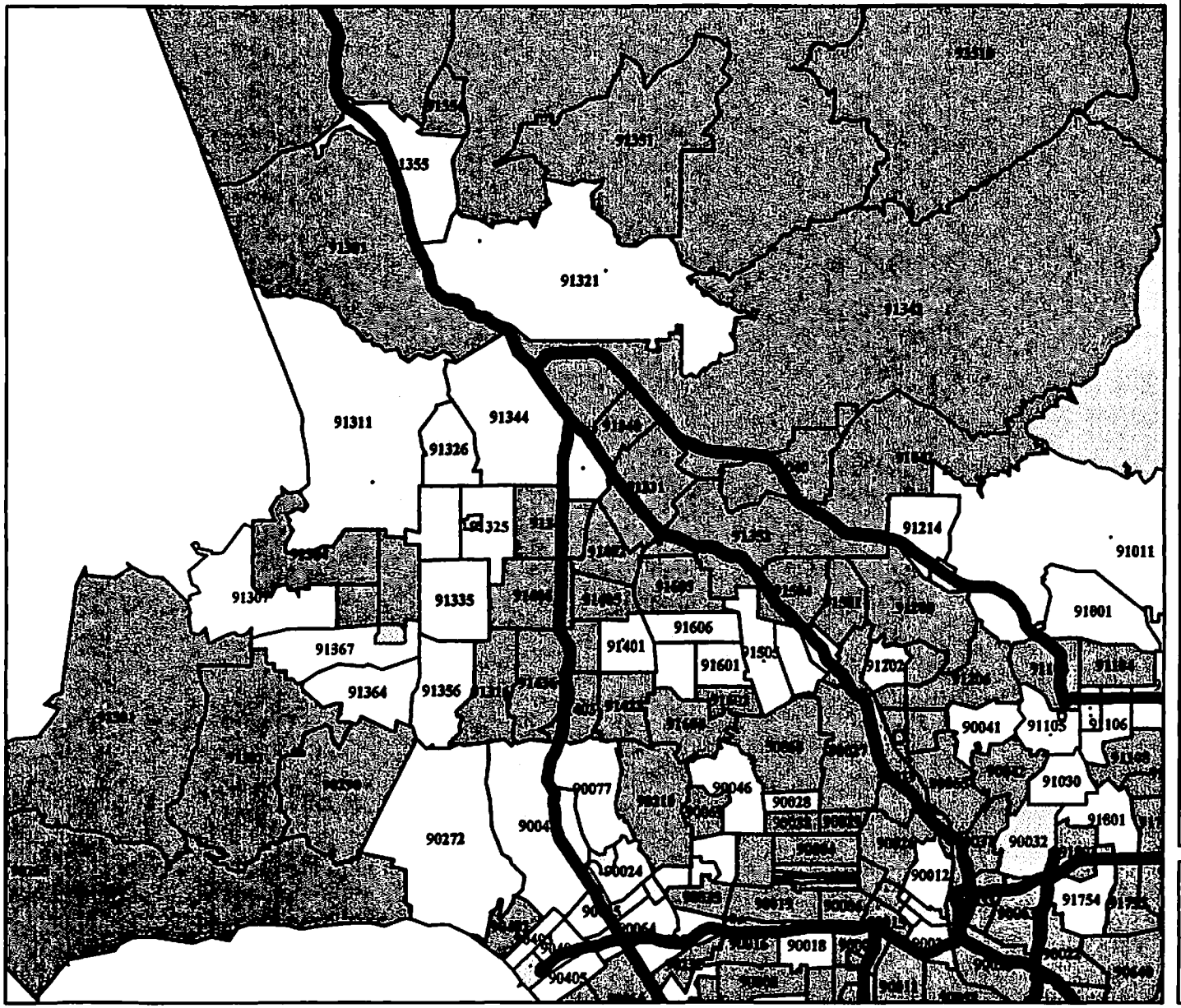
Miles

0 2 4

Northwest Los Angeles County: Variation in Supply of Center Slots

Center Slots Licensed for Under 6 per 1000 Children Under 6

Source: California Child Care R&R Network and PACE



Center slots < 6 per 1000 Children < 6

.00 to	200.00
200.00 to	500.00
500.00 to	700.00
Missing	

Figure 3 North

[L.A. County]

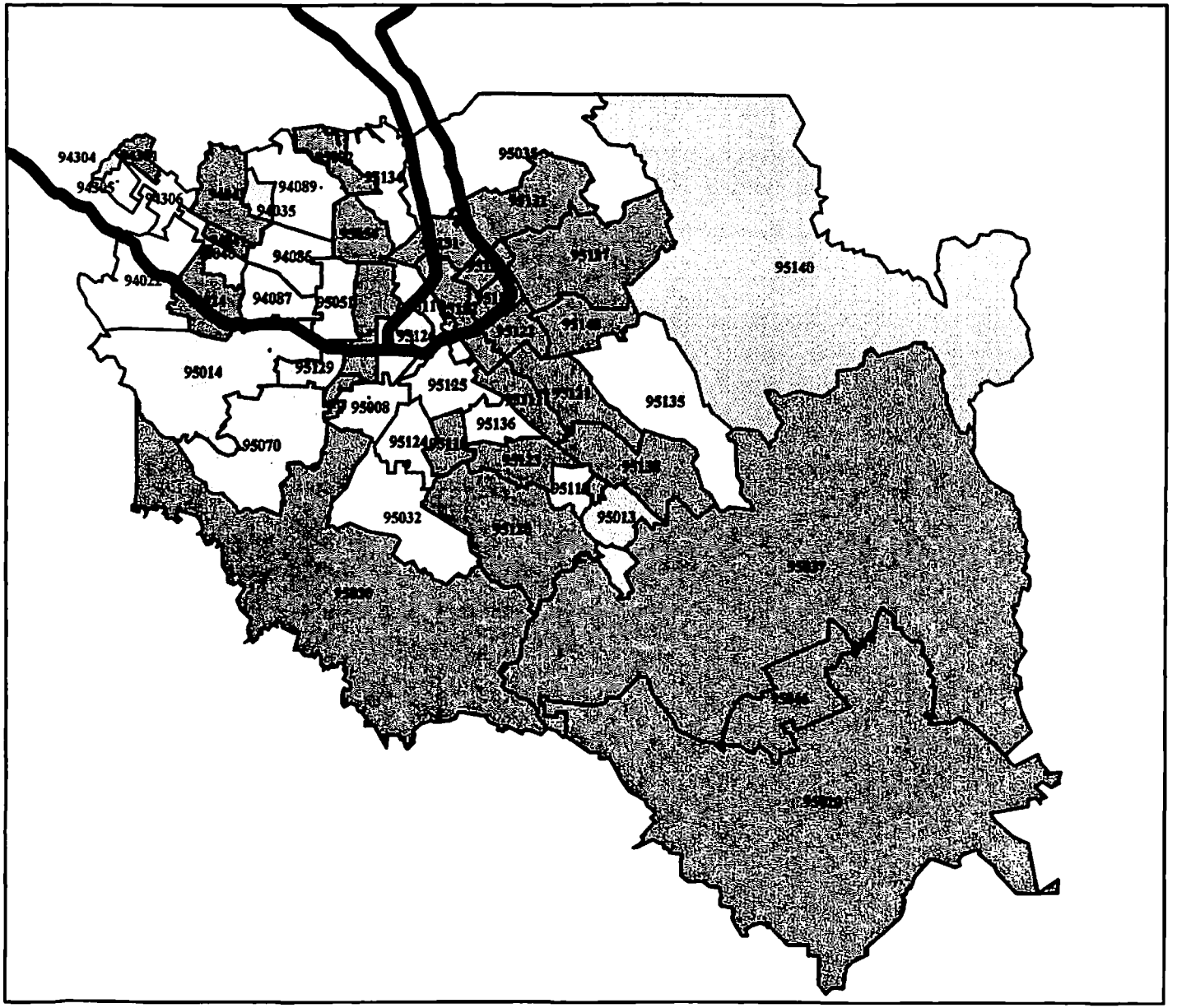
Miles

0 5 10

Santa Clara County: Variation in Total Child Care Supply

Total licensed slots for under 6 per 1000 children under 6

Source: California Child Care R&R Network and PACE



Total licensed slots < 6 per 1000 children < 6

- 50.00 to 300.00
- 300.00 to 600.00
- 600.00 to 1000.00
- Missing

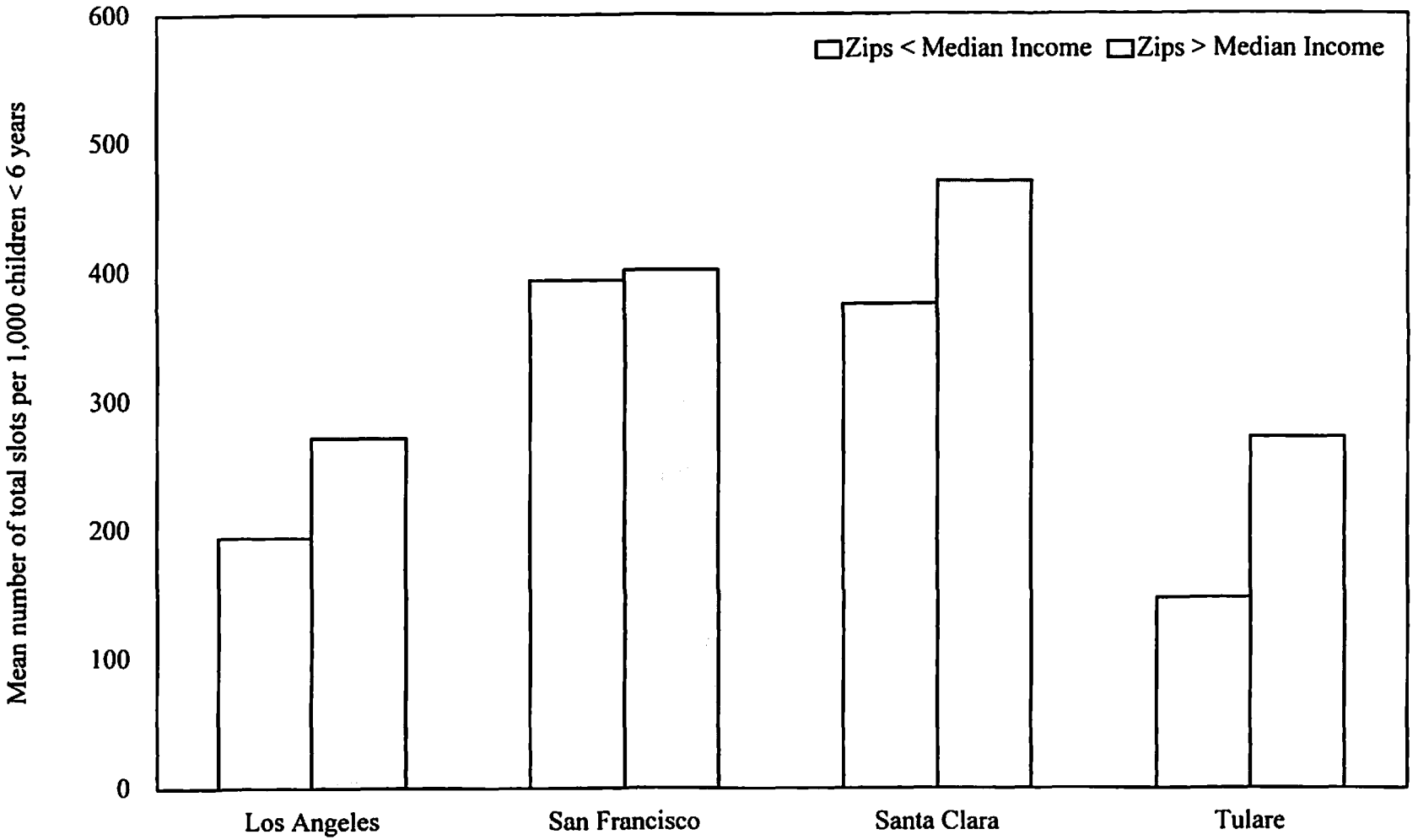
Figure 4

Miles

0 5 10

Figure 5. Within-County Disparities in Child-Care Supply by Community Income Level

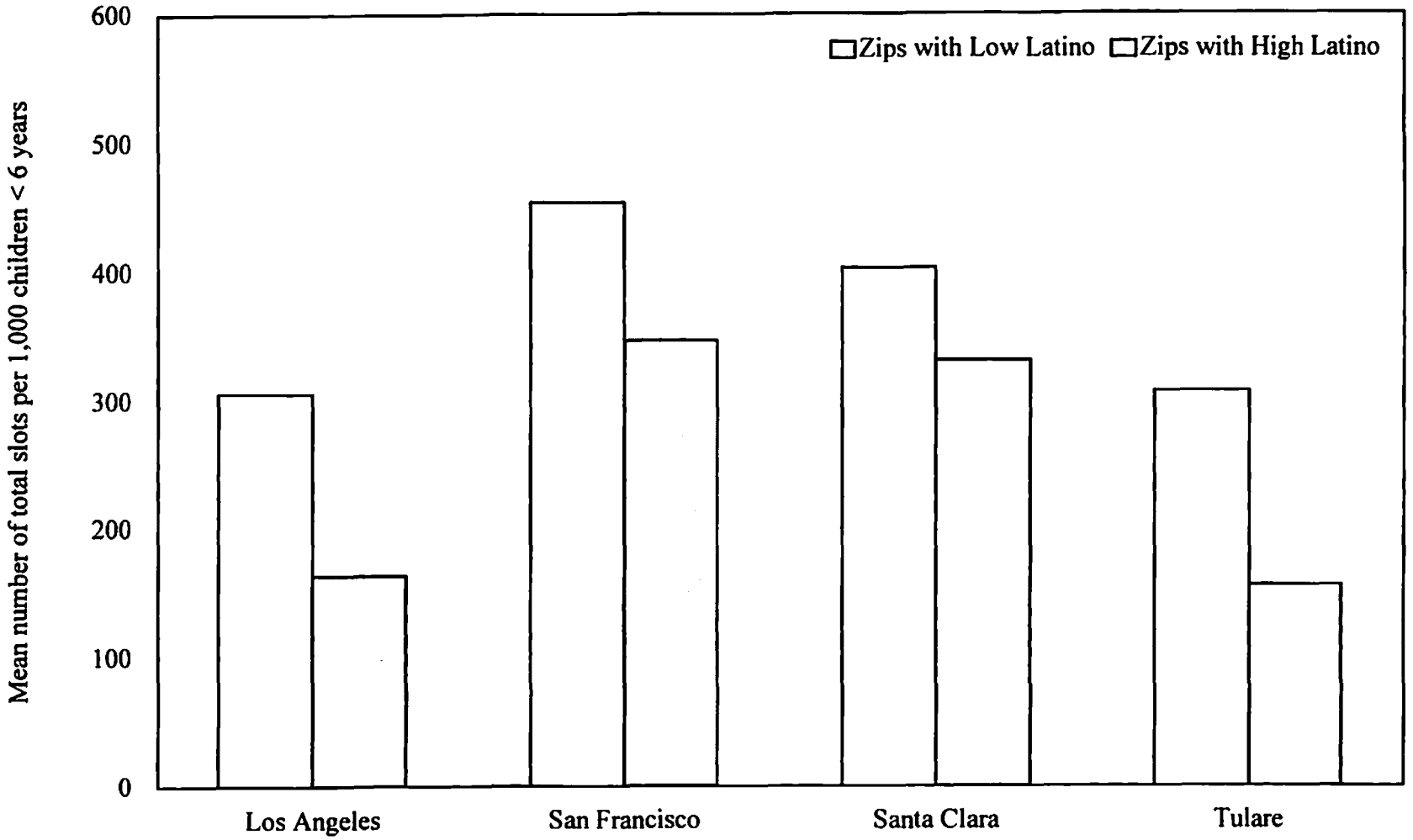
Total child slots per capita in centers, preschools, and family child-care [FCC] homes



Note: Income splits for each county are used, drawing from median household income for all zip codes with complete data. Total number of zip codes equals 237 for Los Angeles county, 43 for Santa Clara county, 21 for San Francisco county, and 11 for Tulare county.

Figure 6. Within-County Disparities in Child-Care Supply, Split by Concentration of Resident Latino Families

Total child slots per capita in centers, preschools, and family child-care [FCC] homes



Note: Zip codes are split between those with low and high percentages of resident Latino families, along medians calculated separately for each county. Total number of zip codes equals 237 for Los Angeles county, 43 for Santa Clara county, 21 for San Francisco county, and 11 for Tulare county.

Figure 7. Factors Driving Local Preschool and Child-Care Supply

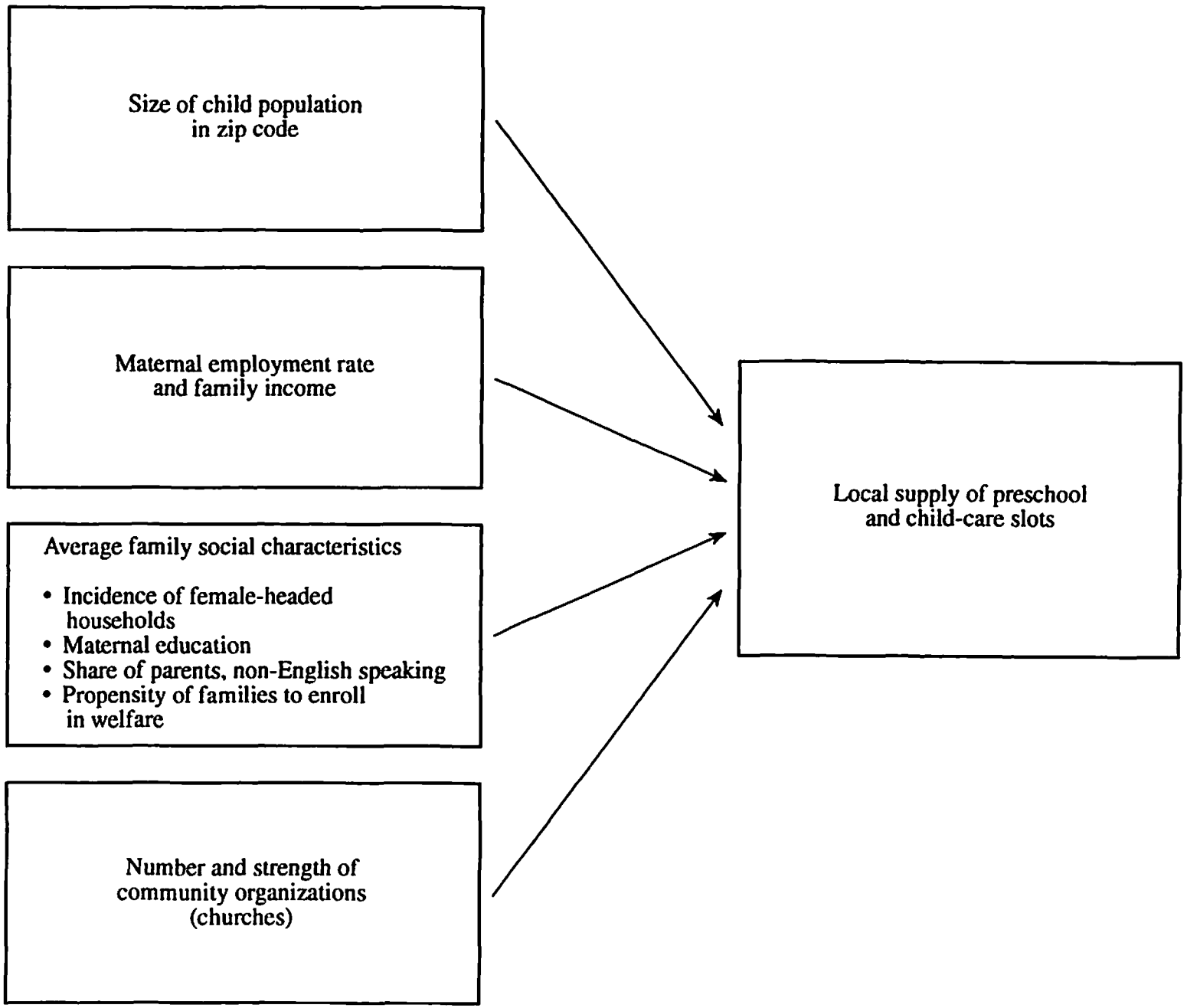
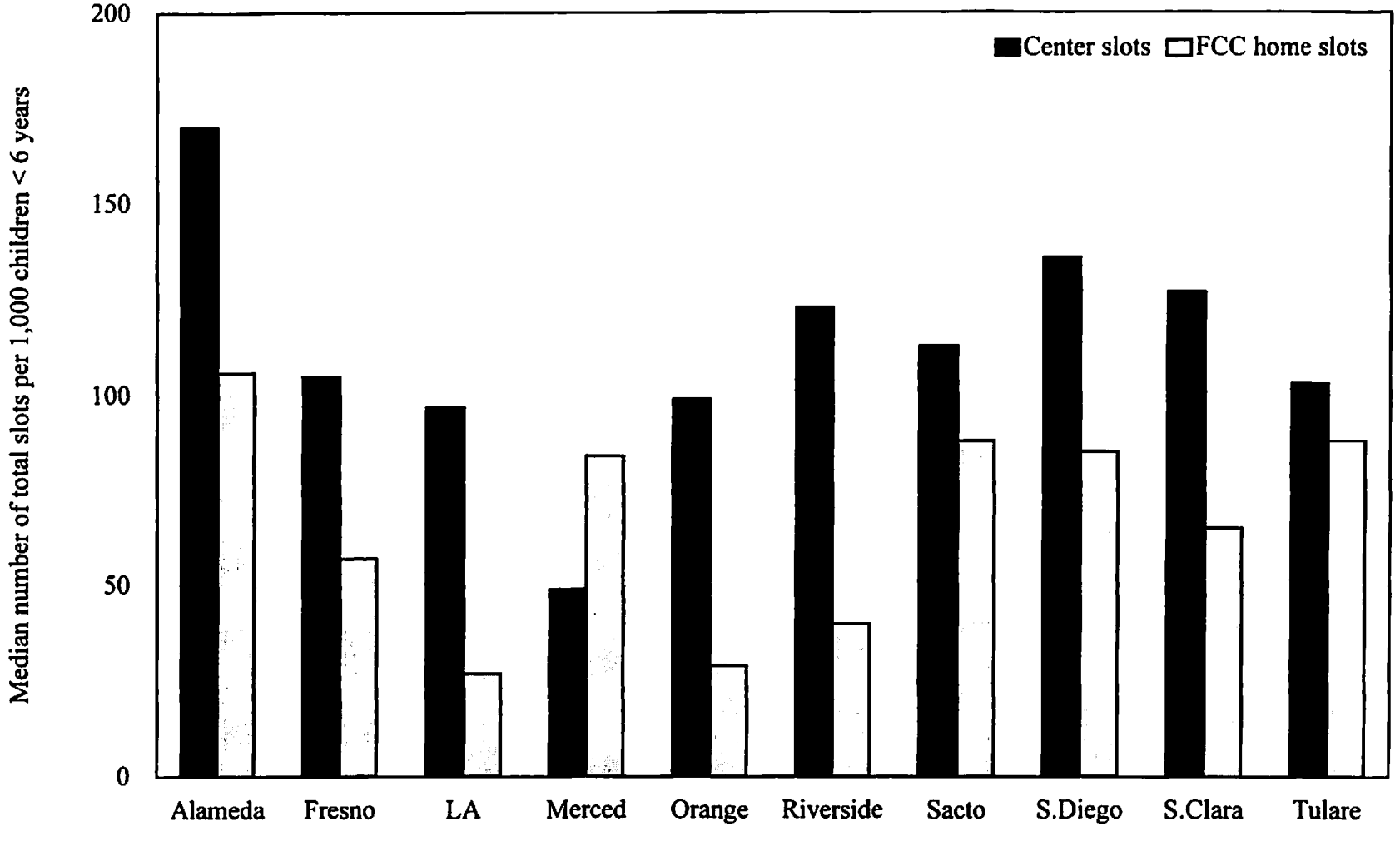


Figure 8. Cross-County Disparities in Supply for 200 Poorest Zip Codes

Child slots per capita in centers, preschools, and family child-care [FCC] homes

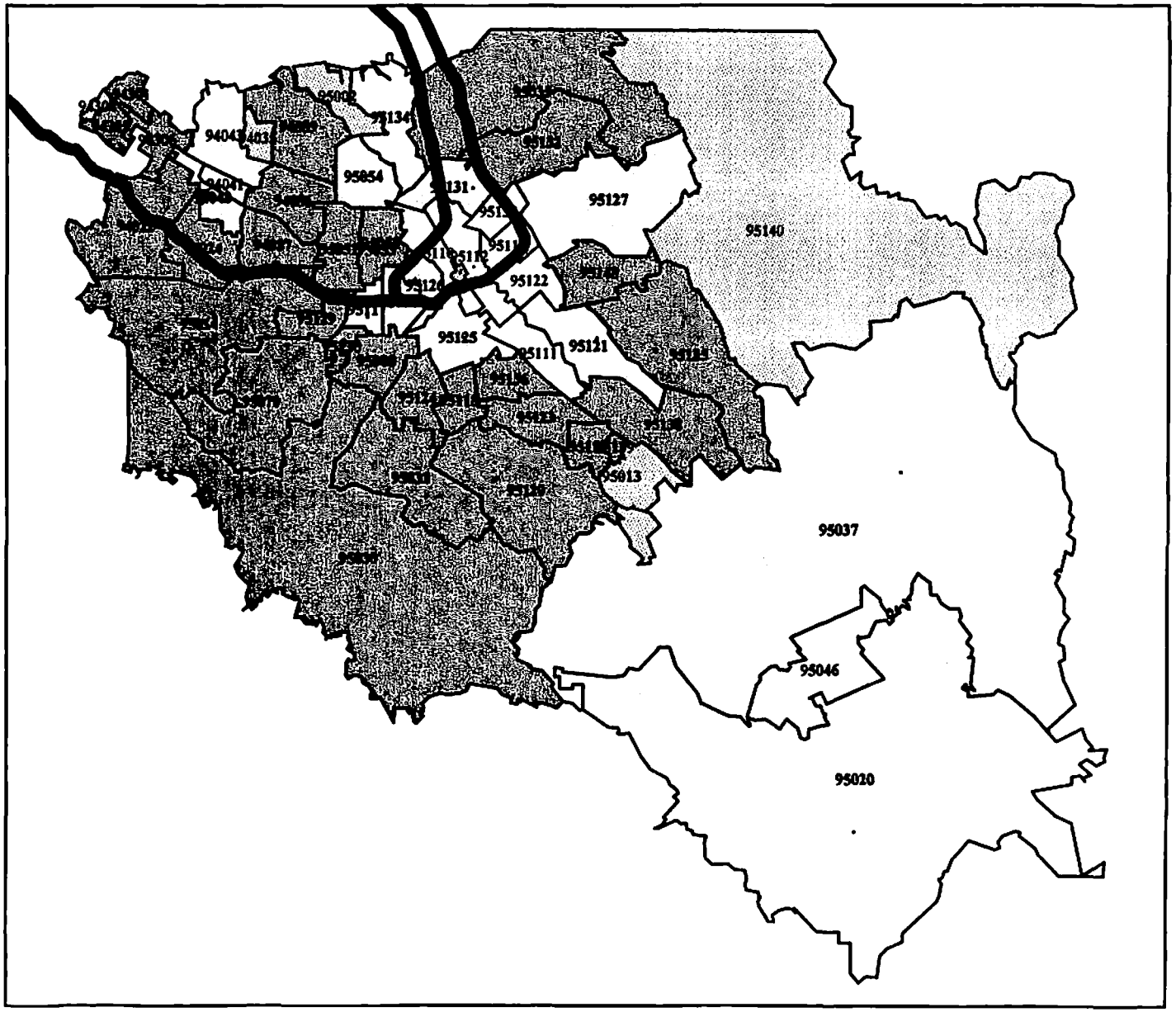


Note: Medians reported due to small numbers of zips among the top 200 AFDC zips in some counties. Total number of zips equals 6 for Alameda county, 8 for Fresno county, 85 for Los Angeles county, 4 for Merced county, 7 for Orange county, 9 for Riverside county, 10 for Sacramento county, 16 for San Diego county, 5 for Santa Clara county, and 3 for Tulare county. For Merced county, only two zip are reporting data on FCC homes.

Santa Clara County: Variation in Supply of Family Child Care Home Slots

AFDC Children Under 6 per Family Child Care Home Slot

Source: California Child Care R&R Network and PACE



AFDC Children < 6 per FCCH Slot

- .00 to 1.00
- 1.00 to 4.00
- 4.00 to 10.00
- Missing

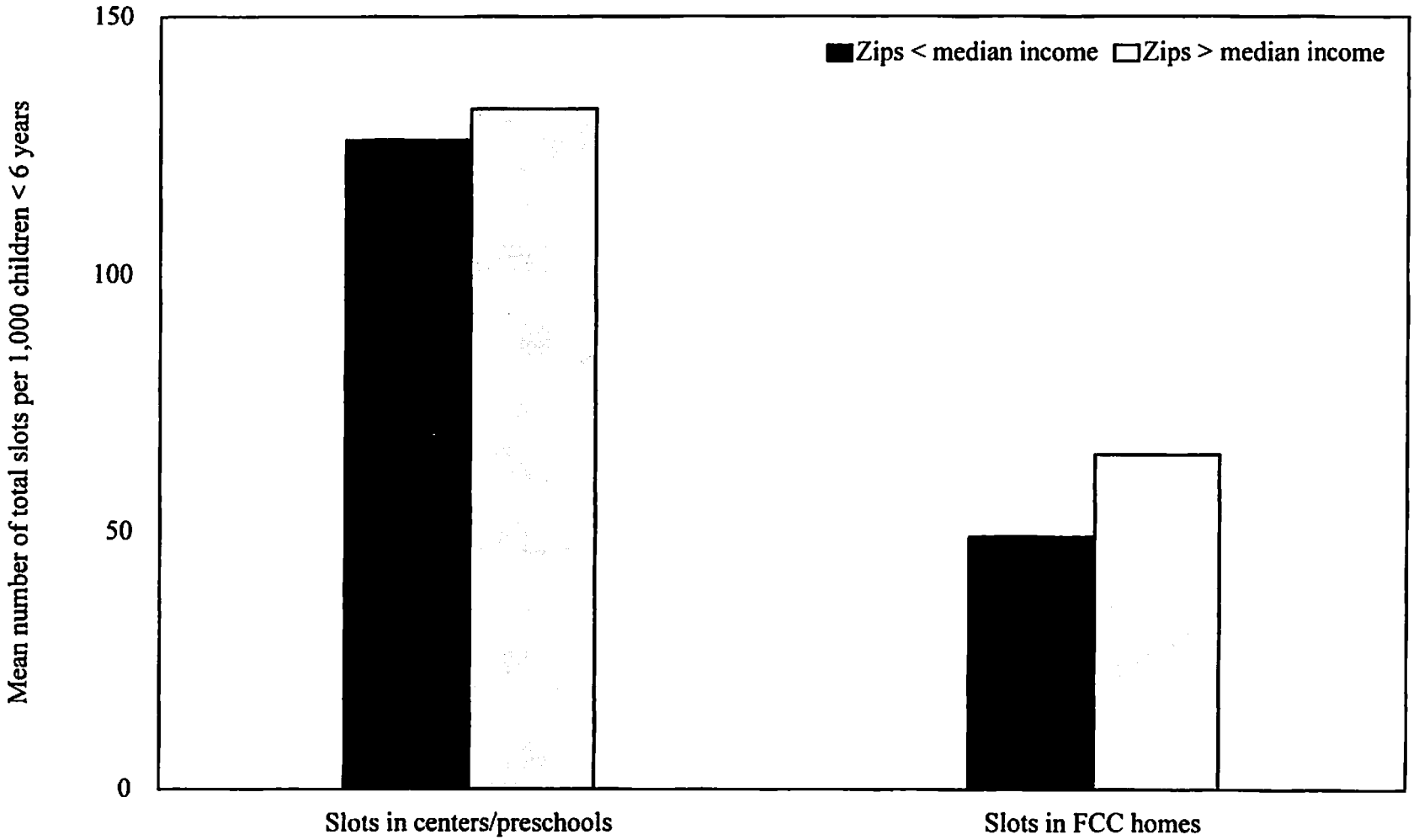
Figure 9

Miles

0 5 10

Figure 10. Slight Gap in Supply Among the Top 200 AFDC Zip Codes, Split by Family Income

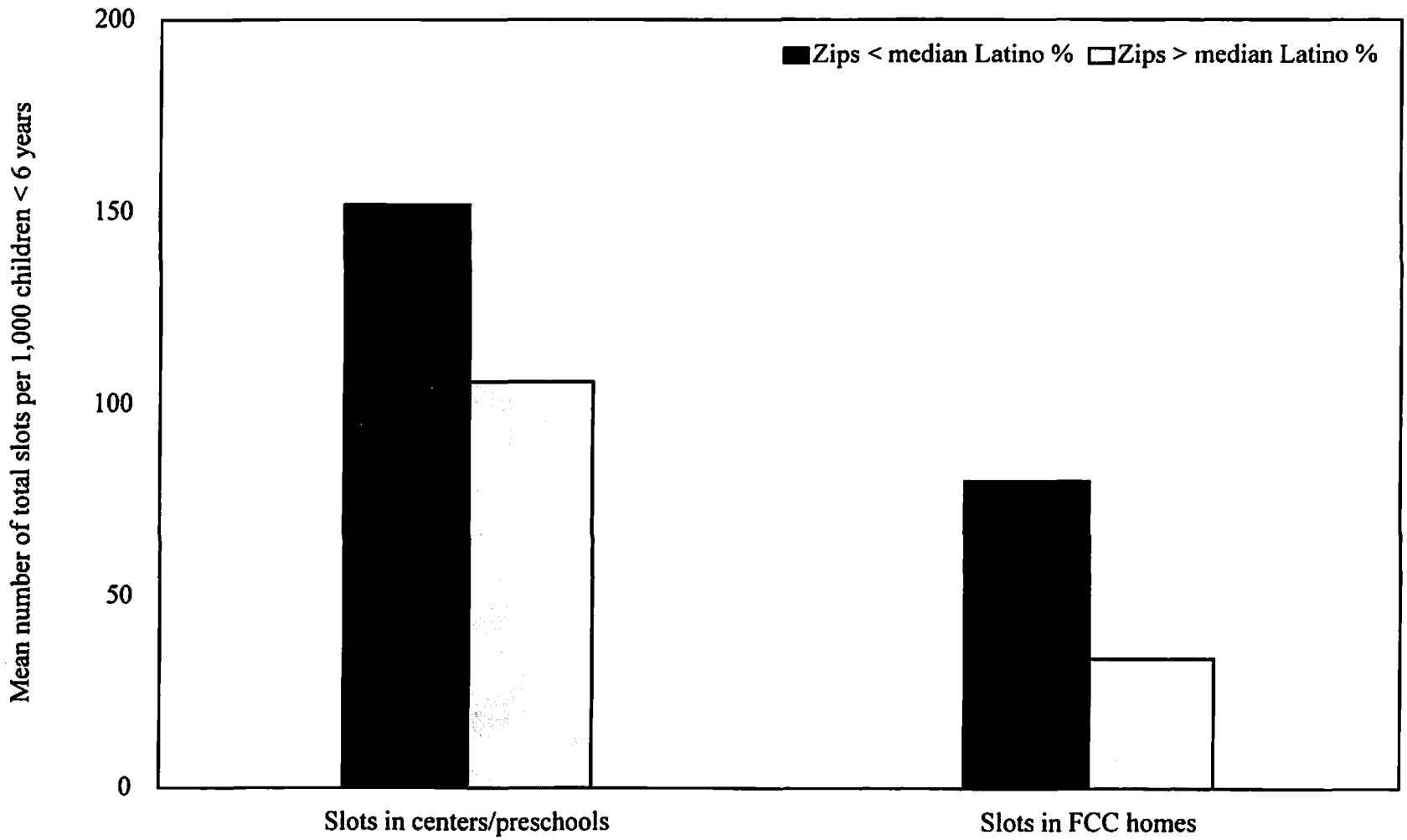
Child slots per capita in centers, preschools, and family child-care [FCC] homes



Note: Zip-code communities split by the median household income observed among the top 200 AFDC zips.

Figure 11. Gap in Supply Among the Top 200 AFDC Zip Codes, Split by Latino Concentration

Child slots per capita in centers, preschools, and family child-care [FCC] homes



Note: Zip-code communities split by proportion of resident families, Latino.