

United States General Accounting Office

Report to the Chairman, Subcommittee on Housing and Community Opportunity, Committee on Banking and Financial Services, House of Representatives

March 1999

TAX CREDITS

Reasons for Cost Differences in Housing Built by For-Profit and Nonprofit Developers



GAO

United States General Accounting Office Washington, D.C. 20548

Resources, Community, and Economic Development Division

B-281811

March 10, 1999

The Honorable Rick A. Lazio Chairman Subcommittee on Housing and Community Opportunity Committee on Banking and Financial Services House of Representatives

Dear Mr. Chairman,

In March 1997, we reported¹ on the characteristics of the residents and properties that have benefited from the Low-Income Housing Tax Credit program and made recommendations for improvements to the program. In our report, we estimated that the average cost of developing tax credit units was about 60,000.² After issuing our report, we further analyzed the data collected during our study and estimated that the average cost of units built by nonprofit developers was about 818,000 higher than the average cost of for-profit developers' units.³

Because the difference in average costs between nonprofit and for-profit developers does not take into consideration variations in the types of units built by each, you asked us to assess the impact of variations in characteristics such as the type or location of the property or the type of tenants served. To assess these differences, we analyzed unit cost data collected for our 1997 report and 1990 Census data on distressed Census tracts. We also interviewed officials from national associations representing nonprofit and for-profit developers to gain their views on other factors that could influence development costs. Our methodology is described further in appendix I.

Results in Brief

While tax credit units built by nonprofit developers cost more, on average, than units built by for-profit developers, nonprofit developers' costs were not necessarily higher when differences in the units' characteristics were

¹Tax Credits: Opportunities to Improve Oversight of the Low-Income Housing Program (GAO/GGD/RCED-97-55, Mar. 28, 1997).

²Figures in this report are estimates based on a sample of 423 properties placed in service between 1992 and 1994 and described in detail in our 1997 report.

 3We estimate that, on average, nonprofit developers' units cost \$18,000 \pm \$12,500 more than for-profit developers' units, or from \$5,500 to \$30,500 more.

taken into account. We identified four characteristics that both increased average costs and were more likely to be associated with units built by nonprofit developers. These characteristics were (1) location in areas with high poverty and unemployment rates, (2) location in areas eligible for additional tax credits (because the costs of development were high relative to incomes in these areas), (3) large units, and (4) units in the Northeast or Pacific regions. Taking these and the other characteristics we studied into consideration, we found that the estimated per-unit cost was \$5,600 more for nonprofit developers than for for-profit developers. However, because our analysis was based on a sample and sampling introduces uncertainty, this cost difference could range from \$1,600 less to \$12,700 more for units built by nonprofit developers. Consequently, the difference in estimated per-unit costs for nonprofit and for-profit developers was not statistically significant.

Background

In the Tax Reform Act of 1986, the Congress replaced existing tax incentives for the construction of low-income housing, such as accelerated depreciation, with tax credits to encourage the development of affordable rental housing for households whose incomes are at or below specified income levels. An incentive was needed for such housing to be built because rental income and other returns from investment in low-income housing would generally not be sufficient to cover the costs of developing and maintaining such properties. One provision of the law establishing the program set aside 10 percent of each state's allotted credits for properties built by nonprofit developers. In practice, nonprofit developers have received significantly more credits than were set aside for them. Specifically, our study showed that about 22 percent of the properties that were placed in service between 1992 and 1994 were developed by nonprofit developers. We estimate that the average cost of units developed by nonprofit builders during this period was about \$73,000 compared with \$55,000 for for-profit developers. Figure 1 shows how the major components of the costs of developing a unit were distributed for nonprofit and for-profit developers.

Figure 1: Comparison of Development Costs for Nonprofit and For-Profit Developers



Source: GAO's analysis of data provided by tax credit allocating agencies.

As shown in figure 1, the proportion of total development costs spent on the different cost components was similar for both types of developers. For both, construction-related expenses accounted for over half of the total development costs while general development costs—which include the developer's fees, profit, and overhead, as well as various fees for professional services—accounted for about a fifth of the total costs. The remaining expenses were for the acquisition of land and buildings (where applicable); operating, replacement and other prefunded reserves; and other costs related to the development of specific properties, such as the costs of applying for the tax credit, conducting a market analysis, and insuring the property during construction.

Our earlier report noted, however, that differences in the types and locations of properties can lead to substantial variations in their costs. In the report, we estimated that the average per-unit cost of developing tax-credit-supported units placed in service from 1992 through 1994 was about \$60,000; however, about 10 percent of the units cost less than \$20,000 to develop while about 10 percent cost more than \$100,000. We noted that differences in the physical characteristics of properties—including the costs of acquiring land and existing buildings, the types of buildings constructed, the geographic location, the size of the units, the amenities provided, and the construction standards used—accounted for some of the variation in development costs. We estimated, for example, that the average per-unit cost for newly constructed buildings was about \$68,000 and the average cost for substantially rehabilitated buildings was approximately \$48,000. We further noted that other physical characteristics—such as unusually high local construction costs, local seismic standards, or requirements to address environmental issues—contributed to the higher development costs of some properties.

Nonprofit Organizations Developed Different Types of Units	Our analysis showed that certain characteristics increased the costs of housing units for both types of developers and, in some cases, nonprofit developers were substantially more likely to build units with such characteristics than for-profit developers. We did not find any instances in which for-profit developers' units had higher cost characteristics.
	 We identified characteristics of tax credit properties in our database that appeared likely to us to have an impact on for-profit and nonprofit developers' costs. The eight characteristics we analyzed were whether the unit was (1) located in an urban, suburban, or rural area; (2) located in a distressed or nondistressed Census tract;⁴ (3) eligible to receive additional tax credits;⁵ (4) in a garden style, town house, or high-rise building or in a mixed type of development; (5) built to serve families, the elderly, or others (i.e., persons with special needs); (6) newly constructed or rehabilitated; (7) under 700 square feet, between 700 and 1,000 square feet, or over 1,000 square feet; and (8) located in the Pacific, Mountain/West Central, East North Central, Southeast, or Northeast region of the country. For each of these characteristics, we identified (1) its influence on cost for all tax credit units and (2) the relative proportion of for-profit and
	nonprofit developers' units with the characteristic. For example, we

determined that garden style units cost less than other types of units and

⁴The criteria we used to identify distressed Census tracts are described on p. 11.

⁵Properties developed in neighborhoods where development costs are high relative to incomes are entitled to receive supplemental tax credits.

that for-profit developers were more likely to build garden style units than nonprofit developers. Our findings for each of these characteristics can be found in appendix I.

To determine the extent to which the difference in the average cost of units built by nonprofit and for-profit developers could be explained by these eight characteristics, we performed a statistical procedure called a regression analysis.⁶ This analysis showed that some or all of the difference could be explained by differences in the eight characteristics. Specifically, this analysis showed that, after accounting for differences in what for-profit and nonprofit developers built, the cost difference was $$5,600 \pm $7,200.^7$ This means that, if all other factors in building these housing units were equal, the average per-unit cost for nonprofit developers was between \$1,600 lower and \$12,700⁸ higher than the average per-unit cost for for-profit developers.

The results of our regression analysis showed that the following characteristics had a statistically significant relationship with the per-unit cost: (1) the property's location in a distressed Census tract, (2) the property's eligibility for additional tax credits, (3) the type of building (high-rise, garden style, town house, or other/mixed), (4) the type of construction (new construction versus rehabilitation), (5) the number of square feet per unit, and (6) the region of the country. Characteristics that we did not find to be statistically significant were (1) the location of the property (urban, suburban, or rural) and (2) the population primarily served (the elderly versus families). This analysis and its results are explained in more detail in appendix I, and details are provided in table I.1.

Our analysis of the cost implications of the various characteristics of properties built by for-profit and nonprofit developers explains 75 percent of the variation in the per-unit costs observed in our data. Had information on additional characteristics that may affect per-unit costs, such as unusually high local construction costs or stringent seismic standards, been available, we might have been able to explain some or all of the remaining variation in unit costs. Also, with additional information to

⁷This difference was not statistically significant.

⁸Because of rounding, the upper bound estimate is \$12,700, not \$12,800.

⁶We developed a statistical model, called a regression model, to examine the factors associated with unit cost. A regression model is used to investigate the relationships among variables. For this study, we used the model to predict the amount of change to unit cost that would accompany changes in other factors. For example, we predicted the amount of change to unit cost that would result from a change in unit size, after accounting for other factors that influence cost, such as unit location and type.

	explain the remaining 25 percent of the variation, our conclusion about the effect of nonprofit developers might be different.
Agency Comments	Because this report does not discuss any aspect of the Low-Income Housing Tax Credit program's implementation or administration by the federal government or the states, we did not solicit comments from either the Department of the Treasury or the state-level tax credit allocating agencies. We did, however, seek the views of national organizations representing both for-profit and nonprofit developers on which characteristics we should include in our analysis and incorporated their suggestions to the extent possible.
Scope and Methodology	To help understand why per-unit costs were higher for nonprofit developers, we looked at the types of units they were building and asked whether these types of units were generally more or less costly to build than the types of units built by for-profit developers. First, we examined characteristics of housing units that we thought might be related to per-unit costs and for which data were available in our database. These characteristics were location (i.e., urban, suburban, or rural), the economic condition of the area, the property's eligibility for additional tax credits, the type of building, the type of tenants, the type of construction, the number of square feet in the unit, and the region of the country. Then we performed a regression analysis to estimate the influence of the type of developer on per-unit costs while controlling for these other factors.
	Most of this analysis used data that we collected in 1996 from a statistical sample of 423 properties placed in service between 1992 and 1994. We also used certain 1990 Census data and a definition of distressed Census tracts that considers local poverty and unemployment rates. A detailed description of our methodology appears in appendix I.
	In describing the results of our analysis, we generally present the upper and lower bound of the confidence interval around each point estimate. Where the confidence interval is not presented with the estimate itself (see fig. 1, for example), we included this information in table I.2 in appendix 1.
	We conducted our work from July to December 1998 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the appropriate congressional committees. We will make copies available to others on request.

Please contact me at (202) 512-7631 if you or your staff have any questions. Major contributors to this report are listed in appendix II.

Sincerely yours,

Hudig England - Joeph

Judy A. England-Joseph Director, Housing and Community Development Issues

Cost Implications of Tax Credit Properties' Characteristics

To understand why the average per-unit costs of properties developed with low-income housing tax credits were higher for nonprofit developers than for for-profit developers, we studied the data in our database of tax credit units placed in service between 1992 and 1994.¹ Specifically, we looked at the following eight characteristics that we believed could have had an impact on the cost of developing these properties:

- whether the property was in an urban, suburban, or rural location;
- whether the property was in an economically distressed area;
- whether the property was in a location that made it eligible for additional tax credits;
- whether the development was a high-rise building, garden style building, town house, or mixture of these unit types;
- whether the units were built for families in general, the elderly, or a special needs population, such as the mentally disabled or the recently homeless;
- whether the property being developed was all new construction or the rehabilitation of an existing property;
- the size of the units developed; and
- the region of the country.

This analysis consisted of three steps: First, we identified the impact of each characteristic on the unit cost for all of the properties by determining the relative cost of units in properties with or without each characteristic. Second, we determined the degree to which for-profit or nonprofit developers were more or less likely to develop properties with each characteristic. Finally, we performed a regression analysis, taking into account our sample design, to estimate the influence of the type of developer on per-unit costs while controlling for these other factors.

The following describes the results of the first two analyses for each of the eight characteristics. For each statistical estimate, we computed the upper and lower bounds of the 95-percent confidence interval. We also tested for

¹Our database contains information from a probability sample of 423 properties. We used this sample to represent our total study universe of about 4,100 properties. These 4,100 properties, containing over 170,000 low-income units, were placed in service in the 48 contiguous states and the District of Columbia from January 1, 1992, through December 31, 1994. Our probability sample of 423 properties was drawn from two strata, a large property stratum and a small property stratum. The large property stratum consisted of 29 properties with more than 300 units in each property. All 29 of these properties were included in our sample. The remaining properties were in the small property stratum. We selected 394 properties from this stratum into the sample with probabilities proportionate to their size, as measured by their numbers of low-income housing tax credit units.

Urban/Suburban/Rural Location	For all tax credit units, urban and suburban units cost more than rural units. See figure I.1.
	the statistical significance of differences between estimates. ² Each graph contains several vertical lines. The top of each line, which we designate as our higher estimate, represents the upper bound of the 95-percent confidence interval, and the bottom of the line, which we designate as our lower estimate, represents the lower bound of the 95-percent confidence interval. The circle near the center of the line shows our single point estimate. Note that graphs presenting information on the cost implications of the different characteristics describe all units (those produced by both types of developers) while the graphs describing the portion of developers' units with various characteristics have separate lines for nonprofit and for-profit developers, shaded areas indicate that a difference is statistically significant at the 95-percent confidence level. For the remaining graphs, the results of testing for statistical significance are described in the figures' titles.

 $^{^2 \}rm These tests are more useful than relying on overlapping confidence intervals to rule out statistically significant differences.$

Figure I.1: Urban and Suburban Units



Our analysis shows that nonprofit developers were more likely to build units in urban areas—61 percent \pm 10 percent compared with 44 percent \pm 6 percent for for-profit developers. At the same time, for-profit developers were more likely to build in rural areas—33 percent ± 6 percent compared with 15 percent \pm 6 percent for nonprofit developers. There was no significant difference in the proportion of building done by for-profit developers and nonprofit developers in suburban areas. See figure I.2.



We were able to identify the Census tracts of most of the properties in our database of tax credit properties.⁵ For these, we determined whether the tracts were classified as distressed according to the criteria described above. We then analyzed the cost implications of building in distressed areas and the proportion of such units built by for-profit and nonprofit developers.

As figure I.3 shows, unit costs did not vary significantly with the economic condition of the neighborhood.



Figure I.3: Differences in Unit Costs, by the Neighborhood's Economic Condition, Were Not Statistically Significant

Lower estimate

⁵We were not able to determine the Census tracts for 15 percent of the nonprofit units and 21 percent of the for-profit units in our database and termed these "unknown" for the purposes of this analysis.





Figure I.5: Units Eligible for Additional



We found that nonprofit developers were more likely than for-profit developers to build units eligible for additional credits: About 49 percent $(\pm 10 \text{ percent})$ of nonprofit units qualify, while only 21 percent $(\pm$ 5 percent) of the for-profit units qualify, as figure I.6 shows.



Type of Building

For all tax credit units, as figure I.7 shows, the cost of building was significantly higher for high-rise units than for units in town house, garden style, or mixed developments. At the same time, the cost of building was lower for garden style units.



As figure I.8 shows, we did not find significant differences between the proportion of high-rise or town house units built by for-profit and nonprofit developers, but we did find statistically significant differences in the proportion of garden style units and other/mixed types of developments. Specifically, for-profit developers were more likely to develop garden style units (62 percent \pm 6 percent) than nonprofit developers (47 percent \pm 10 percent), while nonprofit developers were more likely to build mixed developments (22 percent \pm 8 percent) than for-profit developers (12 percent \pm 3 percent).



Type of Tenants

For all units, the per-unit costs did not vary significantly with the type of tenant served—families, the elderly, or other groups with special needs. See figure I.9.

Figure I.9: Differences in Unit Costs,



We did not find significant differences between nonprofit developers and for-profit developers in the proportion of units they built to serve either families or elderly tenants, but we found that nonprofit developers were significantly more likely to build units intended to serve other groups with special needs. Specifically, we estimate that 12 percent \pm 6 percent of the units built by nonprofit developers were targeted to serve tenants with special needs compared with 4 percent ± 2 percent of the units built by for-profit developers. See figure I.10.



New Construction/ Rehabilitation

For all units, we also found that new construction tended to cost more than rehabilitation, as shown in figure I.11.



As figure I.12 shows, we did not find a significant difference between for-profit and nonprofit developers in the proportion of units developed through rehabilitation and new construction.



Size of Units

For all units, we found that the cost to develop larger units was greater than the cost to develop smaller units. See figure I.13.



We found that nonprofit developers were less likely than for-profit developers to build units of between 700 and 1,000 square feet. However, nonprofit developers were more likely to build units of over 1,000 square feet—47 percent \pm 15 percent for nonprofit developers compared with 24 percent \pm 12 percent for for-profit developers. There was no significant difference in the proportion of units of under 700 square feet built by either type of developer. See figure I.14.



Region

To determine the effect of regional differences, we combined some of the Census Bureau's nine geographical regions into five regions, for the purposes of this analysis. See figure I.15.

Appendix I Cost Implications of Tax Credit Properties' Characteristics



As figure I.16 shows, unit costs varied by geographical region. Costs were higher in the Northeast and Pacific regions than in the other three. Per-unit costs were lowest in the Mountain/West Central region.



We also found that nonprofit and for-profit developers' activity varied by region: Nonprofit developers' units were more likely to be in the Pacific and Northeast regions and less likely to be in the Mountain/West Central and Southeast regions, as shown in figure I.17.

Figure I.17: Nonprofit Units Were More Likely to Be Found in the Pacific and Northeast Regions



Estimated percentage of units

Higher estimate Estimate Lower estimate

Regression Analysis

The above comparisons were between units in nonprofit and for-profit developers' properties that were the same for only one of the eight factors we examined. Ideally, we would compare properties that were the same for all factors thought to influence per-unit costs. The regression analysis that follows simultaneously considers the effects on unit costs of nonprofit or for-profit development and of the eight other factors we examined. To estimate how much of the \$18,000 average per-unit cost difference could be explained by these characteristics, we performed a regression analysis. For this analysis we combined the cost implications for each of the eight characteristics we had already examined to determine their collective implications for the costs of units developed by for-profit and nonprofit builders. This analysis, which accounted for the differing proportions of higher- and lower-cost characteristics associated with the units built by the two types of developers, did not detect a statistically significant difference, at the 95-percent confidence level, between the costs for the two types of developers. Specifically, it showed that the cost difference between them was $$5,600 \pm $7,200$. In other words, if all other factors had been equal, nonprofit developers' units could have been expected to be from \$1,600 cheaper to \$12,700⁶ more expensive than for-profit developers' units.

Our analysis explained about 75 percent of the variation in the per-unit costs observed in our data. If information on additional characteristics affecting per-unit costs, such as unusually high local construction costs or stringent seismic standards, had been available, we might have been able to explain more of the variation in unit costs. With information to explain the remaining 25 percent of the variation, our conclusion about the effect of nonprofit development might have been different. Table I.1 contains the detailed results of our regression analysis.

⁶Because of rounding, the upper bound estimate is \$12,700, not \$12,800.

Table I.1: Detailed Results ofRegression Analysis on Units' TotalDevelopment Costs

Independent variables and effects	Coofficient	Standard errors of	P voluo
Intercent	\$52654 22	5693.63	
Spansor type	\$0200 H22	0070.00	0.0000
Nonprofit For-profit	5562.79 0.00	3659.69 0.00	0.1293
Geographic area Urban Suburban Rural	-2631.92 -2524.09 0.00	3547.61 3147.06 0.00	0.4586 0.4230
Construction type New only Rehabilitation only	16646.92 0.00	3074.18 0.00	0.0000
Building type High-rise only Other only and mixed Walkup/garden only	13583.53 -6507.51 0.00	4964.91 3186.06 0.00	0.0065 0.0417
Primary use Elderly Family	5039.75 0.00	6428.70 0.00	0.4335
Eligibility for additional credits Eligible Not Eligible	16325.02 0.00	4211.37 0.00	0.0001
Economic Condition Distressed Unknown Not distressed	12883.65 4908.41 0.00	4714.36 2410.66 0.00	0.0065 0.0424
Region Pacific Mountain/West Central East North Central Southeast Northeast	11222.78 -25229.98 -23841.43 -20268.61 0.00	7217.23 5395.40 4592.45 4857.45 0.00	0.1207 0.0000 0.0000 0.0000
Square feet above or below 900	101.33	19.41	0.0000

Note: The multiple R-Square for this model was 0.76480. The total number of apartment units represented in this analysis was 162,385.

We also added two variables to the regression—(1) whether a Rural Housing Service loan was obtained on the property and (2) the number of units in the property.⁷ Because neither of these characteristics proved to be statistically significant, we excluded them from the final model.

 $^{^7\}mathrm{The}$ P-values for these variables were 0.63 and 0.64, respectively.

Table I.2 provides details on the point estimates used elsewhere in this report.

Table I.2: Sampling Errors of Estimates From Low-Income Housing Tax Credit Database

Unit characteristic	Estimate	Sampling error	Confidence interval— from	Confidence interval— to
Average per-unit cost of all units	59,489	8,087	51,402	67,576
Average per-unit cost of nonprofit developers' units	72,855	6,587	66,268	79,442
Average per-unit cost of for-profit developers' units	55,015	10,640	44,376	65,655
Percentage of tax credit properties developed by nonprofit developers	22	6	16	28
Percentage of all units costing less than \$20,000	10	3	7	13
Percentage of all units costing more than \$100,000	10	4	6	14
Average per-unit cost of all newly constructed units	67,246	12,789	54,457	80,035
Average per-unit cost of all rehabilitation units	48,068	5,298	42,770	53,366
Average land cost for nonprofit developers	4,019	1,279	2,739	5,298
Average land cost for for-profit developers	2,855	564	2,290	3,419
Average acquisition cost for nonprofit developers	5,172	2,031	3,141	7,204
Average acquisition cost for for-profit developers	4,424	892	3,352	5,315
Average construction cost for nonprofit developers	42,177	4,276	37,901	46,453
Average construction cost for for-profit developers	29,237	3,483	25,754	32,720
Average general development cost for nonprofit developers	14,509	2,073	12,435	16,582
Average general development cost for for-profit developers	10,792	1,155	9,638	11,947
Average cost of reserves for nonprofit developers	2,292	861	1,432	3,153
Average cost of reserves for for-profit developers	989	423	565	1,412
Average of other costs for nonprofit developers	1,710	320	1,390	2,031
Average of other costs for for-profit developers	3,641	5,401	-1,759 ^a	9,042

(Table notes on next page)

Note: The 95-percent confidence level is used throughout this table. We found no statistically significant differences between nonprofit and for-profit developers in the percentage of unit costs attributable to (1) construction-related expenses; (2) general development costs (including developers' fees, profit and overhead) and various fees for professional services, such as accounting; and (3) other expenses, including the cost of acquiring land or buildings (where applicable); operating, replacement, and other prefunded reserves; and other costs, such as the cost of retiring an existing mortgage or the cost of a market analysis.

^aNegative sign indicates that the estimate is unreliable.

Appendix II Major Contributors to This Report

Resources, Community, and Economic Development Division, Washington, D.C. Stan Czerwinski, Associate Director Karen Bracey, Assistant Director Dennis Fricke, Assistant Director David Lewis, Evaluator-in-Charge Sara Ann Moessbauer, Referencer Lynne Goldfarb, Graphics Adviser Elizabeth R. Eisenstadt, Communications Analyst

Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. VISA and MasterCard credit cards are accepted, also. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:

U.S. General Accounting Office P.O. Box 37050 Washington, DC 20013

or visit:

Room 1100 700 4th St. NW (corner of 4th and G Sts. NW) U.S. General Accounting Office Washington, DC

Orders may also be placed by calling (202) 512-6000 or by using fax number (202) 512-6061, or TDD (202) 512-2537.

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:

info@www.gao.gov

or visit GAO's World Wide Web Home Page at:

http://www.gao.gov



United States General Accounting Office Washington, D.C. 20548-0001

Official Business Penalty for Private Use \$300



Address Correction Requested

