

PACE WORKING PAPER SERIES 03-1

Targeting Investments for Universal Preschool

Which Families to Serve First?

Who Will Respond?

Policy Analysis for California Education
University of California and Stanford University

2003

WORKING PAPER SERIES 03-1

Targeting Investments for Universal Preschool

Which Families to Serve First?
Who Will Respond?

Bruce Fuller
Danny Shih-Cheng Huang

University of California, Berkeley and Davis
Stanford University

2003



Policy Analysis for
California Education
PACE

Table of Contents

Summary—How to Best Focus Investments?	1
Institutional Backdrop—Family Access to Uneven Child-Care Options	2
Little Growth in Preschools and Centers	2
Enter the Idea of Universal Preschool	3
The Merits and Risks of Alternative Strategies	4
Three Targeting Strategies to Expand Preschool Access	6
Focus on Communities with Low School Achievement	7
Focus on Communities with Low Supply	7
Focus on Communities with High Pent-up Demand	12
Comparing Who Benefits Under Alternative Strategies	18
Policy Implications	18
Endnotes	20

Summary—How to Best Focus Investments?

Several states are extending access to preschool for a widening range of families. Georgia has made dramatic progress toward providing preschool slots for all three and four-year old children. Illinois, New Jersey, and New York have taken steps to broaden access, slowed by the economic recession and shifting government priorities.

California may be joining these states. Two blue-ribbon panels have urged the state to create a plan for moving toward universal preschool (UPS), focusing first on low-income families. The proposed master plan for education, recently translated into legislation, calls for incremental implementation of UPS. Los Angeles and San Mateo counties have allocated funds for concerted planning efforts.

It remains doubtful whether Sacramento or local counties can move forward until the state budget picture improves, not to mention concern over the federal budget picture.

Recent history offers a more upbeat picture, suggesting that political will behind preschool access will continue to grow. California steadily pumped new dollars into child care and preschool programs until the recent downturn, rising from \$800 million in 1996 to \$3.1 billion in the 2002-03 fiscal year. Yet much of this spending growth went for license-exempt child care, allowing preschools and center-based programs to barely keep pace with the state's growth in child population.¹

As state and local advocates advance the idea of UPS, their efforts are unfolding under tenuous economic conditions and long-term constraints on public financing. Initial capital for

preschool expansion is coming from First 5 Children and Family commissions. But any sustainable move toward a more accessible, higher quality network of preschool programs would require program realignment and investment at the state level.

This paper, then, asks—How might public funds be effectively targeted to yield strong enrollment demand by parents and discernible effects on young children's early development and school readiness?

We aim to illuminate how state and local planners might weigh the pluses and minuses of differing targeting priorities. We do not to advocate a particular policy. For instance, Los Angeles County—which has allocated \$100 million for UPS—could focus new investments on

- Communities with the *lowest performing students* on standardized tests, scores which are tightly correlated with neighborhood wealth or poverty.
- Communities with the *lowest supply of preschool slots* for young children, neighborhoods that may be poor or working class in composition.
- Communities where the *pent-up demand* for preschool is highest, that is, neighborhoods where family demand outstrips current supply.

This paper analyzes how these alternative targeting mechanisms—if applied to Los Angeles County—would yield differing allocations to various communities.

The risks associated with not entertaining alternative targeting methods are great. Scarce public dollars could be inefficiently spent, for example, directed to communities where an excess supply of preschool programs already exists (given current levels of family demand). In addition, early efforts to broaden

preschool access will hopefully yield a strong *demand response* from parents who are eager to enroll their children. Yet funding could be allocated to communities where few families respond, due to low maternal employment rates or tepid responses by certain groups of parents.

Current patterns of family demand, in part, are conditioned by supply conditions. That is, unless families have the option of quality center-based programs, they cannot express demand for it. Yet if additional preschool slots were created, the demand response would be unequal across communities, given that maternal employment, parent education, and family structures vary—factors that have been shown to contribute to demand for preschool programs.²

While the present paper utilizes local data from Los Angeles County, we illustrate how policy makers and planners might think through allocation options—estimating how particular communities and families benefit more, or less, under different targeting strategies. We discuss the advantages of experimenting with alternative expansion strategies, rather than investing exclusively in one method.

This paper is organized in the following manner: We briefly describe the current institutional arrangements and financing streams that support the state’s current network of preschool organizations, family child-care homes (FCCHs), and individual caregivers, increasingly subsidized via child-care vouchers.

For each of the three targeting strategies, we describe which Los Angeles communities (zip-code areas) would benefit most, compared to those that would benefit least. We show that alternative allocation strategies can yield quite different effects among low- and middle-income communities. We also consider the *a priori* criteria that might be used in judging the wisdom of targeting options.

Institutional Backdrop—Family Access to Uneven Child-Care Options

In California, great strides have been made in widening family access to child care. Spending from Sacramento on preschool and child-care programs has almost quadrupled since 1996, rising from \$800 million to \$3.1 billion annually in the current fiscal year. This excludes federal Head Start funding that climbed steadily until recently.

Little Growth in Preschools and Centers

Surprisingly little is known about what families and taxpayers are getting in return from this rising investment. We do know that many more families now benefit from public support that pays for center-based care and individual providers, often kith or kin members who care for young or school-age children. The number of low-income families in California who benefit has risen by at least a quarter million since the 1996 reforms in family policy, advanced by Washington and Sacramento.³

Much of this new funding reimburses individual caregivers who serve low-income parents, many who are moving off the welfare rolls and into jobs. Center-based programs—including state preschools, so-called contracted centers, and programs in middle-class communities—have benefited comparatively little from this rising public investment. The number of preschool slots per 100 children, age 0-5 years-old, rose from 13 to 14 between 1996 and 2000.⁴ This includes both subsidized programs and preschools that rely on parental fees for operating revenues. In short, the preschool sector was able to stay just a bit ahead of child population growth during a period of unprecedented growth in child-care spending—while remarkable growth occurred in unlicensed, individual care.

Two pieces of good news include the fact that California continues to focus its public investment on low-income and working-class families—where effects on children’s early development and school readiness appear to be the greatest.⁵ Inequities in basic availability remain stark: preschool enrollment capacity is up to four times higher in affluent Los Angeles communities, for example, compared to poor neighborhoods, as detailed below. But progress has been made in reducing these gaps. We will even see how excess capacity may be outstripping current levels of parental demand in some poor areas of Los Angeles.

The other encouraging finding is that Sacramento’s quality standards and monitoring practices are resulting in relatively high quality among preschools situated in some of the state’s poorest communities. Unlike the public schools, quality is not always correlated with community wealth or poverty when it comes to preschool programs. Two recent studies of quality, conducted in Los Angeles, Santa Clara, and San Francisco counties reveal that class sizes, staffing ratios, and teacher qualifications are often stronger in preschools that are subsidized and regulated by the state education department, compared to independent preschools in middle-class areas that must live off of parent fees.⁶ And the quality of these center-based programs yields stronger effects on children’s early cognitive growth and language development, compared to children spending their days exclusively with home-based caregivers.⁷

Enter the Idea of Universal Preschool

California’s early architects of universal preschool (UPS) are beginning to seriously ask, *Which families should first benefit from improved access to quality programs?* Resources will likely remain tight for years to come. Universal financing of preschools—extending full-day kindergarten, for example, down to three and four year-olds—would be regressive, granting public support

to affluent families who currently pay their own way. And some evidence shows that preschool supply is sometimes lower in working and lower-middle class communities, not in the poorest neighborhoods.⁸ So, the issue of how best to target constrained funding on types of communities or families becomes pivotal.

The policy issue of *who* should initially benefit is embedded in the institutional question of *how* preschool supply should be grown and quality improved. Much of the growth in the broad child-care “system” has occurred through *demand-side* financing. This includes the rapid rise in child-care vouchers—encouraged by federal block-grant funding since 1990—and support of efforts to improve market information made available to parents. In California, vouchers are supported through the Alternative Payments Program, created in the 1970s, long before the parental-choice mandate from Washington, and child-care support that flows through the state welfare program (CalWORKs).

In contrast, efforts to directly expand the *supply* of state preschools or centers operated by school districts and community-based organizations have been relatively modest. Within the state education department’s programs, the voucher side has grown seven-fold since 1996, while center-based programs have expanded by about 80 percent.⁹ Governors Wilson and Davis have advocated for significant expansion of half-day preschool programs, but the lion’s share of funding increases have moved through child-care vouchers.

Some UPS advocates talk of creating high quality pre-kindergarten programs run by school districts, available for three and four year-olds. This would require determined building of supply of new preschool organizations.

Another strategy is to craft a UPS umbrella—perhaps replete with quality standards and stronger funding within a county—that would incrementally incorporate existing center-based

programs and a subset of family child-care homes (FCCHs). This strategy holds the advantage of building from the state’s \$3.1 billion investment in child care. And this approach could nurture a shared mission for a variety of licensed child-care organizations. This assumes that a consensus could be built around quality standards and forms of monitoring.

These *how* questions—the institutional parameters within which targeting issues are examined—are thus interwoven with the *who benefits* questions. For example, if new preschools were to be built, embedded in the public schools, then a certain array of targeting options would emerge—options that would differ from an incorporation strategy that provided supplemental grants or incentivized vouchers for centers or FCCHs that were part of the Los Angeles UPS program.

Our analysis, for the moment, sets aside these institutional questions, focusing on the families or communities on which UPS dollars might be targeted. Yet in weighing allocation options, the organizing structure that oversees expansion and quality-improvement efforts must be considered.

The Merits and Risks of Alternative Strategies

How might we weigh the pluses and minuses of different allocation strategies? A few criteria could be employed as we consider the three targeting strategies examined in this paper:

- *Which set of children would benefit most from preschool access, beyond those who already can enroll?* The empirical literature is fairly clear that experience within quality preschool programs contributes most strongly to the cognitive and

language development of children from low-income backgrounds. We know much less about whether preschooling advances these proficiencies for middle-class youngsters. And the effects on social development have been more difficult to detect for children of any social class.¹⁰

If California is to sustain gains in student test scores—especially at the elementary school level—improvements in children’s readiness to enter kindergarten could play a strong role. A related argument for targeting resources on poor communities is that recent family policy reforms have strongly encouraged mothers to leave home and find a job. As Government has intensified work pressures—making a variety of family supports contingent upon maternal employment—this has boosted demand for child care. Yet these same families have little discretionary income—even if they do land a low-wage job—to pay for child care in the open market.

- *Which new families will most vigorously respond to increased preschool supply?* Some UPS advocates have suggested that new dollars might be targeted on those communities where children’s school achievement levels are lowest. This generally means focusing on the poorest communities. This flows, in part, from the first criterion specified above.

But this approach has two shortcomings, prompting the analysis described below. First, California has progressively targeted preschool and child-care spending on low-income communities over the past three decades. We will see that this policy strategy has paid-off for families residing in many poor zip-code areas. Further expansion in these same communities may yield a tepid demand response, since parents who are interested in center-based programs already participate in many cases.

This distribution of existing preschool supply was recognized in the Los Angeles child care needs analysis conducted in 2000.

This report from the local child care planning council includes a detailed breakdown of the *shortfall* between each zip code's current availability of licensed programs (preschools, centers, and FCCBs) and likely levels of parental demand, based on a zip code's maternal labor force participation and count of welfare-to-work clients.¹¹

A related way to connect current supply and likely family demand is to ask which low-income communities possess significant pent-up demand. For example, if preschool supply is relatively strong and maternal employment rates are low, the numbers of parents on waiting lists or seeking slots in preschools may be quite low. The factors that contribute to expressed demand for preschools are difficult to move in the short run, including maternal employment, household income, marital rates, and social networks that may provide informal child care and suppress demand for formal preschooling. Below we map how pent-up demand is distributed across Los Angeles County, based on local directors' reports of waiting lists.

Note that we are not normatively arguing that only children of working mothers should attend preschool. No one makes that argument for attendance in kindergarten or public schools. We are simply recognizing that expressed demand for centers and nonparental child care is related to maternal employment. This relationship will not change dramatically in the medium term.

■ *Which targeting strategy will best serve the collateral policy goal of raising the quality of care that children receive?* UPS engineers must face the trade-off between expanding access and improving quality. Parents and taxpayers will likely hold Government accountable on serving more children. This is relatively easy to track. Gains in quality are more difficult to measure and vividly portray. It may be that improving quality

in low-income communities will yield strong child-level effects. But expanding preschool slots in working-class communities, where pent-up demand is sometimes strongest, could yield tangible returns in terms of enrollment growth. Ideally, targeting strategies can yield gains in access and quality, but this requires differentiated targeting strategies.

■ *Which strategy allows us to learn more about family demand and how child-care organizations respond to incentives for expansion and quality improvements?* California will move out into the UPS terrain largely in empirical darkness. The experiences of Georgia or New York will be useful. But California—especially Los Angeles County—includes diverse families and large gaps in local preschool supply. Targeting strategies could systematically experiment to determine where the family demand response is stronger or weaker. At the same time, gains in child development and school readiness also must be factored-in. That is, expanding in ways that yield few learning benefits for children is unwise. At the same time, building high-quality preschools where few parents show-up would be senseless.

One way to proceed is to target new funding on three or four distinctly different communities—from very poor to lower middle-class—and see how parents and existing child care providers respond. We can estimate what the demand-response would be, given existing levels of preschool supply and the strength of demand factors. But allocating funds to varying communities would allow for pragmatic experimentation in the field.

TABLE 1. Alternative Indicators of Need for Quality Preschool Programs

Service Planning Area [SPA]	Percentage of children in poverty	Percentage of students fluent in English	Mean API score	Preschool enrollment capacity per 100 children	Families on waiting lists as % of enrollment capacity
1. Antelope Valley	22%	90%	654	35	5%
2. San Fernando	26%	65%	692	54	20%
3. San Gabriel	28%	71%	659	35	25%
4. Metro	48%	45%	608	29	40%
5. West	19%	80%	749	69	38%
6. South	51%	51%	528	24	27%
7. East	33%	62%	601	18	54%
8. Harbor/South Bay	30%	70%	700	43	26%

Notes: Poverty and English proficiency data are for 1998. API scores are for 2001. Enrollment capacity and waiting list estimates are for 2000 and 1999, as reported by preschool and center directors.

Three Targeting Strategies to Expand Preschool Access

Next we compare which communities would benefit under different ways of allocating new UPS dollars. We will describe each method, display maps of which communities (zip-code areas) would benefit, then contrast the differing effects among the three strategies.

Let’s first look at Table 1 to provide an overview of how different regions vary remarkably across Los Angeles County. The county has created Service Planning Areas (SPAs) that are helpful in mapping demographic and economic differences

across the county. Table 1 provides a quick grasp of how school achievement levels (for children in elementary schools), preschool supply, and pent-up family demand differ across SPAs. Maps and more detailed data for each of these indicators of preschool “need” are provided below.

First, you can see that the SPA regions differ markedly on basic demographic features, such as child poverty rates and English language proficiency among public school students. In SPA 4 (metro-downtown L.A.), for example, 48% of all children live below the poverty line, and just 45% of all students are fluent in English. In contrast, SPA 5 (West L.A.) displays a relatively low poverty rate, 19% of all children, and high English proficiency, 80% of all students.

Importantly, SPA 7 (East L.A., out to Whittier, and south to Lakewood) displays the lowest level of preschool enrollment capacity, just 18 slots for every 100 children, age 3-5 years-old. Preschool directors reported the longest waiting lists, equal to 54% of the SPA's enrollment capacity. In sharp contrast, West L.A. has 69 slots for 3-5 year-olds for every 100, and moderately long waiting lists, equal to 38% of enrollment capacity.¹²

Certain indicators do cluster together: SPA's with high child poverty rates also show the lowest API scores, for instance. But preschool enrollment capacity, as well as waiting list counts, are not consistently associated with community poverty levels.

Focus on Communities with the Lowest School Achievement Levels

Table 1 reported on children's mean achievement levels across the Los Angeles SPA regions. In Figure 1 we map these same achievement levels for elementary schools located across L.A. zip codes. These averages are school-level academic performance index (API) scores for 2001. The API scores are assigned to each school, based on the performance of children on the annual SAT-9 exams given to children attending grades 2 through 6.¹³ We calculated the mean API scores for all elementary schools situated within each L.A. zip code, reporting only on those zips with at least three schools.

We see that school performance corresponds with community characteristics. One way to clarify these patterns is to correlate API averages to the median income of families residing in each zip code. In Figure 2, we display average API scores after sorting the zip codes into four groups, ranging from the poorest one-fourth of all zips to the most affluent one-fourth.

The poorest quarter of all zip codes are those with median household incomes below \$32,644, according to 2000 census

data. For this set, the mean API score for elementary schools equaled 565 in spring 2001. In contrast, the most affluent quarter of all L.A. zips—those with household incomes averaging over \$53,596—displayed much higher API scores, with a mean score of 775 in the same year. The overall correlation (r) between zip-code wealth and API scores is a whopping 0.80. This means that almost two-thirds of all the variation in API scores among zips can be explained by median household income. API scores are highly correlated with maternal employment rates ($r=0.52$), as well, and the percentage of the zip code's population that is Latino ($r=-0.77$).

In short, if new UPS dollars were focused on zip codes with the lowest level of school achievement, these funds would go to the poorest L.A. communities. In many cases, this would include neighborhoods with high concentrations of Latino families.

But note that Latino communities tend to have lower maternal employment rates. The correlation between maternal employment and percentage of population, Latino equals -0.62. So, by allocating new funding to heavily Latino zip-code areas, it would go to communities with much lower maternal employment rates, on average, leading to lower family demand for nonparental child care.

Focus on Communities with the Lowest Supply of Preschool Organizations

A second option is to take into account the existing stock of preschool organizations and their enrollment capacity. It may make sense to expand access in poor communities—unless supply is already sufficient. But then we need to understand how current preschool supply relates to the demographic features of communities across the county?



Figure 1: Mean API Scores for Elementary Schools, 2001

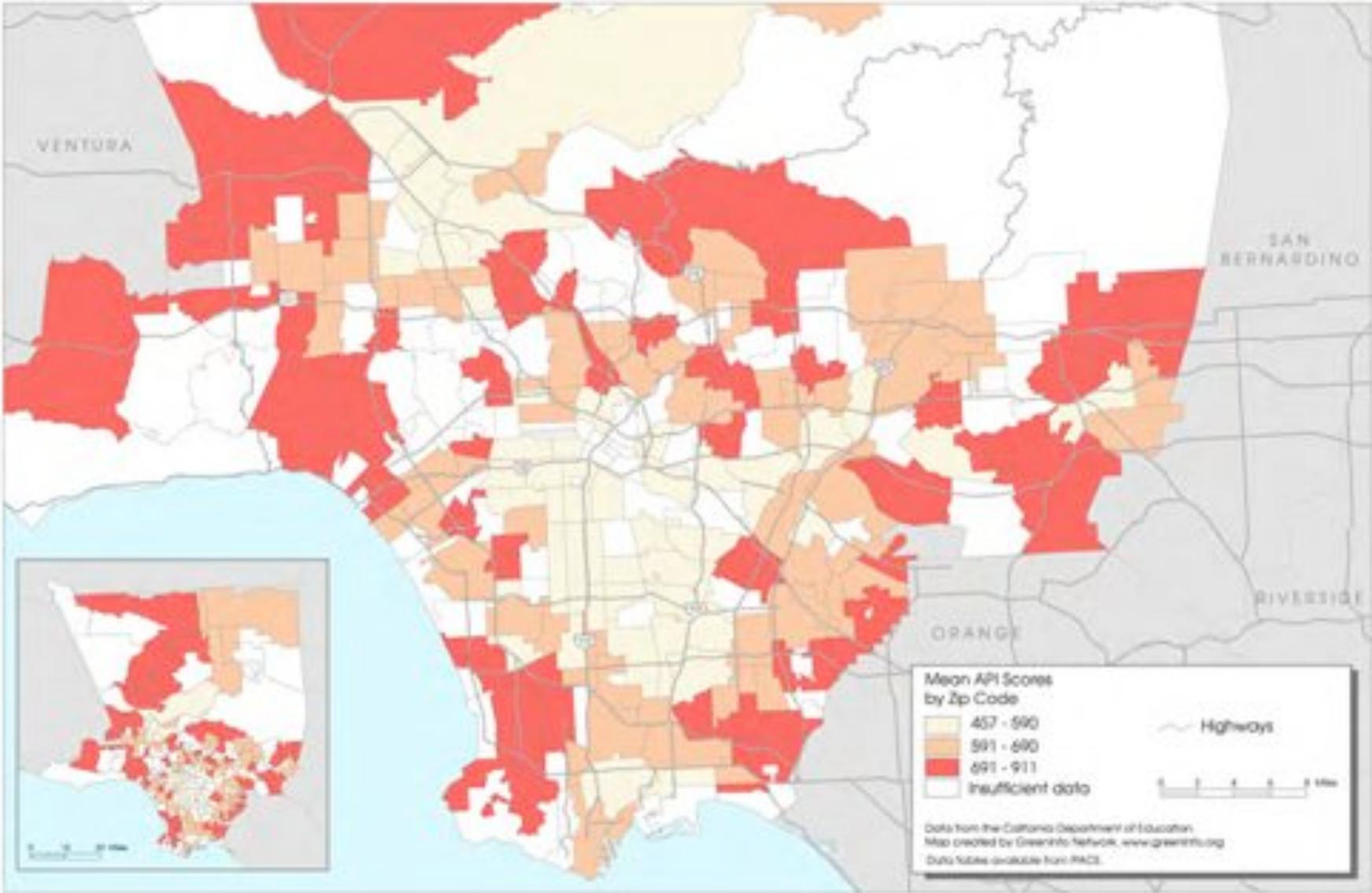


FIGURE 2. Average school API scores by household income of zip codes [zip codes sorted into quartiles]

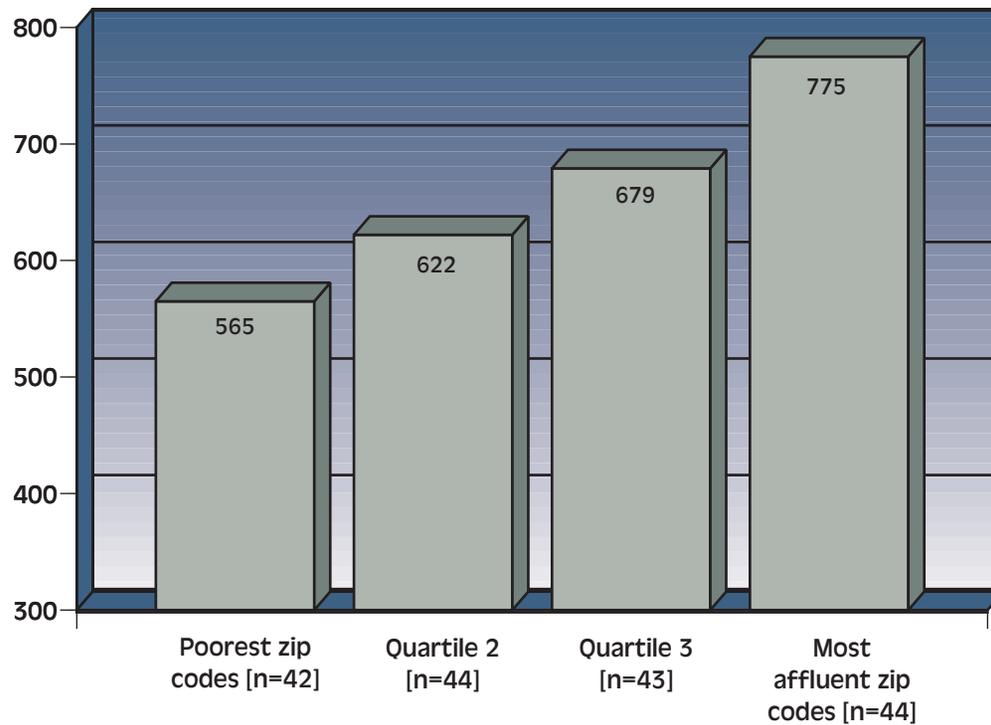


Figure 3 displays the average enrollment capacity (supply) of preschool or center-based programs at the SPA level which serve children, age 3-5. This capacity is expressed as the number of enrollment slots operating in 2000 for every 100 children in this age bracket. This is commonly dubbed, preschool or center *enrollment capacity* per 100 children. These data are collected by local resource and referral agencies in L.A. and then compiled by the California Child Care Resource and Referral Network in San Francisco.¹⁴

Figure 4 displays the same supply indicator at the zip-code level. This map is similar to the earlier map of schools' API

scores. More affluent West L.A. and other suburban areas display higher levels of enrollment capacity, compared to South-Central and East L.A. Indeed the overall correlation between the median household income of zip codes and their enrollment capacity equals 0.53. That is, we can account for about one-quarter of all the variation in preschool supply simply by knowing the median household income of zip codes.

Yet look at Figure 5—where we report enrollment capacity for each of the four groups of zip codes, from the poorest to the richest quartile of zips. Note that the number of enrollment slots for children, age 3-5, is much higher in the richest quartile of zip codes, equaling 56 slots for every 100 children in this age cohort. This compares to just 23 slots per 100 in the poorest quartile of zips.

But also you see that enrollment capacities are quite similar between the first and second quartiles, that is, across the zip codes falling below the median household income level for L.A. (\$41,808 in 2000).¹⁵ Within these lower-income quartiles, 23 and 29 enrollment slots were operating for every 100 children, age 3-5, respectively. For the third quartile—the quarter of L.A. zips resting just above the median household income—enrollment capacity inches upward to 33 slots per 100 children.

Put another way, the correlation between household income and preschool supply (enrollment capacity) is almost zero when we look at the 44 zip codes in the poorest quartile

Figure 3: Enrollment Capacity of Preschools
per 100 Children, Age 3-5 Years by SPA, 2000

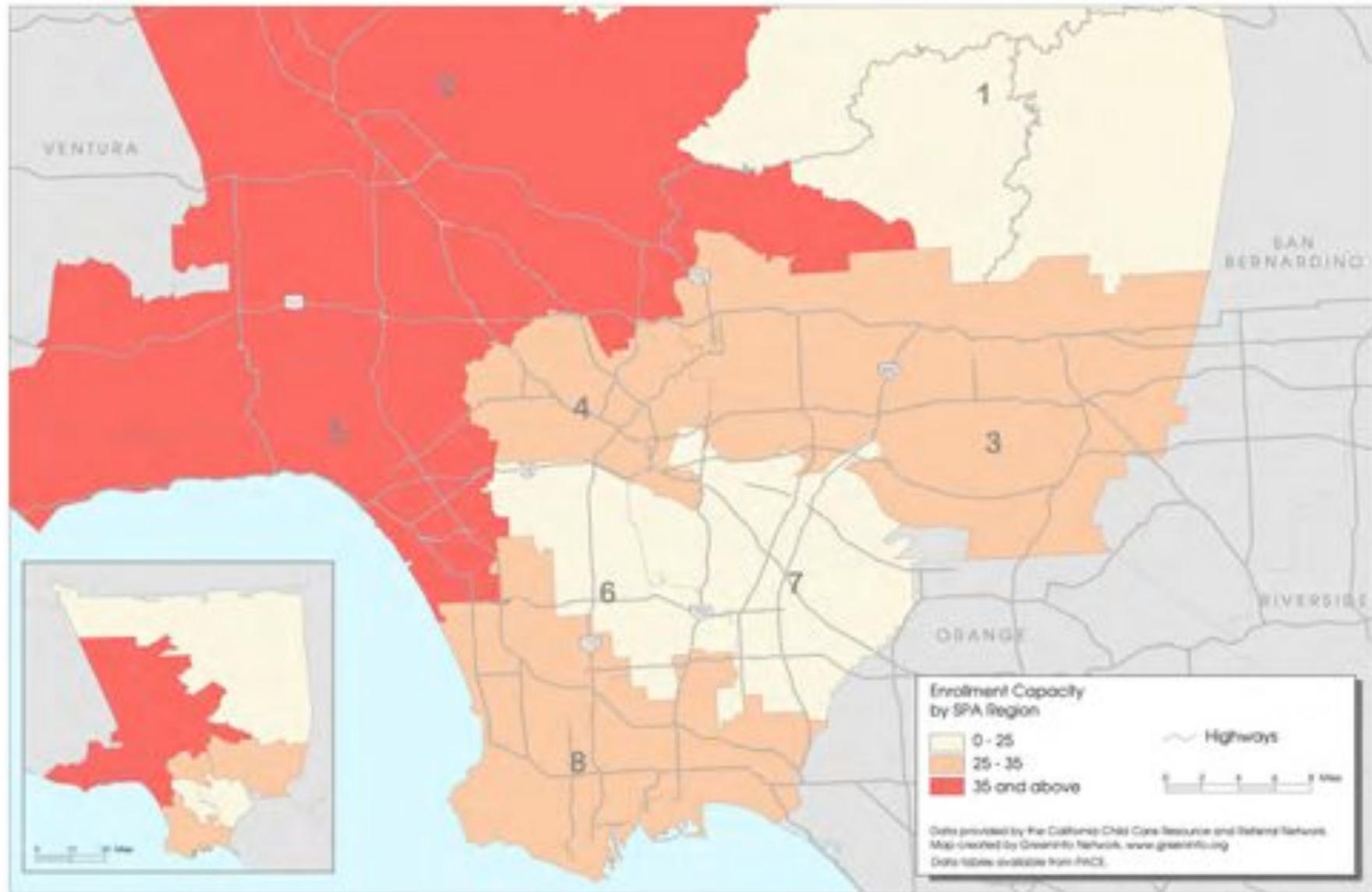
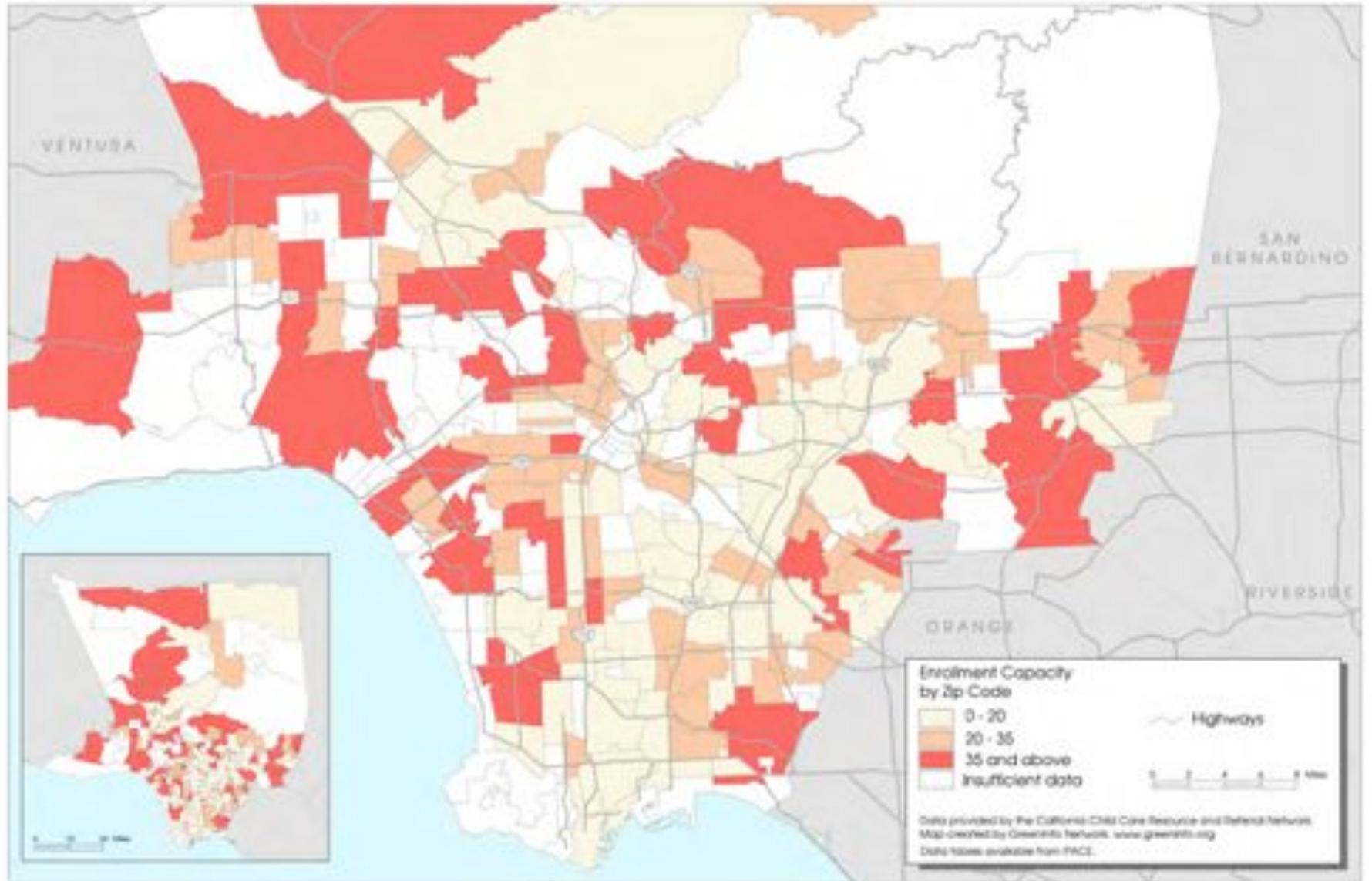


Figure 4: Enrollment Capacity of Preschools
per 100 Children, Age 3-5 Years, by Zip Code, 2000



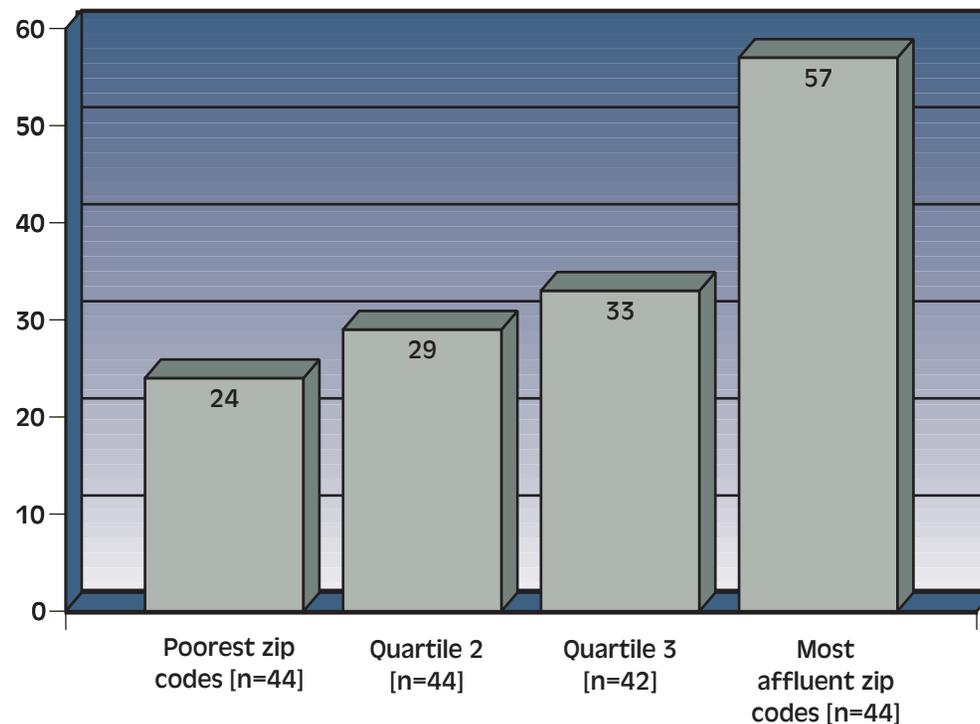
($r=0.04$). For the second quartile, the coefficient rises slightly but remains statistically insignificant ($r=0.17$). The moderately high association between household income and preschool supply is being driven largely by the richest quartile of zip codes, where enrollment capacity jumps to 57 slots for every 100 children in the 3-5 age bracket.

In sum, if planners were to focus only on community poverty levels (which remember is tightly correlated with API scores) they would imprecisely target UPS support. Among zip codes in the poorest quartile, preschool enrollment capacity ranges from 5 to 46 child slots per 100 children. But if only

community poverty or API levels were used to determine allocations, considerable dollars would be inefficiently awarded to communities that already display strong supply, while ignoring communities that have very low supply.

The supply of family child-care homes (FCCHs), and their enrollment capacity, is more consistently related to household income. Within the poorest quartile of zip codes, FCCHs provide 2 slots for every 100 children, age 0-11 years-old. This wider denominator is used since FCCHs often provide slots for school-age children. FCCH enrollment capacity in the richest quartile of zips equals 5 slots per 100.

FIGURE 5. Enrollment capacity of preschools in zip codes per 100 children, age 3-5



Isolating on the lowest quartile, household income remains moderately correlated with FCCH enrollment capacity among this bottom fourth of the zips ($r=0.36$). This is useful to know: if UPS planners want to expand capacity through FCCH expansion, targeting dollars based on a community's poverty level or school API scores is a good proxy for knowing about FCCH supply, unlike the imprecision of doing this for preschools and centers. On the other hand, we report below how vacancy levels are moderate to high in many FCCHs across the county.

Focus on Communities with the Highest Levels of Pent-up Demand for Preschool

So, should the state or counties allocate UPS dollars to those communities with

the lowest supply of preschool capacity? This would be an improvement on simply allocating to the poorest neighborhoods, or to those with the lowest API scores.

Yet ideally an allocation strategy would take into account the *balance between current supply and family demand*. For example, let's take two hypothetical zip codes with the same number of preschool enrollment slots. Then let us assume that in zip code A we observe no vacant enrollment slots and long waiting lists at existing preschools, as well as a comparatively high maternal employment rate. In contrast, within zip code B we observe vacant enrollment slots, no families on waiting lists, and low maternal employment. The likely demand response would be much greater in zip A compared to zip B.

Thus a third targeting strategy would be to concentrate new resources on communities where *pent-up demand* for preschooling is greatest—where current supply is especially scarce relative to the level of family demand. This pent-up demand approach, as with the first two strategies, must be balanced against other criteria, such as ensuring that UPS dollars go into communities where parents can not afford preschool fees, or where child-level gains are likely to be the strongest.

This targeting method does require thicker data from preschool organizations. The estimates that follow stem from PACE's 1999 survey of just under one thousand preschool or center directors and one thousand FCCH providers, when we asked about vacancy levels and waiting lists. These phone interviews were conducted for the needs assessment, conducted by the L.A. child care planning council.

One limitation with these existing data is that they reflect complete interviews with directors from just over one-third of all preschool organizations that were operating countywide in 1998, and about one-sixth of all FCCHs. In addition, the

sample was drawn to provide reliable estimates at the SPA, not the zip-code level. We only report data for zip codes in which we completed at least three director interviews.¹⁶ But this does not guarantee that zip-level estimates of enrollment vacancies or waiting lists are reliable. A survey of all preschool directors would be required to estimate true levels of pent-up demand. Even then, other demand factors—including maternal education and employment levels, family income, ethnicity and language—should complement waiting list data.¹⁷

Table 2 describes average vacancy levels as reported by preschool directors, averaged across zip codes within each SPA. The differences are modest. SPAs 4 and 5, running from central Los Angeles, including South-Central, west to Santa Monica and Culver City, show the lowest vacancy levels at 9 and 7 vacant slots, respectively. Vacancy levels range up to 14 slots (in the San Fernando Valley, suburban SPA 2), representing about one-fifth of their total enrollment capacity.

Table 3 displays corresponding data on waiting lists that may, or may not, be maintained by preschool directors. In general, fewer directors reported waiting lists (with one or more families signed-up), relative to the greater number who reported vacancies. Still, these survey data led to an estimated 100,000 families who appeared on a waiting list for a preschool program.¹⁸ We do not know if some families appear on multiple waiting lists, signing-up at different preschools.

Table 3 does show some variation across SPAs in the average number of families appearing on waiting lists, ranging from 8.3 families in the far north, SPA 1, which includes Lancaster and Palmdale, to 30 families in central Los Angeles and in East L.A. and suburban communities to the east, including South Gate, Vernon, and Whittier (SPAs 4 and 7).

When we make estimates of vacancy levels at the zip-code level, clear patterns are more difficult to discern. This may be due to measurement error, since our sampling strategy was designed to yield reliable SPA, not zip-level, estimates.

With this in mind, Figure 6 displays the number of vacant slots as a percentage of enrollment capacity. We only include zip codes for which data were reported by at least three preschool directors. Vacancy levels are somewhat higher in zip codes with stronger maternal employment rates and higher household income. This can be seen on the map—with red areas on the west side of the Valley and the far eastern suburbs. But we also see relatively high vacancy levels reported in parts of South-Central and East L.A. This suggests that preschool supply in some poor communities has kept pace with family demand. On the other hand, other zip codes in these poorer regions show low vacancy rates.

The waiting list estimates are fairly consistent, showing the flip-side of vacancy patterns. Figure 7 shows generally longer waiting lists, as a share of enrollment capacity, in zip codes that have lower household income and weaker maternal employment. These correlations are weak, however. You can see that preschool directors in many South-Central zip codes reported relatively short waiting lists, again suggesting that supply has kept pace with expressed demand. On the other hand, two zip codes right along the Harbor Freeway, south from USC, and parts of East L.A. display longer waiting lists. Preschool directors in the North Hollywood and Northridge areas also reported a good deal of excess demand, with long waiting lists.

Our statistical analysis did show that predominately Latino zip codes often have longer waiting lists, suggesting that in a subset of these communities, demand is outpacing available supply. More complete survey data should be collected to see if this

TABLE 2. Preschool enrollment vacancy levels by SPA for Los Angeles County, 1999

Service Planning Area [SPA]	Count of all center-based programs surveyed	Count of preschools serving children, 3-5 years	Count of preschools reporting one or more vacant slots	Mean number of vacant slots	Vacant slots as percentage of enrollment capacity
1. Antelope Valley	36	25	8	11	18%
2. San Fernando	192	168	94	14	20%
3. San Gabriel	144	131	88	12	20%
4. Metro	77	71	42	9	16%
5. West	58	55	25	7	13%
6. South	92	86	48	10	20%
7. East	71	61	41	13	20%
8. Harbor/South Bay	125	108	54	10	17%

TABLE 3. Preschool waiting lists by SPA for Los Angeles County, 1999

Service Planning Area [SPA]	Count of surveyed preschools serving children, age 3-5 years	Count of pre-schools with a waiting list	Mean number of children on waiting list *	Children on waiting list as percentage of enrollment capacity
1. Antelope Valley	25	7	8	16%
2. San Fernando	168	75	33	41%
3. San Gabriel	131	60	23	42%
4. Metro	71	37	30	56%
5. West	55	37	26	49%
6. South	86	46	29	54%
7. East	61	28	31	43%
8. Harbor/South Bay	108	61	30	55%

* Includes only preschools that maintain a waiting list.

relationship is robust across a greater number of preschools. This analysis of pent-up demand could further pinpoint those Latino communities where supply is relatively low and demand factors are strong.

A thorough analysis of FCCH capacity is beyond the scope of the present paper. We did find, however, that vacancy rates were fairly high, especially compared to generally few vacancies in preschools. In SPA 3, for example, which includes the San Gabriel suburbs of Arcadia and Pomona, FCCH providers reported that vacancies equaled 37% of their licensed capacity. Even when we asked about their preferred number of children, vacancy levels ranged from 24% of enrollment capacity in SPA 5 (West L.A.) to 29% in SPA 4 (central Los Angeles).

In short, if quality FCCH programs were to be included in the UPS initiative, many more children could be accommodated by

the existing stock of FCCH providers. And these providers express strong interest in enrolling additional children for whom they already have licensed capacity. On the other hand, vacancy levels drop lower in some poorer communities, where the sector is less robust economically, with fewer stable FCCHs surviving over time, compared to middle-class communities where both supply and vacancy levels range higher.

Other methods can be used to estimate pent-up demand, or what some would call *unmet need*, for preschool programs. The county's needs assessment, for instance, estimated potential family demand from the number of preschool-age children in each zip, the maternal employment rate, and stronger demand linked to parents' welfare-to-work participation. An assumption was made about the share

Figure 6: Vacant Child Slots in Preschools as Percentage of Enrollment Capacity by Zip Code, 1999

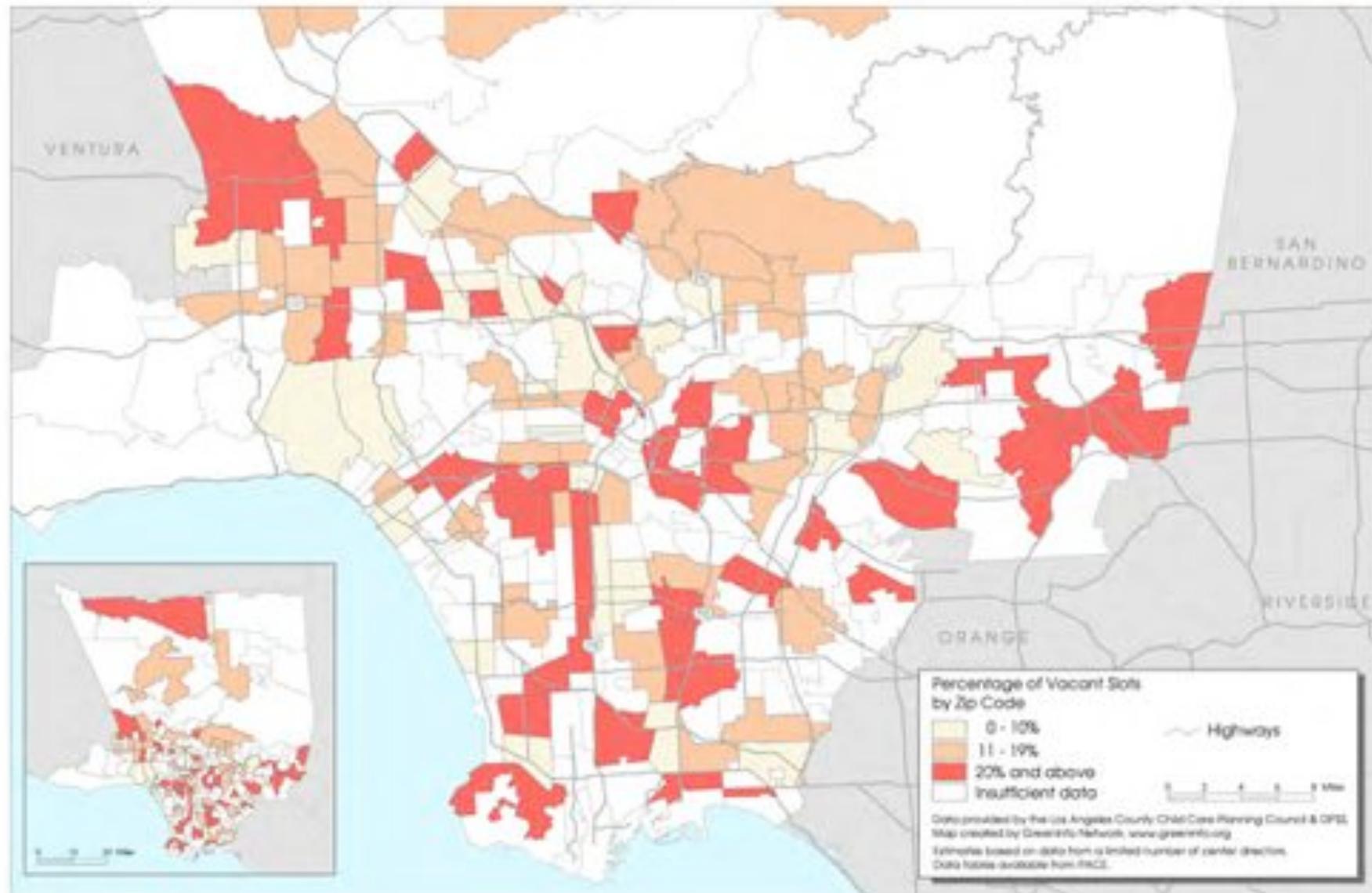
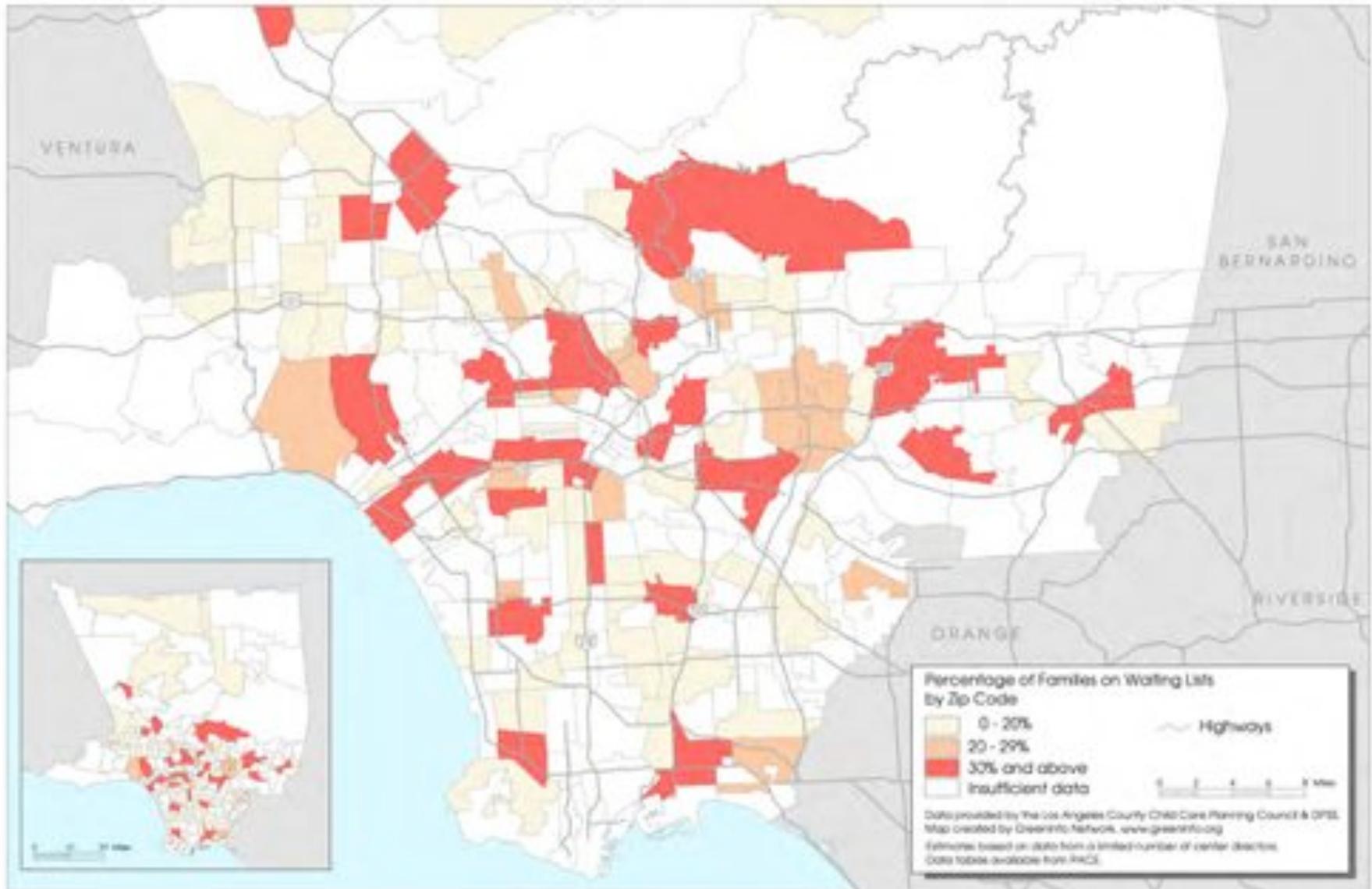


Figure 7: Families on Waiting Lists for Preschool Slots as a Percentage of Enrollment Capacity by Zip Code, 1999



who would prefer to use licensed care, including preschools or FCCBs. Then, this potential level of family demand was compared to current supply.¹⁹

Comparing Who Benefits Under Alternative Targeting Strategies

Figure 8 illustrates how these targeting strategies would result in the allocation of new dollars to differing communities. This map displays the 25 zip codes that come in lowest on each of two indicators examined above: those zips with the lowest mean API scores and those with the lowest enrollment capacity.

First, let's look at the 25 zip codes with the lowest API scores for elementary schools, marked in green. These are concentrated in south-central L.A. and heavily Latino communities in the Valley, including the city of San Fernando. Some of the orange areas, particularly in East L.A. and the San Gabriel area, are among the lowest API zips. The orange zips are those that would qualify under both targeting criteria.

Second, the blue zip codes have the lowest enrollment capacity supply per 100 children, age 3-5. These are largely outside South-Central, appearing in Long Beach, parts of East L.A., and the North Hollywood area. Again, the orange zips also include some of the lowest 25 zips in terms of preschool supply.

When we include the third criteria of long waiting lists, one zip code—90262—falls into all three targeting criteria. This is the Lynwood community which falls among the lowest 25 zips in terms of API scores, enrollment capacity, and among those with the longest waiting lists.

This map illustrates how relying on a single targeting criteria, such as low API scores, would lead to allocations that could ignore neighborhoods with the greatest scarcity of preschool

supply. The good news is that this likely stems from three decades of progressively targeting child care and preschool aid on the poorest communities. But this means that other communities—ranging from low-income to lower middle-class in family composition—display lower enrollment capacity and higher pent-up demand.

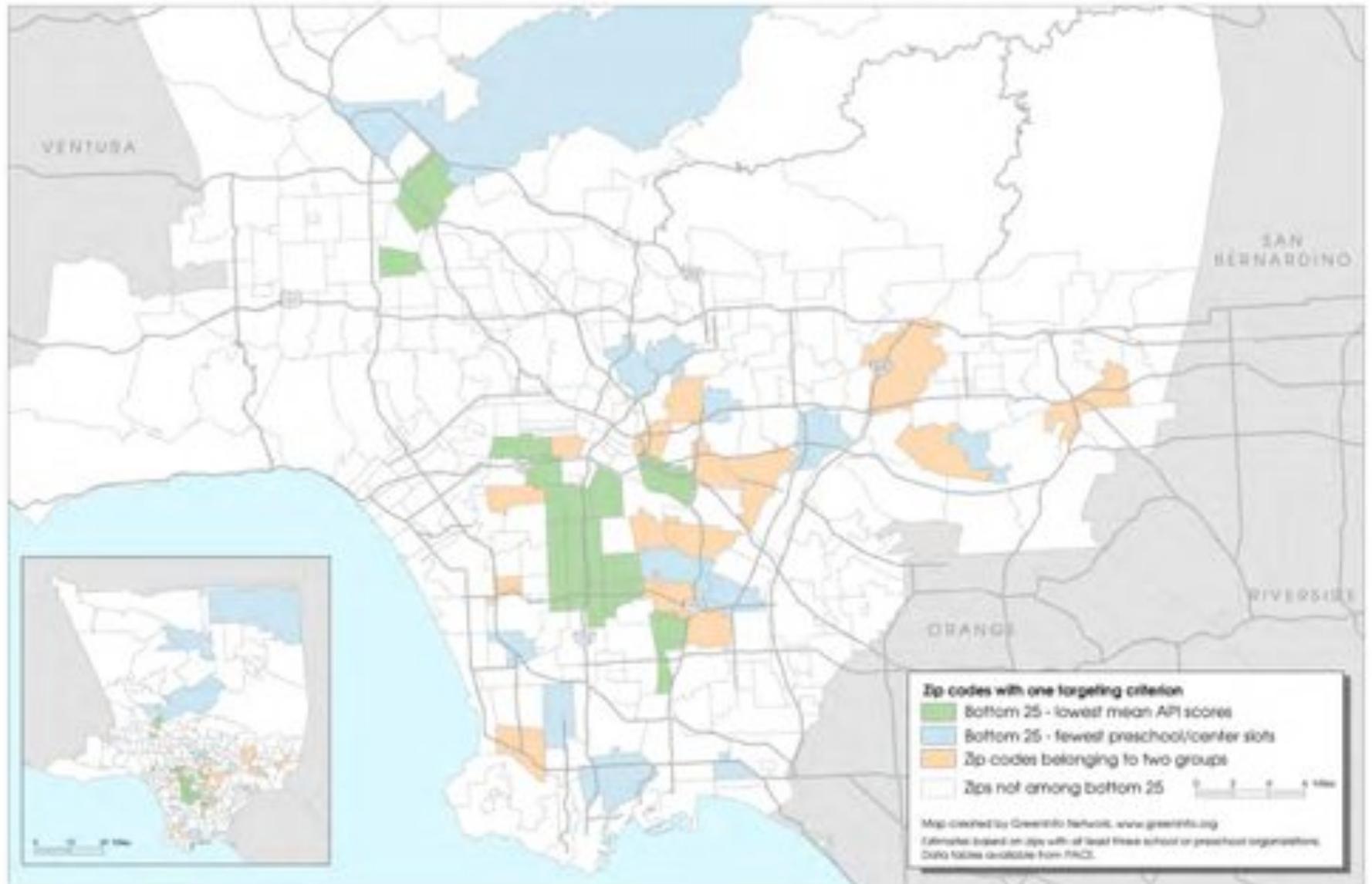
Policy Implications

California has dramatically boosted investments in public child care since the mid-1990s. The state's current budget shortfall and shifting federal priorities have slowed progress, limiting the number of low-income and blue-collar families who can find affordable, quality care. Even during the boom years, little growth occurred in quality preschools. Instead, billions of new dollars have been allocated into unregulated child care provided by individuals.

Thus within these historical constraints and institutional arrangements, funding aimed at broadening access to preschool for young children must be allocated prudently. And with the state now spending \$3.1 billion in child care and preschool programs annually, meaningful steps toward UPS will necessarily involve recasting current funding streams, now flowing from 23 different programs run from Sacramento.

So, how should we weigh alternative ways of targeting scarce resources on new preschool efforts? This report suggests three possible strategies, driven by two policy aims: Expand access for children who will benefit most *and* where families will respond in a robust fashion, expressing strong demand for preschooling.

Figure 8: Alternative Targeting Criteria: Low API Scores & Low Preschool/Center Supply, 1999—2001



State and local governments could allocate taxpayer dollars to the communities where school children perform at very low levels. In the case of Los Angeles, this would move dollars into the poorest communities. But some of these neighborhoods already enjoy relatively strong supply of center-based programs. Improving the quality of these centers and preschools may be advisable. But it's not clear that expansion of enrollment slots would spark increased demand from parents, especially where maternal employment levels remain low.

In this light, considering school performance (API scores) and relative supply of center-based programs would yield more effective investments. We need to learn more about how different groups of parents will respond to the availability of new preschool slots. Ideally, dollars could be invested in communities where pent-up demand is greatest, that is, where families' interest in preschools far outstrips available supply.

Overall, we have much to learn about how families will respond to various preschool options. The fact that we have so much to learn argues for alternative allocation strategies, aimed at different kinds of neighborhoods. This would allow for systematic learning about how parents respond to new options — and how preschool organizations themselves respond to new incentives and challenges.

Acknowledgements

Much of the data informing this paper stem from the Los Angeles County needs assessment, conducted in 1999-2000 with the Local Child Care Planning Council and county Department of Public Social Services. Special thanks to Kathy Malaske-Samu. PACE's work on this earlier project was codirected by Elizabeth Burr and Diane Hirshberg. The supply data are collected by local child-care agencies and compiled by the Child Care Resource and Referral Network. Patricia Siegel and Shelly Waters Boots at the Network have been generous collaborators over the years. The mapping work contained in the paper was done by Lynn Frederico at GreenInfo Inc., San Francisco.

Endnotes

- ¹ We use the terms “center-based program” and “preschool” synonymously, given that the boundary between high-quality preschools and custodial care in centers has blurred. State funding categories do distinguish between half-day state preschools and contracted centers that provide full-day care in most cases. Spending data are from state Department of Finance budget worksheets.
- ² For a review of this empirical literature, see Fuller, B., Kagan, S.L., Caspary, G., & Gauthier, C. (2002). Welfare reform and child care for low-income families. *Future of Children*, 12:97-119.
- ³ Hirshberg, D. (2002) Child care supply and demand under CalWORKs: Early impacts of welfare reform for California's children. Berkeley: University of California (PACE Working Paper 02-3).
- ⁴ Fuller, B., Waters Boots, S., Castilla, E., & Hirshberg, D. (2002). A stark plateau: California families see little growth in child care centers. Berkeley: University of California (PACE Policy Brief 02-2).

-
- ⁵ Phillips, D., Voran, M., Kisker, E., & Whitebook, M. (1994) Child care for children in poverty: Opportunity or inequity? *Child Development*, 65:472-492. Burchinal, M. (1999) Child care experiences and developmental outcomes. In S. Helburn (Ed.) *The silent crisis in U.S. child care. Annals of the American Academy of Political and Social Science*, vol. 563:73-97.
- ⁶ Fuller, B., Holloway, S., Bozzi, L., Burr, E., Cohen, N., & Suzuki, S. (in press) Preschool and child-care quality in California neighborhoods: Policy success, remaining gaps. *Early Education and Development*.
- ⁷ Fuller, B., Kagan, S.L., & Loeb, S. (2002) *New lives for poor families? Mothers and young children move through welfare reform*. Berkeley and New York: University of California and Teachers College, Columbia University.
- ⁸ Phillips, D., Voran, M., Kisker, E., & Whitebook, M. (1994) Child care for children in poverty: Opportunity or inequity? *Child Development*, 65:472-492. Fuller, B., & Strath, A. (2001) The child-care and preschool workforce: Demographics, earnings, and unequal distribution. *Education Evaluation and Policy Analysis*, 23.
- ⁹ Data provided by the Child Development Division, California Department of Education, and summarized in Fuller et al., *A stark plateau: California families see little growth in child care centers*.
- ¹⁰ For empirical reviews, see Barnett, W.S. (1995) Long-term effects of early childhood programs on cognitive and school outcomes. *Future of Children*, 5:25-50. Burchinal, M. (1999) Child care experiences and developmental outcomes. In S. Helburn (Ed.) *The silent crisis in U.S. child care. Annals of the American Academy of Political and Social Science*, vol. 563:73-97.
- ¹¹ Malaske-Samu, K. with Muranaka, A. (2000) *Child care counts: An analysis of the supply and demand for early care and education services in Los Angeles County*. Los Angeles: County Chief Administrative Office and the Child Care Planning Committee.
- ¹² This ratio is the average count of families on waiting lists, divided by the enrollment capacity in those preschools or centers reporting that a waiting list is maintained. This ratio is estimated only in those zip codes where at least three preschool directors participated in the 1999 LPC/PACE survey.
- ¹³ API data were extracted from the state Department of Education website: <http://api.cde.ca.gov/datafiles.html>.
- ¹⁴ More detailed supply data appear in the Network's annual *Child Care Portfolio*. New 2002 data will shortly be available to update this analysis.
- ¹⁵ The overall median household income level for Los Angeles County in 2000 equaled \$42,189, according to the census bureau. The median state income was \$47,493.
- ¹⁶ We obtained basic data from 237 zip codes for Los Angeles County. This count of zips falls to 174 when we select only those zips with at least three organizations: three elementary schools for API scores, enrollment capacity data for at least three preschools or center-based programs, and waiting list reports from at least three directors. This increases the reliability of our estimates.
- ¹⁷ Preschool directors undoubtedly vary in how they maintain parental waiting lists. Parents also may sign-up at a variety of centers, creating duplications on waiting lists. These kinds of ambiguities create measurement error in any estimate of pent-up demand.
- ¹⁸ This weighted estimated, based on the sample survey data, is detailed in Malaske-Samu & Muranaka (2002).
- ¹⁹ Malaske-Samu & Muranaka (2002). See the appendix tables.

Policy Analysis for California Education PACE
University of California, Berkeley and Davis
Stanford University
3653 Tolman Hall
Berkeley, CA 94720-1670
Telephone: (510) 642-7223
<http://pace.berkeley.edu>
