The Ralph and Goldy Lewis Center for Regional Policy Studies at UCLA

...established to promote the study, understanding and solution of regional policy issues, with special reference to Southern California, including problems of the environment, urban design, housing, community and neighborhood dynamics, transportation and economic development...

Working Paper Series

Eroding Neighborhood Integration:

The Impact of California's Expiring Section 8 Rent Subsidy Contracts on Low-Income Family Housing

By Elaine Forbes

Working Paper #34 in the series

The Ralph and Goldy Lewis Center for Regional Policy Studies
UCLA, School of Public Policy and Social Research
3250 Public Policy Building
Los Angeles CA 90095-1656
Director: Paul Ong
Phone: (310) 206-4417
Fax: (310) 825-1575
http://www.sppsr.ucla.edu/lewis/
May 2000

ABSTRACT

In California over 120,000 affordable housing units have expiring Section 8 rent subsidy contracts and, consequently, are at risk of conversion to market-rate housing. Upon contract expirations, if property owners prepay their mortgages, they can choose to continue in or withdraw from the affordable housing program. Considering contracts that expired from May 31, 1997 to January 1, 1999 in California, this report empirically examines the characteristics of renewal (continuation) versus opt-out (discontinuation) projects and explores where vouchered-out families from two properties in Sacramento County found replacement housing. The evidence indicates that opt-out projects are more likely in racially and economically integrated neighborhoods, while renewing projects are in segregated neighborhoods. The evidence also suggests that owners have a stronger tendency to renew when tenants are seniors. This points to a particular problem caused by expiring contracts: young families living in integrated neighborhoods, who particularly benefit from increased school and job opportunities, are most likely to have their homes converted to market-rate housing by voluntary owner opt-outs. The small sample of Sacramento movers suggests that households may move to less racially and economically integrated neighborhoods with their vouchers, and larger families fare worse than do moving families overall. However, the number of units lost to voluntary owner opt-outs will likely be small. Between May 1997 and January 1, 1999, 3 percent of eligible projects withdrew from the program. If the past is any indicator of the future, between 4 and 6 percent of projects will voluntarily opt-out of the program. California's housing policy-makers should focus on assisting vouchered-out families, particularly families with children, with relocation and expanding affordable housing opportunities for young families. The evidence suggests that without targeted government intervention, many families dislocated by opt-outs are likely to move to economically and racially segregated neighborhoods.

Introduction

One of California's foremost housing problems is the loss of affordable rental housing due to demolition, conversion to market rate, and other use conversions. In the United States since the 1970s, the number of poor families has grown considerably, while the number of low-cost housing units has stayed constant. California's affordable housing shortage is particularly acute.[1] Because assisted housing is not an entitlement, qualifying families are not always assisted. In California, over two-thirds of qualifying low-income households are on waiting lists, while only one-third of families receives housing assistance.[2] According to California's Housing and Community Development Department (HCD) estimates, the state has more than 186,000 affordable units in 3,200 privately owned multifamily rental developments. [3] This stock houses about 450,000 low-income people. Several government programs with different regulatory standards financed these properties. Consequently, the nature and risk of conversion differs between properties. The Section 8 rent subsidy assisted portion of the stock, about 70 percent of the total,[4] is in the most immediate danger of conversion.

These properties are at risk because of expiring rent subsidy contracts between the federal government and private developers. Under the US Department of Housing and Urban Development's (HUD) current policy, if the owner prepays the mortgage when rent subsidy contracts expire, owners can continue their participation in Section 8 through one-year renewals or they can withdraw from the program.[5] When properties are withdrawn from the program, tenants, upon income certification, receive vouchers. They can use the vouchers anywhere — even across counties — as long as the property meets basic standards, the owner accepts the voucher, and the property is at or below HUD's Fair Market Rent (FMR) and/or the tenant agrees to pay the increment above FMR.[6] If the current practice of one-year renewals continues, soon nearly all contracts will expire every year.

The effect expiring contracts have on assisted families depends on the number and types of projects that opt-out of the Section 8 rent subsidy program. The current approach to expiring contracts

[1] *In Search of Shelter*, Center on Budget and Policy Priorities, 5.
[2] *Ibid*. 6.
[3] Housing and Community Development, *Affordable Rental Housing At Risk of Conversion.* Due to missing cases in the Federal Department of Housing and Urban Development's (HUD) data set, HCDs estimates are higher than contracts reported by HUD. HCD acknowledges that predicting the actual number of developments is difficult because of multiple reporting systems and because of overlapping contracts.
[4] Actual number falls somewhere between 60-80 percent. Sixty percent is based on number of discrete Section 8 projects (one address per project) reported in HUD's *1998 Section 8 Contracts Database* against HCD estimates of total number of projects. Stock is 67 percent of total when the calculation is by unit rather than project. HCD reports that 80 percent of the stock is Section 8 contracted.
[5] Some exceptions exist to this rule. HUD will not renew contracts if the properties are "troubled," which refers to percent above Fair Market Rent and property conditions. However, in California no properties have been denied contract renewal.
[6] If the properties were financed under 221d or 236, tenants are given "preservation vouchers." The vouchers allow tenants to stay in their

may be beneficial to assisted households. Vouchering-out benefits may enable tenants to move closer to job opportunities and/or into neighborhoods that better meet their needs. Additionally, voucher holders may relocate to neighborhoods that are more income and racially integrated. Although not always true, project-based housing has a history of locating itself in the "path of least resistance," often in poor minority areas.[7] Researchers have demonstrated that households assisted with vouchers as compared to those assisted with project-based housing reside in "higher quality" neighborhoods.[8] Moreover, higher "neighborhood quality" is linked to higher levels of education and higher rates of employment for assisted families. Accordingly, vouchering-out may actually benefit assisted families.

On the other hand, the conversion of a large percent of the units to market-rate housing may contract the affordable housing supply. Such a flood of demand for affordable units may inflate prices. Additionally, households may have difficulties conducting thorough housing searches and finding appropriate housing. Barriers may occur because of costs, discrimination, and preferences to stay in immediate neighborhoods. Consequently, households may not move to more integrated or even comparable neighborhoods with their vouchers.[9] Lastly, the current policy may encourage projects located in integrated neighborhoods to opt-out, while projects located in segregated neighborhoods to renew. In this worst case scenario, families may be displaced from their amenity rich integrated neighborhoods and forced to move into segregated neighborhoods in search of shelter.

This paper is in five parts. Part I briefly presents the history and evolution of the Section 8 rent subsidy program, focusing on HUD's response to expiring contracts. The second part describes the data sets and methodology used in the analysis. Part three empirically examines the characteristics of renewal versus opt-out projects and presents multivariate models. Part four describes the moves of a small sample of families in Sacramento County. Part five offers conclusions.

I. BACKGROUND

Since the Housing Act of 1937, the federal government has taken a role in providing affordable housing to the poor. Over the last sixty years, federal housing interventions have produced three assisted

units with increased housing allowance payments (HAP).

[7] See Sandra Newman, *"…And a Suitable Living Environment": The Failure of Housing Programs to Deliver on Neighborhood Quality,* 703.

[8] Neighborhood Quality is most often measured by average resident income, percent of residents in poverty, and percent residents receiving welfare.

[9] The theory that providing rental subsidies to low-income people will push up rental prices for unassisted poor renters is based on economic theory. In tight housing markets or in tightly regulated markets, because supply cannot immediately shift out, increases in consumer demand

housing types: public housing, project-based assistance, and vouchers and certificates. An ongoing ideological tension exists in housing policy between supply-side (public housing and project-based assistance) and demand-side (vouchers and certificates) approaches. Demand-side approaches assist individuals directly with cash or cash equivalents (rental certificates, vouchers, or cash-transfers), whereas supply-side approaches expand affordable housing by state run or state subsidized housing construction.[10] Between the 1930s and mid-1950s, federal-housing policy intervened primarily by building public housing.[11] Between the 1960s and 1970s, the government moved from public housing construction to subsidizing privately owned and operated developments. By the mid-1970s, federal housing policy focused primarily on demand-side interventions.

The shift of U.S. housing policy from supply- to demand-side approaches was fueled in part by the failure of project-based housing and in part by ideology. Project-based housing became increasingly expensive and failed to provide "safe and decent" housing in safe neighborhoods.[12] Ideologically, demand-side advocates strongly oppose the state intervening in the market, and believe that giving a household cash (or housing vouchers) allows families to maximize their utility and expands personal choice. Supply-side advocates argue that giving a cash subsidy houses only one family, whereas building affordable units houses generations of families. Since the early 1980s, HUD moved sharply away from "supply-side" subsidies to developers to "demand-side" assistance to renters.[13] This move reflects HUD's desire to lower costs and to reduce the concentration of inner-city poverty associated with project-based developments. HUD believes that enhancing consumer choice by assisting renters directly will "enable families to move into better homes and neighborhoods."[14]

Today, demand-side programs serve the largest population, closely followed by project-based assistance. Despite popular perception, most of the nation's affordable housing stock is not in Public Housing Projects, but is in privately owned and operated developments subsidized by the federal government.

Table 1. Profile of Subsidized Households

(vouchers to consume more housing) will result in increased prices. For more detail, see William Apgar, *Which Housing Policy is Best.*

[10] See Allan Hayes, *The Federal Government and Urban Housing.*

[11] *Ibid*, 153.

[12] In Sandra Newman, "Housing Programs Fail to Deliver on Neighborhood Quality." She finds that all project-based assistance has done very little to improve neighborhood conditions, and in the case of public housing, neighborhood conditions worsen with assistance, 703.

[13] Almost all supply-side programs, CBDG, tax credits, are the domain of localities and local nonprofits.

	DEMAND-SIDE	SUPPLY-SIDE	
	Vouchers &Certificates	Project-based Assistance	Public Housing
Number of Projects	**	17,979	13,755
Subsidized People (1,000)	3,973	3,761	2,859
Subsidized Units (1,000)	1,433	1,770	1,322
Source: HUD, online data at http://www.huduser.org *at 1997 picture of subsidized households quick facts*			

Section 8 Rent Subsidy Contract Projects

Projects with Section 8 subsidy contracts were primarily produced between the early-1960s and late 1970s. The first wave of projects, often referred to as the "older assisted stock," were constructed during an expansionary period for government-private developer partnerships in housing construction. Section 221(d)3 and 236 programs produced these projects. These programs provided subsidies to builders with below market interest rates (BMI), 1-3 percent, in return for a promise that the developments would be affordable for a contracted period. In the 1970s as operating costs rose sharply, many of these projects experienced financial problems. HUD offered Section 8 Loan Management Set Aside contracts (LMSAs) to keep these projects from becoming financially insolvent. LMSAs committed the federal government to pay the difference between tenants' rents (first set at 25 percent, later changed to 30 percent) and "fair market rent" (FMR). HUD calculates FMR by using metropolitan statistical areas and calculating 60 percent of average rental unit cost by type of unit (broken down by number of bedrooms).[15] Later, rent subsidies were tacked on to project operating costs.

The Section 8 program produced the next set of assisted housing under rent subsidy contracts. President Nixon instituted the Section 8 program in 1974. The program was two-pronged: 1) Project-based Section 8 (originally called Section 8 New and Substantial Rehabilitation), which is attached to the building; and 2) Section 8 vouchers, which is attached to assisted families. Project-based Section 8 –new construction and substantial rehabilitation –works the same way as the LMSA contracts. The government pays the difference between 30 percent (originally set at 25 percent) of the tenant's income and FMR. Although no new projects were built after 1980, continued subsidies have persisted for the last 20 years. Approximately one million units of project-based Section 8 housing were constructed nationally, most of

[14] Case Study of Vouchered-Out Assisted Properties, xiii.
[15] See http://www.huduser.org/datasets/fmr.html for more detailed description of FMR calculations.

it between 1976 and 1980.[16]

Project-based developments typically have 40-year mortgages. However, for two-thirds of this inventory the rent subsidy contracts with HUD have twenty-year terms. The remaining one-third of the contracts were financed by other sources and subsequently have 30 to 35-year subsidy contracts and will not expire for another decade.[17] When subsidy contracts expire, owners can prepay their mortgages and opt-out of the rent subsidy program, converting their properties to market. When projects opt-out of the program, local public housing authorities (PHAs) give assisted families one-year renewable vouchers to find housing on the private market. Families may use the vouchers to purchase housing in the formerly subsidized opt-out project, if the projects choose to accept vouchers.

Tenants of properties financed under 236 or 221d programs receive "preservation vouchers" upon owner opt-out. Preservation vouchers increase the housing allowance payment (HAP) and can exceed Fair Market Rent. If a household chooses to leave the opt-out property, its voucher loses the inflated HAP. The purpose of preservation vouchers is to allow tenants to stay in their units. For budgetary reasons, HUD could not extend this policy to project-based Section 8 financed properties.

The Evolution of HUD's Policy

In the mid-1980s, the oldest of the Section 8 rent subsidy contracts began to expire. Congress became concerned about the coming wave of conversions as some projects converted to market-rate or were demolished.[18] Congress' first approach to protecting the endangered stock was to increase owner incentives to remain in the project-based rent subsidy program. In 1987, it passed the Emergency Low Income Housing Preservation Act (ELIHPA). Then, in a cost-reducing measure, Congress adopted a second, new approach – forbidding prepayment of mortgages. In 1990, it passed the Low Income Housing Preservation and Resident Homeownership Act (LIHPRHA). In addition to prohibiting prepayment, LIHPRHA provided funding to encourage nonprofit and resident ownership. LIHPRHA proved to be very expensive and was allowed to sunset in 1995.[19]

In the mid-1990s, Congress sharply scrutinized HUD for suspected wastefulness and inefficiency in its project-based housing programs. In response, HUD examined ways to contain the escalating expense of renewing the increasing number of expiring contracts. John Wilker's floated a proposal to voucher-out

[16] Kevin Griffith,. 4.
[17] *Ibid*. 5.
[18] *Ibid*, 5.
[19] Conversation with Carla Pedone, The Congressional Budget Office, October 16, 1999.

all rent subsidy contracts upon expiration.[20] This plan was popular with opponents of project-based housing for ideological reasons, but for practical reasons, failed to win ultimate support. The Congressional Budget Office realized that, because all project-based mortgages are FHA insured and over half of the building owners receive subsidies over comparable market rents, vouchering-out tenant benefits would cause many owners to default on their loans. This large-scale default would encumber the government with expensive and adversarial foreclosure proceedings, large debt, and abandoned properties.[21]

In 1996, Congress adopted a third middle approach, "portfolio re-engineering," as a demonstration program. This demonstration grew into HUD's current policy, Section 8 Renewal and Restructuring Program FY '99 (beginning October 1, 1998). The program, also referred to as Mark-to-Market, is designed to passively preserve the housing stock, while lowering yearly HUD appropriations. Under this policy, expired contracts are eligible for one-year renewals. However, if the total contract amount is above 120 percent FMR, the owner must operate with HAP payments at 100 percent FMR or allow HUD to restructure the loan. If the loan is restructured, HUD pays off the FHA loan and authorizes a new loan so that monthly HAP payments are equivalent to the area's comparable rents. The debt that cannot be serviced with the market HAP payment is converted into a "soft" second mortgage.[22] HUD does make one exception: projects in unsatisfactory physical conditions are ineligible for renewal.

This policy primarily does two things. First, it gives the project owners the power to choose whether or not to continue in the program. Second, it establishes a framework for determining the amount of subsidy the government will offer if the owner decides to renew the contract.[23] To decide whether or not to renew, owners will compare the new government offers with the returns from market-rate housing. Because the owner has the choice to renew or not, this evaluation of the owner's economic alternative will determine the future of most affordable housing assisted by rent subsidy contracts.

II. DATA USED AND METHODOLOGY

To evaluate the difference in market characteristics, household and neighborhood types, and project types and program benefits between opt-out versus renewal projects, this evaluation uses three primary data sets. All three originated from HUD. The first data set is called *A Picture of Subsidized*

[20] *Ibid*, 1999.
[21] Griffith, 8.
[22] *Ibid*, 8.

Housing. I downloaded this database from the Huduser's web site in January of 1999. HUD compiles these files by using compliance reports collected at the end of each fiscal year. The other two data sets are HUD's *Expiring Section 8 Contracts* 1997 and 1998 versions. I downloaded the 1997 version in January of 1999 from HUD's web site and received the 1998 version on disk from HUD in March of 1999.[24]

A Picture of Subsidized Housing provides the most comprehensive information about assisted families. HUD compiles the set from the Tenant Rental Assistance and Certification System (TRACS). The accuracy of this data is questionable. Missing and confusing data is a problem. For example, in some cases, a zero value indicates a missing value, while in others zero indicates 0. Also, the information originates from compliance paperwork collected in the field. As a result, we cannot tell who completed the form. The property manager may complete the form using best guesses or detailed checks. HUD is confident about the income numbers because they are rigorously verified. However, respondents are more likely to falsify income information because it directly affects rents. Also, in some instances only 60 percent of families filled in demographic information.

Expiring Section 8 Contracts provides the only comprehensive information about Section 8 Contracts. HUD uses TRACS and Real Estate Management System (REMS) to compile the set. The 1997 version is 75-85 percent accurate.[25] The 1998 data set significantly improved on old errors in the 1997 Expiring Section 8 data set.[26] However, this version deleted several key variables. Most importantly, the new set omits original expiration dates. Additionally, the set is missing about 200 contracts, or about 10 percent of all contracts.

To "clean-up" the 1997 Expiring Contracts data set, I linked it with the 1998 version (see table2). Project numbers directly linked one set to the other. Unfortunately, *Expiring Section 8 Contracts* and *A Picture of Subsidized Housing* do not have a common variable. I used addresses and project names to link the sets by hand. Because of significant errors in both sets, some projects shared neither project names nor addresses. However, if the projects shared other characteristics, such as number of units or similar address or project names, the records were likely referring to the same project. When I was in doubt, I did not link records.

[23] National Low Income Housing Coalition, Http://www.nlihc.org
[24] This data set is not yet on the web.
[25] According to Lauren Hughes, HUD Systems Analyst, Multi-family Housing, phone conversation February 11, 1999.
[26] *Ibid.*

Table 2 - Linked Databases

	Expiring Section 8 Contracts, 1997 Version	Expiring Section 8 Contracts, 1998 Version	Picture of Subsidized Housing
# of records	2,175	2,177	2,441
Included in final set	100%	99%	2,143 (88%)

To generate the demographic and market characteristics of project neighborhoods, I used the census tract as a proxy for neighborhoods. Defining a neighborhood for analytical purposes is difficult. However, the closest measurable unit to a neighborhood (especially an urban neighborhood) is the census tract, which the Bureau of the Census defines as "a relatively homogenous area with respect to population characteristics, economic status, and living conditions with an average population of 4,000."[27] To establish census tract numbers for each contract, I geocoded contract addresses contained in Expiring Section 8 Contracts, 1998. Project points were linked spatially to generate census tracts and corresponding demographic data. I could not locate 159 contract addresses, or 7.3 percent of the cases. These unmatched projects disproportionately are single-unit scatter site developments in San Bernardino and Los Angeles Counties.

To compare opt-out projects to renewals, I selected contracts that expired before January 1, 1999. I retained the original expiration dates from the 1997 version of HUD's Expiring Section 8 Contracts database. Of the 2,176 contracts, only 8 had missing expiration dates. I chose January 1, 1999 as the cut off because it corresponds approximately to the time period I collected opt-out information, January 1999 –April 1999 and allows for lag times in reporting from the HUD's regional offices to DC Headquarters. Eight hundred and thirty nine contracts — 39 percent of the contracts in the combined database — expired before January 1, 1999.

Project Opt-outs Methodology

Compiling a list of California's opt-out projects was difficult for several reasons. First, HUD's Multifamily Housing Division began keeping an automated listing of Opt-Outs only in the last quarter of 1997.[28] Therefore, HUD could not provide information about projects that opted-out in the early part of 1997. Also, Multifamily measures opt-outs by owner notification of intent to opt-out. However, upon

[27] Kasarda, 254.

[28] Lauren Hughes, Associate Systems Analyst, HUD provided me with a comprehensive list of opt-outs in February of 1999. Many of the projects did not match information I was getting from the PHAs. Ms. Hughes explained that the Multifamily only started compiling opt-out information electronically in the last quarter of 1997.

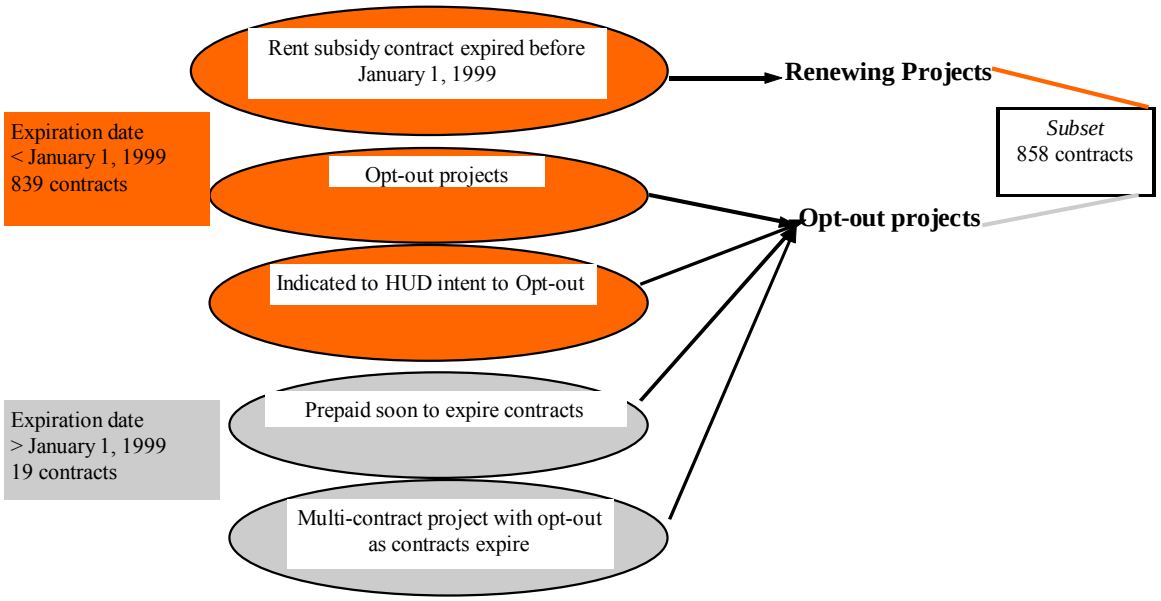
notification, owners have 180 days to change their minds. To get a list of actual opt-outs, I cross-referenced HUD's opt-out list with the opt-outs PHAs reported to me by telephone. PHAs tended to count pre-payments as opt-outs. In order to separate out prepayments, I checked that each reported project had a Section 8 contract that expired prior to January 1, 1999.[29] If both conditions were not met, I considered the projects prepayments not opt-outs.[30] This methodology may underreport the number of projects that opted-out of the program before 1999 because of inaccurate or unavailable information and lag time issues.

To empirically analyze opt-out projects against renewals, two types of projects were added to the opt-out category. These projects have not opted-out but have initiated the opt-out process. First, projects that have indicated to HUD's multifamily office that they intend to opt-out were added. Also, projects that have prepaid their mortgages but Section 8 contracts had not yet expired were added. The rationale for adding these projects is two-fold. First, when owners indicate to HUD's office an intent to opt-out, they waive their renewal option. If the owner changes their mind, they must reinstate a renewal contract, which is a lengthy process. Thus, owners who indicate plans to opt-out and change their minds are serious about opting-out and will likely do so when their prepayment financing is complete. Also, without exception, projects that have prepaid before their contract expired opted-out of the program when their contract expired. The category "renewal projects" include only those projects whose contracts expired before January 1, 1999 and have renewed their contracts. Using this methodology, 79 projects are classified as opt-outs, while 779 project are classified as renewals.

Table 3: Subset Linking Success

	Total	Missing Cases	Missing Cases as % of Total
Contract Information – Section 8 Expiring Contracts	858	0	0%
Tenant Information - Picture of Subsidized Housing	833	26	3%
Tract demographics - 1990 Census and 1997 Estimates	815	46	5%

[29] To do this, I used the joined Picture of Subsidized Housing and Expiring Section 8 Contracts.
[30] See attachment 1 for complete list.



III. RENEWING VERSUS OPT-OUT PROJECTS

The leading theory of what determines conversion decisions is that several factors—program structure, housing markets, physical conditions of property and owner type (nonprofit or for profit)—work in combination to determine owner decision-making.[31] This analysis evaluates the impact of local housing markets and neighborhood type, and project and tenant type on conversion decisions. This section describes three primary steps in the overall analysis. First, it presents basic results of differences in means between opt-out and renewing projects considering several variables, generally categorized as "market conditions," "project types," "neighborhood characteristics," and "household characteristics." Tested for statistical validity, these differences in means are preliminary evidence of the differences between opt-out and renewing projects. Second, it presents linear regressions and logistic regression models to determine the degree to which the variables affect conversion outcomes. Last, it provides an interpretation of the regression models.

Market Conditions

As discussed above, the current HUD policy places renewal and opt-out decisions primarily in the hands of project owners. Accordingly, the future of units will involve an evaluation of the owners' economic alternatives. Assuming project owners make economically rational choices, owners will

compare the renewal offer with what they believe the property can command on the market. To capture market conditions around a project and to compare those against the project's current agreement with HUD, I consider three variables. The first is 1990 and 1997 estimated housing vacancy rates.[32] Vacancy rates in the tract surrounding the property are a good indicator of the "tightness or softness" of the neighborhood's housing market. Typically, a local housing market is considered soft if the vacancy rate is 7.5 percent or higher.[33] Markets are considered tight at less than 7.5 percent and extremely tight at 5 percent vacancy rates. In soft housing markets, owners will likely be more hesitant about converting their properties to market because more units than renters are available. Inversely, in a tight rental market owners may feel especially secure about opting-out because they can commonly command rents far higher than would otherwise be yielded by the property.

California's housing markets, particularly the urban markets, are among the tightest in the country. Vacancy rates in the neighborhoods surrounding the relevant subset of projects ranged from 1-39 percent in 1990, and an estimated 1-37 percent in 1997. The average neighborhood vacancy rate was 6.4 percent in 1990, and an estimated 6.9 percent in 1997.[34] Because of the market dynamics described above, one would expect the mean vacancy rate surrounding opt-outs to be lower than those surrounding renewals.

In fact, the initial analysis of all the projects in the subset produced the expected outcome. However, this result was not statistically significant. To correct for urban-rural heterogeneity, I then analyzed only projects in the major metropolitan areas of the state, the Los Angeles, San Diego, and San Francisco MSAs. Yet, controlling for urban-rural heterogeneity by selecting out rural projects also did not produce a statistically significant relationship between lower vacancy rates and opt-outs; instead, it produced an entirely unexpected outcome. When examined separately, the urban opt-out projects exhibit slightly *higher* average vacancy rates than do renewals.

The San Francisco Bay Area may explain this surprising result. Although the San Francisco Bay Area is among the tightest low-vacancy/high cost housing markets in the country,[35] as of January 1, 1999, the City of San Francisco did not have a single opt-out.[36] Indeed, when the City of San Francisco is

[31] *Affordable Rental Housing at Risk of Conversion, HCD and conversation with Suplitanya program officer at HUD, San Francisco Office.*
[32] Although 1997 estimates are not as reliable as 1990 figures, I used 1997 estimates because rates are subject to strong fluctuations in a seven year period.
[33] Case Studies of Vouchered-Out Assisted Properties, HUD.
[34] N=812, 95 percent of 858 subset.
[35] *Ibid.*
[36] Notably, the City of San Francisco has a strong preservation ordinance that gives incentives to owners to stay in the program. (See City of San Francisco preservation ordinance.) This preservation ordinance and/or the extreme concentration of the City's projects in Hunters Point (33 percent) and in the Western Addition (52 percent), areas where the market is tight but generally low cost, may explain the complete non-

excluded from the analysis, the expected relationship reemerges: the average vacancy rate surrounding opt-out projects is lower than that surrounding renewing projects. However, even this correction for inter-urban differences does not produce a statistically significant difference in the respective means. Therefore, in all instances, the relationship between lower vacancy rates and opt-outs could have occurred by chance.

The second and third variables considered are 1990 median rent and home value.[37] Here, one anticipates that opt-outs occur in areas with higher median rent and/or home values. Median rent values demonstrates the expected relationship and are statistically significant. Unexpectedly, however, median home values on average are higher around renewing properties than they are around opt-out properties. Importantly, the expected relationship between higher home value and opt-outs is established by correcting for urban-rural heterogeneity. Combined analysis of urban and rural home values likely skews the results because the variation between average urban and rural home values is so great. For example, a renewal project in Santa Clara County (the fastest growing and tightest housing market in the state) may be in a tract with a median home value of $300,000, whereas, an opt-out project in Fresno may be in a tract with a median home value of $120,000. In light of this substantial regional disparity in home values, I ran major metropolitan areas separately from other tracts, and the expected relationship emerged.

Table 5. Market Conditions

	OPT- OUT	N	MEAN
1990 Vacancy Rates	No	738	6.4%
	Yes	74	6.2%
1997 Estimated Vacancy rates	No	738	6.9%
	Yes	74	6.5%
1997 Estimated Vacancy Rates – In Major MSAs	No	604	7.0%
	Yes	39	7.1%
1997 Estimated Vacancy Rates – Excluding San Francisco	No	668	6.8%
	Yes	68	6.5%
1990 Median Home Value	No	738	$170,442
	Yes	74	$165,078
1990 Median Rent Value**	No	738	$466
	Yes	74	$514
1990 Median Home Value Major Metropolitan Areas	No	605	$185,942

occurrence of opt-outs. (See Kevin Griffith, pg. 33.)

[37] Although median rent value is a more direct indicator of the relevant market conditions, average home value is also a good indicator of stagnant or robust market conditions that affect rental property desirability.

	Yes	42	$204,264
1990 Median Rental Value Major Metropolitan Areas***	No	605	$489
	Yes	42	$601
1990 Median Home Value outside Major Metropolitan Areas*	No	133	$99,938
	Yes	33	$113,715
1990 Median Rental Value outside Major Metropolitan Areas**	No	133	$361
	Yes	33	$404

*Significant < .1 ** Significant < .05 *** Significant <.001

In sum, of the three variables measured, only two—surrounding median rent and home values—demonstrate statistically significant differences between opt-out and renewing projects. Furthermore, the inconclusive analysis of vacancy rates indicates that the relationship between vacancy rates and opt-outs cannot be effectively analyzed at the level employed by this report and that a more localized analysis may be a necessary future project.

Project Types and Program Benefits

Project type and program benefits also affect an owner's evaluation of economic alternatives. Program benefits, in particular, are often emphasized by housing policy-makers as the strongest determinants of conversion outcomes.[38] Using the limited data available, I isolated four factors to measure this relationship. The first three factors considered are project size (measured by number of units in the housing project), percent of units with one bedroom or less, and percent of units with three or more bedrooms. These variables relate to the physical characteristics and, accordingly, marketability of projects. Smaller complexes (number of units) likely will be more attractive to market renters than will larger complexes. Additionally, number of bedrooms influences desirability. Although this factor is subject to heterogeneity of preferences based on household sizes, there is a reported shortage of rental units with more than one bedroom, particularly lower cost units.

The mean number of units in opt-outs and renewing projects is the same, 58 units. In contrast, renewing projects have a mean of 60 percent of units with one bedroom or less, while opt-out project have a mean of 41 percent. These results are statistically significant at the .01 level. Consistent with this outcome, opt-out projects have a slightly larger percent of three-plus bedroom units than do renewing projects. This result is not, however, statistically significant.

The last variable considered is the "ratio of rent to FMR." This variable serves as a proxy for the

relative value of participation in the subsidy program as compared to the value attainable through the market. The rent subsidy a Section 8 project receives is equal to the difference between the project's operating costs and the total rents paid directly by the tenants (individual rent is currently set at 30 percent of the individual tenant's income). In other words, HUD pays the project (owner) the difference between what its operating costs are and what its tenants can afford to pay. FMR (fair market rent) is a measure HUD developed, one purpose of which is to establish the maximum cost of a rental for which a voucher-assisted renter is eligible. HUD sets FMR at 60 percent of the average rental price of a sample of properties in a defined area. FMR, therefore, is a rough approximation of what rents the subsidized project might obtain through the market. In 1998, the ratio of rent to FMR for the relevant subset of properties ranged from 36 to 270 percent. In theory, properties receiving payments (tenant rent plus rent subsidy) below 100 percent FMR would be expected to opt-out of the program more frequently than properties above 100 percent FMR.[39] However, the outcome of the means analysis does not support this hypothesis. Even though the mean ratio of rent to FMR for opt-out projects is 96 percent and the mean for renewing projects is 100 percent, the difference is not statistically significant.

Table 6. Project Type and Program Benefits

	OPT-OUT	N	MEAN
Percent of Units1 bedroom or less***	No	716	60%
	Yes	71	41%
Percent of Units 3 bedrooms or more	No	716	13%
	Yes	71	16%
Size of Project (in units)	No	766	58
	Yes	73	58
Ratio of Rent to Fair Market Rent (FMR)	No	778	100%
	Yes	76	96%

*Significant < .1 ** Significant < .05 *** Significant <.001

Of the four indicators chosen to measure project types and program benefits, the only statistically significant indicator is "percent of units with one bedroom or less," which is significant at the .01 level. This indicates that units with at most one bedroom may not command the market premium that larger units can. In contrast, the number of units in a project does not seem to influence owner calculation of

[39] As discussed in Section 1, through Market-to-Market, HUD will eliminate wide range discussed above, under Market-to-Market to renew contracts, properties over 120 percent must restructure their loans to set rents at or below 120 percent FMR. Preservation advocates have argued that Market-to-Market will encourage owner opt-outs to avoid restructuring. Evidence suggests that owners will not react to restructuring requirements by opting out of the program.

market desirability. Importantly, for an indicator to truly capture market desirability, it would have to include the physical conditions of the property, for which data is simply not available, and neighborhood quality, which is considered below. Finally, the "ratio of rent to FMR" outcome suggests that it is not a good indicator of an owner's economic alternatives.

Neighborhood Characteristics

Neighborhood types strongly influence property values and market desirability and, presumably, owner ability to opt-out of the subsidy program. Therefore, one would expect opt-out projects to be located in higher amenity neighborhoods than renewing projects. To test this hypothesis, I have isolated nine factors that are proxies for neighborhood quality.

The first group of variables are income variables—percent in poverty and median tract income. Neighborhoods with high rates of poverty often lack amenities because of individual and collective purchasing power problems and weak political power to enforce fair share requirements and responsive public investment. Neighborhoods are considered "poverty neighborhoods" when the percent of persons in poverty is above 20 percent of total persons.[40] Median household income is also considered to capture neighborhoods that may be low income, but are not poor enough to meet the federal poverty standard. As anticipated, mean neighborhood poverty rates are lower and median household income is higher in the neighborhoods of opt-out projects. At the mean, renewing projects are in "poverty neighborhoods,"—22 percent poverty, while opt-outs projects are not —16 percent poverty.

The second set of variables considered are proxies for neighborhood opportunities. They are percent of persons over 16 without high school diplomas and percent of the labor force that is unemployed. Percent of adults without high school diplomas captures local high school quality (dropout rates) and adult education opportunities. Neighborhood unemployment rates can indicate access to and availability of job opportunities. Researchers of the urban underclass have combined neighborhood opportunity variables with poverty to describe "distressed" and "severely distressed neighborhoods" more succinctly.[41] Distressed neighborhoods are census tracts that exhibit disproportionately high levels of poverty and joblessness, while severely distressed neighborhoods are those that exhibit characteristics of distressed tracts plus exceptionally high levels of persons without high school diplomas.[42] Adults without high school diplomas is singled out as a defining measure of severely distressed tracts because completing

[40] Kasarda, 256.
[41] *Ibid.* 258.
[42] *Ibid*. Usually distressed neighborhoods are also measured by female-headed families and welfare recipiency.

high school is critically important for work in our economy.[43] Neighborhoods around renewing projects exhibit higher unemployment rates—11 versus 9 percent—and higher ratios of adults without high school diplomas—29 versus 21 percent. Combining these indicators with poverty results, a pattern of distressed neighborhood conditions around renewing properties emerges.

The third group of variables considered measures racial integration. Racially segregated neighborhoods, like economically segregated neighborhoods, tend to have weaker neighborhood amenities due to political and linguistic isolation, and racism. Variables considered are percent African American in 1990 and estimated percent nonwhite and Latino in 1997. I used 1997 estimates for the nonwhite and Latino population because immigration in California has transformed neighborhood demographics since 1990. As anticipated, the means of renewing projects exhibit higher percentages of nonwhite persons and Latinos than do opt-out projects.

The last set of variables examined measures homeownership opportunities. These variables are percent of housing units owner occupied in 1990 and estimates of units renter occupied in 1997. Ratios of renter to owner occupied units can indicate access to ownership opportunities and property maintenance. While not always true, renter neighborhoods can experience problems with property under investment and neighborhood instability. Renters tend to have shorter neighborhood stays than do homeowners. At the mean, opt-out projects are in neighborhoods with higher rates of owner occupied units and subsequently fewer renter occupied units. The relationship between 1990 actual and 1997 estimates is relatively constant.

Table 7. Neighborhood Conditions

	OPT-OUT	N	MEAN
Percent in Poverty, 1990***	No	740	22%
	Yes	74	16%
Median Household Income, 1990***	No	740	$24,986
	Yes	74	$31,713
Percent of Labor Force Unemployed, 1990**	No	740	11%
	Yes	74	9%
Percent of Adults without High School Diploma, 1990***	No	738	29%
	Yes	74	21%
1997 Estimated Percent Hispanic**	No	738	39%

[43] Ibid.

	Yes	74	32%
Percent Non White, 1997***	No	738	52%
	Yes	74	36%
Percent African American, 1990***	No	740	22%
	Yes	74	9%
Percent of Total Housing Units Owner Occupied, 1990***	No	740	26%
	Yes	74	35%
1997 Estimate Percent of Total Housing Units Renter Occupied***	No	738	62%
	Yes	74	52%

*Significant < .1 ** Significant < .05 *** Significant <.001

Of the nine variables measured, eight are statistically significant at the .01 level. Percent Latino, 1997 estimates, is significant at the .05 level. The results indicate that the neighborhoods of opt-out projects are likely not distressed neighborhoods, whereas renewal projects are.

Household Characteristics

The characteristics of assisted households are not considered in the dominant theory of owner conversion decision making.[44] Because rent levels are guaranteed by the contracts regardless of tenant characteristics, tenant characteristics do not relate to the economic (dis) incentives of the program. However, tenant type—old versus young, welfare or wage earners, large or small families with children—may play a role in owner decision making. For example, senior residents may be preferred to young families. Eight factors have been isolated to measure household characteristics. They are average household size, percent of household income from welfare (TANF and SSI), percent of heads of household 24 or under (age of head or spouse, whichever is older), percent of household 62 and over, percent of single parent households, percent of African American and percent nonwhite.

Table 8. Household Characteristics

	OPT-OUT	N	MEAN
Average Size of Household***	No	716	1.96
	Yes	71	2.41
Percent of Household Income from Welfare**	No	696	18%
	Yes	68	23%
Percent of Head of Households 24 or under***	No	716	7%
	Yes	71	11%

[44] HCD, *Affordable Rental Housing at Risk of Conversion*.

Percent of Households over 62***	No	716	47%
	Yes	71	32%
Percent of Families Headed by Single Parents**	No	716	24%
	Yes	71	32%
Average total household income**	No	716	$10,090
	Yes	71	$11,037
Percent of Tenants African American***	No	716	30%
	Yes	71	17%
Percent of Tenants Nonwhite***	No	716	69%
	Yes	72	54%

*Significant < .1 ** Significant < .05 *** Significant <. 001

Of the eight variables selected, five are significant at the .01 level. They are average household size, percent of heads of households 24 or under, percent of households over 62, average total household income, and percent of tenants African American and percent of tenants nonwhite. The remaining three variables are significant at the .05 level. From this evidence, a clear picture of the tenants of opt-out projects versus renewing projects emerges.

The average household size is 2.41 for opt-outs and 1.96 for renewals. The mean percent of wages from welfare (TANF & SSI) and percent of household heads under 24 are higher in opt-out projects. Alternatively, the mean percent of households over 62 are higher in renewing projects. Projects with larger proportions of senior tenants tend to renew, whereas opt-outs tend to house very young and single parent households, many of whom receive welfare. Whether these results indicate a preference for senior households for the marketability of larger bedroom units—or a combination of both—is impossible to ascertain.

The last set of variables, average total household income and percent of households African American and nonwhite, demonstrates an unexpected result. The tenants of opt-out projects tend to be higher income households and are more likely white than are residents of renewing properties. This result can be explained by a tenant or landlord selection bias. Opt-out projects are in higher income and predominantly white neighborhoods than are renewing projects. Accordingly, owners and landlords may have discriminated against households of color at these properties. Conversely, because of fear of racial discrimination or to remain close to support systems, tenants of color may not have applied at the same rate as whites to live in opt-out projects. Tenants on average have higher incomes at opt-out projects than at renewal projects and this can result from tenant selection bias or may be the result of increased income

stemming from higher neighborhood quality. From the data, it is impossible to deduce how the differences in means were generated.

The basic results of difference in means between opt-out and renewing projects considering several variables generally categorized as "market conditions," "project types," "neighborhood characteristics," and "household characteristics," revealed that compared to renewing projects:

1) Opt-outs occur in markets with higher median rent value;

2) Opt-outs have a lower percentage of one bedroom and smaller units;

3) Opt-outs occur in neighborhoods with a lower percentage of residents in poverty, a higher median income, a lower percentage of unemployment, a lower percentage without high school diplomas, a lower percentage of Hispanic, African-American, and nonwhite residents, a higher percentage of owner-occupied housing units, and a lower percentage of renter-occupied units; and

4) Opt-out projects house tenants with large families, more income from welfare, younger households (more household heads 24 and under, and fewer seniors), more single parent headed households, higher incomes, and tenants who are less likely to be African-American and more likely to be white.

In short, the preliminary evidence suggests that opt-outs are more likely to occur in complexes with a higher percentage of two bedroom and larger units, in wealthier, more expensive, "whiter" neighborhoods, and to affect younger families often headed by a single parent.

Linear Regression

To evaluate the degree of influence each of these variables may have on conversion decisions and the relationship of the independent variables, I constructed and applied multivariate regression models. The purpose of the multivariate analysis is to identify the separate and independent contribution of the potential causal factors. Linear regression generates a first-degree curve, with the form $Y_c = a + bX$. The a parameter for the linear curve is equal to the Y intercept or the value of Yc *when* X is equal to zero.[45] The b parameter is the slope of the line or the change in the dependent variable Yc for a unit change in the independent variable X.[46] Independent variables are used to predict the value of the dependent variable. The model estimates the coefficients of the linear equation. Logit regression, a type of linear regression, is used to analyze a categorical dependant variable. First, I used linear logit and simple regression to

[45] Klosterman, 10.
[46] *Ibid*.

examine the categories of variables identified in Section 3 above as a function of opt-out and renewal outcomes. Second, I employed a logistic regression model, which includes selected variables and controls for owner profit motivation and urbanization to create slope estimates.

Table 9 presents the slope estimates from a logit and an ordinary least squares (OLS) regression. This table includes a subset of variables means-tested above. Of the variables means-tested, many were excluded due to co-linearity among independent variables. In particular, the nine proxies for neighborhood quality and eight variables describing household characteristics are strongly collinear.[47] Although the neighborhood variables are significant individually, many have stronger correlation with each other than with the dependent variable. This indicates that in neighborhoods around projects, poverty, racial segregation, high unemployment, and low educational achievement commingle. Using a Pearson two-tailed correlation, poverty correlates positively with percent of population nonwhite, unemployed, and without high school diploma at around .7 at <. 001 significance. Consequently, percent poverty is not included in the table (see Appendix A for further detail). The variables "percent of persons African-American," "percent of adults without high school diploma," and "1990 and 1997 estimated percent of housing units renter occupied" are included in the table because these variables are strongly correlated to the dependant variable and are reasonably independent of one another.

Likewise, the eight variables describing household characteristics are strongly co-linear (see Appendix B for further detail). "Percent of single-parent families," "percent head of households under 24," and "percent wages from welfare," positively correlate at around .65 with significance <. 001. Accordingly, the variable single parent headed has been excluded. The variables "percent households over 62" and "family size" negatively co-vary at .81 with significance <. 001. Consequently, family size has been excluded.

The variables employed in the multivariate analysis are:

1. 1997. Estimated vacancy rates, by tract;
2. 1990. Median rent value, by tract;
3. 1990. Percent African America, by tract;
4. 1990. Percent of adults without high school diploma, by tract;
5. 1997. Estimated percent of housing units renter occupied, by tract;
6. Percent of units with one bedroom or less, by project,

[47] See Appendix A.

7. Number of units in project, by contract;
8. Ratio of rent to Fair Market Rent, by contract;
9. Percent of household income from welfare, by project;
10. Percent of households 62 and over, by household;
11. Percent of households nonwhite, by household,
12. Average household income, by project; and
13. Head of household 24 or less, by household.

Each variable has two lines. The top line reports the coefficient; the bottom, the standard error. The asterisks indicate which of the variables have statistical significance, from significance levels of .1(*), .05(**), and .01(***).

Table 9: Variable types using linear and logit regression

Dependent Variable: Opinion	***Significant at .01%							
	logit	linear	logit	linear	logit	linear	logit	linear
A. Market Conditions								
1997 Estimated Vacancy Rates	-1.2150	-0.1011						
	2.8190	.2109						
1990 Median Rent Value	0.0023**	0.0002**						
	0.0008	0.0001						
B. Neighborhood Characteristics								
Percent African American, 1990			-2.6422**	-0.1235**				
			0.9223	0.0392				
Percent of Adults without Highschool Diploma, 1990			-2.2502**	-0.1779**				
			1.3775	0.0807				
1997 Estimated Percent Housing Units Renter Occupied			-1.3775**	-0.1255**				
			0.74958	0.0563				
C. Project and Program Type								
Percent units with one bedroom or less					-0.0134***	-0.0012***		
					0.0034	0.0003		
Size of Project					0.0001	.0000		
					0.0024	0.0002		
Fair Market Rent					-0.0610	-0.0054		
					0.4012	0.0311		
D. Household Characteristics								
Percent wages from welfare							0.0158*	0.0009
							0.012	0.0009
Percent household 62 and over							-0.0171**	-0.0011**
							0.007	0.0005
Percent household non white							-0.0271***	-0.0021***
							0.0047	0.0004
Average Household Income							0.1042**	0.0084**
							0.0517	0.0043
Head of Household 24 or less							.02158	.0030**
							.0161	.0015
Constant	-3.4086***	0.0011	-0.6498*	0.2377***	-1.6081***	0.1550***	-1.6009	0.1593
	0.4946	0.0377	0.3736	0.0324	0.4439	0.0360	0.9963	0.0821
Number of Observations	812	812	812	812	772	772	764	764
F Statistic on overall significance	0.023	0.0179	.000	.000	0.001	.000	.000	.000
(Prob > x^2)								
Adjusted (or pseudo) R^2	0.016	0.008	0.0784	0.039	0.0352	0.021	0.125	0.070
* Significant at 1%								
** Significant at 5%								

The results of table 9 are suggestive. At this statewide level of analysis, neighborhood and household

characteristics are better predictors of owner conversion decisions than are market and project characteristics. According to the pseudo R^2 results, household characteristics explain 14 percent of the variation between opt-out and renewing, neighborhood characteristics explain 8 percent, project and program types 4 percent and market conditions explain 2 percent. The state level of analysis can explain the relative strength of neighborhood characteristic results in contrast to local housing market results. Another possible explanation is that neighborhood quality, more than vacancy rates and median rent prices, influence a unit's desirability to renters or the owner's perception of the unit's desirability.

Each of the proxies for neighborhood quality are negatively correlated with opt-outs and are significant at the .05 level in OLS regression and in logit. Considering the linear regression results, for each additional percent African American in the neighborhood, the chance of projects opting-out decreases by 12 percent. For each additional percent adult without high school diplomas, the chance of projects opting out decreases by 18 percent. And for each additional percent of renter occupied units, the chance of projects opting-out decreases by 13 percent.

Table 5 also confirms the preliminary results of household characteristics. Projects with heads of households under 24 and/or households receiving larger proportion of income from welfare are more likely to opt-out of the program. These results are statistically significant but the unit change in the independent variables corresponds to less than a 1 percent change in conversion outcomes. Also significant are the results of the selection bias (owner or renter). For each additional percent of the projects' tenants being nonwhite, the likelihood of opt-out decreases by .2 percent. Higher tenant income increases the likelihood of opt-out by 1 percent.

Logistic Regression Models

For this analysis, the logistic regression models place the likelihood of opt-out as the dependent variable (1 = opt-out, 0 = renewal). The two versions of the model presented include (1) a model without dummy variables, and (2) a model with dummy variables. The range of independent variables included in these models encompasses variables relating to the individual households and projects, as well as characteristic of census tracts in which the project is located. The variables considered are:

1. 1997. Estimated vacancy rates, by tract;
2. 1990. Median rent value, by tract;
3. 1990. Percent African American, by tract;
4. 1997. Estimated Percent of Housing units renter occupied, by tract;

5. Percent of units with one bedroom or less, by project;
6. Number of units in project by contract;
7. Ratio of rent to Fair Market Rent by contract;
8. Percent of household income from welfare, by project; and
9. Percent of households 62 and over, by project.

As in table 9, the variables are organized by market conditions, neighborhood and tenant characteristics, and project types.[48] The "Probability Ratio," listed on the right-hand side of the table, represents the probability of a "yes" (opt-out) outcome associated with each one-unit change in the independent variable. The asterisks indicate which of the variables have statistical significance, from confidence levels of .1*, .05**, .01***.

Table 10: Results of Model without Dummies

Variable	B	S.E.	Wald	df	Sig	"Odds Ratio"
Market Conditions						
1997 Estimated Vacancy Rates	-5.4213	4.7324	1.3123	1	0.252	0%
1990 Median Rent	-7.20E-06	0.0012	0	1	0.9951	0%
Neighborhood Characteristics						
Percent African American, 1990	-0.023	0.0068	11.3483	1	0.0008***	-15.5%
Percent Adults without High school Diploma	-4.5671	1.4106	10.4822	1	0.0012***	-14.7%
1997 Estimated Percent Renter Occupied	-0.1693	1.0359	0.0267	1	0.8702	0%
Project Characteristics						
Percent of units with one bedroom or less	0.0106	0.0073	2.0648	1	0.1507	1.3%
Size of Project	-0.0026	0.0033	0.6291	1	0.4277	0.0%
% of FMR	-0.3861	0.4752	0.6602	1	0.4165	0.0%
Household Characteristics						
Percent of Wages from Welfare	0.02	0.0113	3.1379	1	0.0756*	5.4%
Percent of households 62 and over	-0.0308	0.0093	11.0658	1	0.0009***	-15.2%
Constant	0.4526	1.163	0.1514	1	0.6972	

Table 10 shows the results for the model without dummy variables. Notably, based on the 702 cases included, this model successfully predicted the outcome 92 percent of the time (see Appendix C). However, the inaccurate predictions overwhelmingly are yes or 1. Of the 10 variables included in this model, four are statistically significant. These are the neighborhood and household characteristic variables. As the "odds ratios" indicate, the strongest negatively correlated variable is percent of the tract African American. The results indicate that, all other factors being equal, a project's chance of opting-out decreased by 15.5 percent for every increase in percent of the population African American. Similarly, a

[48] The tenant characteristics that relate to selection bias described above —percent of households' nonwhite and average household income shown in table 9— are not included in the models.

project's chance of opting out decreases by 14.7 percent of every unit increase in percent of the population without high school diplomas.

Among the household characteristics, percent of households 62 and over is negatively correlated with opt-outs, whereas percent of household wages from welfare positively correlates with opt-out. The results indicate that for every unit increase in tenants over 62, the changes of opt-out decrease by 15.2 percent. Finally, the results show that welfare recipients are 5.4 percent more likely than other tenants to have their homes converted to market-rate housing.

Control Variables

I have controlled for two factors to correct for nonprofit ownership continuation in the program and urban/rural heterogeneity. I add a dummy equal to 1 if the project owner is for profit and to 0 if the project owner is not for profit. Nonprofit ownership is generally associated with program continuation. I also added a dichotomous dummy variable to separate the metropolitan statistical areas —Los Angeles, San Francisco and San Diego— from other areas.

Table 11: Results of Model with Dummies[49]

Variable	B	S.E.	Wald	df	Sig	"Odds Ratio"
Market Conditions						
1997 Estimated Vacancy Rates	-6.7533	5.0017	1.8231	1	.1770	0%
1990 Median Rent	0.0023	0.0017	1.8519	1	.1736	0%
Neighborhood Characteristics						
Percent African American, 1990	-2.937	1.1763	6.2343	1	0.0125**	-10.7%
Percent Adults without High school Diploma	-2.1762	1.5551	1.952	1	.1617	0.0%
1997 Estimated Percent Renter Occupied	0.2731	1.1143	0.0601	1	.8064	0%
Project Characteristics						
Percent of units with one bedroom or less	0.0065	0.0076	0.7289	1	.3932	0.0%
Size of Project	-0.0051	0.0038	1.7943	1	.1804	0.0%
% of FMR	-0.2111	0.4855	0.189	1	.6637	0.0%
Household Characteristics						
Percent of Wages from Welfare	0.0122	0.0122	1.0014	1	.3170	0.0%
Percent of households 62 and over	-0.0245	0.0097	6.4237	1	.0113**	-10.90%
Dummy						
For Profit	0.6988	0.3388	4.2545	1	.0391**	7.8%
Urban	-1.0879	0.4681	5.4009	1	.0201**	-9.6%
Constant	0.1438	1.2166	0.014	1	.9059	

Of the 12 variables tested, three —urban, percent of households 64 and over, and percent of total persons in the tract African American—are negatively correlated and are statistically significant at the .05 level. Profit motivation is positively correlated with opt-outs and is also statistically significant at the .05 level. As the "odds ratios" indicate, the strongest negatively correlated variables are percent of households

[49] For results with just profit dummy, See Appendix D.

over 62 followed closely by percent of tract African American. Both dummy variables show significant results. All other factors being equal, a for profit project is 7.8 percent more likely to opt-out than a not-for-profit. Projects in the State's major MSAs are 9.6 percent more likely to not opt-out then are projects outside the MSA.

Table 12 presents the slope estimates from logistic regression combining all the relevant variables and controls for profit motivation and for interstate market heterogeneity. Before adding dummies, neighborhood quality proxies and household character contain the statistically significant variables. Controlling for profit motivation strengthens the already significant variables and does not make market

Table 12 – Results of Slope Estimates –All Models

Dependent Variable: Opt-out	*Model 1*	*Model 2*	*Model 3*
	logit	logit	logit
A. Characteristics by Tract			
1997 Estimated Vacancy Rates	-5.0851	-5.5392	-5.7023
	4.7329	5.0035	5.0616
1990 Median Rent Value	0.0008	-0.0003	0.0025
	0.0012	0.0013	0.0017
B. Tract Demographic and Housing Characteristics			
Percent African American, 1990	-3.9233***	-3.8577***	-3.0167**
	1.1235	1.1460	1.2060
Percent of Adults without High school Diploma	-3.9171**	-3.5183**	-1.9884
	1.3665	1.4319	1.5681
1997 Estimated Percent Housing Units Renter Occupied	-0.5014	-0.4704	0.2149
	1.03	1.0663	1.1100
C. Project Characteristics by Contract			
Percent units with one bedroom or less	0.0044	0.0051	0.0061
	0.0072	0.0073	0.0076
Size of Project	-0.002	-0.0043	-0.0046
	0.00331	0.0038	0.0038
Fair Market Rent	-0.40414	-0.1833	-0.1953
	0.4695	0.4816	0.4849
D. Household Characteristics by Contract			
Percent wages from welfare	0.0161*	0.0179*	0.01265
	0.0112	0.0117	0.01224
Percent household 62 and over	-0.0231**	-0.0229**	-0.0238**
	0.0091	0.0094	0.0097
E. Controls			
Profit Motivation		0.6835**	0.6846**
		0.336	0.3393
Major Metropolitan Statistical Area			-1.1705**
			0.4729
Constant	0.8984	0.1811	-1.1688
	1.1335	1.2185	1.3677
Number of Observation	702	576	576
F Statistic on overall significance	0.00	0.00	0.00
(Prob > x^2)			
Adjusted (or pseudo) R^2	0.1586	0.1759	0.1928
* Significant at 1%			
** Significant at 5%			
*** Significant at 10%			

or project characteristics significant. Market and project characteristics remain insignificant when urban/rural heterogeneity is controlled for. Additionally, the urban dummy weakens the neighborhood

results. Weakened results likely occur with the urban dummy because urban and selected neighborhood quality characteristics co-vary.

Model 1: $$\text{Prob}(y=1) = e^{(.8984 + -5.0851*(97\_vac) + .0008 * (90\_mrent) + -3.9233 * (90\ P\_AA) + -3.9171 * (p\_nodip) + -.5014\ (97\_prent) + .0044\ (Un\_size) + -.404\ (r\_FMR) + .0161\ (H\_welf) + (-.0231\ (p\_62))} / (1 + e^{(.8984 + -5.0851*(97\_vac) + .0008 * (90\_mrent) + -3.9233 * (90\ P\_AA) + -3.9171 * (p\_nodip) + -.5014\ (97\_prent) + .0044\ (Un\_size) + -.404\ (r\_FMR) + .0161\ (H\_welf) + (-.0231\ (p\_62)})$$

Interpretation

The results of these regression models serve to confirm some of the initial findings from the descriptive analysis of the data. This analysis has generated two major findings. First, the data shows a differential in opt-outs depending on the project's neighborhood characteristics. In particular, the models confirm that racial composition of neighborhoods (measured by percent African American) decreases the likelihood of opt-outs by about 15 percent. In addition, the models without the urban dummy (see Appendix C & D), showed that lower percent of persons without high school diploma improve chances of opt-out by around 15 percent. Recalling the co-linearity of neighborhood poverty, racial segregation, unemployment and percent persons without high school diplomas demonstrated in Appendix A, a description of renewing project's versus opt-out projects neighborhoods emerges. The evidence suggests that the culmination of factors which influence owner conversion decision-making encourages projects in racially integrated, higher opportunity neighborhoods to opt-out of the program, and projects serving seniors tend toward renewal. These relationships are demonstrated in means comparisons, linear and logistic regression and survive corrections for profit motivation and urban/rural heterogeneity. The second major finding is that tenant characteristics matter. Projects with heads of household under 24 and/or households receiving larger proportion of income from welfare, are more likely to opt-out of the program. Conversely, projects serving seniors are more likely to renew their contracts.

IV. SACRAMENTO COUNTY - *A CASE STUDY*

Knowledge of where vouchered-out families find replacement housing is key to an evaluation of the impacts of voluntary owner opt-outs on assisted households. This section briefly examines the neighborhood outcomes for households who received portable vouchers upon owner opt-outs in two projects in Sacramento County, Discovery Park and Shade Tree and tests the impact of household size and income on new neighborhood types.

Researchers have demonstrated several key findings about how assisted households find housing.

First, for several reasons, families tend to limit their housing searches to the area immediately around their current residence.[50] Second, researchers have also demonstrated that, despite these significant housing search limitations, unlike project-based assistance, voucher programs in general "appear to reduce the probability that families will live in the most economically and socially distressed areas."[51] However, opted-out families face the challenge of moving from projects in the best of project-based neighborhoods to using vouchers to find replacement housing on their own. Therefore, the general finding may not hold true for these families

Availability of Data

When this study was conducted, very few projects had opted-out of the rent subsidy program, and the PHAs across the state had limited accessible information about what happened to the vouchered-out families. Sacramento's Public Housing Authority was an exception. Sacramento's PHA provided the census tracts of family's pre- and post-move on five opt-out and seven prepayment projects. Of these projects, the vast majority of households used their portable vouchers to stay in place. Of the 515 families in these 12 projects, 83 (16 percent) moved. This is consistent with the findings in a recent study sponsored by HUD in which households, even in extreme circumstances, expressed strong preferences for staying in their units. In *Case Studies of Vouchered-Out Assisted Properties,* researchers interviewed tenants who were vouchered-out because their previous housing units were so substandard that the properties were destroyed. Over one-half of these vouchered-out families said they were unhappy about moving, and some said they would have preferred to stay in their previous development.[52]

Despite the strong tendency of newly vouchered tenants to stay in their units, in two of the twelve projects in Sacramento County, all the families moved. At Discovery Park , the reason for the universal move is clear—the owner refused to accept vouchers. In contrast, no easily discernible explanation for the Shade Tree exodus exists. By assembling a database that links the spatial coordinate of each household's destination to the socioeconomic characteristics of the surrounding neighborhood, I determined whether families located in more or less racially and economically integrated neighborhoods and the affect household size and income had on neighborhood location outcomes.[53]

[50] (i) a family may not have a car and, therefore, must stay close to public transportation in a familiar area; (ii) they may want to stay close to their established support systems; (iii) perhaps guided by realistic concerns about discrimination, they may want to look for housing in "safe" areas already familiar to them; and (iv) the local PHA may provide a housing search list that includes only nearby properties.
[51] Newman, 703.
[52] *Ibid*. xviii.
[53] The information provided by Sacramento County's PHA did not include household size and income as explicit variables.

Discovery Park and Shade Tree Families Pre- and Post-Moves

Discovery Park is a 177 unit multi-family development with four separate Section 8 rent subsidy contracts. The owner has indicated to HUD that all four contracts will opt-out of the program. Thirty-two families were vouchered-out by the particular contract for which I was given data. The data shows that most households moved to neighborhoods with higher rates of poverty. While the post-move neighborhoods, mean poverty rates are 15.4 percent, under the 20 percent "distressed neighborhood" cut off, the level is substantially higher than Discovery Park's 6.7 percent poverty level. Of the 32 movers, 25 moved to higher poverty neighborhoods and 22 located in neighborhoods with higher rates of unemployment. Most families also moved to neighborhoods with a higher percent African American and Latinos. In short, vouchered-out families overall moved to more racially segregated neighborhoods with higher rates of poverty.

	% poverty	% minority	% black and hispanic	% unemployed
Above	25	19	19	22
Same	4	4	4	4
Below	3	10	9	6

Shade Tree is a 160-unit project, of which 33 were assisted units. The data provided by Sacramento County's PHA shows the moves of 12 vouchered-out families. The project's neighborhood characteristics describe a predominantly white, largely renter-occupied neighborhood with 14 percent of the population in poverty and 13 percent without high school diplomas. Post-move, most families moved to lower poverty and higher minority neighborhoods. Post-move neighborhoods had lower rates of renter-occupied housing units, 43 percent compared to 58 percent. However, Shade Tree's neighborhood had slightly lower rates of unemployment and persons without high school diplomas than did the mean of post-move neighborhoods. While the means of the post-move neighborhoods exhibit different characteristics than does Shade Tree's neighborhood, whether moving families located in "better" or "worse quality" neighborhoods is not clear.

Therefore, I derived them from the available data, which included number of bedroom in the new units and tenant's rent payment. Because Housing Allowance Payments (HAP) are attached to the number of bedrooms required by a household, the number of bedrooms corresponds directly to household size. Small families cannot choose more bedrooms than needed because their HAP payment covers only their minimum requirements. Larger families have no incentive to under house themselves, because they will pay 30 percent of their income on rent regardless. I calculated approximate tenant income assuming rent paid is equal to 30 percent of tenant total income.

	% poverty	% minority	% African American and Hispanic	% unemployed
Above	2	7	7	9
Same	1	1	1	1
Below	9	4	4	2

Park and Shade Tree may be the result of certain divergent family characteristics at the two projects. Notably, Discovery Park's tenants had a much larger percent of households headed by single parents (70 versus 33 percent) and a higher percentage of African American families (45 versus 33 percent) than did Shade Tree. However, this limited amount of data cannot establish that these tenant characteristics do impact outcomes.

	Discovery Park	Shade Tree
Average Income	$9,400	$9,200
Percent of Wages from Welfare	39%	54%
Percent of Heads of Household 24 and Under	30%	6%
Percent of Households Nonwhite	76%	74%
Percent of Households African American	45%	13%
Percent of Households Single Parent Headed	70%	33%

Impact of Income and Household Size Types on Neighborhood Outcome

Knowledge about the relationships between tenant characteristics — for this report household size and income are the only variable disaggregated to the family level — and new neighborhood types is key to developing an intervention strategy. If, for example, African American families locate disproportionately in racially and economically isolated neighborhoods, confronting racial discrimination in rental housing may be an effective strategy. To test the impact that family income and household size play in location outcomes, I ran a linear regression with proxies for household size and income as the independent variables and neighborhood characteristics — percent in poverty, percent African American & Hispanic, percent non white, percent unemployed, percent renter occupied, and percent without high school diploma — as the dependent variables. I categorized household income into two dichotomous categories, incomes below $10,000 and incomes equal to or above $10,000. Household size, generated by number of bedrooms, was categorized into small families, household with 1 bedroom or less, and large families, households with 2 bedrooms or more.

Shade Tree		After Moves		
All 12 households moved	*Actual (orginial tract), 12 households*	*Mean of 12 moves*	*Small Households (0-1bed)*	*Larger Household (2-5 bedroom)*
n =	*12*	*12*	*5*	*7*
Percent non-white	16.0%	20.1%	17.0%	22.3%
Percent black and Hispanic	15.4%	17.7%	17.4%	17.8%
Percent Housing Renter Occupied	58.0%	43.4%	60.4%	31.2%
Percent Adults without High School diplomas	13.0%	13.6%	13.2%	13.9%
Percent Labor Force Unemployed	6.0%	6.4%	7.0%	5.9%
Percent in poverty	14.0%	12.0%	13.2%	11.2%

	Poverty	% African American & Hispanic	% Non White	% Unemployed	% Renter Occupied	% w/o HS Diploma
Constant	0.0708	0.165	0.26	0.0424	0.629***	0.0978
Number of Bedrooms	0.049*	0.0525	0.0071	0.024*	0.0082**	0.0482
Income	-0.0069	0.0295	0.0061	-0.0036	-0.0046	0.0087
R2	0.037	0.006	0.005	0.018	0.077	-0.003
* P<.1						
**P<.05						
***P<.001						

Of the two variables tested, household size is positively correlated with higher renter occupied neighborhoods at the .05 level, and higher poverty and unemployment at the .1 level. This indicates, that at least in the two project analyzed, larger households fare worse off in terms of neighborhood types (higher poverty and unemployment) post-move, than do smaller households.

V. IMPLICATIONS OF FINDINGS

In California, approximately 2,400 projects have Section 8 rent subsidy contracts. These projects provide approximately 120,000 units of assisted housing to approximately 300,000 very low-income people.[54] As of October 1998, the median household income in California's Section 8 households was $10,300. The elderly, people of color, and female-headed households are strongly represented: 50 percent of the tenants are elderly; 58 percent are of color. Of the households, 69 percent are female-headed.[55] Many are rightfully concerned about the risk of losing this stock which houses vulnerable populations.

[54] Author's analysis of HUD's newest version of *Expiring Section 8 Contract*, adjusted by 7 percent of missing contracts.
[55] Based on authors analysis of HUD's 1997 Section 8 Contracts merged with HUD's 1998, A Picture of Subsidies Housing. Averages are based on data provided. Of 2,177 contract lines, approximately 400 contracts are missing data.

The potential conversion of these subsidized properties to market rates raises two primary questions for housing policy-makers in California: first, how many and what types of units will opt-out; and second, where will affected families relocate. The results have implications for housing policy nationwide.

To address these questions, this paper has done the following: 1) used means testing to identify the statistically significant characteristics of projects that opt-out as compared to those that renew; 2) applied linear and logistic regression to isolate the relationship and strength of variables to conversion decisions; and 3) compared neighborhood types pre- and post-moves in two projects in Sacramento County and used regression to isolate whether or not household size and income had a significant impact on outcomes.

The data shows the locations of the projects lost and tenant characteristics in these projects, not the total number of units lost, appears the more challenging issues. In California, based on the established trends, future stock loss should range from 4 to 6 percent of the total stock.[56] This means between 4,800 – 7,200 affordable housing units will convert to market-rate housing. The impact on the individual vouchered-out households may be great. However, voluntary owner opt-outs by themselves will not substantially decrease the availability of affordable housing in California. This does not mean, however, that the total conversion risk is small. Independent of owner decisions, HUD can choose not to renew contracts, and, because it does not participate in the Section 8 rent subsidy program, 20-30 percent of California's project-based stock faces different conversion risks. For Section 8 rent subsidy projects, however, most owners will renew under the current policy. Consequently, the rent subsidy does not need to adopt new broad sweeping incentives to encourage owner renewal.

The most pressing problem is that projects lost will be those in neighborhoods that likely include racial and economic integration, employment and educational opportunities and amenities. The multivariate analysis confirmed the importance of neighborhood tract and household characteristics to owner conversion decisions. The most influential factors are percent of neighborhood residents African American, percent of neighborhood residents without a high school diploma, percent of tenants over 62 and, percent of tenants' wages from welfare. Opt-outs are more likely to occur in wealthier, racially integrated neighborhoods, and to affect younger families headed by a single parent. The instructive but not

[56] The patterns of the past opt-outs can more credibly indicate future trends if the expired and yet to expire projects are similar in terms of household types and are in comparable neighborhoods. To confirm this empirically, I have compared contracts expired before January 1, 1999 to those yet to expire. I chose the variables that most strongly influenced owner opt-outs—percent of tenants' wages from welfare, percent over 62, percent of persons in census tract without high school diplomas, and percent of persons in census tract African American. Although the means are notably different, none of the differences are statistically significant. In other words, expired contracts and those yet to expire are similar enough that they can be compared directly.

conclusive analysis of movers from two projects in Sacramento County indicates that tenants may relocate to more racially and economically segregated neighborhoods. Regression analysis revealed that larger families in these projects fared worse off than did smaller families. The evidence exposes a challenging problem caused by expiring contracts: young families residing in integrated neighborhoods, who particularly benefit from schools and job opportunities, are most likely to have their homes converted to market-rate housing. These families may be forced to moved to racially and economically isolated neighborhoods in search of shelter.

In the era of welfare reform, issues of school quality, safety, and access to transportation and job opportunities—all inextricably linked to neighborhoods—are fundamental to the success of families with young children and working adults. Assisted families have demonstrated positive outcomes that can be attributed to changes in neighborhood characteristics. The Gautreaux experiment in Chicago, which followed housing assisted families since the 1970s, has demonstrated that families who moved from the segregated inner-city into the suburbs are 13 percent more likely than inner city dwellers to have jobs, and the household's children are more likely to attend college (40 percent verses 24 percent).[57] Recently, HUD spearheaded a study of voucher-out assisted properties. Each property under study, most of which were public housing projects, were vouchered-out because of deplorable conditions.[58] In explaining why they were more satisfied in their current home, a large number of interviewees said "'better neighborhood conditions' or a 'safer neighborhood,' thereby highlighting the degree to which housing satisfaction is influenced by neighborhood conditions."[59]

HUD is aware that each dwelling unit is linked to a package of neighborhood services and amenities which, in addition to the physical condition of the unit itself, help determine the quality of life of households. Consequently, HUD has made neighborhood integration an explicit goal of housing policy since the 1980s. The findings of this analysis suggest that HUD's approach to expiring contracts is directly at odds with its stated strategy. In order to compensate, HUD should direct resource to relocating displaced families. Newly vouchered households would benefit from relocation services. Direct relocation services for families could include: 1) giving a full list of rental properties in expanded areas, 2) targeting amenity rich neighborhoods, 3) providing assistance with locating neighborhood services, particularly public transportation, 4) calculating rent, 5) filling out HUD applications, 6) understanding lease

[57] Mary Davis, 251.
[58] Case Studies of Vouchered-Out Assisted Properties
[59] *Ibid*., xvi.

agreements, 7) paying moving expenses, and 8) understanding fair housing laws.

The evidence also supports the importance of tenant characteristics. While the owner's ability to command a better or equal return with the property at market than through renewal is likely a necessary condition for opt-out, it may not be sufficient. The evidence indicates that owners prefer senior households to families, which creates a problem that policy-makers need to address. Young families are most vulnerable to having their homes converted to market-rate housing. Policy-makers can address this problem on two fronts: first, they can create renewal incentives for owners whose projects house a large percent of young families; and second, they can expand affordable housing opportunities for young families by earmarking national and state housing funds for the development of family housing.

This study shows that without targeted intervention, assisted households and housing units tend toward economically and racially isolated neighborhoods. Whether or not an owner opts-out of the program is not a random event but involves systematic factors that combine to move assisted projects closer to the mean assisted housing neighborhood type. Policy-makers must develop strategies that foster racial and economic neighborhood integration, rather than segregation, which is one of the primary mechanisms for maintaining inequality for individuals, groups and the larger community.

References

Daskal, Jennifer. 1998. "In Search of Shelter: The Growing Shortage of Affordable Rental Housing." Center on Budget and Policy Priorities, (15, June).

Davis, Mary. 1993. "The Gautreaux Assisted Housing Program." In *Housing Markets and Residential Mobility*, eds. G. Thomas Kingsley and Margery Austin Turner, Washington, D.C.: Urban Institute Press.

Farley, Reynolds, Howard Schuman, Suzanne Bianchi, Diane Colasanto, and Hirley Hatchett. 1978. "Chocolate City, Vanilla Suburbs: Will the Trend Toward Racially Separate Communities Continue?" *Social Science Research* 7: 319-441.

Griffith, Kevin C. 1997. "A Study of California's Project-based Section 8 Housing Stock and its Residents." Professional Report, Master of City Planning, University of California, Berkeley, (spring).

Hartung, John M. and Jeffery R. Henig. 1997. "Housing Vouchers and Certificates as a Strategy for Deconcentrating the Poor: Evidence from the Washington, D.C., Metropolitan Area." *Urban Affairs Review* 32:3 (January).

Hayes, R. Allen. 1995. *The Federal Government and Urban Housing.* New York: State University of New York Press, second edition.

Housing and Community Development, State of California. 1998. "Affordable Rental Housing at Risk of Conversion." (spring).

Kasarda, John D. 1993."Inner-City Concentrated Poverty and Neighborhood Distress: 1270 to 1990." *Housing Policy Debate* 4:3.

Keating, W. Dennis. 1994. *The Suburban Racial Dilemma: Housing and Neighborhoods.* Philadelphia, PA: Temple University Press.

Klosterman, Richard E. 1990. *Community Analysis and Planning Techniques.* Savage, Maryland: Rowman & Littlefield.

Massey, Douglas S. and Nancy A. Denton. 1993. *American Apartheid: Segregation and the Making of the Underclass.* Cambridge, Massachusetts: Harvard University Press.

Newman, Sandra J., Ann Schanre and William C. Apgar. 1994. "The Failure of Housing Programs to Deliver on Neighborhood Quality." *Housing Policy Debate* 5:4.

Landis, John and Richard LeGates. 1998. "Housing Planning and Policy." Working paper, 98-6, University of California, Berkeley. Institute of Urban & Regional Development.

Ong, Paul. 1998. "Subsidized Housing and Work among Welfare Recipients." *Housing Policy Debate* 9:4, 1998.

Orfield, Gary. 1985. "Ghettoziation and Its Alternatives." In *New Urban Reality* ed. Paul Peterson. Washington D.C.: Brookings Institute.

Ottensmann, John R. 1995. "Requiem for the Tipping-Point Hypotheses." *Journal of Planning Literature* 10: 131-41.

Schuman, Howard, Charlotte Steeh, Lawrence Bobo and Maria Krysan, eds. 1985. *Racial Attitudes in America: Trends and Interpretations.* Cambridge, MA: Harvard University Press.

U.S. Department of Housing and Urban Development: Office of Policy Development and Research. 1998. "Case Studies of Vouchered-Out Assisted Properties." (May).

U.S. Department of Housing and Urban Development. Office of Policy Development and Research. 1998. "Racially and Ethnically Diverse Urban Neighborhoods." *Cityscape* 4:2.

Data Sets Used

A Picture of Subsidized Housing, version 1998, information collected October 1998, online data at http://www.huduser.org/data/statedata98/explan.html, (January 1999).

Expiring Section 8 Contracts, version 12/98, HUD's Office of Multifamily Housing, sent on disk by Lauren M. Hughes, Associate Systems Analyst.

Expiring Section 8 Contracts, version 10/97, HUD, online data at http://www.hud.gov/fha/mfh.mfl~discl.html (January 1999).

Prepayment Statistics by State _California, National Low Income Housing Trust, online data at http://www.nhtinc.org/prepayment/california.html.

Attachment 1— Opt-out Contracts

	NAME	CITY	PRIMARY SOURCE	YEAR OPTED-OUT	ASSISTED UNITS
1.	BECK PARK	NORTH HOLLYWOOD	HUD	1997	120
2.	BLOSSOM HILL APIS	SAN JOSE	HUD	1998	20
3.	CENTRALPARKAPTS	MOUNTAIN VIEW	HUD	1998	148
4.	CHESTNUT MANOR 1	LONG BEACH	HUD	1998	13
5.	CHESTNUT MANOR 2	LONG BEACH	HUD	1998	10
6.	DON DE DIOS	SAN JOSE	HUD	1998	14
7.	GENESEE PARK APTS	SAN DIEGO	HUD	1997	170
8.	LAS GOLONDRINAS APTS	SAN GABRIEL	HUD	1998	45
9.	LOS ARBOLES	THOUSAND OAKS	HUD	1998	4
10.	MEYLER PARK APTS	SAN PEDRO	HUD	1997	99
11.	OCEAN VIEW APTS	LOS ANGELES	HUD	1997	21
12.	PALOALTOGARDENS	PALOALTO	HUD	1998	156
13.	RALPH KENNEDY ESTATES AKA	SACRAMENTO	HUD	1998	100
14.	SUN GARDEN PLAZA APT 1	SACRAMENTO	HUD	1998	60
15.	SUN GARDEN PLAZA APT 2	SACRAMENTO	HUD	1998	90
16.	SUNSET MANOR	FAIRFIELD	HUD	1998	89
17.	VILLA MARGARITA	MONTEBELLO	HUD	1998	28
18.	WATERMAN APARTMENTS 1	SAN BERNARDINO	HUD	1998	25
19.	WATERMAN APARTMENTS 2	SAN BERNARDINO	HUD	1998	103
20.	MANHATTAN MANOR	LOS ANGELES	PHA -Los Angeles	1997	26
21.	PIEDMONT ARMS	SACRAMENTO	PHA-Sacramento	1997	14
22.	SHADE TREE AKA LITTLE OAK	SACRAMENTO	PHA – Sacramento	1997	150
23.	WINDSORMANOR	LOSANGELES	PHA-Los Angeles	1997	16
	Source: Author's analysis of multiple sources			TOTAL UNITS	1321

Attachment 2 — Expiration Dates in California by Fiscal Year

TABLE 3: EXPIRATION DATES IN CALIFORNIA BY YEAR

Fiscal Year	Number of Contracts*	Percent of Units	Cumulative Percent
1997	36	1.7%	1.7%
1998	775	35.6%	37.3%
1999	236	10.8%	48.1%
2000	190	8.7%	56.80/o
2001	95	4.4%	61.2%
2002	93	4.3%	65.5%
2003	107	4.9%	70.4%
2004	78	3.6%	74.0%
2005	38	1.7%	75.7%
2006 +	529	24.3%	100.0%
Total	2,177	100	

Source: Author's analysis of HUDs 1997, Section 8 Contracts Data Base

Appendix A: Correlation Matrix _Neighborhood Conditions

Correlations

		PPOV9	INC MEDN90	P97NWH	P90_BL	PUNEMP9	PNODIP	OWNROCC90	P97P RNT	P_H1S97
P_POV9	Pearson Correlation	1.000	- .746**	.641**	.399**	.670**	.698**	-.551**	.578**	.482**
	Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000	.000
	N	814	814	806	806	814	812	812	806	806
INC MEDN90	Pearson Correlation	- .746**	1.000	-.556**	-.386**	-.630**	-.655**	.646*	-.718**	-.319**
	Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000	.000
	N	814	814	806	806	814	812	812	806	806
P97_NWH	Pearson Correlation	.641**	-.555**	1.000	746**	.583**	.626**	-477**	.418**	.305**
	Sig. (2-tailed)	.000	.000	.	.000	.000	.000	.000	.000	.000
	N	806	806	806	806	806	804	804	806	806
P90_BL	Pearson Correlation	.399**	-.386**	.746**	1.000	.455**	.184**	-.248**	.178**	-.221**
	Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000	.000	.000
	N	806	806	806	806	806	804	804	806	806
PUNEMP9	Pearson Correlation	.670**	-.630**	.593**	.465**	1.000	.637**	-.344**	.329**	.308**
	Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.000	.000	.000
	N	814	814	806	806	814	812	812	806	806
PNODIP	Pearson Correlation	.698**	-.655**	.626**	.184**	637**	1.000	-.518**	476**	.776**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000	.000
	N	812	812	804	804	812	812	812	804	804
OWNR_OCC9O	Pearson Correlation	-.551**	.646**	-.477**	-.248**	-.344**	-.518**	1.000	-.771**	-.316**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	.000	.000
	N	812	812	804	804	812	812	812	804	804
P97PRNT	Pearson Correlation	.578**	-.718**	.416**	.178**	.329**	476**	-.771**	1.000	.302**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000
	N	806	806	806	806	806	804	804	806	806
P_H1S97	Pearson Correlation	.482**	-.319**	.305**	-.221**	.306**	.776**	-.316**	.302**	1.000
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000
	N	806	806	806	806	806	804	804	806	806

Correlation is significant at the 0.01 level (2-tailed).

Appendix B: Correlation Matrix — Household Characteristics

Correlations

		Pincom	P_welf	P_a24	Pa62	P_s 1	Pblac	P_nun	P size
P_incom	Pearson Correlation	1.000-	.204**	-.151**	-.187**	.187**	-.071**	-.054	.467****
	Sig. (2-tailed)		.000	.000	.000	.000	.047	.133 .	000
	N	787	764	787	787	787	787	787	787
P_welf	Pearson Correlation	-.204**	1.000	.614**	-.635**	.678**	.347**	.407**	.534**
	Sig. (2-tailed)	.000 .		.000	.000	.000	.000	.000	.000
	N	764	764	764	764	764	764	764	764
P_a24	Pearson Correlation	-.151**	.614**	1.000	-.625**	.659**	.235**	.233**	.379**
	Sig. (2-tailed)	.000	.000 .		.000	.000	.000	.000	.000
	N	787	764	787	787	787	787	787	787
P_a62	PearsonCorrelation	-.187**	-.635**	-.625**	1.000	-.864**	-.339**	-.510**	-.809**
	Sig. (2-tailed)	.000	.000	.000 .		.000	.000	.000	.000
	N	787	764	787	787	787	787	787	787
P_sp1	Pearson Correlation	.187**	.678**	.659**	-.864**	1.000	.406**	.439**	.772**
	Sig. (2-tailed)	.000	.000	.000	.000 .		.000	.000	.000
	N	787	764	787	787	787	787	787	787
P_blac	Pearson Correlation	-.071**	.347**	.235**	-.339**	.406**	1.000	.591**	.137**
	Sig. (2-tailed)	.047	.000	.000	.000	.000		.000	.000
	N	787	764	787	787	787	787	787	787
P_min	Pearson Correlation	-.054	.407**	.233**	-510**	439**	.591**	1.000	.408**
	Sig. (2-tailed)	.133	.000	.000	.000	.000	.000 .		.000
	N	787	764	787	787	787	787	787	787
P_size	Pearson Correlation	.467**	.534**	.379**	-.809**	.772**	.137**	.408**	1.000
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	
	N	787	764	787	787	787	787	787	787

Correlation is significant at the 0.01 level (2-tailed).

Correlation is significant at the 0.05 level (2-tailed).

Appendix C: Model without Controls

Total number of cases:	858 (Unweighted)
Number of selected cases:	858
Number of unselected cases:	0
Number of selected cases:	858
Number rejected because of missing data:	156
Number of cases included in the analysis:	702

-2 Log Likelihood	334.041
Goodness of Fit	595.457

Classification Table for 0_OPT
The Cut Value is .50

Observed	Predicted 0	Predicted 1	Percent Correct
0 0	645	1	99.85%
1 1	56	0	.00%

Overall 91.88%

Variables in the Equation

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
P97_VAC	-5.4213	4.7324	1.3123	1	.2520	.0000	.0044
RNT_MEDI	-7.2E-06	.0012	.0000	1	.9951	.0000	1.0000
P_NODIP	-4.5671	1.4106	10.4822	1	.0012	-.1474	.0104
P97P_RNT	-.1693	1.0359	.0267	1	.8702	.0000	.8442
P_BENO	.0106	.0073	2.0648	1	.1507	.0129	1.0106
SEC_ASUN	-.0026	.0033	.6291	1	.4277	.0000	.9974
RENT_FMR	-.3861	.4752	.6602	1	.4165	.0000	.6797
P_WELF	.0200	.0113	3.1379	1	.0765	.0540	1.0202
P_A62	-.0308	.0093	11.0658	1	.0009	-.1523	.9697
P_BLAC	-.0230	.0068	11.3483	1	.0008	-.1547	.9773
Constant	.4526	1.1630	.1514	1	.6972		

Appendix D: Model with Profit Dummies

Total number of cases:	858 (Unweighted)
Number of selected cases:	858
Number of unselected Cases:	0
Number of selected cases:	858
Number rejected because of missing data:	282
Number of cases included in the analysis:	576

-2 Log Likelihood 302.359
Goodness of Fit 514.127

Classification Table for 0_OPT
The Cut Value is .50

Predicted	0	1	
Percent Correct	0	1	
Observed			
0	0	518	2	99.62%
1	1	55	1	1.79%

Overall 90.10%

----------Variables in the Equation----------

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
P97_VAC	-6.1958	4.9419	1.5718	1	.2099	.0000	.0020
RNT_MEDI	-.0003	.0013	.0431	1	.8355	.0000	.9997
P_BLCK9O	-3.8371	1.1434	11.2622	1	.0008	-.1588	.0216
P_NODIP	-3.4776	1.4266	5.9425	1	.0148	-.1036	.0309
P97P_RNT	-.3812	1.0753	.1257	1	.7230	.0000	.6830
P_BENO	.0056	.0074	.5719	1	.4495	.0000	1.0056
SEC_ASUN	-.0043	.0038	1.2757	1	.2587	.0000	.9957
RENT_FMR	-.1856	.4822	.1481	1	.7004	.0000	.8306
P_WELF	.0180	.0117	2.3873	1	.1223	.0325	1.0182
P_A62	-.0233	.0094	6.0946	1	.0136	-.1056	.9770
PROFIT	.6741	.3364	4.0159	1	.0451	.0741	1.9622
Constant	.1438	1.2166	.0140	1	.9059		

Appendix E: Model without Profit and Urban Dummy

Total number of cases:	858 (Unweighted)
Number of selected cases:	858
Number of unselected cases:	0
Number of selected Cases:	858
Number rejected because of missing data:	282
Number of cases included in the analysis:	576

-2 Log Likelihood 296.216
Goodness of Fit 499.805

Classification Table for 0_OPT
The Cut Value is .50

Observed		Predicted 0	Predicted 1	Percent Correct
0	0	515	5	99.04%
1	1	51	5	8.93%

Overall 90.28%

Variables in the Equation

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
P97_VAC	-6.2017	4.9389	1.5768	1	.2092	.0000	.0020
RNT_MEDI	.0025	.0017	2.2694	1	.1320	.0271	1.0025
P_BLCK9O	-2.9925	1.2037	6.1808	1	.0129	-.1067	.0502
P_NODIP	-1.9459	1.5655	1.5451	1	.2139	.0000	.1429
P97P_RNT	.2983	1.1189	.0711	1	.7898	.0000	1.3475
P_BENO	.0066	.0077	.7456	1	.3879	.0000	1.0066
SEC_ASUN	-.0046	.0038	1.5023	1	.2203	.0000	.9954
RENT_FMR	-.1963	.4856	.1634	1	.6860	.0000	.8218
P_WELF	.0128	.0122	1.0927	1	.2959	.0000	1.0128
P_A62	-.0241	.0097	6.1895	1	.0129	-.1068	.9761
PROFIT	.6752	.3397	3.9506	1	.0469	.0729	1.9644
MSA	-1.1676	.4730	6.0939	1	.0136	-.1056	.3111
Constant	-1.2076	1.3660	.7815	1	.3767		