

Vouchers versus Production Revisited

Mark Shroder and Arthur Reiger*

Abstract

Policy makers who want to help house low-income families might either fund production of new units or supplement the payments families make for existing units. Conventional wisdom holds that production costs more, but it has been claimed that the long-term discounted costs of project-based and tenant-based housing assistance may not be very different.

Using large databases for assisted tenants from the U.S. Department of Housing and Urban Development, we find that 15 to 20 years after construction, Section 8 New Construction/Substantial Rehabilitation projects remained considerably more expensive than Section 8 certificates. The federal government could not use construction subsidies to preempt rent inflation. Even in the most inflated markets, rents for units that developers wanted to build are higher than comparable certificate rents.

Keywords: Low-income housing; Vouchers; Affordable housing; Cost effectiveness

Introduction

Two alternatives present themselves to policy makers who want to help low-income families afford decent housing. One is production (project-based assistance) to support the building of new units especially to serve low-income families. The other is vouchers (tenant-based assistance) to supplement the payments that families make to the owners of existing units they have chosen for themselves.

The conventional wisdom for well over a decade has been that more people can be subsidized in older housing than in newer housing (see Weicher 1990). This wisdom rests on two pillars: (1) new housing rents for more than used housing does, and (2) new multifamily housing *for low-income families* includes additional costs that other new housing may not. Political resistance to such developments may lead to protracted zoning and legal battles that raise the cost of production, and public financing may also come with special legal restrictions that raise production expenses.

A recent article by McClure (1998) challenging the conventional view was the starting point for this article. McClure pointed out that the HOME program, which was enacted in 1990 and cost about \$1.4 billion in fiscal year 1999, delegates the allocation of resources between

* Mark Shroder is an Economist and Arthur Reiger is a Financial Research Specialist with the Office of Policy Development and Research, U.S. Department of Housing and Urban Development (HUD). Their conclusions and opinions do not necessarily reflect HUD policy.

We thank Kirk McClure, Joseph Riley, Susan Wachter, and Edgar Olsen for their comments, and Donald Gebauer and Edward Sheehan, HUD field economists, for their judgments on housing markets in Kansas City, MO, and St. Louis, respectively. We also acknowledge the helpful comments of Amy Bogdon and two referees.

project-based and tenant-based strategies to state and local governments. The perceived cost of assistance per unit in the respective strategies will surely influence this allocation. McClure argues that local government may appropriately opt for production over vouchers, because the long-term discounted costs of these alternatives may not be very different. Large initial cost differences, he thinks, will eventually be offset by inflation in the rental housing market. He also argues that governments may be able to recapture some residual value at the end of a long-term construction subsidy agreement.

We disagree.

In the next two sections of this article, we show that analytic errors rather than new information are responsible for McClure's conclusions. In our empirical work, we have the advantage of direct access to the large administrative databases used by the U.S. Department of Housing and Urban Development (HUD) to monitor project-based and tenant-based programs. We demonstrate that rents in St. Louis and Kansas City, MO, the cities McClure analyzed, in fact contradict his hypothesis. We then show that the residual value argument would not weigh heavily with an unbiased observer.

In the fourth section, we pose the question in the form most favorable to McClure's hypothesis. Suppose the government, with perfect foresight, had chosen to subsidize projects solely in markets that would experience the highest inflation over the life of the subsidy contract. Would the last years of such contracts represent a rent bargain for the government? We use the experience of Section 8 New Construction/Substantial Rehabilitation (NC/SR) in six high-inflation markets to show that they would not.

In the fifth section, we look at the consequences of new construction subsidized by real-world government in the metropolitan markets with the lowest rent inflation.

In the final section, we consider evidence from project-based programs other than NC/SR, when such evidence is available. The evidence available to us solidly supports the conventional wisdom.

Costs Differences Remain High over Many Years

McClure hypothesizes that the premium for "newness" falls over time and that therefore rents for assisted projects should move closer to rents for the overall inventory. He tries to test this hypothesis with data on 12 Section 8 NC/SR projects in St. Louis and Kansas City and on the Section 8 certificate program in these two cities. He concludes that subsidy costs have narrowed over time and that on a long-term basis, the additional costs of project-based subsidy programs may be lower than previous studies indicate.¹

¹ In oral discussant comments, Edgar Olsen has argued that the appropriate basis for comparison is the present discounted value at the beginning of the long-term contract and that neither McClure nor we have performed that analysis. We agree with this criticism in principle, although it does require the analyst to have an accurate long-term estimate of inflation. Given the results we present, there is no doubt that an ex post analysis of the entire stream of payments would find project-based assistance to be far more costly to the government than we do, but we do not have 20 years of data on any given unit, much less on the thousands of units for which we present recent results.

McClure's choice of these two Section 8 programs as the basis of comparison is entirely appropriate, given their size and contrasting approaches to providing rental subsidies. Both Section 8 programs were authorized by legislation in 1974. Section 8 NC/SR was the major vehicle used to provide project-based assistance to subsidize new rental projects from the late 1970s through the middle 1980s. While no new commitments were made after 1983, almost 900,000 units continue to receive project-based Section 8 NC/SR assistance. Section 8 certificates have been the primary vehicle for providing subsidies through tenant-based assistance in about 1.1 million existing units.²

We believe that McClure's empirical analysis is faulty and that the costs of Section NC/SR projects remain considerably higher than those of Section 8 certificates. His analysis is faulty for two reasons: He chose the wrong measure of cost, and he failed to control for quantity.

When housing subsidy is used as the cost measure, the analysis does not control for the type of population served by the program. Subsidy cost is the remainder when tenant contribution is subtracted from rent. Tenant contribution to rent in HUD programs is generally 30 percent of adjusted income, a concept that by definition depends on both income and adjustments to income. Smaller contributions are demanded of poorer tenants. The adjustments usually depend on household composition; the elderly are generally eligible for health care deductions, while families with children are allowed to deduct \$480 per child per year from total income. A valid cost comparison should be based on gross rent, that is, rent to owner plus utility allowance.

Second, McClure does not adjust for housing quantity. Section 8 project-based housing typically averages less than two bedrooms (Finkel et al. 1999), while tenant-based assistance is predominantly used for units with two or more bedrooms. Any cost comparison that fails to adjust for unit size will be misleading.

Tables 1 and 2 present data based on average gross rents and adjusted for unit sizes for St. Louis and Kansas City. The data come from HUD's Multifamily Tenant Characteristics System (MTCS) and Tenant Rental Assistance Certification System (TRACS) databases, with tenant records entered between January 1997 and April 1998 (three to four years after McClure's most recent data). The data on Section 8 NC/SR also reflect a larger universe than McClure's six projects in each city.³ The average size of a Section 8 NC/SR property is 90 units (Finkel et al. 1999). Using this mean national figure, the 6,297 units of Section 8 NC/SR in St. Louis and Kansas City in our study represent the equivalent of about 70 full projects.

Differences by program in the distribution of units by bedroom size are evident. The row labeled Gross Rent Ratio indicates in percentage terms the ratio of gross rents in NC/SR to gross rents in the certificate program. Controlling for the size of the unit, we find that in St. Louis, NC/SR units are somewhere between 10 and 45 percent more expensive than certificates,

² The certificate program is in the process of merger with and replacement by a modified form of the voucher program, as mandated by the Quality Housing and Work Responsibility Act of 1998.

³ Our analysis includes administrative costs; inclusion tends to bias the comparison toward finding lower relative costs for project-based assistance. See the appendix for further discussion. Also, unit totals shown are *reported* units. Reporting may be incomplete, but the number of units is large enough that we have neglected nonreport bias.

Table 1. St. Louis

	Total	Bedrooms					Means Adjusted for Bedroom Size
		0	1	2	3	4	
<i>NC/SR units in St. Louis (Minor Civil Division 5)</i>	4,721	173	3,428	600	368	134	
Percentage of total		4	73	13	8	3	
Average gross rent	\$602	\$518	\$580	\$627	\$720	\$785	\$598
<i>Certificate units in St. Louis City Housing Authority</i>	2,698	24	544	1,097	659	344	
Percentage of total		1	20	41	24	13	
Average gross rent	\$529	\$471	\$401	\$493	\$613	\$673	\$438
Gross rent ratio (%)	114	110	145	127	118	117	137

Source: HUD's MTCS and TRACS files, April 1998.

Note: Gross rent is the sum of rent to owner and utility allowance. Gross rent ratio is the ratio of mean NC/SR gross rent to mean certificate gross rent in percentage terms. Mean adjusted for bedroom size is the mean gross rent in the program using the NC/SR distribution of unit sizes.

Table 2. Kansas City

	Total	Bedrooms					Means Adjusted for Bedroom Size
		0	1	2	3	4	
<i>NC/SR units in Kansas City (Minor Civil Division 10)</i>	1,576	98	1,195	199	84		
Percentage of total		6	76	13	5		
Average gross rent	\$575	\$526	\$557	\$607	\$818		\$575
<i>Certificate units in Kansas City Housing Authority</i>	2,216	29	438	1,012	598	124	
Percentage of total		1	20	46	27	6	
Average gross rent	\$521	\$475	\$430	\$499	\$598	\$650	\$450
Gross rent ratio (%)	110	111	129	122	137		128

Source: HUD's MTCS and TRACS files, April 1998.

Note: Gross rent is the sum of rent to owner and utility allowance. Gross rent ratio is the ratio of mean NC/SR gross rent to mean certificate gross rent in percentage terms. Mean adjusted for bedroom size is the mean gross rent in the program using the NC/SR distribution of unit sizes. Percentages may not total 100 percent because of rounding and the exclusion of units with five or more bedrooms.

while in Kansas City they are 11 to 37 percent more expensive.⁴ The column Means Adjusted for Bedroom Size shows that if certificates had the same distribution of bedrooms that NC/SR units do, we would find that the average cost of the latter was 37 percent higher in St. Louis and 28 percent higher in Kansas City.⁵ What is surprising is not that the costs between the two programs have narrowed, but rather that the difference between the two programs remains so high after 15 to 20 years.

The comparison in tables 1 and 2 is biased against NC/SR units, if they are of higher quality than certificate units. To some extent, newness is an aspect of quality, but the NC/SR units are no longer new. We cannot control for all the other aspects of quality, but we can follow up on McClure’s idea of controlling for location, which is an important aspect of quality. Infrastructure, public services, natural amenities, distance to employment and shopping, and crime rates all vary by location, and the value of units varies with them. If the two programs have a different geographic distribution, any failure to control for that distribution might bias the analysis.

Accordingly, we used the TRACS and MTCS data to look for all cases in which there were at least 10 NC/SR and 10 certificate units with the same number of bedrooms and the same ZIP code. We found 21 such matched samples of NC/SR and certificate units in St. Louis and 14 similar matched samples in Kansas City. The results are graphed in figures 1 and 2. Table 3 shows the data from four of our matched samples for illustrative purposes.

Table 3. Four Illustrative Comparisons: St. Louis

	Bedrooms			
	1	2	3	4
<i>ZIP code</i>	63108	63108	63108	63108
NC/SR units	606	112	22	17
Gross rent	\$578.57	\$667.70	\$747.78	\$900.08
Certificate units	14	36	24	16
Gross rent	\$440.92	\$531.31	\$620.75	\$665.92
Gross rent ratio (%)	131	126	120	135

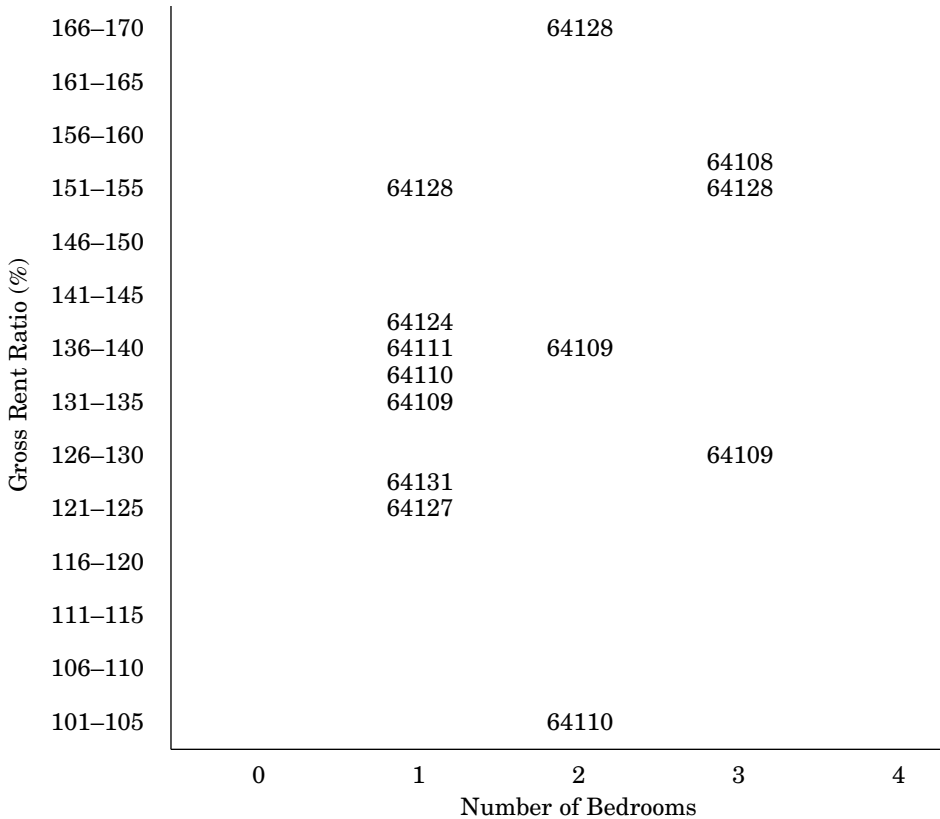
Source: HUD’s MTCS and TRACS files, April 1998.

We find that, controlling for size and location, NC/SR units are from 11 to 73 percent more expensive than certificate units in St. Louis, and from 3 to 70 percent more expensive in Kansas City. In 35 matched samples, there is not a single case in which NC/SR units are less costly, even 15 to 20 years after construction. In both of the cities McClure selected, consistent with the findings in tables 1 and 2, NC/SR units are typically 35 percent more expensive than certificate units of the same size and location. In figure 2, where there are more

⁴ There are a few five-bedroom units in NC/SR and certificate programs in St. Louis and the certificate program in Kansas City. They are omitted from the tables and from the calculations underlying the adjusted mean column. Omission of the 18 NC/SR units with more than four bedrooms in St. Louis is responsible for the \$4 discrepancy between the NC/SR average and the average adjusted for bedroom size.

⁵ Instead of adjusting the certificate mean to reflect the NC/SR distribution, we could adjust the NC/SR mean to reflect certificate distribution. However, in some of the tables, the NC/SR distribution does not include certain bedroom sizes, while the certificate distribution does, and in those cases the size-adjusted mean would be impossible to calculate.

Figure 1. Kansas City: Ratio of Mean Gross Rent of NC/SR Units to Certificate Units, by Bedroom Size, Controlling for ZIP Code



Note: Each listed ZIP code indicates at least 10 NC/SR units and at least 10 certificate units in that ZIP code with that number of bedrooms. Descriptive statistics on the distribution of the gross rent ratio depicted: minimum, 103 percent; maximum, 170 percent; mean, 135 percent; median, 136.5 percent; standard deviation, 18.5 percent.

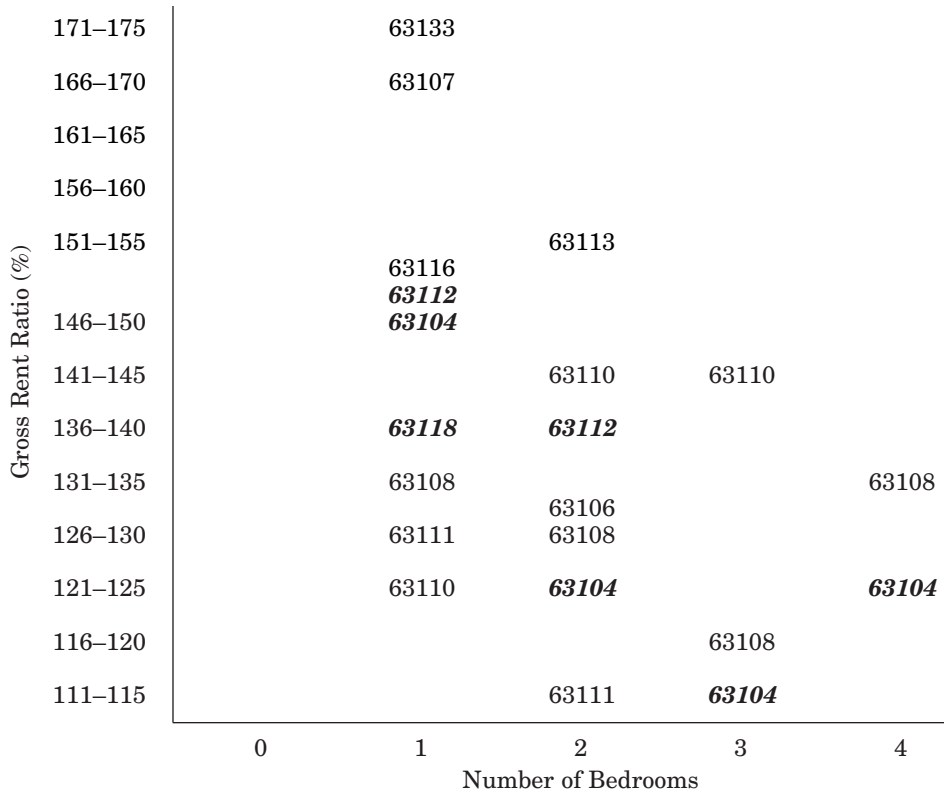
observations, there is an apparent tendency for the project-based premium to decline as the number of bedrooms grows. It is perhaps not coincidental that the greatest interest among developers in federal subsidies tends to be in projects with smaller units. We will see a similar tendency in later analyses.

Governments Cannot Offset Subsidy Streams with Residual Values

Project-based subsidies have some contract term—say 20 years—during which the government and the owner must fulfill their obligations to each other. McClure argues that the normal comparison of project-based and tenant-based costs

assumes that any project-based housing has no residual market value at the end of the 20-year time span, or at least no market value that will be returned to the government to reduce its direct costs....Whether a project has any residual value

Figure 2. St. Louis: Gross Rent Ratio of NC/SR Units to Certificate Units, by Bedroom Size, Controlling for ZIP Code



Note: Each listed ZIP code indicates at least 10 NC/SR units and at least 10 certificate units in that ZIP code with that number of bedrooms. Descriptive statistics on the distribution of the gross rent ratio depicted: minimum, 111 percent; maximum, 173 percent; mean, 136 percent; median, 135 percent; standard deviation, 16.2 percent. Observations in bold and italics are “hot” markets.

after 20 years of service depends on a variety of market conditions. Further, whether any of this residual value can return to the government depends on the form of the ownership and the manner in which the financing has been structured. However, it is possible for local governments, working through Community Housing Development organizations, to use HOME funds for developments in which they own some or all of the asset. As such, it is possible that the residual value could be returned to the public sector, further reducing its direct costs. (363)

This argument contains unduly optimistic assumptions.

If the government will recapture the residual value at the end of the contract, then the owner must insist on higher annual rent subsidies throughout the term of the contract as compensation. Residual value is not a free good.⁶ In McClure’s example of a HOME project, the

⁶ If the owner is a nonprofit organization, relinquishing the residual value to the local government without compensation means reducing its ability to carry out its own mission in future years. This is a significant cost.

locality would be paying owners in current dollars through a grant or deferred loan in exchange for a share of the potential future value. Whether this is a good deal or not would depend on the actual future value of the property. A locality is investing limited funds in a project today on the expectation of an uncertain future return tomorrow. In essence, it is combining housing assistance with property speculation, two activities that are conceptually separable, and the speculative activity has a real cost.

The specific Section 8 NC/SR experience is not encouraging. Most Section 8 NC/SR projects currently receive above-market rents from the government, and many would default if their rents were lowered to market rates without mortgage relief (E&Y Kenneth Leventhal 1996; Finkel et al. 1999; U.S. General Accounting Office 1996, 1998). In a survey for HUD, the E&Y Kenneth Leventhal Real Estate Group concluded that 90 percent of Section 8 NC/SR properties have assisted rents above comparable market rents and 70 percent have assisted rents above 120 percent of comparable market rents. The findings of Finkel and colleagues, from a survey also commissioned by HUD, are similar: Eighty-six percent of these properties have above-market rents, and two-thirds have rents above 120 percent of market.

Both surveys indicate that about 60 percent of Section 8 NC/SR properties require some mortgage writedown to remain viable if their rents are lowered to market. Residual value to the property owner is simply the present discounted value of the stream of market rents net of maintenance, debt service, and depreciation costs. If taking the assisted rent down to the market requires a writedown of the mortgage, there is no residual value for the owner.⁷

Even for properties where rents are not above market, there may be little residual value because of the large remaining mortgage balances. Section 8 NC/SR properties were generally financed with 40-year mortgages, and after 20 years about 80 percent of the original balance remains. Unless market rents are significantly above assisted rents, owners may not have sufficient equity to update and reposition properties as conventional rentals either through new financing or a sale. The E&Y Leventhal and the Finkel surveys report that 10 to 15 percent of Section 8 NC/SR properties have below-market rents and might successfully be converted to conventional market-rate rentals.⁸

Can Governments Use New Construction to Preempt Rent Inflation?

We now pursue a related question. Could the government provide construction subsidies in a market that is going to be “hot,” that is, a market that is likely to experience considerable rent inflation, and in return for its initial subsidies lock the developer into contract rents that will be lower, in the long run, than what the government would have to pay for tenant-based units?

⁷ About another one-quarter of the properties could not cover ongoing operations and meet their capital needs backlog at market rents, even with a total writedown of debt.

⁸ To keep owners of these more fortunate Section 8 properties from opting out of the program, Congress enacted “Mark-Up-to-Market” legislation in 1999 that allows HUD to renew contracts at market rents. In 1997, Congress enacted “Mark-to-Market” legislation to restructure Section 8 properties with above-market rents.

Even posing the question may strike some as foolish. Our question appears to posit omniscient government agents who can beat local developers and speculators at projecting the long-term profitability of a market. Foolish or not, we will develop the evidence on this issue for two reasons. First, some such idea seems to be latent in many arguments for project basing. Second, it turns out that the locations of the hottest metropolitan markets are not entirely unpredictable; perhaps some planner somewhere would have the wisdom to perfectly implement this strategy.

Hot Markets in St. Louis

According to the HUD field economists we consulted, none of the ZIP codes in Kansas City for which we have sufficient data to make cost comparisons on a size-adjusted basis would qualify as a hot market. However, the St. Louis ZIP codes displayed in table 4 are described as “gentrifying.” That is, 63104 and 63118 are Souldard area ZIPs, while 63112 is the Central West End of St. Louis. These ZIP codes are also demarcated with boldface and italics in figure 2.

Table 4. Hot Markets in the St. Louis Area

ZIP Code	63104	<i>63104</i>	63104	<i>63104</i>	63112	<i>63112</i>	63118
Number of bedrooms	1	2	3	4	1	2	2
NC/SR sample	416	37	84	28	389	100	65
Certificate sample	34	70	30	28	76	46	70
Gross rent ratio (%)	147	125	114	122	148	136	138

Source: HUD’s MTCS and TRACS files, April 1998.

The federal government supported Section 8 NC/SR development before gentrification began in these areas, but it is clear from the gross rent ratios that it saved no money by doing so.

Hot Markets Nationally

What about national hot markets? The change in the Fair Market Rent (FMR), a crude tool, is available for rating and ranking the rent inflation of metropolitan areas. For each area, we have divided the two-bedroom FMR in effect for fiscal year 1999 by the FMR for fiscal year 1983 and sorted by the size of the quotient.⁹

Rent inflation varied enormously in the United States over that period. The ratio of the 1999 FMR to the 1983 FMR ranged from 388 percent in San Miguel County, CO (an annualized inflation rate of 8.8 percent), to 75 percent in Arecibo, PR (annualized inflation rate of -1.8 percent), with the national population-weighted ratio about 182 percent (annualized, 3.8 percent).

⁹ The tool is crude because of changes in calculation methods for the FMR over time and limited resources for updating rent changes in many regions. Readers may access the FMR database at World Wide Web page <<http://www.huduser.org/datasets/fmr.html>>.

The greatest inflation was in certain Colorado counties, but we do not have enough data on either NC/SR units or certificate units (or both) for them to make valid comparisons of the respective cost of the programs. The most inflated metropolitan area was Santa Fe, NM, for which we lack adequate certificate data. Table 5 displays the results for the next six hottest markets. The information is presented graphically in figure 3.

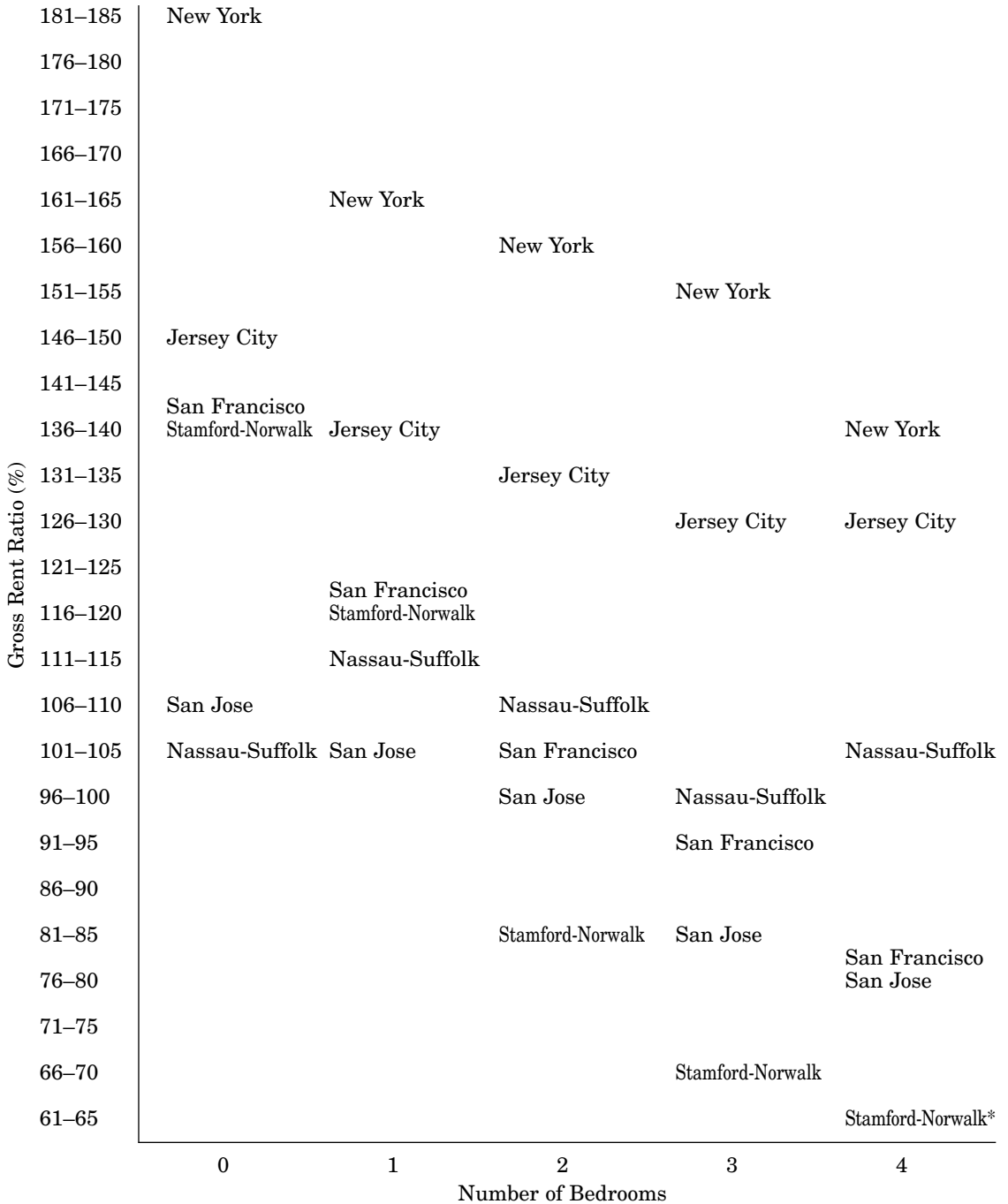
Table 5. Gross Rents in Hot Markets in Calendar Year 1998

Metropolitan Area	Total Units/ Size-Adjusted Mean Gross Rent/Adjusted Mean Gross Rent Ratio	Bedrooms				
		0	1	2	3	4
<i>San Jose, CA</i>						
<i>131.98% cumulative 16-year rent inflation</i>						
NC/SR units	2,693	15%	50%	26%	7%	2%
Mean gross rent	\$890.87	\$806.97	\$847.82	\$960.53	\$1,051.17	\$1,093.42
Certificate units	5,114	3%	26%	31%	28%	11%
Mean gross rent	\$898.44	\$742.93	\$819.93	\$991.93	\$1,283.93	\$1,391.93
Gross rent ratio (%)	99	109	103	97	82	79
<i>Stamford-Norwalk, CT</i>						
<i>125.71% cumulative 16-year rent inflation</i>						
NC/SR units	974	16%	77%	5%	2%	0%
Mean gross rent	\$1,008.21	\$962.79	\$1,028.02	\$883.69	\$930.10	\$948.10
Certificate units	872	4%	21%	41%	32%	2%
Mean gross rent	\$872.52	\$696.92	\$882.92	\$1,072.92	\$1,343.92	\$1,468.92
Gross rent ratio (%)	116	138	116	82	69	65
<i>San Francisco, CA</i>						
<i>115.71% cumulative 16-year rent inflation</i>						
NC/SR units	3,979	24%	63%	9%	3%	1%
Mean gross rent	\$1,000.22	\$937.97	\$998.70	\$1,085.82	\$1,219.32	\$1,121.91
Certificate units	4,027	3%	26%	31%	28%	11%
Mean gross rent	\$843.90	\$691.93	\$840.93	\$1,038.93	\$1,308.93	\$1,415.93
Gross rent ratio (%)	119	136	119	105	93	79
<i>Jersey City, NJ</i>						
<i>112.60% cumulative 16-year rent inflation</i>						
NC/SR units	3,918	16%	51%	22%	9%	1%
Mean gross rent	\$970.11	\$866.95	\$917.43	\$1,069.71	\$1,168.07	\$1,299.56
Certificate units	2,221	2%	31%	41%	25%	2%
Mean gross rent	\$706.89	\$583.26	\$665.26	\$794.26	\$911.26	\$1,006.26
Gross rent ratio (%)	137	149	138	135	128	129
<i>New York, NY</i>						
<i>112.14% cumulative 16-year rent inflation</i>						
NC/SR units	40,528	10%	51%	29%	9%	1%
Mean gross rent	\$1,147.19	\$952.40	\$1,071.82	\$1,241.86	\$1,451.66	\$1,550.76
Certificate units	9,787	9%	33%	37%	17%	3%
Mean gross rent	\$706.00	\$525.90	\$648.90	\$778.90	\$957.90	\$1,105.90
Gross rent ratio (%)	162	181	165	159	152	140
<i>Nassau-Suffolk, NY</i>						
<i>111.69% cumulative 16-year rent inflation</i>						
NC/SR units	4,151	9%	79%	10%	1%	0%
Mean gross rent	\$986.96	\$832.08	\$976.98	\$1,155.27	\$1,267.86	\$1,466.10
Certificate units	3,744	4%	29%	28%	29%	8%
Mean gross rent	\$894.05	\$811.32	\$875.32	\$1,046.32	\$1,313.32	\$1,449.32
Gross rent ratio (%)	110	103	112	110	97	101

Source: HUD's MTCS and TRACS files, January 1999.

Note: Percentages may not total 100 because of rounding and the exclusion of units with five or more bedrooms.

Figure 3. Six Hot Metropolitan Areas: Gross Rent Ratio of NC/SR Units to Certificate Units, by Bedroom Size, Controlling for Metropolitan Area



Note: Descriptive statistics on the distribution of the gross rent ratio depicted: minimum, 65 percent* or 69 percent; maximum, 181 percent; mean, 116 percent; median, 111 percent; standard deviation, 29.6 percent.
 * The 65 percent rent ratio reflects just two 4-bedroom NC/SR units in Stamford-Norwalk.

The most cursory inspection of table 5 shows that the nation's most inflationary large metropolitan real estate markets during these years were in Greater New York and Greater San Francisco. It is conceivable that government planners might have selected these areas for particular attention, and it is clear that Section 8 NC/SR projects were developed at the beginning of this period in all these markets. However, this prescience would have saved the government no money whatsoever in Jersey City, New York City, or Nassau-Suffolk, NY. Mean gross rents adjusted for bedroom size are 10 to 37 percent higher in these metropolitan areas for NC/SR units than for certificate units, and the higher cost of new construction prevails for all unit sizes.

In San Jose, CA; Stamford-Norwalk, CT; and San Francisco, it appears that the average NC/SR three- and four-bedroom unit is cheaper than the average certificate unit. Especially for four-bedroom units, which usually have single-family houses as counterparts in the existing market, this might make some sense, but the evidence is tenuous: The discounts are never large; they do not appear in New York City, Jersey City, or Nassau-Suffolk; and the largest such apparent discount, in Stamford-Norwalk, is on exactly two NC/SR units. It would be difficult to justify 13 or 14 years of premiums to reach these discounts, even if they could be relied on.

For Stamford-Norwalk and San Francisco as a whole, the government still lost money on NC/SR in 1998, relative to certificates; for San Jose, the government broke even. The potential discounts to the government on larger units were offset by the reluctance of developers to build such units with NC/SR support.

We may therefore reject the proposition that a wise government could preempt rent inflation in its housing assistance programs by a sound construction subsidy policy. Even if the government chose the markets in which it would provide such subsidies perfectly, it would spend more money, rather than less, by subsidizing the units that developers would actually want to build.

Cold Markets Exist, Too

Actual NC/SR planners were not omniscient. The U.S. government also entered into NC/SR contracts in "cold" markets, those which have had very little inflation in nominal rents over the 16-year period. With perfect hindsight, we know that production subsidies in those markets were not needed, at least insofar as their purpose is to house the poor. Errors of this kind are probably unavoidable in a national program; whether local planners can do better is an issue we leave to the reader. Our goal in this section is to present a complementary analysis of gross rent ratios in a few of these cold markets.

Three of the six coldest metropolitan markets fall into a single coherent group of energy busts—metropolitan areas where property owners suffered from the collapse of the petroleum boom—Casper, WY (where the FMR rose by all of 2.86 percent over 16 years); Oklahoma City (13.87 percent); and Anchorage, AK (19.47 percent).¹⁰ Results from these markets are presented in table 6 and charted in figure 4.

¹⁰ The other three areas are all in Appalachia. We omit our analyses of Owensboro (KY), Lynchburg (VA), and Clarksville (TN), because our files report incorrect numbers of certificate units for Lynchburg and Clarksville, which suggests some corruption of the geocoding routines for those areas. For Owensboro, gross rent ratios were 155 percent, 124 percent, and 129 percent for one-, two-, and three-bedroom units, respectively.

Table 6. Gross Rents in Cold Markets in Calendar Year 1998

Metropolitan Area	Total Units/ Size-Adjusted Mean Gross Rent/Adjusted Mean Gross Rent Ratio	Bedrooms				
		0	1	2	3	4
<i>Casper, WY</i>		<i>2.86% cumulative 16-year rent inflation</i>				
NC/SR units	200		63%	27%	11%	
Mean gross rent	\$722.80		\$591.20	\$891.52	\$1,086.63	
Certificate units	307	*	26%	47%	21%	5%
Mean gross rent	\$417.84	\$392.42	\$367.07	\$465.04	\$603.33	\$735.78
Gross rent ratio (%)	173		161	192	180	
<i>Oklahoma City</i>		<i>3.87% cumulative 16-year rent inflation</i>				
NC/SR units	1,160	5%	78%	11%	5%	
Mean gross rent	\$589.49	\$538.51	\$571.67	\$577.03	\$670.74	
Certificate units	9,907	1%	15%	39%	41%	4%
Mean gross rent	\$376.50	\$341.70	\$366.79	\$440.95	\$580.45	\$653.30
Gross rent ratio (%)	157	158	156	131	116	
<i>Anchorage, AK</i>		<i>19.47% cumulative 16-year rent inflation</i>				
NC/SR—Number of units	114		49%	40%	11%	
Mean gross rent	\$962.27		\$888.44	\$941.24	\$1,057.14	
Certificate units	1,997	2%	26%	39%	29%	4%
Mean gross rent	\$592.75	\$498.33	\$498.38	\$641.17	\$847.56	\$943.10
Gross rent ratio (%)	162		178	147	125	

Source: HUD's MTCS and TRACS files, January 1999.

Note: Percentages may not total 100 because of rounding and the exclusion of units with five or more bedrooms.

* Less than 0.5 percent.

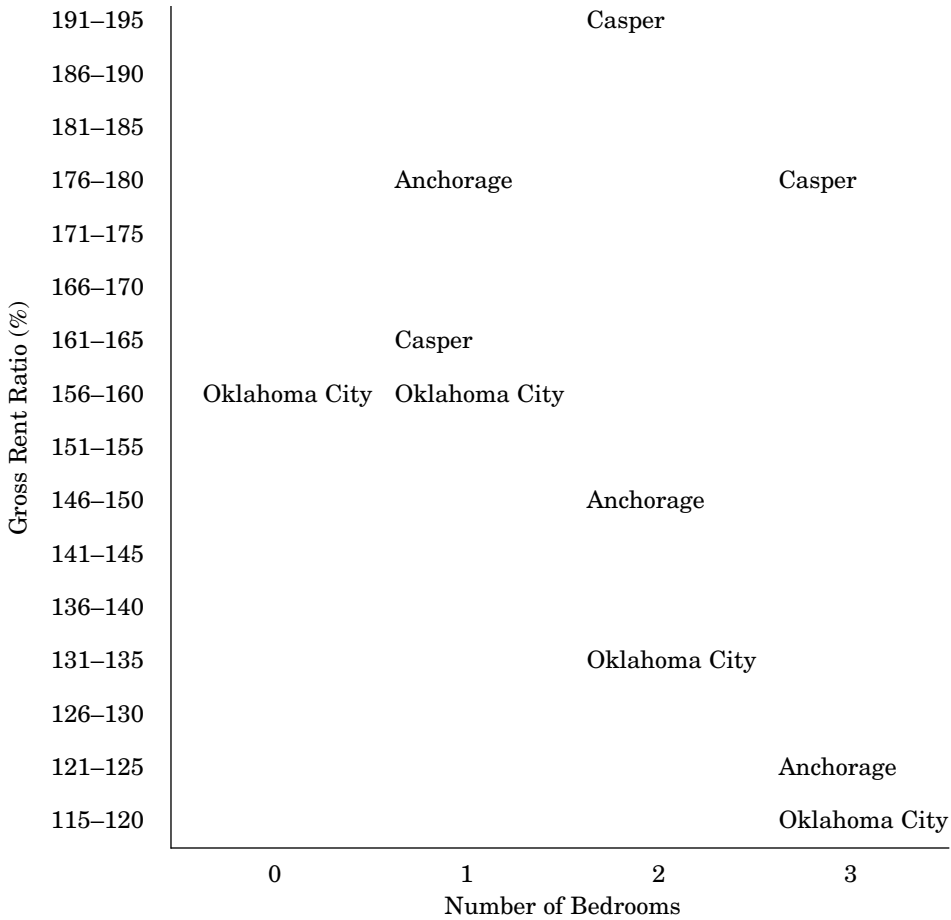
Mean gross rents adjusted for bedroom size are 57 to 73 percent higher in these metropolitan areas for NC/SR units than for certificate units, and the higher cost of new construction prevails for all unit sizes. NC/SR units are 16 to 92 percent more costly than certificate units with the same number of bedrooms in the same metropolitan area. Figure 4 provides some confirmation for the pattern previously noted, of NC/SR premiums declining as the number of bedrooms rises, but the evidence again is limited, in this case by the complete absence of large NC/SR units.

In short, an incorrect forecast of rent inflation can cost the government large amounts of money in a production program, and at least at the national level, these forecast errors have happened. Not many planners in the late 1970s would have predicted a collapse in oil prices.

Conclusion

Our cost analyses, controlling for quantity, location, and type of family served, indicate that tenant-based assistance continues to be substantially less costly than project-based assistance, even 15 to 20 years after the new construction was finished. Creative financing schemes involving recapture of the residual value are not likely to affect this conclusion. Further, not even a very wise government would be able to use long-term construction subsidies to preempt rent inflation in areas where rent inflation will be highest. Our evidence shows that the rents guaranteed on the units that developers are actually willing to build will be

Figure 4. Three Cold Metropolitan Areas: Gross Rent Ratio of NC/SR Units to Certificate Units, by Bedroom Size, Controlling for Metropolitan Area



Note: Descriptive statistics on the distribution of the gross rent ratio depicted: minimum, 116 percent; maximum, 192 percent; mean, 154 percent; median, 157 percent; standard deviation, 25 percent.

substantially higher than rents in the existing market, even when substantial inflation has occurred in that market. When a less than omniscient government was involved, large amounts were spent producing new units in cold markets, where subsequent inflation completely failed to justify the added cost.

Is the Section 8 NC/SR experience a fair test? On balance, we believe it is. Publicly induced housing construction may generally confront the higher costs associated with Section 8 NC/SR, although perhaps in a different form. The initial rents in these projects were considerably above market. Weicher (1990) notes:

The New Construction FMRs were based on the rents in comparable *new* housing projects, unsubsidized projects of modest design. They could also be adjusted

upward to compensate for special factors that raised construction, financing, or management costs. It seems fair to say that in practice, they were based as much on costs as on market rents. (266)

Some readers will say that perhaps grave mistakes were made in implementing Section 8 NC/SR that local governments can avoid. The information available to us suggests that lower-income housing production continues to be very costly. For example, an evaluation of the first two years of the Low-Income Housing Tax Credit (LIHTC) finds that on a 15-year present-value basis, with all subsidies included, the public cost of assisting the average family in an LIHTC unit is almost two and one-half times as high as the cost of assisting the same family with a housing voucher (ICF Inc. 1991). The report concludes that “the fact that the average tax credit unit is more expensive than a housing voucher is not surprising given the relatively high costs that characterize most construction and rehabilitation programs” (17).

The first two years of the LIHTC may not be typical because the program was not fully utilized and investors may have required a higher return because of its newness and lack of a track record. Unfortunately, there does not appear to be a more recent study that does a similar long-term, present value cost analysis *across* programs. Cummings and DiPasquale’s recent comprehensive analysis (1999, 303) of the first 10 years of the LIHTC program points out its high costs, but also notes that this is not surprising because it “has been the *de facto* federal production program for affordable housing.”

When they wish to assist low-income families in meeting their housing needs, local decision makers, like their federal counterparts, may allocate their limited resources to subsidizing construction rather than using the existing stock. They may have various legitimate reasons for making that choice. They may believe that the market has failed to provide adequate choices for large families, the disabled, or other special populations. They may desire to revitalize particular neighborhoods, through demolition or complete rehabilitation of existing structures, or through attracting moderate- to middle-income residents to low-income areas. They may wish to stimulate the nonprofit sector of the local construction and real estate management industries.

Whatever their motives, cost savings should not be counted among them. At any given amount of funding, fewer needy families will benefit from production than from vouchers.

Appendix

Administrative Costs

Housing assistance is intended to ensure the occupancy of decent housing by low-income families at a price that is fair to the government. When the housing is owned by a private person or entity, the government’s interests may require the performance of three administrative tasks:

1. Verification of tenant income. A disinterested party determines what subsidy, if any, is called for under the program rules.

2. Inspection of the unit. A disinterested party determines that the unit meets minimum standards of decency.
3. Determination of reasonable rent. A disinterested party decides what rent unsubsidized tenants pay for comparable units in the local market.

In tenant-based programs, all three tasks are performed by a public housing agency (PHA). HUD pays the PHA a monthly fee for each unit under lease. The fee is calculated as the product of a *base amount* and a *statutory percentage*. The historical base was the fiscal year 1993 two-bedroom FMR unless it was greater than a cap (\$811) or less than a floor (\$428), in which case the cap or floor amount, respectively, was used. The base amount was then reached by inflating the trimmed FMR forward by the rate of change in local government employee compensation. The most recent statutory percentage is 7.5 percent for the first 600 units and 7 percent for all units above 600. A blended per-unit administrative fee rate is published annually by HUD for each PHA.

In project-based programs, the owner verifies tenant income. There is no explicit compensation for this task; it is implicit in the contract rent. The responsibility of inspecting the unit belongs either to HUD field staff or to a contract administrator, usually a state housing finance agency. It would be impossible to calculate field staff costs on a per-unit basis; HUD pays contract administrators a fee of 3 percent of the current two-bedroom FMR. In general, HUD has not paid for rent-reasonableness determinations in the project-based programs.

To make the empirical comparisons in this article, we added the PHA administrative fee to the average gross rent for certificate units, and the contract administrator fee to the average gross rent for NC/SR units. As a rough first approximation, this means that we are adding a little over 7 percent of FMR to the certificate rents and 3 percent of FMR to the NC/SR rents.

References

- Cummings, Jean L., and Denise DiPasquale. 1999. The Low-Income Housing Tax Credit: An Analysis of the First Ten Years. *Housing Policy Debate* 10(2):251–307.
- E&Y Kenneth Leventhal Real Estate Group. 1996. *Multifamily Portfolio Reengineering (MPR): Market Survey*. Report prepared for the U.S. Department of Housing and Urban Development, Office of Housing, Washington, DC.
- Finkel, Meryl, Donna DeMarco, Deborah Morse, Sandra Nolden, and Karen Rich. 1999. *Status of HUD-Insured (or Held) Multifamily Rental Housing in 1995: Final Report*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.
- ICF Inc. 1991. *Evaluation of the Low-Income Housing Tax Credit: Final Report*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.
- McClure, Kirk. 1998. Housing Vouchers versus Housing Production: Assessing Long-Term Costs. *Housing Policy Debate* 9(2):355–71.
- U.S. General Accounting Office. 1996. *Multifamily Housing: Effects of HUD's Portfolio Reengineering Proposal*. GAO/RCED–97–7. Washington, DC.

U.S. General Accounting Office. 1998. *Multifamily Housing: Progress Made in Establishing HUD's Office of Multifamily Housing Assistance Restructuring*. GAO/RCED-99-5, Washington, DC.

Weicher, John. 1990. The Voucher/Production Debate. In *Building Foundations: Housing and Federal Policy*, ed. Denise DiPasquale and Langley C. Keyes, 263-92. Philadelphia: University of Pennsylvania Press.