Updating the Low-Income Housing Tax Credit (LIHTC) Database: Projects Placed in Service through 2000

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Executive Summary

This report presents the results of the most recent update to the database of LIHTC properties. An earlier effort, also performed by Abt Associates Inc., created a national database of LIHTC properties placed into service from 1987 through 1994. In December 2000, HUD published the results of the first update to this database, *Updating the Low Income Housing Tax Credit (LIHTC) Database*, which included properties placed in service from 1995 through 1998. In April 2002, HUD published the results of the second update to this database, *Updating the Low Income Housing Tax Credit (LIHTC) Database: Projects Placed in Service through 1999*. This report publishes the results of the third update to the database, which includes properties placed in service through 2000.

As with the earlier data collection efforts, this study relied on state tax credit allocating agencies to provide information about each of the properties in their jurisdictions. Based on the data received from agencies, tax credit production averaged roughly 1,300 projects and 88,000 units annually between 1995 and 2000. While the number of projects placed into service each year has remained fairly stable over the years, the number of units has grown steadily from roughly 56,000 units produced annually in the 1992 through 1994 period. This increase reflects a boost in the size of the average LIHTC project from 42.1 units in the earlier study period to 72.8 units for properties placed in service in 2000. The larger average project size is in turn a function of the increase in the number of tax credit projects with tax-exempt bonds, which are more than twice as large as the average LIHTC project. Overall, tax credit projects are larger and have larger units than apartments in general.

Nearly two-thirds of LIHTC projects placed into service from 1995 through 2000 were newly constructed (although less than one-third in the Northeast were new construction). These newly constructed units constituted more than one-fifth of multifamily rental unit completions in the country over the 6-year period. Close to one-third of the projects had a nonprofit sponsor, with a significant increase in nonprofit sponsorship over the years. At the same time, the number of LIHTC projects with Rural Housing Service Section 515 loans has declined. The South accounts for the largest share of tax credit units in the United States, and the South and West boast larger-than-average LIHTC properties. The South also claims the largest proportion of properties with Rural Housing Service Section 515 loans. The Northeast has the highest proportion of nonprofit-sponsored LIHTC projects.

Just under half of LIHTC units placed into service from 1995 to 2000 are located in central cities, and nearly two-fifths are in metro area suburbs, similar to the distribution of occupied rental housing units overall. Over time, the shares of LIHTC projects in central cities and non-metro areas have dropped while the proportion in suburban locations has increased. Tax credit properties tend to be developed in areas with favorable cost environments, either because the area has relatively low development costs or because it is a Difficult Development Area (an area with high development costs relative to incomes, qualifying the project to claim an increased basis). Neighborhoods containing tax credit projects tend to

have more low-income households, higher poverty rates, minority populations, and proportions of female-headed families with children, and more renter occupied units than neighborhoods generally.

Chapter One
Introduction

1.1 Overview of the LIHTC

The Low Income Housing Tax Credit (LIHTC) was created by the Tax Reform Act of 1986.[1] The act eliminated a variety of tax provisions which had favored rental housing and replaced them with a program of credits for the production of rental housing targeted to lower income households. Under the LIHTC program, the states were authorized to issue Federal tax credits for the acquisition, rehabilitation, or new construction of affordable rental housing. The credits can be used by property owners to offset taxes on other income, and are generally sold to outside investors to raise initial development funds for a project. To qualify for credits a project must have a specific proportion of its units set aside for lower income households and the rents on these units are limited to 30 percent of qualifying income.[2] The amount of the credit that can be provided for a project is a function of development cost (excluding land), the proportion of units that is set aside, and the credit rate (which varies based on development method and whether other federal subsidies are used). Credits are provided for a period of 10 years.[3]

Congress initially authorized state agencies to allocate roughly $9 billion in credits over three years: 1987, 1988, and 1989.[4] Subsequent legislation modified the credit, both to make technical corrections to the original act and to make substantive changes in the program.[5] For example, the commitment period (during which qualifying units must be rented to low-income households) was extended from 15 years to 30 years.[6] States were also required to

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1 Public Law (PL) 99-514.

2 Owners may elect to set aside at least 20 percent of the units for households at or below 50 percent of area median income or at least 40 percent for households with incomes below 60 percent of area median. Rents in qualifying units are limited to 30 percent of the elected 50 or 60 percent of income.

3 The credit percentages are adjusted monthly, but fall in the neighborhood of 4 percent or 9 percent of qualifying basis. In general, credits are intended to provide a discounted stream of benefits equal to either 30 percent (for the 4 percent credit) or 70 percent (for the 9 percent credit) of the property's qualifying basis. The 30 percent credit is used for federally subsidized new construction or rehab. The 70 percent credit is used for non-federally subsidized rehab or construction.

4 Assumes approximately $300 million in allocation authority in each year, with annual credits taken for 10 years.

5 See Technical and Miscellaneous Revenue Act of 1988 (PL 100-647), Omnibus Budget Reconciliation Act of 1989 (PL 101-239), and Omnibus Reconciliation Act of 1990 (PL 101-508).

6 The Omnibus Reconciliation Act of 1989 extended the commitment period from 15 to 30 years. However, project owners are allowed to sell or convert the project to conventional market housing if they apply to the state tax credit allocation agency and the agency is unable to find a buyer (presumably a non-profit) willing

ensure that no more credit was allocated to a project than was necessary for financial viability. The credit was also made a permanent part of the Federal tax code (Section 42) in 1993.[7] In 2000, Congress significantly expanded the tax credit by increasing the per-capita cap from $1.25 to $1.50 in 2001 and to $1.75 in 2002, with annual adjustments for inflation starting in 2003.[8] The tax credit cap of $1.25 per capita had not been adjusted since the program's inception.

Since 1987—the first year of the credit program—the LIHTC has become the principal mechanism for supporting the production of new and rehabilitated rental housing for low-income households. However, given the decentralized nature of the program, there is no single federal source of information on tax credit production. Most of the data about the early implementation of the program was compiled by the National Council of State Housing Agencies (NCSHA), an association of state housing finance agencies, the entities responsible for allocating tax credits in most states. More recent data, through 1994, was collected in a database Abt Associates created for HUD and by the General Accounting Office (GAO).[9]

1.2 Objectives of the Research

The goals of this research project are to: (1) collect data from LIHTC allocating agencies on tax credit projects placed in service after 1994; (2) describe the characteristics of these projects and their local areas; and (3) provide a clean, documented data file that can be used as a reliable sampling frame for future, more in-depth research.

During the first year of data collection for this project, data were collected on properties placed in service from 1995 to 1998. The results of this first wave of data collection were presented in the *Updating the Low Income Tax Credit (LIHTC) Database* Final Report dated December 2000. That report was then updated in April 2002 to include properties placed in service through 1999 in *Updating the Low Income Tax Credit (LIHTC) Database: Projects Placed in Service Through 1999*. This report includes properties placed in service through 2000.

The approach used for this research project is based on the method used by Abt Associates Inc. in developing the database of tax credit projects placed in service during 1987-1994.

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to maintain the project as low-income for the balance of the 30 year period. If no such buyer is found, tenants are protected with rental assistance for up to three years.

7 See Omnibus Budget Reconciliation Act of 1993 (PL 103-66).

8 See Community Renewal Tax Relief Act of 2000 (PL 106-554).

9 See "Development and Analysis of the National LIHTC Database," Abt Associates, July 1996, and "Tax Credits: Opportunities to Improve Oversight of the Low-Income Housing Program," GAO/GGD RCED-97-55, March 1997.

Our research approach called for working closely with each of the allocating agencies to maximize the data provided with a minimum of burden to each agency.

1.3 Organization of this Report

This report is organized as follows:

- **Chapter One** provides an overview of the LIHTC program and the objectives of the research.
- **Chapter Two** describes the data collection approach and summarizes the results of data collection in terms of agency response and data quality.
- **Chapter Three** presents characteristics of tax credit properties placed in service from 1995 through 2000.
- **Chapter Four** presents information about the location of tax credit properties placed in service from 1995 through 2000.
- **Chapter Five** summarizes key findings in a conclusion.
- **Appendix A** presents findings by state.
- **Appendix B** contains the data collection form sent to tax credit allocating agencies.
- **Appendix C** presents a detailed description of the database and the data dictionary.

Chapter Two
Data Collection and Database Creation

2.1 Data Collection Approach

The data collection approach used for this research project is based on the method used by Abt Associates Inc. in developing the database of tax credit projects placed in service during 1987-1994. The research approach called for working closely with each of the 58 allocating agencies to maximize the data provided with a minimum of burden to each agency.

Data collection included several steps:

- identifying the appropriate contact person in each allocating agency
- mailing data requests and forms to the agencies
- following up and coordinating with the agencies for the first data submission (properties placed in service from 1995 to 1998), the second data submission (properties placed in service in 1999), and the most recent data submission (properties placed in service in 2000).
- data entry
- geocoding
- verifying data with states and making any corrections received from states
- data cleaning and merging in secondary data

Each of the steps is described in detail below.

Identifying the appropriate contact person in each tax credit allocating agency. The first step in the data collection was to identify the appropriate contact person in each of the allocating agencies. As a starting point, we compiled contact data from the previous study, as well as updated lists of contacts from the National Council of State Housing Finance Agencies web site. Contact names were then verified by telephone prior to our initial contact.

Mailing data requests and forms to the agencies. The data request was made through a letter from Abt Associates, accompanied by a letter from the HUD Deputy Assistant Secretary for Economic Affairs, along with blank data forms. This mailing was followed up by a telephone call from a project staff member. Where appropriate, we mailed a spreadsheet shell or an MS Access table with data entry screens for an agency to enter data, or a listing of

the variables needed if an agency chose to download the data from their own data systems. During collection of data on properties placed in service from 1995 to 1998, several agencies did not submit data on all 1998 properties because, at the time (in 1999), they did not yet have complete files on all 1998 properties. Therefore, during collection of data on properties placed in service in 1999, we asked agencies that previously had sent incomplete data on 1998 properties to resend complete 1998 data.

Following up and coordinating for first data submission. After mailing data requests to agencies, we conducted intensive follow-up with most states to ensure that data were submitted in a usable form and in a timely manner. Research assistants and analysts were responsible for the day-to-day tracking and follow-up of data receipt.[10]

Data review and follow-up. Upon receipt of the data, it was reviewed for completeness and consistency. Any problems identified were flagged and checked, and staff followed up with the states with questions if necessary. This process included a manual review of the agencies' submissions to detect a range of possible problems, including:

- submission of data on allocations rather than placements in service
- duplicate or multiple allocation projects
- building-level instead of project-level data
- incomplete or "bad" addresses
- other inconsistencies or omissions.

Data entry. As complete data were received from each site they were entered into a property-level database. Hard copy data were double key-entered by data entry personnel. Computerized files were added to the database by the programmer, again upon receipt.

Geocoding project addresses. Geocoding of project addresses was done by Abt Associates staff using MapMarker Plus software. MapMarker (the geocoding component of the MapInfo family of mapping products) geocodes each address with the latitude and longitude markers and an extended census tract designation that incorporates the state and county FIPS code, census tract, block group, and block number for each address. For the majority of records for properties placed in service from 1995 to 1999, we geocoded using MapMarker Plus version 7.0 to determine each project's 1990 census tract. Once geocoded, we used MapInfo Professional version 6.0 mapping software and electronic maps of the Census 2000 geographic entities to determine each project's 2000 census tract. For this latest update to the National LIHTC Database, geocoding was again done with MapMarker Plus version 7.0[11] to determine 1990 census tract numbers. To determine 2000 census tract numbers, geocoding

[10] About half the agencies submitted their data by paper means and half submitted it electronically.

[11] MapMarker Plus version 7.0 was the latest version of the software available to output 1990 U.S. Census codes.

was done with MapMarker Plus version 7.2. Using census tract-level databases and data on OMB-defined MSAs provided by HUD, we determined MSA and place codes.

Verifying data. Once each agency's data were entered, additional queries were run on the data to ensure consistency within and across records. The data were sent to each agency for verification, along with details on inconsistencies found. Any corrections received from states were used to update the file.

Merging in secondary data. Several types of locational variables were used to describe each property including census tract characteristics and MSA characteristics. Demographic data, including data on income, poverty, minorities, female-headed families with children, and renter versus owner occupancy, were taken from the 2000 Census. As geocoding was completed, the tracts and MSAs from which census data were needed were compiled, and census data were extracted or downloaded.

2.2 Results of Data Collection

The updated database contains data from all 58 allocating agencies that allocate tax credits in their states or local jurisdictions.[12] Exhibit 2-1 lists the agencies.

The data collection effort required intensive follow-up with the allocating agencies to ensure a high response rate and complete and accurate data. A number of agencies took several months to send the data, generally citing staffing constraints. In addition, many agencies initially sent incomplete data that required follow-up. However, the agencies ultimately provided very complete data.

Overall, the updated database includes information on 7,903 projects and 526,980 units placed in service between 1995 and 2000. This includes an additional 83 projects (5,914 units) placed in service in 1999 and 45 projects (2,146 units) placed in service in 1998 that were not included in the previous update to the database. See Appendix C for more details.

[12] Data for the DC Housing Finance Agency and the DC Department of Housing and Community Development were obtained from the *District of Columbia Housing Pipeline Report*, posted by the DC Office of Planning and Economic Development at http://www.dcbiz.dc.gov/home/news/2002/may/report_spreadsheet.pdf.

Exhibit 2-1: Tax Credit Allocating Agencies

Alabama Housing Finance Authority	Nebraska Investment Finance Authority
Alaska Housing Finance Corporation	Nevada Department of Business & Industry
Arizona Department of Housing	New Hampshire Housing Finance Authority
Arkansas Development Finance Authority	New Jersey Housing & Mortgage Finance Agency
California Tax Credit Allocation Committee	New Mexico Mortgage Finance Authority
City of Chicago Department of Housing	New York State Division of Housing & Community Renewal
Colorado Housing & Finance Authority	New York State Housing Finance Agency
Connecticut Housing Finance Authority	City of New York Department of Housing Preservation & Development
Delaware State Housing Authority	North Carolina Housing Finance Agency
District of Columbia Department of Housing & Community Development	North Dakota Housing Finance Agency
District of Columbia Housing Finance Agency	Ohio Housing Finance Agency
Florida Housing Finance Corporation	Oklahoma Housing Finance Agency
Georgia Department of Community Affairs	Oregon Housing & Community Services
Housing & Community Development Corporation of Hawaii	Pennsylvania Housing Finance Agency
Idaho Housing & Finance Association	Puerto Rico Housing Finance Corporation
Illinois Housing Development Authority	Rhode Island Housing & Mortgage Finance Corporation
Indiana Housing Finance Authority	South Carolina Housing Finance & Development Authority
Iowa Finance Authority	South Dakota Housing Development Authority
Kansas Department of Commerce & Housing	Tennessee Housing Development Agency
Kentucky Housing Corporation	Texas Department of Housing & Community Affairs
Louisiana Housing Finance Agency	Utah Housing Finance Agency
Maine State Housing Authority	Vermont Housing Finance Agency
Maryland Department of Housing & Community Development	Virgin Islands Housing Finance Authority
Massachusetts Department of Housing & Community Development	Virginia Housing Development Authority
Massachusetts Housing Finance Agency	Washington State Housing Finance Commission
Michigan State Housing Development Authority	West Virginia Housing Development Fund
Minnesota Housing Finance Agency	Wisconsin Housing & Economic Development Authority
Mississippi Home Corporation	Wyoming Community Development Authority
Missouri Housing Development Commission	Montana Board of Housing

Exhibit 2-2 shows the coverage of the database for projects placed in service between 1995 and 2000. The exhibit indicates the percentage of projects and units missing the variable in each year. For comparison purposes, the exhibit also shows the coverage for projects placed in service between 1992 and 1994. Overall, the data collected in the LIHTC database represent the best data that state agencies were able to supply as of 2002. Nevertheless, there are a number of important caveats to keep in mind regarding the database and the analysis presented in the subsequent sections. In particular:

- Because few states compiled data specifically for our data request, source documents often included a variety of different listings and printouts that had to be matched to complete the database. In using these lists, we attempted to verify any assumptions used with agency representatives; however, only about 60 percent of the agencies responded to these verification requests. For the same reason, variable coverage is not complete—that is, we were limited to the items states already had compiled (although for different purposes).
- Finally, missing data was fairly common in a few variables, for example bedroom size distribution (14.8 percent) and increase in basis (19.6 percent). Although missing variables are concentrated in particular states, we have no reason to suspect that these variables do not provide good representative statistics for LIHTC projects nationally.

These results represent a major improvement in data coverage relative to the earlier data collection efforts. The percentage of projects and units that had missing data dropped considerably for all variables, with particularly dramatic improvement for number of bedrooms, allocation year, construction type, credit type, increase in basis. Further, within the 1995-2000 period, data coverage improved significantly for owner address, increase in basis, and number of bedrooms.[13] In summary, the HUD LIHTC database offers substantially complete coverage of LIHTC projects placed in service between 1995 and 2000 and reasonable coverage of projects placed in service in earlier years.

[13] For example, between 1995 and 2000, the percentage of units with missing bedroom information decreased from 18 percent to only 11 percent. Similarly, the percentage of units in projects missing owner address dropped from 11 percent to only 5 percent.

Exhibit 2-2
LIHTC Database: Percent Missing Data by Variable
1992-2000

Variable	1992-1994		1995-2000	
	Percent of Projects with Missing Data	Percent of Units with Missing Data	Percent of Projects with Missing Data	Percent of Units with Missing Data
Project Address[a]	1.1%	1.5%	0.5%	0.2%
Owner Contact Data	18.4%	18.3%	7.9%	6.5%
Total Units	0.7%	---	0.2%	---
Low Income Units	2.1%	3.2%	0.5%	0.5%
Number of Bedrooms[b]	53.6%	58.3%	14.8%	14.1%
Allocation Year	12.5%	14.4%	0.1%	0.1%
Construction Type (new/rehab)	26.8%	28.7%	1.5%	1.6%
Credit Type	47.9%	48.3%	9.9%	11.3%
Nonprofit Sponsorship	26.9%	23.7%	11.0%	12.2%
Increase in Basis	49.8%	46.8%	19.6%	15.2%
Use of Tax-Exempt Bonds	23.5%	24.3%	11.3%	11.8%
Use of RHS Section 515	25.5%	27.0%	13.9%	16.9%

[a] Indicates only that some location was provided. Address may not be a complete street address.
[b] For some properties, bedroom count was provided for most but not all units, in which case data is not considered missing. The percent of units with missing bedroom count data is based on properties where no data were provided on bedroom count.

Chapter Three
Characteristics of Tax Credit Projects

This chapter presents information on the characteristics of Low Income Housing Tax Credit (LIHTC) projects based on information obtained from the state allocating agencies. Information is presented for 7,903 projects and 526,980 units placed in service between 1995 and 2000.

3.1 Basic Property Characteristics

Exhibit 3-1 presents information on the basic characteristics of LIHTC properties by placed-in-service year. Placed-in-service projects are those that have received a certificate of occupancy and for which the state has submitted an IRS Form 8609 indicating that the property owner is eligible to claim low-income housing tax credits.[14]

On average, approximately 1,300 projects and 88,000 units were placed into service during each of the study years. The average LIHTC project placed in service during this period contained 66.7 units. Tax credit properties tend to be larger than the average apartment property. Fully 40.4 percent of LIHTC projects are larger than 50 units, compared to only 2 percent of all apartment properties nationally. In terms of units, more than three-quarters of LIHTC units were in properties with more than 50 units, compared with less than half of apartment units in general.[15]

Of the units produced, the vast majority were qualifying units, or tax credit units—that is, units reserved for low-income use, with restricted rents, and for which low-income tax credits can be claimed. The distribution of qualifying ratios (the percentage of tax credit units in a project) shows that the vast majority of projects are composed almost entirely of low-income units. Only a very small proportion of the properties have lower qualifying ratios, reflecting the minimum elections set by the program (i.e., a minimum of 40 percent of the units at 60 percent of median income or 20 percent of the units at 50 percent of median). Overall, the ratio of qualifying units to total units was 0.96 for properties placed in service from 1995 through 2000.

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[14] IRS reporting is on a building-by-building basis. However, in this study, we use the LIHTC project as a unit of analysis. A project would include multi-building properties.

[15] National Multi Housing Council, tabulation of unpublished data from the U.S. Census Bureau's 1995-1996 Property Owners and Managers Survey. Data do not include public housing projects.

Exhibit 3-1 also presents information on the size of the LIHTC units based on the number of bedrooms. As shown, the average unit had 1.9 bedrooms. Nearly one quarter (23.6 percent) of LIHTC units in the study period had three or more bedrooms, compared to only 11 percent of all apartment units nationally, and 16 percent of all apartments built from 1990 to 1997.[16]

Exhibit 3-1
Characteristics of LIHTC Projects
1995-2000

Year Placed in Service	1995	1996	1997	1998	1999	2000	All Projects 1995-2000
Number of Projects	1,370	1,298	1,314	1,257	1,452	1,212	7,903
Number of Units	78,940	81,360	84,531	88,702	105,253	88,194	526,980
Average Project Size	57.6	62.7	64.3	70.6	72.5	72.8	66.7
Distribution by Size							
0-10 Units	13.6%	14.2%	7.6%	7.5%	6.2%	5.0%	9.1%
11-20 Units	12.0%	11.9%	12.6%	11.0%	12.2%	11.4%	11.9%
21-50 Units	41.5%	36.5%	42.0%	38.2%	37.4%	36.3%	38.7%
51-99 Units	16.9%	17.7%	18.7%	21.3%	21.5%	22.9%	19.8%
100+ Units	16.0%	19.7%	19.0%	22.0%	22.7%	24.4%	20.6%
Average Qualifying Ratio	97.3%	96.8%	96.0%	95.5%	95.1%	95.2%	96.0%
Distribution by Ratio							
0-20%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
21-40%	0.6%	1.5%	1.3%	1.6%	1.1%	1.0%	1.2%
41-60%	2.4%	2.0%	2.4%	2.6%	2.8%	2.8%	2.5%
61-80%	2.1%	2.7%	5.2%	5.7%	7.4%	6.7%	5.0%
81-90%	2.4%	1.7%	2.2%	2.1%	2.3%	2.7%	2.2%
91-95%	2.2%	1.6%	1.6%	1.5%	2.9%	2.9%	2.1%
96-100%	90.7%	90.5%	87.3%	86.5%	83.5%	83.8%	87.1%
Average Number of Bedrooms	1.9	2.0	1.9	2.0	1.9	1.9	1.9
Distribution of Units by Size							
0 Bedrooms	3.7%	4.2%	4.2%	2.9%	4.3%	3.6%	3.8%
1 Bedroom	30.8%	29.3%	29.6%	27.7%	28.5%	32.3%	29.6%
2 Bedrooms	43.8%	43.9%	42.4%	44.0%	42.6%	41.5%	43.0%
3 Bedrooms	18.7%	19.6%	20.6%	21.8%	21.1%	20.2%	20.4%
4+ Bedrooms	3.1%	2.9%	3.2%	3.6%	3.6%	2.5%	3.2%

Notes: The analysis dataset includes 7,903 projects and 526,980 units placed in service between 1995 and 2000. The database contains missing data for qualifying ratio (percentage of tax credit units) (0.5%) and bedroom count (14.8%). Totals may not sum to 100 percent because of rounding.

[16] U.S. Bureau of Census, 1997 American Housing Survey. Data refer to vacant and occupied rental apartments in buildings with two or more units.

Exhibit 3-2 presents additional information on the characteristics of the LIHTC projects, beginning with the type of construction: new, rehabilitation, or a combination of new and rehabilitation (for multi-building projects). As shown, LIHTC projects placed in service from 1995 through 2000 were predominately new construction, accounting for close to two-thirds (63.6 percent) of the projects. Rehabilitation of an existing structure was used in 34.9 percent of the projects, while a combination of new construction and rehabilitation was used in only a small fraction of LIHTC projects.[17]

The tax credit program requires that 10 percent of each state's LIHTC dollar allocation be set aside for projects with nonprofit sponsors. As shown in Exhibit 3-2, overall 30.1 percent of LIHTC projects placed in service from 1995 to 2000 had a nonprofit sponsor.

Exhibit 3-2
Additional Characteristics of LIHTC Projects
1995-2000

Year Placed in Service	1995	1996	1997	1998	1999	2000	All Projects 1995-2000
Construction Type							
New	66.0%	62.5%	63.1%	63.9%	64.4%	61.3%	63.6%
Rehab	32.6%	36.3%	34.2%	35.1%	34.0%	37.6%	34.9%
Both	1.4%	1.2%	2.7%	1.0%	1.6%	1.2%	1.5%
Nonprofit Sponsor	19.0%	25.1%	35.2%	35.1%	34.8%	31.7%	30.1%
RHS Section 515	23.5%	15.8%	13.5%	11.6%	10.5%	9.8%	14.4%
Tax-Exempt Bond Financing	3.9%	6.0%	7.6%	13.3%	19.0%	25.2%	12.4%
Credit Type							
30 Percent	26.1%	19.9%	19.6%	26.6%	28.6%	30.2%	25.1%
70 Percent	63.0%	68.7%	71.3%	64.4%	63.9%	63.2%	65.8%
Both	10.8%	11.3%	9.1%	9.0%	7.6%	6.6%	9.2%

Notes: The analysis dataset includes 7,903 projects and 526,980 units placed in service between 1995 and 2000. The database contains missing data for construction type (1.5%), nonprofit sponsor (11.0%), RHS Section 515 (13.9%), bond financing (11.3%), and credit type (9.9%). Totals may not sum to 100 percent because of rounding.

Exhibit 3-2 also presents information about two common sources of additional subsidy: use of tax-exempt bonds (which are generally issued by the same agency that allocates the credit), and Rural Housing Service (RHS)[18] Section 515 loans (which imply a different

[17] The combination of new construction and rehabilitation is possible in multi-building properties, where one building was rehabilitated and one building was newly constructed.

[18] The Rural Housing Service was formerly called the Farmers Home Administration.

regulatory regime and different compliance monitoring rules). Overall, RHS Section 515 loans were used in 14.4 percent of the projects placed in service during the study period, with the proportion of RHS projects dropping steadily throughout the period, reflecting a dramatic decrease in Section 515 loans nationally (see Section 3.2 of this chapter).

The final characteristic presented in Exhibit 3-2 is the credit type that was used by LIHTC projects. The 30 percent present value credit is used for acquisition and when other federal financing is used for the rehab or new construction, while the 70 percent present value credit is available to non-federally financed rehab or construction. Roughly two-thirds (65.8 percent) of the LIHTC projects placed in service during the study period have a 70 percent credit, one-fourth (25.1 percent) have a 30 percent credit, and 9.2 percent have both.

Exhibit 3-3 presents more detail on the type of credit, providing a breakdown of credit percentage based on construction type and financing. Projects with 70 percent credits are more likely to be new construction than those with 30 percent credits (76.1 percent compared with 56.7 percent) and less likely to be rehabilitation projects (22.7 percent compared with 42.7 percent).

Exhibit 3-3
Characteristics of LIHTC Projects by Credit Type
1995-2000

	Projects			Units		
Credit Type	30%	70%	Both	30%	70%	Both
Construction Type						
New	56.7%	76.1%	8.9%	55.7%	76.8%	10.9%
Rehab	42.7%	22.7%	84.0%	43.8%	22.1%	83.6%
Both	0.6%	1.2%	7.1%	0.5%	1.0%	5.5%
RHS Section 515	45.9%	2.5%	17.2%	16.0%	1.3%	11.7%
Tax-Exempt Bond Financing	44.4%	1.1%	4.6%	78.3%	2.1%	10.1%

Notes: The analysis dataset includes 7,903 projects and 526,980 units placed in service between 1995 and 2000. The database contains missing data for construction type (1.5%), RHS Section 515 (13.9%), bond financing (11.3%), and credit type (9.9%). When data are presented in a cross tabulation of two variables, the percentage of missing data may increase. Totals may not sum to 100 percent because of rounding.

Exhibit 3-3 also shows the breakdown of two major federal subsidies by credit type. As shown, 45.9 percent of projects with 30 percent credits have RHS Section 515, and 44.4 percent have tax-exempt bond financing. A very small percentage of projects with 70 percent credits have RHS or tax-exempt bond financing. In general, tax credit projects that receive other sources of federally subsidized funding are not eligible for the 70 percent credit, but there are exceptions to this rule. For example, there are two circumstances under which a project can receive tax-exempt bonds and still claim a 70 percent tax credit: (1) if the

developer excludes the bond proceeds from the eligible basis, or (2) if the developer pays off the debt associated with the bond financing before the property is placed in service.[19] In addition, tax credit projects with HOME funds can, in some cases, receive a 70 percent credit. Although the tax code does not specifically provide for a 70 percent credit for RHS programs, it appears that exceptions have been made in a small number of cases.[20]

We also examined key project characteristics for three specific groups of tax credit properties: nonprofit-sponsored, RHS Section 515, and tax-exempt bond-financed projects. As shown in Exhibit 3-4, bond-financed projects are the largest of these three groups, with an average project size of 151.6 units, and with 61.2 percent of bond-financed properties having over 100 units. By contrast, RHS projects are particularly small, with an average size of just 30.9 units. Nonprofit projects, with an average size of 56.5 units, are slightly smaller than the average size of 66.7 units for the universe of properties placed into service from 1995 through 2000. Bond-financed tax credit projects also stand out because of their lower-than-average qualifying ratio. In terms of construction type, the three groups show similar splits between new construction and rehab.

Exhibit 3-4
Characteristics of Specific LIHTC Property Types
1995-2000

	Type of LIHTC Project			All LIHTC Projects 1995-2000
	Nonprofit Sponsor	Tax-Exempt Bond Financing	RHS Section 515	
Average Project Size (units)	56.5	151.6	30.9	66.7
Distribution by Project Size				
0-10 units	7.1%	0.6%	3.5%	9.1%
11-20 units	16.3%	2.5%	19.1%	11.9%
21-50 units	41.8%	12.7%	69.5%	38.7%
51-99 units	20.4%	23.0%	6.7%	19.8%
100+ units	14.3%	61.2%	1.2%	20.6%
Construction Type				
New	56.7%	55.5%	55.9%	63.6%
Rehab	39.8%	43.9%	43.9%	34.9%
Both	3.6%	0.6%	0.2%	1.5%
Average Qualifying Ratio	97.0%	87.5%	99.2%	96.0%

Note: The analysis dataset includes 7.903 projects and 526,980 units placed in service between 1995 and 2000. The database contains missing data for construction type (1.5%), qualifying ratio (0.5%), nonprofit sponsor (11.0%), RHS Section 515 (13.9%), and bond financing (11.3%). Totals may not sum to 100 percent because of rounding.

[19] Information provided by the National Council of State Housing Agencies (NCSHA)

[20] In testimony before the House Subcommittee on Housing and Community Opportunity, Robert P. Yoder (past President of Council for Affordable and Rural Housing) testified on July 17, 2001, that the tax credit rules should be clarified to permit the 70 percent credit for RHS programs.

Finally, we examined the length of time it took for an allocated project to be placed in service. Exhibit 3-5 shows, for each placed-in-service year, the percentage of projects from different allocation years. During data collection, we requested the earliest allocation year and the latest placed-in-service year when a project had multiple allocation or place-in-service years. For each of the placed-in-service years, more than three-quarters of the projects had allocation dates either one or two years before the place-in-service year, with the bulk of the remainder allocated in the same year. Only a very small fraction of projects were allocated credits more than two years before the placed-in-service date.[21]

Exhibit 3-5
Percentage of Projects Placed in Service from Different Allocation Years
1995-2000

Year Tax Credit Allocated	Year Placed in Service						
	1995	1996	1997	1998	1999	2000	1995-2000
Pre-1993	0.4%	0.0%	0.3%	0.0%	0.0%	0.0%	0.1%
1993	35.1%	0.8%	0.2%	0.4%	0.1%	0.0%	6.3%
1994	49.2%	43.4%	1.9%	0.1%	0.2%	0.3%	16.1%
1995	15.4%	42.8%	41.7%	2.9%	0.5%	0.2%	17.2%
1996	0.0%	13.0%	40.6%	39.3%	4.6%	0.3%	16.1%
1997	0.0%	0.0%	14.9%	38.8%	40.0%	5.0%	16.8%
1998	0.0%	0.0%	0.2%	15.3%	39.1%	39.6%	15.7%
1999	0.0%	0.0%	0.2%	2.6%	12.1%	40.7%	8.9%
2000 or later	0.0%	0.0%	0.1%	0.6%	3.4%	13.3%	2.8%
Total	100%	100%	100%	100%	100%	100%	100%

Notes: The analysis dataset includes 7,903 projects and 526,980 units placed in service between 1995 and 2000. Totals may not sum to 100 percent because of rounding.

[21] In 102 properties, tax credits were allocated after the placed-in-service year. These properties, most of which have tax-exempt bonds, are concentrated among a few LIHTC allocating agencies that have atypical methods of defining allocation year.

3.2 Changes in Characteristics Over Time

The LIHTC database is useful for examining trends in housing production under the tax credit program not only because we can see yearly changes within the study period but also because we can compare it to data from HUD's earlier study of tax credit properties placed in service from 1992 through 1994. In this section, we present trends in characteristics over time.

Exhibit 3-6 presents key characteristics for LIHTC projects placed in service during the period 1992-1994 and for each year from 1995 through 2000. As shown, the number of projects placed in service annually was consistent over the years, with an average of approximately 1,300 projects per year. However, the number of *units* placed in service rose from the earlier study period to later years, reflecting a larger average project size. The larger project size in the current study period is associated with a higher percentage of tax-exempt bond financed projects compared with the earlier study period. On average, tax-exempt bond financed projects are more than twice as large (151.6 units) compared to the universe of projects (66.7 units) placed in service from 1995 to 2000.

The average project size increased steadily, from 42.1 units in the earlier study period to 72.5 units in 2000. Similarly, the proportion of projects with 10 or fewer units dropped from 21.9 percent in 1992-1994 to only 5.0 percent in 2000. At the same time, the percentage of properties with 50 or more units more than doubled, from 22.4 percent to 47.3 percent.

We also see an increase in nonprofit sponsorship and tax-exempt bond financing, and a decrease in the use of the RHS Section 515 program. The share of properties with nonprofit sponsors increased from 20.3 percent of properties in 1992-1994 to 31.7 percent in 2000. At the same time, the proportion of properties with RHS funding dropped dramatically, from 34.5 percent to only 9.8 percent, reflecting the sharp decrease in Section 515 loans nationwide from $512 million in 1994 to $151 million in 1996 to $114 million in 1999.[22] Finally, the percentage of projects financed with bonds jumped from 2.7 percent to 25.2 percent, reflecting the increased competition among projects for tax credits. Developers often must secure tax-exempt bond financing to make their applications more competitive in the eyes of the allocating agency. In addition, bond-financed properties are eligible for credits outside the per-capita state credit ceilings.

[22] RHS Section 515 funding information provided by the Housing Assistance Council web page (www.ruralhome.org/rhs/inception/515.htm) on February 7, 2002.

Exhibit 3-6
Characteristics of LIHTC Properties Over Time: 1992-1994 Compared to Subsequent Years

Year Placed in Service	1992-1994	1995	1996	1997	1998	1999	2000
Annual Number of Projects	1,329[a]	1,370	1,298	1,314	1,257	1,452	1,212
Annual Number of Units	56,054[a]	78,940	81,360	84,531	88,702	105,253	88,194
Annual Number of Low-Income Units	51,907[a]	73,317	76,001	77,365	81,171	95,950	80,766
Average Project Size (units)	42.1	57.6	62.7	64.3	70.6	72.5	72.8
Distribution by Size							
0-10 units	21.9%	13.6%	14.2%	7.6%	7.5%	6.2%	5.0%
11-50 units	55.7%	53.5%	48.4%	54.6%	49.2%	49.6%	47.7%
51-99 units	12.6%	16.9%	17.7%	18.7%	21.3%	21.5%	22.9%
100+ units	9.8%	16.0%	19.7%	19.0%	22.0%	22.7%	24.4%
Distribution of Units by Size							
0 Bedrooms	5.5%	3.7%	4.2%	4.2%	2.9%	4.3%	3.6%
1 Bedroom	39.8%	30.8%	29.3%	29.6%	27.7%	28.5%	32.3%
2 Bedrooms	38.5%	43.8%	43.9%	42.4%	44.0%	42.6%	41.5%
3 Bedrooms	14.8%	18.7%	19.6%	20.6%	21.8%	21.1%	20.2%
4+ Bedrooms	1.3%	3.1%	2.9%	3.2%	3.6%	3.6%	2.5%
Average Qualifying Ratio	97.8%	97.3%	96.8%	96.0%	95.5%	95.1%	95.2%
Distribution of Projects by Construction Type							
New	65.9%	66.0%	62.5%	63.1%	63.9%	64.4%	61.3%
Rehab	33.2%	32.6%	36.3%	34.2%	35.1%	34.0%	37.6%
Both	0.7%	1.4%	1.2%	2.7%	1.0%	1.6%	1.2%
Nonprofit Sponsor	20.3%	19.0%	25.1%	35.2%	35.1%	34.8%	31.7%
RHS Section 515	34.5%	23.5%	15.8%	13.5%	11.6%	10.5%	9.8%
Tax-Exempt Bond Financing	2.7%	3.9%	6.0%	7.6%	13.3%	19.0%	25.2%

[a]Average for 1992, 1993, and 1994.

Notes: Data for 1992-1994 are from *Development and Analysis of the National Low-Income Housing Tax Credit Database*, prepared by Abt Associates for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development, July 1996. The analysis dataset includes 7,903 projects and 526,980 units placed in service between 1995 and 2000. The database contains missing data for bedroom count (14.8 %), qualifying ratio (0.5%), construction type (1.5%), nonprofit sponsor (11.0%), RHS Section 515 (13.9 %), and bond financing (11.3%). Qualifying ratio is a simple average of the qualifying ratio of projects. Totals may not sum to 100 percent because of rounding.

Chapter Four
Location of Tax Credit Projects

This chapter presents information on the locations of Low Income Housing Tax Credit (LIHTC) projects placed in service from 1995 through 2000. Specifically, it addresses regional patterns of development, whether properties are located in central cities, suburbs, or rural areas, the characteristics of the neighborhoods in which LIHTC projects are developed, and changes in these patterns over time.

In order to analyze information related to property location, projects in the LIHTC database were geocoded—that is, linked with their census tract—based on the address information provided by the allocating agencies. Geocoding was performed for the entire LIHTC database using MapMarker Plus geocoding software (version 7.3) from the MapInfo Corporation. Overall, addresses provided by the allocating agencies were successfully matched with a census tract for 92 percent of the projects in the database.[23] Regionally, the success rates for geocoding were 95 percent in the Northeast, 94 percent in the Midwest, 94 percent in the West, and 91 percent in the South.

For most of the analyses presented in this chapter, including location type (central city, suburb, or non-metro area) and characteristics of census tracts in which LIHTC properties are located, analyses are based on the dataset of geocoded projects placed in service from 1995 through 2000. However, for analysis of regional patterns of development, census tract information is not needed, so analyses are based on all projects (not solely geocoded projects). [24]

4.1 Regional Patterns of Development

In this section, we examine the regional distribution of LIHTC properties and the characteristics of projects by Census region. Exhibit 4-1 presents the regional distribution of LIHTC projects and units, with a comparison of the distribution of all LIHTC projects to that

[23] To obtain an accurate match using this software, property addresses needed to have complete and accurate house numbers, street names, and zip codes. Properties with complete and accurate addresses were geocoded during an initial, automatic pass. Properties not geocoded during the automatic pass were run through the system again in interactive mode. During the interactive pass, we attempted to correct property addresses by correcting spelling errors and by using a variety of online databases to obtain corrected zip codes and property address information. Properties for which we could not determine a complete and accurate address were left ungeocoded.

[24] Projects in Puerto Rico and the U.S. Virgin Islands, which are not in any of the four Census regions, were excluded from the analysis of location characteristics.

of the geocoded subset. As shown, the South accounts for the largest share of all LIHTC projects (34.2 percent), followed by the Midwest (28.0 percent), West (19.2 percent), and Northeast (18.7 percent). Looking at units, as opposed to projects, the South accounts for an even larger share (40.0 percent), with 22.8 percent in the Midwest, 22.5 percent in the West, and 14.7 percent in the Northeast. To provide context, the findings on LIHTC projects and units were compared to rental units and population in general. Overall, the South leads the nation in total rental units at 33.7 percent of units nationally, corresponding closely to the distribution of LIHTC projects in the South. The West accounts for 24.2 percent of all rental units in the United States, followed by the Northeast (21.4 percent) and Midwest (20.6 percent). The South leads the nation in population, with 35.6 percent of the population, compared with 22.9 percent in the Midwest, 22.5 percent in the West and 19.0 percent in the Northeast. These numbers roughly correspond to the distribution of LIHTC projects and units across all regions.

As shown in Exhibit 4-1, the distribution of geocoded properties closely matches the distribution of all LIHTC properties in the database. Given this close match, as well as the high rate of geocoding overall, we are confident that the geocoded data provide a reasonable basis for the analyses presented in this chapter.

Exhibit 4-1
Regional Distribution of LIHTC Projects and Units
1995-2000

Region	All LIHTC Projects		Geocoded LIHTC Projects		All U.S. Rental Housing Units	U.S. Population
	Projects	Units	Projects	Units		
Northeast	18.7%	14.7%	19.0%	14.7%	21.4%	19.0%
Midwest	28.0%	22.8%	28.2%	22.6%	20.6%	22.9%
South	34.2%	40.0%	33.5%	40.0%	33.7%	35.6%
West	19.2%	22.5%	19.4%	22.6%	24.2%	22.5%

Notes: The dataset used in this analysis includes 7,849 projects and 523,801 units placed in service between 1995 and 2000. Of these, 7,299 projects and 500,676 units were geocoded. Projects and units in Puerto Rico and the Virgin Islands were excluded. Total population and rental units are based on 2000 Census data. Totals may not sum to 100 percent because of rounding.

Exhibit 4-2 presents the regional distribution of new construction tax credit units across the four years from 1995 to 2000, as well as multi-family units completed over the same time period. As shown, the share of LIHTC new construction in the West more than tripled, while the share of new LIHTC properties in the Midwest dropped. When looking at multi-family rental unit completions nationally, we do not see such patterns, so the trends in tax credit properties placed in service in these regions show real shifts in the usage of the tax credit relative to other finance methods.

The bottom panel of Exhibit 4-2 shows the ratio of new LIHTC units to new multifamily rental completions for each year during the study period. As shown, LIHTC units account for more than one-fifth (21.8 percent) of all new apartment units nationally from 1995 to 2000, with higher shares in the Northeast (35.6 percent) and Midwest (27.0 percent).

Exhibit 4-2
Regional Distribution of New Construction LIHTC Units
by Year Placed in Service
1995-2000

Year Placed in Service	1995	1996	1997	1998	1999	2000	All Projects 1995-2000
New Construction LIHTC Units	N=47,294	N=47,093	N=50,385	N=55,749	N=67,472	N=52,466	N=320,459
Northeast	10.5%	5.5%	12.0%	9.9%	7.9%	9.1%	9.1%
Midwest	36.7%	32.4%	23.6%	17.7%	20.0%	18.4%	24.2%
South	40.9%	43.3%	37.4%	45.5%	45.4%	41.1%	42.5%
West	11.9%	18.8%	27.0%	26.9%	26.8%	31.5%	24.2%
New Multifamily Completions	N=196,000	N=234,000	N=230,000	N=260,000	N=279,000	N=272,000	N=1,471,000
Northeast	5.6%	3.4%	4.8%	5%	7.5%	6.3%	5.6%
Midwest	21.9%	20.9%	21.3%	19%	16.5%	18.4%	19.5%
South	49.0%	48.7%	47.4%	52%	50.9%	51.5%	50.0%
West	24.0%	26.9%	26.5%	24%	25.1%	23.9%	25.0%
Share of New Multifamily Rental Unit Completions that Are New Construction LIHTC Units							
U.S. Total	24.1%	20.1%	21.9%	21.4%	24.2%	19.3%	21.8%
Northeast	45.3%	32.3%	55.0%	39.4%	25.3%	28.0%	35.6%
Midwest	40.4%	31.1%	24.2%	19.8%	29.3%	19.3%	27.0%
South	20.2%	17.9%	17.3%	18.9%	21.5%	15.4%	18.5%
West	11.9%	14.0%	22.3%	24.2%	25.8%	25.4%	21.1%

Notes: The dataset used in this analysis includes 7,849 projects and 523,801 units placed in service between 1995 and 2000. Projects and units in Puerto Rico and the Virgin Islands were excluded. Data on new multifamily rental unit completions were taken from the website http://www.census.gov/ftp/pub/const/www/newresconstindex.html. Totals may not sum to 100 percent because of rounding.

Exhibit 4-3 presents information on project characteristics by region. As shown, average project size ranges from around 54 units in the Northeast and Midwest to 78 units in the South and West, with an overall average of 66.7 units per project. Across all regions, the average ratio of qualifying tax credit units to total units was 96.0 percent, ranging from 92.2 percent in the Northeast to 98.1 percent in the South. Unit size was fairly consistent across the four regions, with an average of 1.9 bedrooms per unit.

Construction type differed dramatically by region. In the Midwest, South, and West, new construction predominated, ranging from 69.5 percent of LIHTC projects in the South to 72.8 percent in the West. By contrast, only 30.9 percent of projects in the Northeast were newly

constructed, reflecting the low rate of population growth and the relative lack of undeveloped land (and the related focus on rehabilitation) in that region.

Exhibit 4-3
Characteristics of LIHTC Projects by Region
1995-2000

	Northeast	Midwest	South	West	All Regions
Average Project Size (Units)	53.6	54.5	78.0	78.3	66.7
Average Qualifying Ratio	92.2%	96.0%	98.1%	95.8%	96.0%
Average Number of Bedrooms	1.7	2.1	1.9	1.9	1.9
Distribution of Units by Size					
0 Bedrooms	6.1%	4.1%	1.3%	6.9%	3.8%
1 Bedroom	42.7%	27.1%	26.4%	30.3%	29.7%
2 Bedrooms	34.6%	44.4%	47.0%	39.3%	43.0%
3 Bedrooms	14.2%	20.6%	22.1%	20.5%	20.3%
4+ Bedrooms	2.3%	3.8%	3.2%	3.1%	3.2%
Construction Type					
New Construction	30.9%	71.9%	69.5%	72.8%	63.6%
Rehab	66.2%	26.5%	29.1%	27.0%	34.9%
Both	2.8%	1.7%	1.4%	0.2%	1.5%
Nonprofit Sponsor	40.6%	27.1%	22.1%	41.1%	30.3%
RHS Sec515	6.2%	12.2%	20.5%	9.8%	13.8%
Tax-Exempt Bond Financing	12.0%	8.6%	9.9%	25.9%	12.4%
Credit Type					
30 Percent	16.4%	20.1%	28.4%	33.2%	24.7%
70 Percent	67.3%	71.3%	62.3%	65.0%	66.3%
Both	16.4%	8.6%	9.2%	1.8%	9.0%

Notes: The dataset used in this analysis includes 7,849 projects and 523,801 units placed in service between 1995 and 2000. Projects and units in Puerto Rico and the Virgin Islands were excluded. The dataset contains missing data for bedroom count (14.9%), construction type (1.5%), nonprofit sponsor (10.9%), RHS Section 515 (13.8%), bond financing (11.2%) and credit type (9.9%). Totals may not sum to 100 percent because of rounding.

Exhibit 4-3 also presents information on sponsor type and financing. As shown, properties were more likely to have been developed by a nonprofit sponsor in the Northeast (40.6 percent) and West (41.1 percent) compared with the Midwest (27.1 percent) and South (22.1 percent). Properties developed in the West were also more than twice as likely to have tax-exempt bond financing than the other regions. Not surprisingly, the use of rurally oriented RHS Section 515 financing differed by region, with projects in the South considerably more likely to use this loan source than projects in the other regions. In all four regions, most projects received a 70 percent credit, with the proportion ranging from 62.3 percent in the South to 71.3 percent in the Midwest. Projects with 30 percent credits accounted for most of the remaining projects in all regions but the Northeast, where the share of projects receiving both types of credits matched the share receiving the 30 percent credit. The greater use of

both types of credits in the Northeast is likely associated with the combination of acquisition and non-federally financed rehab in many projects in that region.

4.2 Location of LIHTC Projects in Metro and Non-Metro Areas

This section examines the location of LIHTC projects in terms of central city, suburban (metro non-central city), or non-metro areas. Exhibit 4-4 shows the distribution of LIHTC projects and units by location type. As shown, 48.2 percent of tax credit units placed in service from 1995 to 2000 are located in central city neighborhoods, 38.1 percent are located in metro-area suburbs, and 13.7 percent are in non-metro areas. This distribution is similar to that of rental housing units in general: 45.5 percent are located in central cities, 39.1 percent in metro-area suburbs, and 15.5 percent in non-metro areas.[25]

Exhibit 4-4
Distribution of LIHTC Projects and Units by Location Type
1995-2000

Year Placed in Service	1995	1996	1997	1998	1999	2000	All Projects 1995-2000
Projects	N=1,250	N=1,217	N=1,220	N=1,147	N=1,273	N=1,192	N=7,299
Central City	44.0%	43.1%	43.0%	41.9%	43.0%	38.8%	42.3%
Suburb	27.6%	29.4%	30.4%	32.4%	33.1%	35.2%	31.3%
Non-metro	28.4%	27.4%	26.6%	25.8%	24.0%	26.0%	26.4%
Units	N=75,699	N=77,610	N=80,864	N=83,747	N=95,956	N=86,800	N=500,676
Central City	51.0%	49.1%	50.6%	46.9%	48.1%	43.9%	48.2%
Suburb	33.5%	37.4%	34.8%	40.1%	39.8%	41.8%	38.1%
Non-metro	15.5%	13.4%	14.6%	13.0%	12.1%	14.2%	13.7%

Notes: The dataset used in this analysis includes only geocoded projects. Metropolitan area definitions are as of June 30, 1999. Suburb is defined here as metro area, non-central city. Totals may not sum to 100 percent because of rounding.

Exhibit 4-5 shows the location type (central city, suburb, or non-metro area) by region. As shown, LIHTC units in projects in the Northeast are much more likely to be in central city locations than projects in other regions: 62.1 percent of units in the Northeast are in central cities, compared to 47.8 percent in the Midwest, 45.6 percent the West, and 44.8 percent in the South. At the same time, only 6.4 percent of Northeast projects are in non-metro areas, compared to much higher proportions in all other regions. When compared to rental units nationally, LIHTC units in the Northeast are more likely to be in central cities than rental units in general, while in the South, LIHTC units are more likely to be in the suburbs than rental units nationally.

[25] Based on 2000 Census data for occupied rental housing.

Exhibit 4-5
Metro/Non-Metro Status of LIHTC Units by Region
1995-2000

	Northeast	Midwest	South	West	All Regions
LIHTC Units					
Central City	62.1%	47.8%	44.8%	45.6%	48.2%
Suburb	31.5%	32.7%	41.1%	42.5%	48.2%
Non-metro	6.4%	19.6%	14.2%	11.9%	13.7%
All Rental Units					
Central City	51.1%	44.8%	44.6%	47.3%	46.7%
Suburb	41.2%	33.2%	35.6%	42.0%	37.8%
Non-metro	7.6%	22.1%	19.8%	10.7%	15.5%

Notes: The dataset used in this analysis includes only geocoded projects. Metropolitan area definitions are as of June 30, 1999. Suburb is defined here as metro area, non-central city. All U.S. Rental Units data are based on 2000 Census tracts. Totals may not sum to 100 percent because of rounding.

Exhibit 4-6 presents information on project characteristics by type of location. As shown, projects located in suburban areas are the largest, with 83.4 units on average, compared with 78.1 units for central city projects and only 35.7 units for non-metro projects. The ratio of qualifying tax credit units to total units is high, however, regardless of location type. Unit sizes were uniform across the three location types, with an average of 1.9 bedrooms per unit. However, central cities have a somewhat higher proportion of efficiency units.

Construction type varies considerably by location type, with just under three-quarters of projects in suburbs and non-metro areas newly constructed, compared with less than half of projects in central cities. Rehab accounts for only one-quarter of suburban and non-metro projects, compared with nearly half of those in central city neighborhoods.

Nonprofit sponsors were involved in a larger share of central city projects (37.6 percent) compared with suburban (26.1 percent) or non-metro projects (23.7 percent). The use of bond financing was much more common among projects in suburbs (18.6 percent) and central cities (14.7 percent) compared with non-metro properties (4.1 percent). As expected, RHS Section 515 loans were more common among non-metro properties (32.2 percent) and less common among central city (0.6 percent) and suburban (10.4 percent) properties. The more common use of the 30 percent credit among non-metro properties is associated with this funding source.

Exhibit 4-6
Characteristics of LIHTC Projects by Location Type
1995-2000

	Central City	Suburb	Non-Metro Area	Total
Average Project Size (Units)	78.1	83.4	35.7	68.6
Average Qualifying Ratio	94.3%	96.2%	97.8%	95.8%
Average Number of Bedrooms	1.9	1.9	1.9	1.9
Distribution of Units by Size				
0 Bedrooms	6.7%	1.6%	1.1%	3.9%
1 Bedroom	28.9%	30.7%	30.0%	29.8%
2 Bedrooms	41.1%	44.7%	44.2%	43.0%
3 Bedrooms	19.5%	20.3%	21.9%	20.2%
4+ Bedrooms	3.6%	2.7%	2.7%	3.1%
Construction Type				
New Construction	48.8%	72.3%	73.8%	62.7%
Rehab	48.8%	27.0%	25.1%	35.7%
Both	2.4%	0.7%	1.1%	1.6%
Nonprofit Sponsor	37.6%	26.1%	23.7%	30.3%
RHS Section 515	0.6%	10.4%	32.2%	12.5%
Tax-Exempt Bond Financing	14.7%	18.6%	4.1%	13.0%
Credit Type				
30 Percent	16.7%	26.4%	32.0%	24.1%
70 Percent	71.3%	66.2%	60.9%	66.8%
Both	12.0%	7.5%	7.1%	9.2%

Notes: The dataset used in this analysis includes only geocoded projects. The dataset contains missing data for bedroom count (14.9%), construction type (1.3%), nonprofit sponsor (11.2%), RHS Section 515 (13.7%), bond financing (11.0%) and credit type (10.0%). Metropolitan area definitions are as of June 30, 1999. Suburb is defined here as metro area, non-central city. Totals may not sum to 100 percent because of rounding.

4.3 Location of LIHTC Projects in DDAs and QCTs

This section presents information on the location of LIHTC projects in Difficult Development Areas (DDAs) and Qualified Census Tracts (QCTs). As part of the Omnibus Reconciliation Act of 1989, Congress added provisions to the LIHTC program designed to increase production of LIHTC units in hard-to-serve areas. Specifically, the Act permits projects located in DDAs or QCTs to claim a higher eligible basis (130 percent of the standard basis) for the purposes of calculating the amount of tax credit that can be received. Designated by HUD, DDAs are metropolitan areas or non-metropolitan counties in which construction, land, and utility costs are high relative to incomes, and QCTs are tracts in which at least 50 percent of the households have incomes less than 60 percent of the area

median income. The data are based on DDA designations for the year placed in service. The QCT designations are from 1999.[26]

Exhibit 4-7 presents the distribution of LIHTC projects across DDAs and QCTs. As shown, 18.1 percent of projects are located in DDAs, and 24.4 percent are located in QCTs, with a total of 37.3 percent in designated areas.[27] In looking at units, the proportions are similar.

Exhibit 4-7
Distribution of LIHTC Projects and Units by Location in DDAs and QCTs
1995-2000

Year Placed in Service	1995	1996	1997	1998	1999	2000	All Projects 1995-2000
Projects	1,250	1,217	1,220	1,147	1,273	1,192	7,299
DDA	14.5%	12.6%	20.7%	22.9%	23.0%	23.2%	19.4%
QCT	20.8%	23.2%	25.3%	27.1%	27.4%	22.0%	24.4%
DDA or QCT	30.6%	32.0%	39.4%	42.6%	43.1%	40.3%	37.9%
Units	75,699	77,610	80,864	83,747	95,956	86,800	500,676
DDA	15.4%	12.0%	18.5%	22.2%	21.8%	23.2%	19.1%
QCT	19.4%	23.8%	24.0%	23.7%	25.1%	20.9%	22.9%
DDA or QCT	30.6%	32.0%	37.7%	41.2%	41.7%	39.4%	37.4%

Notes: The dataset used in this analysis includes only geocoded projects. Totals may not sum to 100 percent because of rounding.

It should be noted that not all projects located in a DDA or QCT actually received a higher eligible basis. The data indicate that more than one-third of properties located in a DDA and one-fourth of those in a QCT did not receive a higher eligible basis.[28]

Exhibit 4-8 presents information on project characteristics for properties located inside and outside designated areas. As shown, there are minimal differences in project size, average unit size, or the percentage of qualifying units across DDAs, QCTs, and non-designated areas. By contrast, projects in QCTs, and to a lesser extent those in DDAs, are considerably more likely to be rehabilitated than projects in non-designated areas, which are more likely to be newly constructed. Similarly, projects in QCTs and DDAs are more likely to have a

[26] Because QCT designations are based on decennial census data, the designations are fairly static between decennial censuses. The 1999 QCTs are nearly identical to those in force throughout the 1995 to 2000 period.

[27] Some properties are located in both a DDA and a QCT.

[28] In addition, there are 248 projects which, according to the allocating agency, received a higher basis but which, according to our geocoding, are located in neither a DDA nor a QCT. Most of these projects were located in a DDA at some point, though not in the year they were placed in service.

nonprofit sponsor. At the same time, QCTs have the smallest proportion of tax-exempt bond-financed projects and projects with the 30-percent credit, the latter indicating the presence of subsidized financing. Non-designated areas have the largest share of properties with RHS Section 515 financing.

Exhibit 4-8
Characteristics of LIHTC Projects by Location in DDAs or QCTs
1995-2000

	In DDA	In QCT	Not in DDA or QCT	Total
Average Project Size (Units)	67.3	64.3	69.2	68.6
Average Qualifying Ratio	92.2	95.4%	96.5%	95.8%
Average Number of Bedrooms	1.9	2.0	1.9	1.9
Distribution of Units by Size				
0 Bedrooms	5.4%	8.4%	2.3%	3.9%
1 Bedroom	32.3%	27.7%	29.6%	29.8%
2 Bedrooms	38.5%	36.8%	46.0%	43.0%
3 Bedrooms	20.7%	22.0%	19.5%	20.2%
4+ Bedrooms	3.2%	5.2%	2.6%	3.1%
Construction Type				
New Construction	48.3%	41.6%	72.1%	62.7%
Rehab	50.3%	55.1%	27.0%	35.7%
Both	1.4%	3.2%	0.9%	1.6%
Nonprofit Sponsor	37.2%	43.1%	24.2%	30.3%
RHS Sec515	6.6%	2.6%	16.8%	12.5%
Tax-Exempt Bond Financing	17.6%	8.3%	13.3%	13.0%
Credit Type				
30 Percent	21.9%	12.7%	27.7%	24.1%
70 Percent	67.9%	73.8%	64.8%	66.8%
Both	10.1%	13.4%	7.5%	9.2%

Notes: The dataset used in this analysis includes only geocoded projects. The dataset contains missing data for bedroom count (15.0%), construction type (1.3%), nonprofit sponsor (11.2%), RHS Section 515 (13.7%), bond financing (11.0%) and credit type (10.0%). Totals may not sum to 100 percent because of rounding. Some properties are located in both a DDA and a QCT.

As noted previously, DDAs are defined as metropolitan areas or non-metropolitan counties in which construction, land, and utility costs are high relative to incomes. While developers have an incentive to place tax credit properties in DDAs because they can claim a higher eligible basis, we can assume that, all other things being equal, the developer would favor a location with low development costs relative to incomes. To test this hypothesis, we examined development costs relative to incomes in the areas where tax credit properties are located, using HUD-defined Fair Market Rents (FMRs) as a proxy for development costs and the LIHTC maximum income limit (60 percent of area median income) as a measure of

income.[29] We first sorted non-DDA metropolitan areas and non-metropolitan counties in the United States by the ratio of FMR to 30 percent of 60 percent of area median income (the maximum LIHTC rent), from lowest to highest. We then created three categories, each with approximately one-third of all renter households not in DDAs: low development cost, moderate development cost, and high development cost. We then did the same using multifamily building permits for 1994 to 1999. Finally, we analyzed the distribution of tax credit projects and units in these three categories.

We found that tax credit projects and units are disproportionately located in favorable development cost areas, that is, metro areas and non-metro counties where development costs are low relative to incomes. As shown in the first panel of Exhibit 4-9, 35.9 percent of tax credit projects and 30.0 percent of tax credit units are located in low development cost areas, compared with 25.9 percent of all U.S. renter households. Similarly, only 18.2 percent of tax credit projects and 23.1 percent of tax credit units are located in high development cost (non-DDA) areas, compared with 25.2 percent of all renter households. We also looked at the distribution of tax credit projects and units located in QCTs by development cost category. As shown, 27.9 percent of LIHTC projects and 25.7 percent of LIHTC units in QCTs are located in the lowest development cost category, similar to the distribution of all renter households.

The second panel of Exhibit 4-9 presents the same analysis using multifamily building permit data instead of all renter units. Once again, tax credit projects and units are shown to be disproportionately located in low development cost areas.

[29] We used 1999 2-bedroom FMRs and 60 percent of 1999 area median income.

Exhibit 4-9
Distribution of LIHTC Units and Projects
by Development Cost Category
1995-2000

Development Cost Category	Ratio of FMR to Maximum LIHTC Rent	All U.S. Rental Units	LIHTC Projects	LIHTC Units	LIHTC Projects in QCTs	LIHTC Units in QCTs
Low	.667 to .799	25.7%	35.9%	30.0%	27.9%	25.7%
Moderate	>.799 to .888	26.8%	26.5%	28.8%	27.4%	31.8%
High (non-DDA)	>.888 to 1.167	25.2%	18.2%	23.1%	20.4%	22.4%
In DDAs		22.4%	19.5%	19.1%	24.3%	20.1%
Total		100%	100%	100%	100%	100%

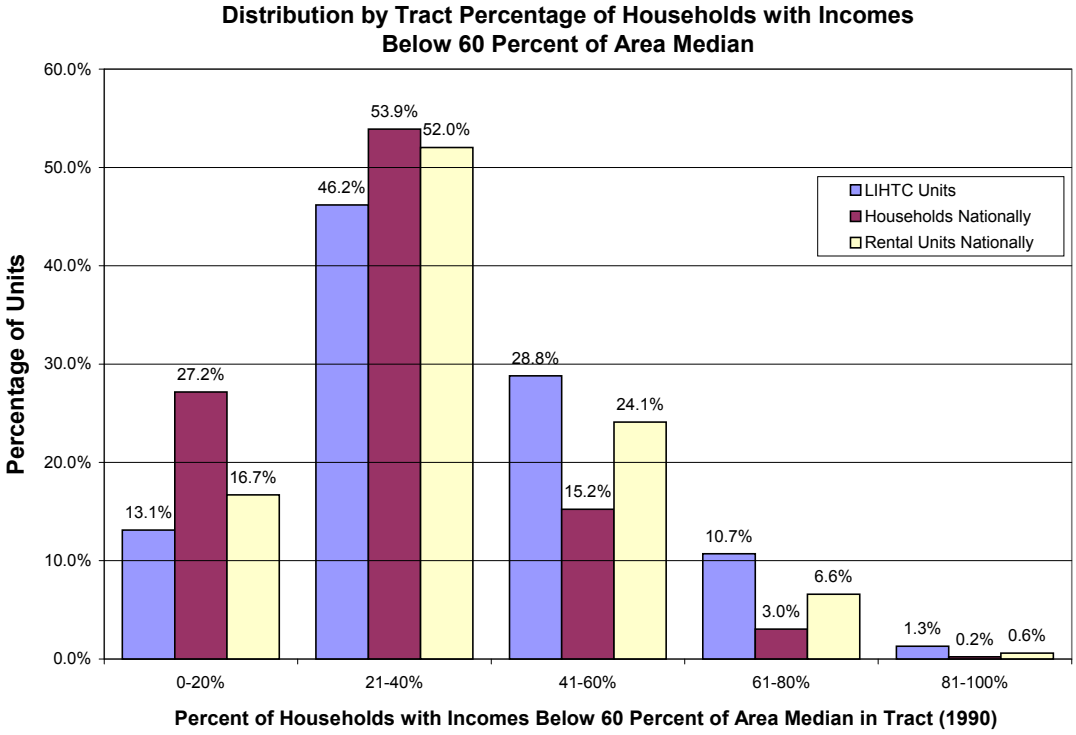
Development Cost Category	Ratio of FMR to Maximum LIHTC Rent	Multifamily Building Permit Units 1994-1999	LIHTC Projects	LIHTC Units	LIHTC Projects in QCTs	LIHTC Units in QCTs
Low	.667 to .804	29.0%	40.1%	33.2%	30.7%	28.9%
Moderate	>.804 to .911	27.6%	24.1%	26.0%	26.4%	30.2%
High (non-DDA)	>.911 to 1.167	30.4%	16.3%	21.7%	18.6%	20.8%
In DDAs		13.1%	19.5%	19.1%	24.3%	20.1%
Total		100%	100%	100%	100%	100%

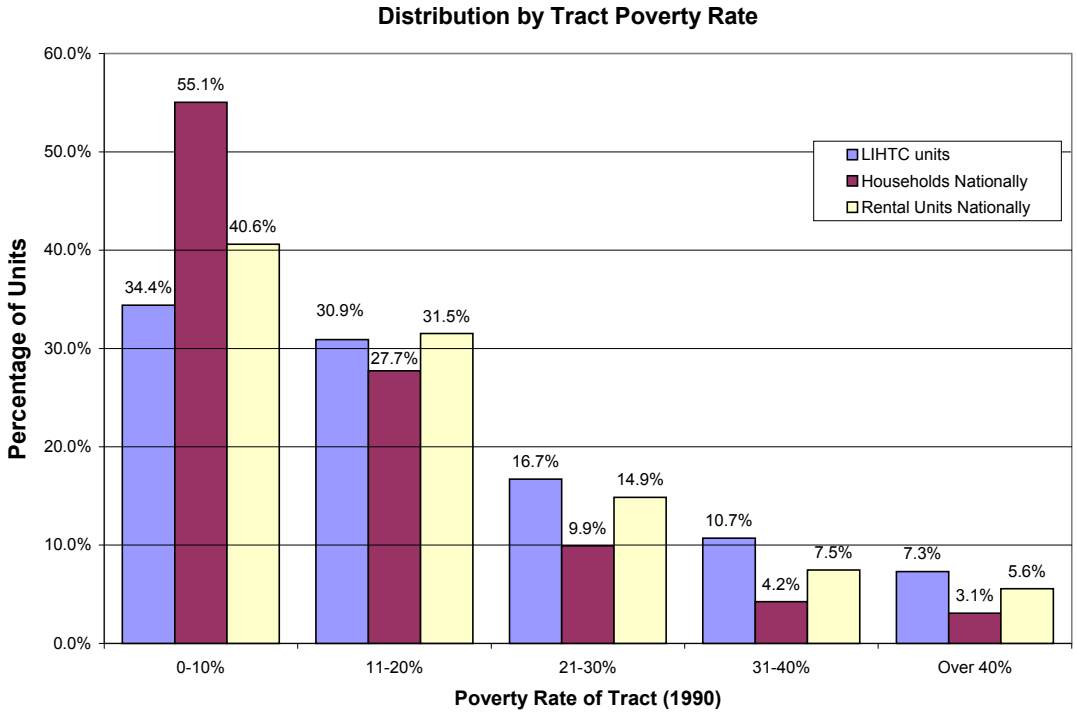
Maximum LIHTC rent equals one-twelfth of 30 percent of 60 percent of area median income (or one-twelfth of 30 percent of 120 percent of the very low income limit). All U.S. Rental Units are from the 2000 Census. Multifamily building permit data are for 1994 through 1999. The percentages for All U.S. Rental Units and Building Permit Units are not exactly equal for each of the three non-DDA development cost categories because MSAs (or non-metro counties) lying on the cutoffs for one-third and two-thirds of units could not be split up.

4.4 Neighborhood Characteristics of LIHTC Properties

This section focuses on the income and demographic characteristics of the census tracts in which LIHTC projects are located. Exhibit 4-10 presents information on the extent to which LIHTC units are located in lower income areas. For comparison, it presents the same information for households nationally and rental units nationally, using 2000 Census data. The first panel of the exhibit uses the LIHTC cutoff (60 percent of area median income) as an indicator of neighborhood income. The exhibit shows the proportion of LIHTC units located in tracts with varying shares of households that meet the income qualification for occupancy in a tax credit unit. As shown, LIHTC units are more likely than households in general or rental units in general to be located in census tracts where more than 60 percent of the households would qualify to live in a tax credit unit.

Exhibit 4-10
Distribution of LIHTC Units by Census Tract Income Measures
1995-2000





The second panel of Exhibit 4-10 considers the extent to which LIHTC units are located in areas of concentrated poverty, compared to households nationally and rental units nationally. The figures are based on the proportion of persons that had incomes below the poverty threshold in 2000. The measure has been used in recent years to classify low-poverty tracts for programs aimed at increasing economic mobility among assisted families. For example, HUD's Moving to Opportunity (MTO) program requires families to move to a tract where the poverty rate is no greater than 10 percent.

As shown, tax credit units are more likely than households in general or rental units in general to be located in high poverty areas, and less likely to be located in low-poverty areas. Based on the geocoded LIHTC data, 34.4 percent of the LIHTC units would meet the MTO criterion, compared to 55.1 percent of households nationally and 40.6 percent of rental units nationally. In addition, 7.3 percent of tax credit units are located in tracts where more than 40 percent of the people are poor (compared to 3.1 percent of households and 5.6 percent of rental units nationally).

Additional demographic indicators are presented in Exhibit 4-11, with the same information presented for households nationally and rental units nationally using 2000 Census data. As shown, LIHTC units are more likely to be located in largely minority- or renter-occupied tracts or tracts with large proportions of female-headed households, compared to households in general or rental units in general.

Exhibit 4-11
Distribution of LIHTC Units by Other Census Tract Characteristics
1995-2000

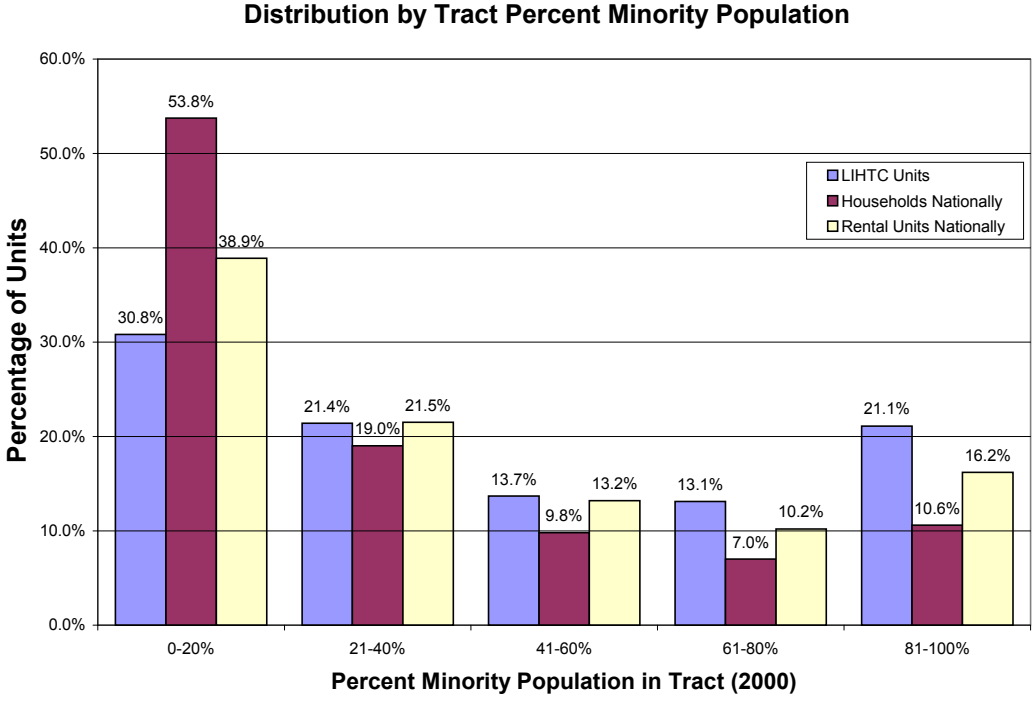
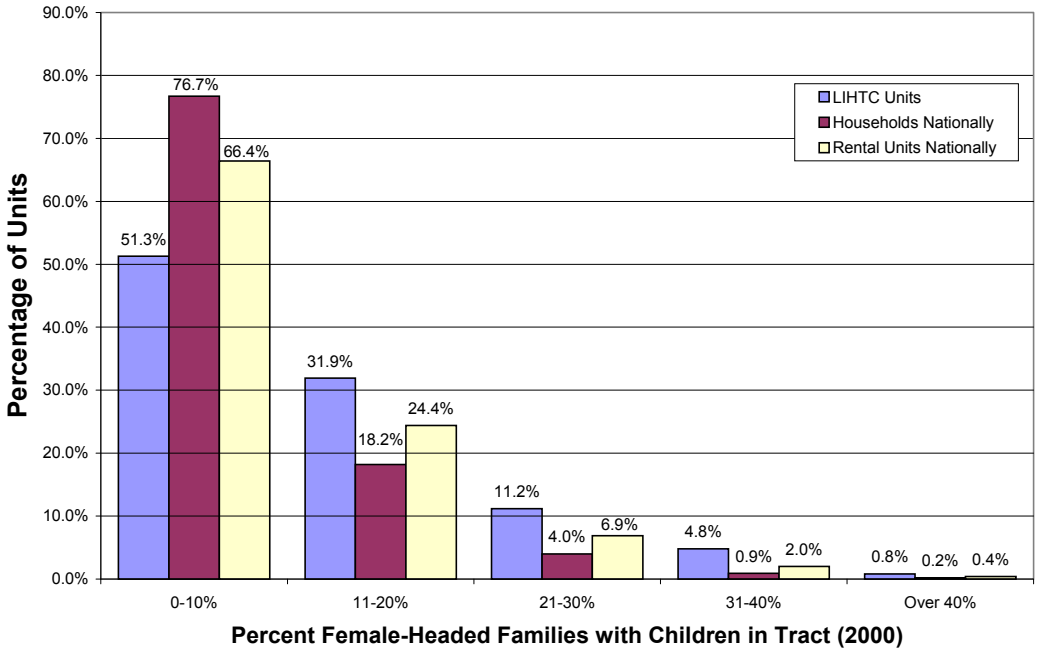


Exhibit 4-11 *(Continued)*
Distribution of LIHTC Units by Other Census Tract Characteristics
1995-2000

Distribution by Tract Percent Female-Headed Families with Children



Distribution by Tract Percent Renter-Occupied Housing Units

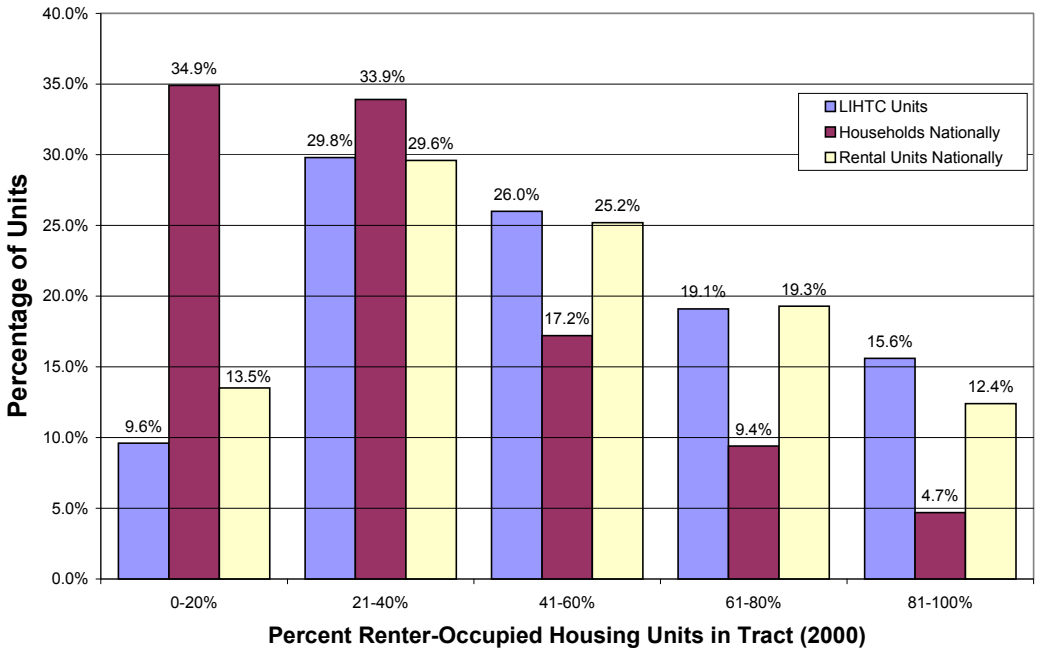


Exhibit 4-12 summarizes census tract information from Exhibits 4-10 and 4-11, showing the proportions of LIHTC units that are located in tracts that have high poverty concentrations, are predominantly minority, have high rates of female-headed families, and are predominantly renter occupied. To provide a better understanding of how neighborhood conditions vary across geographical groupings, the table presents these measures for each of the three types of locations discussed earlier in this section—central cities, suburbs, and non-metro areas.

Exhibit 4-12
Census Tract Characteristics of LIHTC Units by Location Type
1995-2000

Census Tract Characteristic	Central City		Suburb		Non-Metro Area		Total	
	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units
Over 30 Percent of People Below Poverty Line	31.0%	21.4%	4.7%	4.3%	9.9%	8.9%	18.1%	13.0%
Over 50 Percent Minority Population	56.9%	45.4%	28.1%	24.1%	14.4%	12.0%	40.1%	32.2%
Over 20 Percent Female-Headed Families with Children	27.5%	16.1%	7.5%	3.5%	4.8%	2.7%	16.8%	9.3%
Over 50 Percent Renter Occupied Units	67.9%	63.9%	30.8%	30.6%	13.5%	12.8%	46.3%	43.4%

Notes: The dataset used for this analysis includes only geocoded projects. Metropolitan area definitions are as of June 30, 1999. Suburb is defined here as metro area, non-central city. Information on poverty, minority population, female-headed households, and renter-occupied housing units is based on 2000 Census data and tract definitions.

As shown, 31.0 percent of LIHTC units in central city locations are located in neighborhoods of concentrated poverty (where over 30 percent of the people are in poverty), compared with only 4.7 percent in the suburbs, 9.9 percent in non-metro areas, and 18.1 percent in all areas combined. Overall, LIHTC units are slightly more likely to be located in areas of concentrated poverty than rental units nationally (18.1 percent of LIHTC units vs. 13.0 percent all rental units). In particular, nearly one-third of LIHTC units in central city locations are in high-poverty areas, compared to less than one-fourth of rental units overall.

Minority concentration also varies across location types, with 56.9 percent of all units in central cities located in neighborhoods with high minority concentrations (over 50 percent), compared with 28.1 percent in the suburbs and 14.4 percent in non-metro areas. LIHTC units are more likely to be in areas of high minority concentrations compared to all rental units nationally, and this difference is most notable in central city locations.

Not surprisingly, the proportion of units in neighborhoods with a large share of female-headed families was considerably higher for central cities (27.5 percent) than for suburban

(7.5 percent) and non-metro areas (4.8 percent). LIHTC units are again more likely than rental units nationally to be in census tracts with high concentrations of female-headed families. Finally, central city LIHTC units were more than twice as likely as suburban and five times as likely as non-metro units to be in predominantly renter-occupied tracts. In central city locations, LIHTC units were more often in census tracts with high renter concentrations (67.9 percent) than rental units nationally (63.9 percent).

Exhibit 4-13 shows neighborhood characteristics for LIHTC properties developed in DDAs and QCTs. As expected, projects in QCTs—which are by definition low-income tracts—are located in areas with high rates of poverty, minority populations, female-headed families, and renter-occupied units. By contrast, projects in DDAs are located in areas with comparatively lower rates of poverty, minority populations, female-headed families, and renter-occupied units, although still considerably higher than those areas that are neither QCTs or DDAs. When compared to rental units nationally, LIHTC units generally are more likely to be in disadvantaged census tracts.

Exhibit 4-13
Census Tract Characteristics of LIHTC Units by DDA or QCT Designation
1995-2000

Census Tract Characteristic	In DDA		In QCT		Not in DDA or QCT		Total	
	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units
Over 30 Percent of People Below Poverty Line	24.3%	17.8%	64.8%	61.0%	3.4%	3.0%	18.1%	13.0%
Over 50 Percent Minority Population	50.9%	46.2%	80.2%	73.4%	25.9%	18.0%	40.1%	32.2%
Over 20 Percent Female-Headed Families with Children	19.9%	11.9%	46.8%	42.3%	7.9%	3.4%	16.8%	9.3%
Over 50 Percent Renter Occupied Units	61.6%	59.8%	85.1%	85.0%	31.2%	29.2%	46.3%	43.4%

Notes: The dataset used for this analysis includes only geocoded projects. Information on poverty, minority population, female-headed households, and renter-occupied housing units is based on 2000 Census data. QCTs are based on 1999 definitions and 1990 census tract definitions.

Exhibit 4-14 presents information on neighborhood characteristics for units in three types of LIHTC projects: those with nonprofit sponsors, those financed with tax-exempt bonds, and those using RHS Section 515 financing. As shown, 26.5 percent of units in tax credit properties with a nonprofit sponsor were located in neighborhoods with high concentrations of poverty, compared with only 10.3 percent of units in tax credit properties with bond financing and 8.2 percent of units in tax credit properties with RHS Section 515 loans. Nonprofit units were also the most likely to be in tracts with high proportions of minority residents (45.0 percent) compared with units in bond-financed tax credit properties (37.2

percent) and units in tax credit properties with Section 515 (12.6 percent). Similarly, nonprofit units were more likely to be in tracts with a high percentage of female-headed families (21.2 percent), compared with bond-financed (11.1 percent) and Section 515 (3.0 percent) units. Finally, just over half the units in LIHTC properties with non-profit sponsors or tax-exempt bond financing were in predominantly renter-occupied areas, compared to only 5.1 percent of those with RHS Section 515 loans.

Overall, units in properties developed by nonprofit sponsors are the most likely to be located in areas of high poverty and minority concentration. These data confirm that nonprofits tend to locate their projects in the more difficult neighborhoods.

Exhibit 4-14
Census Tract Characteristics of LIHTC Units by Project Type
1995-2000

Census Tract Characteristic	Type of LIHTC Project			All LIHTC Units
	Nonprofit Sponsor	Tax-Exempt Bond Financing	RHS Section 515	
Over 30 Percent of People Below Poverty Line	26.5%	10.3%	8.2%	18.1%
Over 50 Percent Minority Population	45.0%	37.2%	12.6%	40.1%
Over 20 Percent Female-Headed Families with Children	21.2%	11.1%	3.0%	16.8%
Over 50 Percent Renter Occupied Units	53.3%	51.7%	5.1%	46.3%

Notes: The dataset used in this analysis includes only geocoded projects. The dataset contains missing data for nonprofit sponsor (11.2%), RHS Section 515 (13.7%), and bond financing (11.0%). Information on poverty, minority population, female-headed households, and renter-occupied housing units is based on 2000 Census data and tract definitions.

4.5 Changes in Location Characteristics Over Time

In this section, we present trends in location characteristics over time. Exhibit 4-15 presents key characteristics for LIHTC units placed in service during the period 1992-1994 and for each year from 1995 through 2000. As shown, there appear to be no consistent trends in the regional distribution of tax credit units, with the exception of a steady increase in the West from 1995 to 2000, from 8.9 percent to 31.3 percent, and an overall drop in the Midwest from 31.5 percent to 17.8 percent during the same period.

Exhibit 4-15
Distribution of LIHTC Units by Location Characteristics Over Time: 1992-1994 Compared to Subsequent Years

Year Placed in Service	1992-1994	1995	1996	1997	1998	1999	2000
Distribution by Region							
Northeast	12.9%	16.0%	11.8%	16.7%	15.7%	13.2%	15.1%
Midwest	26.9%	31.5%	29.0%	21.8%	18.6%	20.0%	17.8%
South	41.5%	43.6%	42.3%	38.6%	40.6%	39.5%	35.8%
West	18.7%	8.9%	16.8%	22.9%	25.2%	27.4%	31.3%
Distribution by Location Type							
Central City	49.2%	51.0%	49.1%	50.6%	46.9%	48.1%	43.9%
Suburb	31.1%	33.5%	37.4%	34.8%	40.1%	39.8%	41.8%
Non-metro	19.7%	15.5%	13.4%	14.6%	13.0%	12.1%	14.2%
Distribution by Location in DDA or QCT							
DDA	16.1%	15.4%	12.0%	18.5%	22.2%	21.8%	23.2%
QCT	26.9%	19.4%	23.8%	24.0%	23.7%	25.1%	20.9%
DDA or QCT	37.1%	30.6%	32.0%	37.8%	41.2%	41.7%	39.4%
Distribution by Census Tract Characteristics							
>30% Poor* Households	21.0%	16.7%	19.7%	16.9%	19.4%	18.5%	17.1%
>50% Minority Population	40.2%	37.8%	36.0%	41.6%	44.9%	39.5%	40.5%
>50% Renter	43.6%	46.8%	48.4%	48.4%	45.9%	46.9%	41.7%

*Defined as below the poverty line

Notes: The data set used in this analysis includes only geocoded projects, except the analysis of distribution by region, which used the full data set excluding Puerto Rico and the Virgin Islands. Suburb is defined here as metro area, non-central city. Information on poverty, minority population, female-headed households, and renter-occupied housing units is based on 2000 Census data and tract definitions.

There does appear to be a trend toward the development of more tax credit units in the suburbs and fewer in central cities and non-metro areas. In the 1992 to 1994 period, the share of LIHTC projects in central cities was considerably larger than that in suburban locations. Over the years, however, that difference has disappeared as development has shifted to the suburbs from central cities. There is no consistent pattern of change in distribution of LIHTC units by location in a Difficult Development Area or Qualified Census Tract from 1992 through 2000.

In terms of census tract characteristics, the data show no clear trends in the percentage of LIHTC units developed in census tracts with high rates of poverty, minority population, or renter-occupied units.

Chapter Five
Conclusion

Tax credit production averaged roughly 1,300 projects and 88,000 units annually between 1995 and 2000. While the number of projects placed into service each year has remained fairly stable over the years, the number of units has grown steadily from roughly 56,000 units produced annually in the 1992 through 1994 period. This increase reflects a boost in the size of the average LIHTC project from 42.1 units in the earlier study period to 72.8 units for properties placed in service in 2000. The larger properties, in turn, are a function of the dramatic increase in LIHTC projects with tax-exempt bond financing and a similarly dramatic decrease in LIHTC projects with Rural Housing Service Section 515 loans during the same period. Bond-financed tax credit properties are more than twice as large as the average tax credit property, and LIHTC properties with Section 515 loans more than twice as small.

On average, tax credit projects are larger and have larger units than apartments in general. Nearly four-fifths of LIHTC properties have more than 50 units, compared to only 2 percent of all apartment properties nationally. Similarly, more than three-quarters of LIHTC units are in properties with more than 50 units, compared with less than half of apartment units in general. In addition, nearly one-fourth of tax credit units have three or more bedrooms, compared to only 11 percent of apartments nationally.

Overall, nearly two-thirds of LIHTC projects placed into service from 1995 through 2000 were newly constructed (although less than one-third in the Northeast were new construction). Thirty percent of the projects had a nonprofit sponsor, with a significant increase in nonprofit sponsorship since the beginning of the study period. Over the years, the number of LIHTC projects with Rural Housing Service Section 515 loans has declined.

The South accounts for the largest share of tax credit units in the United States, and the South and West boast larger-than-average LIHTC properties. The Northeast and West have the highest proportion of nonprofit-sponsored LIHTC projects. Over time, the share of LIHTC projects and units in central cities has been decreasing while the share in the suburbs is increasing. More than half the LIHTC units developed in the 1992-1994 period were in central cities, compared to just one quarter in suburban locations. By 2000, an equal share of tax credit units were developed in central cities and the suburbs. Finally, tax credit projects and units are disproportionately located in Difficult Development Areas (areas with high development costs relative to incomes which qualify the project to claim an increased basis) and in areas with relatively low development costs, compared to rental housing in general.

Appendix A

Characteristics and Locations of LIHTC Units by State

Exhibit A1: Physical Characteristics of LIHTC Units by State, 1995-2000

Region/State	Total Number of Projects	Total Number of Units	Average Project Size (in Units)	Average Number of Bedrooms (per Unit)	Construction Type		
					New	Rehab	Both
U.S. Total	**7,903**	**526,980**	**67**	**1.9**	**62%**	**37%**	**1%**
Northeast:	***1,464***	***76,956***	***53***	***1.7***	***39%***	***59%***	***2%***
CT	86	5,443	63	1.8	18%	82%	0%
MA	136	12,022	88	1.7	19%	80%	1%
ME	45	1,993	44	1.7	31%	67%	2%
NH	62	3,054	49	1.9	38%	56%	6%
NJ	101	6,861	68	1.7	50%	44%	7%
NY	610	32,221	53	1.7	49%	51%	1%
PA	320	11,813	37	1.7	40%	54%	6%
RI	38	1,850	49	1.8	9%	84%	7%
VT	66	1,699	26	1.6	39%	60%	1%
Midwest:	***2,194***	***119,511***	***54***	***2.0***	***66%***	***32%***	***2%***
IA	156	6,313	40	1.9	88%	12%	0%
IL	251	19,565	78	1.5	52%	48%	0%
IN	179	11,881	66	1.8	66%	32%	2%
KS	126	7,170	57	1.9	62%	32%	6%
MI	240	16,936	71	1.9	78%	20%	2%
MN	205	8,385	41	2.3	55%	45%	0%
MO	332	14,436	43	2.1	54%	46%	0%
ND	51	1,532	30	2.0	71%	29%	0%
NE	101	3,509	35	2.3	88%	12%	0%
OH	270	18,488	68	2.2	67%	28%	5%
SD	46	1,472	32	1.9	86%	14%	0%
WI	237	9,824	41	2.4	73%	27%	0%

Exhibit A1: Physical Characteristics of LIHTC Units by State, 1995-2000

Region/State	Total Number of Projects	Total Number of Units	Average Project Size (in Units)	Average Number of Bedrooms (per Unit)	Construction Type		
					New	Rehab	Both
South:	***2,684***	***209,301***	***78***	***2.0***	***66%***	***32%***	***1%***
AL	140	6,372	46	2.0	85%	14%	1%
AR	80	3,259	41	1.7	84%	16%	0%
D.C.	17	3,632	214	2.0	5%	92%	3%
DE	36	2,197	61	1.8	56%	44%	0%
FL	182	35,089	193	2.2	94%	5%	1%
GA	202	17,879	89	2.0	62%	36%	2%
KY	184	5,456	30	2.2	71%	29%	0%
LA	162	9,559	59	1.9	55%	30%	14%
MD	135	12,927	96	1.6	46%	54%	0%
MS	135	6,052	45	2.3	66%	34%	0%
NC	439	15,310	35	2.2	67%	31%	2%
OK	103	6,710	65	1.7	37%	63%	0%
SC	87	4,935	57	2.1	68%	30%	1%
TN	116	10,706	92	2.1	65%	35%	0%
TX	329	39,142	119	2.0	62%	38%	0%
VA	265	27,218	103	1.9	61%	38%	1%
WV	72	2,858	40	1.9	64%	34%	2%
West:	***1,507***	***118,033***	***78***	***1.9***	***67%***	***33%***	***0%***
AK	26	917	35	1.7	80%	20%	0%
AZ	81	6,682	82	2.0	83%	16%	1%
CA	566	53,579	95	1.9	53%	47%	0%
CO	131	9,303	71	1.9	83%	17%	0%
HI	14	1,286	92	1.6	94%	6%	0%

Exhibit A1: Physical Characteristics of LIHTC Units by State, 1995-2000

Region/State	Total Number of Projects	Total Number of Units	Average Project Size (in Units)	Average Number of Bedrooms (per Unit)	Construction Type		
					New	Rehab	Both
***West:** (cont'd)*							
ID	44	2,159	49	2.1	99%	0%	1%
MT	60	1,986	33	1.6	65%	35%	0%
NM	54	4,262	79	2.0	87%	13%	0%
NV	43	4,565	106	2.0	100%	0%	0%
OR	155	10,535	68	1.8	73%	27%	0%
UT	71	3,985	56	2.4	87%	13%	0%
WA	239	17,673	74	1.9	63%	37%	0%
WY	23	1,101	48	1.9	N/A[1]	N/A	N/A
U.S. Possessions:	***54***	***3,179***	***59***	***2.0***	***59%***	***40%***	***0%***
PR	46	2,963	64	2.1	61%	39%	0%
VI	8	216	27	1.7	37%	63%	0%

Notes: Percentages of units with missing data are bedroom count (14.1%) and construction type (1.6%). Totals may not sum to 100 percent because of rounding.

[1]In Wyoming, construction type percentages are omitted because 78 percent of the observations are missing.

Exhibit A2: Development Characteristics of LIHTC Units by State, 1995-2000

Region/State	Non-Profit Sponsor	RHS Section 515	Tax-Exempt Bonds	Average Ratio of LIHTC Units/ Total Units	Credit Type		
					30%	70%	Both
U.S. Total	**26%**	**7%**	**28%**	**91.9%**	**33%**	**57%**	**10%**
Northeast:	***34%***	***4%***	***30%***	***83.5%***	***27%***	***54%***	***20%***
CT	34%	0%	44%	96.0%	45%	54%	1%
MA	31%	1%	25%	85.5%	20%	36%	44%
ME	32%	8%	20%	94.7%	17%	51%	32%
NH	21%	7%	45%	93.5%	39%	37%	23%
NJ	49%	0%	28%	98.2%	13%	85%	2%
NY	31%	2%	48%	85.4%	34%	55%	11%
PA	37%	10%	2%	97.7%	17%	65%	18%
RI	37%	4%	13%	98.6%	4%	46%	50%
VT	64%	7%	30%	84.1%	33%	43%	24%
Midwest:	***25%***	***6%***	***21%***	***93.4%***	***28%***	***63%***	***9%***
IA	11%	7%	9%	97.5%	14%	83%	3%
IL	35%	0%	21%	96.9%	24%	75%	0%
IN	20%	9%	25%	96.2%	33%	62%	4%
KS	12%	4%	19%	94.0%	23%	67%	10%
MI	8%	8%	18%	93.9%	26%	62%	12%
MN	24%	4%	32%	92.8%	39%	47%	14%
MO	18%	6%	23%	98.1%	32%	62%	6%
ND	19%	12%	15%	97.9%	22%	72%	6%
NE	28%	2%	71%	91.7%	54%	44%	3%
OH	59%	5%	19%	97.8%	24%	51%	24%
SD	26%	19%	3%	99.7%	30%	67%	3%
WI	13%	5%	11%	92.3%	27%	69%	3%
South:	***20%***	***8%***	***25%***	***94.4%***	***31%***	***59%***	***10%***
AL	21%	12%	1%	100%	6%	82%	12%
AR	12%	32%	21%	93.6%	46%	45%	8%
D.C.	19%	0%	58%	99.5%	34%	66%	0%
DE	5%	9%	15%	99.4%	29%	71%	0%
FL	8%	0%	60%	95.9%	58%	38%	4%

Exhibit A2: Development Characteristics of LIHTC Units by State, 1995-2000

Region/State	Non-Profit Sponsor	RHS Section 515	Tax-Exempt Bonds	Average Ratio of LIHTC Units/ Total Units	Credit Type		
					30%	70%	Both
***South:** (cont'd)*							
GA	20%	8%	11%	92.3%	23%	73%	4%
KY	30%	19%	0%	99.1%	32%	68%	0%
LA	46%	13%	0%	98.7%	13%	61%	26%
MD	18%	5%	41%	96.8%	31%	53%	15%
MS	10%	14%	25%	98.4%	40%	42%	18%
NC	23%	7%	16%	99.1%	22%	67%	11%
OK	35%	33%	5%	98.3%	21%	60%	19%
SC	39%	14%	0%	97.2%	11%	72%	18%
TN	11%	5%	20%	99.2%	21%	72%	7%
TX	21%	8%	4%	95.7%	12%	78%	11%
VA	20%	6%	49%	97.1%	54%	39%	7%
WV	20%	40%	0%	100%	24%	57%	19%
West:	***34%***	***4%***	***45%***	***92.3%***	***47%***	***51%***	***2%***
AK	49%	12%	30%	93.5%	26%	68%	6%
AZ	22%	3%	17%	97.0%	15%	79%	6%
CA	51%	N/A	52%	95.9%	52%	48%	0%
CO	21%	2%	55%	83.7%	57%	40%	3%
HI	85%	2%	10%	99.7%	10%	90%	0%
ID	38%	5%	7%	91.0%	6%	94%	0%
MT	26%	15%	31%	95.2%	51%	49%	0%
NM	13%	8%	39%	99.2%	41%	51%	7%
NV	25%	8%	58%	98.5%	46%	54%	0%
OR	44%	2%	55%	96.8%	56%	42%	2%
UT	3%	7%	39%	92.9%	34%	61%	6%
WA	30%	3%	46%	97.2%	54%	43%	3%
WY	6%	0%	43%	100%	N/A[1]	N/A	N/A

Exhibit A2: Development Characteristics of LIHTC Units by State, 1995-2000

Region/State	Non-Profit Sponsor	RHS Section 515	Tax-Exempt Bonds	Average Ratio of LIHTC Units/ Total Units	Credit Type		
					30%	70%	Both
U.S. Possessions:	***0%***	***100%***	***0%***	***63%***	***51%***	***17%***	***32%***
PR	0%	100%	0%	78.3%	47%	18%	34%
VI	0%	100%	0%	100%	100%	0%	0%

Notes: Percentages of units with missing data are nonprofit sponsor (12.2%), RHS Section 515 (16.9%), bond financing (11.8%), and credit type (11.3%). Totals may not sum to 100 percent because of rounding.

[1]In Wyoming, credit type percentages are omitted because 68 percent of the observations are missing.

Exhibit A3: Distribution of LIHTC Units by Central City/Suburb/Non-Metro Location by State, 1995-2000

Region/State	Central City		Suburb		Non-Metro		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
U.S. Total	**45%**	**46%**	**41%**	**38%**	**14%**	**15%**	**500,676**	**32,916,032**
Northeast:	***62%***	***52%***	***31%***	***41%***	***6%***	***8%***	***73,589***	***7,298,465***
CT	72%	45%	25%	51%	2%	4%	5,417	422,920
MA	69%	48%	26%	49%	4%	3%	11,989	915,577
ME	34%	25%	38%	20%	28%	55%	1,597	137,384
NH	50%	33%	25%	29%	25%	38%	3,049	130,771
NJ	30%	20%	70%	80%	0%	0%	6,353	981,065
NY	76%	73%	21%	22%	3%	5%	30,780	3,173,045
PA	43%	34%	48%	53%	10%	13%	11,151	1,319,273
RI	57%	48%	36%	45%	7%	7%	1,850	153,148
VT	14%	13%	33%	18%	53%	69%	1,403	65,282
Midwest:	***44%***	***44%***	***36%***	***34%***	***20%***	***22%***	***113,345***	***7,116,912***
IA	41%	36%	19%	14%	40%	50%	6,237	318,954
IL	74%	55%	18%	33%	8%	12%	16,381	1,503,119
IN	53%	49%	31%	29%	16%	22%	11,447	614,456
KS	49%	40%	14%	19%	37%	41%	6,968	302,966
MI	31%	37%	58%	50%	11%	14%	16,917	991,859
MN	14%	35%	58%	40%	27%	25%	7,836	464,115
MO	53%	37%	28%	34%	19%	29%	14,096	612,473
ND	59%	46%	2%	8%	39%	46%	1,333	82,926
NE	53%	48%	22%	10%	25%	42%	3,062	201,947
OH	55%	47%	27%	38%	18%	15%	18,157	1,329,415
SD	60%	31%	5%	6%	35%	63%	1,280	87,886
WI	31%	47%	45%	28%	24%	24%	9,631	606,794

Exhibit A3: Distribution of LIHTC Units by Central City/Suburb/Non-Metro Location by State, 1995-2000

Region/State	Central City		Suburb		Non-Metro		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
South:	***41%***	***43%***	***45%***	***42%***	***14%***	***20%***	***200,565***	***10,743,941***
AL	32%	47%	29%	28%	39%	25%	6,017	444,642
AR	47%	38%	28%	17%	26%	45%	2,916	271,102
D.C.	100%	100%	0%	0%	0%	0%	3,632	152,549
DE	22%	32%	49%	53%	29%	15%	2,037	73,623
FL	32%	36%	65%	59%	4%	5%	34,347	1,681,847
GA	37%	26%	42%	47%	20%	27%	16,951	829,786
KY	38%	28%	26%	28%	37%	43%	4,703	419,274
LA	43%	48%	30%	33%	27%	19%	9,074	511,257
MD	25%	25%	69%	68%	6%	7%	12,759	611,684
MS	25%	23%	29%	17%	46%	60%	4,958	259,762
NC	61%	43%	22%	25%	18%	27%	13,817	805,144
OK	56%	44%	26%	22%	19%	34%	5,674	384,836
SC	19%	35%	47%	40%	34%	25%	4,907	379,220
TN	65%	54%	22%	20%	13%	26%	10,472	592,677
TX	65%	66%	27%	23%	8%	11%	38,842	2,375,753
VA	39%	39%	53%	43%	8%	18%	27,155	772,186
WV	8%	20%	56%	27%	36%	53%	2,304	178,499
West:	***43%***	***47%***	***46%***	***42%***	***12%***	***10%***	***113,177***	***7,756,814***
AK	64%	46%	0%	0%	36%	54%	782	82,915
AZ	53%	63%	35%	27%	12%	10%	6,312	489,843
CA	48%	49%	50%	49%	3%	3%	51,647	4,606,307

Exhibit A3: Distribution of LIHTC Units by Central City/Suburb/Non-Metro Location by State, 1995-2000

Region/State	Central City		Suburb		Non-Metro		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
***West:** (cont'd)*								
CO	43%	49%	44%	37%	13%	14%	8,889	483,882
HI	47%	42%	28%	32%	19%	26%	1,180	164,373
ID	24%	32%	7%	9%	69%	59%	2,151	108,036
MT	42%	34%	3%	4%	58%	62%	1,777	100,225
NM	56%	51%	15%	11%	29%	38%	4,094	176,796
NV	46%	39%	47%	51%	7%	9%	4,479	210,807
OR	44%	39%	34%	38%	22%	23%	9,944	407,356
UT	31%	38%	42%	41%	27%	21%	3,745	171,263
WA	41%	42%	46%	43%	13%	15%	17,137	700,717
WY	54%	27%	14%	4%	32%	69%	1,040	54,294

Notes: The dataset used in this analysis includes only geocoded projects (projects and units in Puerto Rico and the Virgin Islands were excluded). Suburb is defined here as metro area, non-central city. Metropolitan area definitions for LIHTC units are as of June 30, 1999. Total number of rental units are based on 1990 Census data and tract definitions. Totals may not sum to 100 percent because of rounding

Exhibit A4: Distribution of LIHTC Units Located in DDAs and QCTs by State, 1995-2000

Region/State	DDA		QCT		DDA or QCT		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
U.S. Total	**19%**	**24%**	**23%**	**16%**	**37%**	**37%**	**500,676**	**32,916,032**
Northeast:	***57%***	***55%***	***35%***	***19%***	***74%***	***65%***	***73,589***	***7,298,465***
CT	37%	16%	59%	17%	79%	32%	5,417	422,920
MA	54%	81%	41%	19%	75%	87%	11,989	915,577
ME	98%	91%	10%	4%	98%	90%	1,597	137,384
NH	100%	97%	4%	7%	100%	97%	3,049	130,771
NJ	21%	29%	34%	17%	53%	45%	6,353	981,065
NY	83%	81%	34%	20%	86%	85%	30,780	3,173,045
PA	3%	4%	37%	16%	40%	19%	11,151	1,319,273
RI	28%	16%	43%	20%	65%	33%	1,850	153,148
VT	64%	84%	13%	8%	72%	85%	1,403	65,282
Midwest:	***0%***	***<1%***	***23%***	***19%***	***23%***	***19%***	***113,345***	***7,116,912***
IA	0%	0%	7%	10%	7%	10%	6,237	318,954
IL	0%	0%	46%	23%	46%	23%	16,381	1,503,119
IN	0%	0%	16%	13%	16%	13%	11,447	614,456
KS	0%	0%	18%	10%	18%	10%	6,968	302,966
MI	0%	0%	28%	24%	28%	24%	16,917	991,859
MN	0%	0%	8%	11%	8%	11%	7,836	464,115
MO	0%	0%	21%	15%	21%	15%	14,096	612,473
ND	0%	0%	7%	7%	7%	7%	1,333	82,926
NE	0%	0%	5%	14%	5%	14%	3,062	201,947
OH	0%	0%	28%	20%	28%	20%	18,157	1,329,415
SD	2%	7%	0%	4%	2%	12%	1,280	87,886
WI	0%	0%	12%	13%	12%	13%	9,631	606,794

Exhibit A4: Distribution of LIHTC Units Located in DDAs and QCTs by State, 1995-2000

Region/State	DDA		QCT		DDA or QCT		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
South:	***11%***	***7%***	***21%***	***15%***	***31%***	***20%***	***200,565***	***10,743,841***
AL	1%	0%	11%	17%	12%	17%	6,017	444,642
AR	4%	2%	9%	9%	12%	11%	2,916	271,102
D.C.	0%	0%	81%	49%	81%	49%	3,632	152,549
DE	29%	15%	1%	10%	30%	12%	2,037	73,623
FL	49%	24%	11%	12%	54%	36%	34,347	1,681,847
GA	1%	<1%	27%	18%	28%	18%	16,951	829,786
KY	5%	3%	33%	15%	38%	17%	4,703	419,274
LA	9%	4%	28%	22%	36%	25%	9,074	511,257
MD	1%	0%	16%	14%	17%	14%	12,759	611,684
MS	13%	7%	33%	18%	41%	22%	4,958	259,762
NC	0%	4%	15%	10%	15%	14%	13,817	805,144
OK	0%	0%	16%	11%	16%	11%	5,674	384,836
SC	5%	5%	20%	13%	25%	17%	4,907	379,220
TN	0%	0%	34%	17%	34%	17%	10,472	592,677
TX	5%	7%	34%	17%	38%	24%	38,842	2,375,753
VA	0%	<1%	6%	11%	6%	11%	27,155	772,186
WV	2%	21%	28%	11%	30%	31%	2,304	178,499
West:	***28%***	***38%***	***18%***	***15%***	***40%***	***48%***	***113,177***	***7,756,814***
AK	30%	38%	27%	13%	53%	38%	782	82,915
AZ	21%	12%	28%	11%	45%	20%	6,312	489,843
CA	41%	51%	20%	16%	50%	59%	51,647	4,606,307
CO	8%	4%	14%	19%	22%	22%	8,889	483,882
HI	77%	99%	13%	14%	77%	99%	1,180	164,373
ID	16%	11%	19%	9%	25%	20%	2,151	108,036

Exhibit A4: Distribution of LIHTC Units Located in DDAs and QCTs by State, 1995-2000

Region/State	DDA		QCT		DDA or QCT		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
***West:** (cont'd)*								
MT	35%	9%	15%	15%	45%	15%	1,777	100,225
NM	13%	17%	11%	12%	24%	25%	4,094	176,796
NV	2%	1%	10%	19%	12%	20%	4,479	210,807
OR	26%	39%	13%	9%	39%	50%	9,944	407,356
UT	10%	6%	6%	15%	16%	15%	3,745	171,263
WA	16%	17%	20%	15%	34%	35%	17,137	700,717
WY	0%	0%	0%	9%	0%	9%	1,040	54,294

Notes: The dataset used in this analysis includes only geocoded projects (projects and units in Puerto Rico and the Virgin Islands were excluded). DDA definitions for LIHTC units are from year placed in service; QCT definitions are from 1999. Total number of rental units are based on 1990 Census data and tract definitions. Totals may not sum to 100 percent because of rounding.

Exhibit A5: Census Tract Characteristics of LIHTC Units by Location Type, 1995-2000

Region/State	More than Half the Households Below 60% Median Income		Over 30% of the Households In Poverty		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
U.S. Total	**38.7%**	**34.9%**	**18.0%**	**12.3%**	**500,676**	**32,916,032**
Northeast:	***42.9%***	***36.7%***	***31.3%***	***14.8%***	***73,589***	***7,298,465***
CT	53.2%	40.1%	25.3%	10.4%	5,417	422,920
MA	50.7%	38.4%	37.2%	9.6%	11,989	915,577
ME	33.8%	32.8%	0.9%	3.6%	1,597	137,384
NH	31.9%	31.3%	2.3%	2.2%	3,049	130,771
NJ	43.2%	36.8%	20.7%	7.4%	6,353	981,065
NY	38.9%	36.3%	35.8%	21.1%	30,780	3,173,045
PA	45.3%	36.4%	35.7%	12.7%	11,151	1,319,273
RI	47.4%	39.9%	43.4%	19.7%	1,850	153,148
VT	32.7%	31.9%	0.0%	2.2%	1,403	65,282
Midwest:	***38.4%***	***35.4%***	***15.5%***	***10.6%***	***113,345***	***7,116,912***
IA	31.4%	32.0%	3.4%	5.7%	6,237	318,954
IL	47.9%	37.0%	30.7%	12.4%	16,381	1,503,119
IN	36.8%	34.5%	7.8%	7.4%	11,447	614,456
KS	33.9%	32.4%	7.4%	5.6%	6,968	302,966
MI	38.8%	37.1%	17.5%	15.1%	16,917	991,859
MN	33.5%	35.5%	6.0%	6.8%	7,836	464,115
MO	42.4%	34.7%	18.6%	9.1%	14,096	612,473
ND	27.6%	32.8%	3.7%	4.8%	1,333	82,926
NE	30.3%	32.6%	3.6%	4.2%	3,062	201,947
OH	39.2%	36.0%	22.9%	13.5%	18,157	1,329,415
SD	29.8%	32.4%	5.5%	9.1%	1,280	87,886
WI	32.7%	34.0%	5.4%	9.4%	9,631	606,794

Exhibit A5: Census Tract Characteristics of LIHTC Units by Location Type, 1995-2000

Region/State	More than Half the Households Below 60% Median Income		Over 30% of the Households In Poverty		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
South:	***38.3%***	***34.0%***	***17.0%***	***12.7%***	***200,565***	***10,743,841***
AL	35.5%	37.0%	10.5%	18.5%	6,017	444,642
AR	31.7%	23.8%	10.2%	12.6%	2,916	271,102
D.C.	65.0%	48.9%	30.2%	23.9%	3,632	152,549
DE	33.3%	32.2%	0.0%	6.6%	2,037	73,623
FL	33.7%	32.8%	14.4%	11.2%	34,347	1,681,847
GA	44.3%	34.0%	21.5%	11.8%	16,951	829,786
KY	40.2%	34.8%	26.7%	14.3%	4,703	419,274
LA	40.8%	37.3%	44.5%	29.5%	9,074	511,257
MD	39.4%	35.7%	12.3%	8.1%	12,759	611,684
MS	40.0%	34.8%	45.3%	27.9%	4,958	259,762
NC	36.2%	32.6%	9.3%	7.4%	13,817	805,144
OK	39.0%	33.8%	18.1%	9.6%	5,674	384,836
SC	35.5%	33.2%	15.6%	10.6%	4,907	379,220
TN	40.0%	34.3%	23.5%	12.7%	10,472	592,677
TX	42.1%	33.7%	20.9%	13.1%	38,842	2,375,753
VA	31.7%	31.3%	2.3%	7.1%	27,155	772,186
WV	37.3%	35.3%	4.3%	13.2%	2,304	178,499
West:	***37.1%***	***33.9%***	***13.9%***	***10.9%***	***113,177***	***7,756,814***
AK	33.4%	31.4%	12.4%	0.6%	782	82,915
AZ	42.7%	33.6%	31.3%	14.2%	6,312	489,843
CA	38.1%	34.6%	15.8%	13.3%	51,647	4,606,307
CO	29.8%	33.9%	0.8%	4.7%	8,889	483,882
HI	44.5%	34.0%	0.0%	2.0%	1,180	164,373
ID	35.1%	30.9%	3.1%	3.2%	2,151	108,036

Exhibit A5: Census Tract Characteristics of LIHTC Units by Location Type, 1995-2000

Region/State	More than Half the Households Below 60% Median Income		Over 30% of the Households In Poverty		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
***West:** (cont'd)*						
MT	33.0%	33.2%	7.0%	10.3%	1,777	100,225
NM	30.9%	32.4%	17.0%	17.2%	4,094	176,796
NV	41.5%	31.8%	17.7%	5.6%	4,479	210,807
OR	36.7%	31.6%	15.8%	5.0%	9,944	407,356
UT	29.0%	33.3%	1.6%	9.0%	3,745	171,263
WA	39.0%	33.2%	12.2%	6.9%	17,137	700,717
WY	26.2%	31.2%	0.0%	4.0%	1,040	54,294

Notes: The dataset used in this analysis includes only geocoded projects (projects and units in Puerto Rico and the Virgin Islands were excluded). Data are based on 1990 Census data and tract definitions.

Exhibit A6: Additional Census Tract Characteristics of LIHTC Units by Location Type, 1995-2000

Region/State	Over 50% Population Is Minority		Over 20% Families Are Female-Headed		Over 50% Housing Is Renter-Occupied		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
U.S. Total	**40%**	**32%**	**17%**	**9%**	**46%**	**43%**	**500,676**	**36,005,904**
Northeast:	***46%***	***33%***	***28%***	***15%***	***67%***	***57%***	***73,589***	***7,634,320***
CT	76%	29%	27%	17%	80%	51%	5,417	431,941
MA	50%	16%	31%	8%	73%	58%	11,989	935,528
ME	0%	0%	0%	1%	33%	25%	1,597	147,295
NH	0%	0%	0%	0%	49%	37%	3,049	143,906
NJ	55%	45%	28%	12%	51%	58%	6,353	1,053,172
NY	53%	46%	34%	23%	80%	71%	30,780	3,317,694
PA	32%	16%	24%	9%	43%	28%	11,151	1,370,666
RI	30%	19%	20%	12%	67%	54%	1,850	163,268
VT	0%	0%	0%	0%	25%	28%	1,403	70,850
Midwest:	***25%***	***19%***	***16%***	***10%***	***34%***	***33%***	***113.345***	***7,360,787***
IA	3%	3%	1%	<1%	15%	17%	6,237	317,857
IL	50%	37%	27%	13%	58%	45%	16,381	1,502,895
IN	25%	13%	17%	7%	29%	27%	11,447	667,144
KS	12%	9%	5%	2%	40%	27%	6,968	319,188
MI	26%	25%	17%	15%	33%	31%	16,917	992,537
MN	4%	8%	1%	3%	18%	30%	7,836	482,262
MO	39%	15%	29%	10%	35%	29%	14,096	652,445
ND	1%	3%	1%	2%	15%	32%	1,333	85,853
NE	4%	6%	4%	4%	20%	29%	3,062	216,867
OH	27%	17%	22%	11%	35%	34%	18,157	1,373,251
SD	2%	7%	0%	5%	22%	25%	1,280	92,305
WI	8%	13%	5%	7%	28%	33%	9,631	658,183

Exhibit A6: Additional Census Tract Characteristics of LIHTC Units by Location Type, 1995-2000

Region/State	Over 50% Population Is Minority		Over 20% Families Are Female-Headed		Over 50% Housing Is Renter-Occupied		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
South:	***46%***	***33%***	***20%***	***9%***	***45%***	***37%***	***200,565***	***12,027,328***
AL	26%	29%	16%	14%	13%	27%	6,017	478,375
AR	18%	17%	10%	8%	15%	20%	2,916	319,161
D.C.	100%	67%	67%	28%	100%	82%	3,632	147,124
DE	17%	14%	0%	8%	31%	27%	2,037	82,698
FL	43%	33%	20%	8%	46%	37%	34,347	1,896,130
GA	66%	41%	33%	14%	56%	43%	16,951	977,215
KY	25%	7%	23%	5%	33%	25%	4,703	465,250
LA	50%	38%	32%	21%	34%	36%	9,074	530,918
MD	47%	42%	19%	17%	59%	47%	12,759	639,108
MS	60%	37%	46%	22%	26%	22%	4,958	289,467
NC	45%	26%	18%	7%	36%	30%	13,817	959,658
OK	17%	10%	8%	3%	40%	29%	5,674	424,034
SC	30%	28%	16%	9%	18%	25%	4,907	426,237
TN	36%	21%	30%	12%	52%	31%	10,472	671,542
TX	62%	47%	16%	4%	57%	46%	38,842	2,676,395
VA	33%	26%	7%	8%	36%	40%	27,155	861,234
WV	0%	0%	0%	0%	9%	14%	2,304	182,782
West:	***41%***	***38%***	***5%***	***3%***	***48%***	***50%***	***113,177***	***8,641,913***
AK	22%	16%	0%	2%	66%	44%	782	83,091
AZ	56%	28%	7%	3%	41%	42%	6,312	607,771
CA	64%	53%	8%	5%	55%	56%	51,647	4,956,536
CO	15%	16%	0%	1%	36%	40%	8,889	542,101
HI	100%	87%	0%	1%	88%	53%	1,180	175,352
ID	4%	1%	0%	<1%	26%	21%	2,151	129,685

Exhibit A6: Additional Census Tract Characteristics of LIHTC Units by Location Type, 1995-2000

Region/State	Over 50% Population Is Minority		Over 20% Families Are Female-Headed		Over 50% Housing Is Renter-Occupied		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
***West:** (cont'd)*								
MT	0%	4%	0%	2%	27%	27%	1,777	110,944
NM	71%	51%	1%	2%	17%	26%	4,094	203,526
NV	43%	25%	21%	2%	44%	57%	4,479	293,918
OR	5%	2%	0%	<1%	47%	35%	9,944	476,772
UT	0%	5%	0%	0%	19%	37%	3,745	199,734
WA	8%	8%	0%	1%	52%	42%	17,137	804,389
WY	0%	1%	0%	1%	0%	15%	1,040	58,094

Notes: The dataset used in this analysis includes only geocoded projects (projects and units in Puerto Rico and the Virgin Islands were excluded). Data are based on 2000 Census data and tract definitions.

Appendix B

LIHTC Data Collection Form

LIHTC DATA FORM

State: _____ State Identifying Number: _____

Allocating Agency Name: _____

Project Name: _____

Project Address: _____
(NUMBER) (STREET)

_____ _____ _____
(CITY) (STATE) (ZIP)

Owner/Owner's Representative: _____
(FIRST NAME) (LAST NAME)

_____
(COMPANY NAME)

_____
(NUMBER) (STREET)

_____ _____ _____
(CITY) (STATE) (ZIP)

_____
(AREA CODE AND TELEPHONE NUMBER)

Number of *Total* Units: _____

Number of Total Units *by Size*: _____ _____ _____ _____ _____ = _____
OBR **1BR** **2BR** **3BR** **4+BR** **Total**

Number of *Low Income* Units: _____

Year Placed In Service: _____

Year Project Received Allocation or Bond Issued: _____

Type *(check all that apply)*:

- ☐ New Construction
- ☐ Rehab (with or without acquisition)
- ☐ Existing (for 1987-89 allocations only)

Credit Percentage *(check one)*:

- ☐ 9% (70% present value)
- ☐ 4% (30% present value)
- ☐ Both

	Yes	**No**
Did the project have a non-profit sponsor?	☐	☐
Increased basis due to qualified census tract or difficult development area?	☐	☐
Did the project use tax-exempt bonds?	☐	☐
Did the project use Farmers Home Section 515 loans?	☐	☐

INSTRUCTIONS FOR LIHTC DATA FORM

State: *Enter the Postal Service two character abbreviation for your state.*

State Identifying Number: *Enter the number or code sequence that your agency uses to identify properties. This should be an identifier that will permit future identification of this project.*

Project Name: *Enter the name of the project, if one exists. Example: Westside Terrace Apartments. Do not enter a partnership name (e.g., Venture Limited II).*

Project Address: *Enter the complete address of the property, including address number and street name, city, state, and (if available) zip code. Do not enter a P.O. box or multiple addresses (e.g., 52-58 Garden Street). If the project consists of more than one building with different addresses, enter only one address, using the address for the building with the greatest number of units.*

Owner's Contact Name, Address and Phone Number: *Enter the name, address and phone number of the owner or owner's contact person. This will often be a representative of the general partner. This information will be used for future mail or telephone contacts regarding the development. As such, we need an individual and company name and address as opposed to the partnership name.*

Number of Total Units: *Enter the total number of units in this project, summing across buildings if needed.*

Number of Total Units by Size: *Enter the number of units in the development (summing across buildings if necessary) that have 0, 1, 2, 3, or 4 or more bedrooms. Make sure these units sum to the total number of units in the project.*

Number of Low Income Units: *Enter the number of units in the development (summing across buildings if necessary) that were qualified to receive Low Income Housing Tax Credits at the time the buildings were placed in service.*

Year Placed in Service: *Enter the year the project was placed in service. If this is a multiple building project, with more than one placed in service date, enter the most recent date. Placement in service date is available from IRS Form 8609, Item 5.*

Year Project Received Allocation or Bond Issued: *Enter the initial allocation year for which tax credits were awarded for the project. Allocation date is available from IRS Form 8609, Item 1a. If the project received multiple allocations, use the earliest allocation year. If no allocation was required (i.e., 50 percent or greater tax-exempt bond financed) and IRS Form 8609, Item 1a is blank, enter the year the bond was issued.*

Type (New Construction or Acquisition/Rehab): *Enter the production type for which the project is receiving tax credits, i.e., a newly constructed project and/or one involving rehabilitation. For projects allocated in 1987-1989 only, an additional type -- acquisition only -- is also possible. If the project involves both New Construction and Rehab, check both boxes. (Construction type can be inferred from IRS Form 8609, Item 6. If box a or b is checked, the building is new construction. If box c and d or e is checked, the building is acquisition/rehab. If box c only is checked, the building is acquisition-only.)*

Credit Percentage: *This item indicates the type of credit provided: 9% credit (70% present value) or 4% (30% present value). Maximum applicable credit percentage allowable is available from IRS Form 8609, Item 2. The entry on the 8609 is an exact percentage for the project and may include several decimal places (e.g., 8.89% or 4.2%). Please check the closest percentage -- either 9 or 4 percent. The box marked "Both" may be checked for where acquisition is covered at 4% and rehab at 9%.*

Did the project have a non-profit sponsor? *Check yes if the project sponsor is a 501(c)(3) nonprofit entity. Use the same criteria for determining projects to be included in the 10 percent non-profit set aside.*

Increased Basis Due to Qualified Census Tract or Difficult Development Area*? Check yes if the project actually received an increase in the eligible basis due to its location in a qualified census tract or difficult development area. Increased basis can be determined from IRS Form 8609, Item 3b. (Note: projects may be located in a qualified tract without receiving the increase.)*

Did project use tax-exempt bonds? *Check yes if financing was provided through tax-exempt bonds. Use of tax-exempt bonds can be determined from IRS Form 8609, Item 4, which shows the percentage of the basis financed from this source.*

Did project use Farmers Home Section 515 loans? *Check yes if the project was financed with a Farmers Home Section 515 direct loan.*

Appendix C

Description of the LIHTC Database

Description of the LIHTC Database

The LIHTC Database contains records for 19,676 projects and 933,223 units placed in service between 1987 and 2000. The original database contained records for 9,785 projects and 339,190 units placed in service between 1987 and 1994. In late 1996, efforts were made to improve the coverage of the LIHTC database for earlier years of the program. This resulted in the addition of 1,989 projects containing 67,056 units to the database. In 2000, 4,833 projects and 300,891 units placed in service from 1995 to 1998 were added. In April 2002, we added data on 1,737 projects and 130,906 units placed in service from 1997 to 1999. In the current update, 1,332 projects and 95,180 units were added. Exhibit C1 shows the history of data updates by year placed in service.

Project Data

Project data was collected from the state allocating agencies. Data were either provided in electronic form, provided on the LIHTC data collection form, or compiled by Abt Associates staff from listing or other documents provided by the states. In a few cases, data were collected directly from agency files by members of the study team.

Geographic Indicators

Project street addresses were used to match properties with their 1990 and 2000 census tracts. Projects placed in service between 1987 and 1994 were initially geocoded using HUD's Conquest[30] geographical information system, as well as through the efforts of a private vendor. The geocoding rate for these projects was 79 percent. Projects placed in service between 1995 and 1998 were first geocoded using MapMarker version 6.1 Plus. Street-level matching was used to obtain the 1990 census tract location of each address. Properties were first geocoded during an initial, automatic pass. Properties not geocoded during the automatic pass were run through the system again in interactive mode. During the interactive pass, we attempted to correct property addresses by correcting spelling errors and by using a variety of online databases to obtain corrected zip codes and property address information. Following the interactive geocoding pass, the overall geocoding rate for projects placed in service between 1995 and 1998 was 91 percent.

[30] Conquest as a proprietary GIS package which could be used to identify geographic location based on street address and to attach Census or other demographic variables for the location.

All projects were later re-geocoded using MapMarker version 7.0. For properties placed in service between 1987 and 1998 and included in the database update in 2000, the addresses were geocoded through an automatic pass. If a property was not automatically geocoded but was geocoded previously, the older geocoding information was kept in the database. Properties neither geocoded during the automatic pass nor geocoded previously were run through the system for interactive geocoding. Projects added to the database in July 2002, with placed in service year from 1997 to 1999, were geocoded through automatic and interactive passes using MapMarker version 7.0. Properties for which we could not determine a complete and accurate address were left ungeocoded. For all geocoded records in the July 2002 update, using MapInfo Professional version 6.0 mapping software and electronic maps of the Census 2000 geographic entities, we also determined the 2000 census tract for each geocoded property. The overall geocoding rate for all properties in the database in that update was 89 percent.

In this update to the database, projects added to the database with placed in service year from 1998 to 2000 were geocoded through automatic and interactive passes. MapMarker Plus version 7.0[31] was used to determine 1990 census tracts, and MapMarker Plus version 7.2 was used to determine 2000 census tracts. The overall geocoding rate for the database was 90 percent.

Location Data

For all projects successfully geocoded, geographic indicators were used to develop information on project locations, for example, whether the property was located in an MSA or non-metro area (as of the 2000 Census), and, for projects in MSAs, whether the project was located in a central city of the MSA. HUD data files and listings were also used to identify projects located in areas that had been designated by HUD as Difficult Development Areas when projects were placed in service. The criteria for this designation are legislatively determined and are intended to capture areas with below average incomes and relatively high development costs.

A complete listing of all database variables is provided in Exhibit C2.

[31] MapMarker Plus version 7.0 was the latest version of the software available to output 1990 U.S. Census codes.

Exhibit C1: History of Data Updates to National LIHTC Database

Year Placed in Service		Original Database	Revision to Original Database	First Update		Second Update				Third Update			
				1995-1998 New Data	Final 1995-1998 Update	Effect of Edits	1997-1999 New Data	Effective Update	Final 1997-1999 Update	Effect of Edits	1998-2000 New Data	Effective Update	Final 1998-2000 Update
missing	Projects	931	1,011		1,942	-1		-1	**1,941**				**1,941**
	Units	18,776	38,651		57,427	-1		-1	**57,426**				**57,426**
1987	Projects	502	200		702				**702**				**702**
	Units	12,403	4,683		17,086				**17,086**				**17,086**
1988	Projects	1,012	464		1,476				**1,476**				**1,476**
	Units	25,942	9,868		35,810				**35,810**				**35,810**
1989	Projects	1,198	191		1,389				**1,389**				**1,389**
	Units	34,589	8,168		42,757				**42,757**				**42,757**
1990	Projects	1,038	77		1,115				**1,115**				**1,115**
	Units	39,889	3,552		43,441				**43,441**				**43,441**
1991	Projects	1,097	46		1,143				**1,143**	0		0	**1,143**
	Units	39,428	2,134		41,562				**41,562**	-2		-2	**41,560**
1992	Projects	1,355			1,355				**1,355**				**1,355**
	Units	49,931			49,931				**49,931**				**49,931**
1993	Projects	1,355			1,355				**1,355**				**1,355**
	Units	59,942			59,942				**59,942**				**59,942**
1994	Projects	1,297			1,297				**1,297**				**1,297**
	Units	58,290			58,290				**58,290**				**58,290**
1995	Projects			1,370	1,370				**1,370**				**1,370**
	Units			78,940	78,940				**78,940**				**78,940**
1996	Projects			1,299	1,299	-1		-1	**1,298**				**1,298**
	Units			81,416	81,416	-56		-56	**81,360**				**81,360**
1997	Projects			1,270	1,270	-9	53	44	**1,314**				**1,314**
	Units			79,548	79,548	-1,115	6,098	4,983	**84,531**				**84,531**
1998	Projects			894	894	9	310	319	**1,213**	-1	45	44	**1,257**
	Units			60,987	60,987	1,007	24,585	25,592	**86,579**	-23	2,146	2,123	**88,702**
1999	Projects					2	1,374	1,376	**1,376**	-7	83	76	**1,452**
	Units					220	100,168	100,388	**100,388**	-1,049	5,914	4,865	**105,253**
2000	Projects									8	1,204	1,212	**1,212**
	Units									1,020	87,174	88,194	**88,194**
All	Projects	9,785	1,989	4,833	16,607	0	1,737	1,737	**18,344**	0	1,332	1,332	**19,676**
	Units	339,190	67,056	300,891	707,137	55	130,851	130,906	**838,043**	-54	95,234	95,180	**933,223**

Exhibit C2
Low Income Housing Tax Credit Database, 1987-2000
Data Dictionary

Variable Name	Variable Definition	Variable Type*	Decimal Places	Value Labels
HUD_ID	Unique Project Identifier for the Database (recreated for all records with each update) — characters 1-3: Allocating agency code (see table below) digits 4-7: Year placed in service (0000 if unknown or missing) digits 8-10: Record number within allocating agency and year placed in service	A		
PROJECT	Project name	A		
PROJ_ADD	Project street address	A		
PROJ_CTY	Project city	A		
PROJ_ST	Project state	A		
PROJ_ZIP	Project zip	A		
STATE_ID	State-defined Project ID	A		
CONTACT	Owner or owner's contact	A		
COMPANY	Name of contact company	A		
CO_ADD	Contact's business address	A		
CO_CTY	Contact's city	A		
CO_ST	Contact's state	A		
CO_ZIP	Contact's zip	A		
CO_TEL	Contact's telephone	A		
LATITUDE	Latitude: Degrees Decimal	N	6	
LONGITUD	Longitude: Negative Degrees Decimal -- GIS Mapping Convention	N	6	
REG	Census Region	N		1=Northeast 2=Midwest 3=South 4=West
MSA	MSA Number	N		
PLACECE	Census Place Code (1990)	N		
PLACEFP	FIPS Place Code (2000)	N		
FIPS1990	Unique 1990 Census Tract ID -- digits 1-2: State FIPS Code digits 3-5: County FIPS Code digits 6-11: Census Tract Number (no decimal point included)	A		
ST1990	1990 State FIPS Code	N		
CNTY1990	1990 County FIPS Code	N		
TRCT1990	1990 Census Tract Number	N	2	
FIPS2000	Unique 2000 Census Tract ID -- digits 1-2: State FIPS Code digits 3-5: County FIPS Code digits 6-11: Census Tract Number (no decimal point included)	A		
ST2000	2000 State FIPS Code	N		
CNTY2000	2000 County FIPS Code	N		
TRCT2000	2000 Census Tract Number	N	2	

Exhibit C2 *(Continued)*
Low Income Housing Tax Credit Database, 1987-2000
Data Dictionary

Variable Name	Variable Definition	Variable Type*	Decimal Places	Value Labels
N_UNITS	Total number of units	N		
LI_UNITS	Total number of low income units	N		
N_0BR	Number of efficiencies	N		
N_1BR	Number of 1 bedroom units	N		
N_2BR	Number of 2 bedroom units	N		
N_3BR	Number of 3 bedroom units	N		
N_4BR	Number of 4 bedroom units	N		
YR_PIS	Year placed in service	A		
YR_ALLOC	Allocation year	A		
NON_PROF	Was there a non-profit sponsor?	N		1=Yes 2=No
BASIS	Was there an increase in eligible basis?	N		1=Yes 2=No
BOND	Was a tax-exempt bond received?	N		1=Yes 2=No
FMHA_515	Were FmHA (RHS) Section 515 loans used?	N		1=Yes 2=No
TYPE	Type of construction	N		1=New construction 2=Acquisition and Rehab 3=Both new construction and A/R 4=Existing
CREDIT	Type of credit percentage	N		1=30 percent present value 2=70 percent present value 3=Both
N_UNITSR	Total number of units or if total units missing or inconsistent, total low income units	N		
LI_UNITR	Total number of low income units or if total low income units missing, total units	N		
METRO	Is the census tract metro or non-metro?	N		1=Metro/Non-Central City 2=Metro/Central City 3=Non-Metro
DDA	Is the census tract in a difficult development area?	N		0=Not in DDA 1=In Metro DDA 2=In Non-Metro DDA
QCT	Is the census tract a qualified census tract?	N		1=In a qualified tract 2=Not in a qualified tract

* A=Alphanumeric, contains characters and numbers; N=Numeric, contains numbers including decimal points and negative signs.

Allocating Agency Codes Used in HUD_ID

AKA Alaska Housing Finance Corporation
ALA Alabama Housing Finance Authority
ARA Arkansas Development Finance Authority
AZA Arizona Department of Commerce, Office of Housing and Community Development/Arizona Department of Housing
CAA California Tax Credit Allocation Committee
COA Colorado Housing and Finance Authority
CTA Connecticut Housing Finance Authority
DCA District of Columbia Housing Finance Agency
DCB DC Department of Housing and Community Development
DEA Delaware State Housing Authority
FLA Florida Housing Finance Corporation
GAA Georgia Department of Community Affairs
HIA Housing and Community Development Corporation of Hawaii
IAA Iowa Finance Authority
IDA Idaho Housing and Finance Association
ILA Illinois Housing Development Authority
ILB City of Chicago Department of Housing
INA Indiana Housing Finance Authority
KSA Kansas Department of Commerce and Housing
KYA Kentucky Housing Corporation
LAA Louisiana Housing Finance Agency
MAA Massachusetts Housing Finance Agency
MAB Massachusetts Dept. of Housing and Community Development
MDA Maryland Department of Housing and Community Development
MEA Maine State Housing Authority
MIA Michigan State Housing Development Authority
MNA Minnesota Housing Finance Authority
MOA Missouri Housing Development Commission
MSA Mississippi Home Corporation
MTA Montana Department of Commerce, Board of Housing
NCA North Carolina Housing Finance Agency
NDA North Dakota Housing Finance Agency
NEA Nebraska Investment Finance Authority
NHA New Hampshire Housing Finance Authority
NJA New Jersey Housing and Mortgage Finance Agency
NMA New Mexico Mortgage Finance Agency
NVA Nevada Department of Business and Industry - Housing Division
NYA NY State Division of Housing and Community Renewal
NYB NY State Housing Finance Agency
NYC City of New York, Dept. of Housing Preservation and Development
OHA Ohio Housing Finance Agency
OKA Oklahoma Housing Finance Agency
ORA Oregon Housing and Community Services Department
PAA Pennsylvania Housing Finance Agency
PRA Puerto Rico Housing Finance Corporation
RIA Rhode Island Housing and Mortgage Finance Corporation
SCA South Carolina State Housing Finance and Development Authority
SDA South Dakota Housing Development Authority
TNA Tennessee Housing Development Agency

Allocating Agency Codes Used in HUD_ID

TXA Texas Department of Housing and Community Affairs
UTA Utah Housing Finance Agency
VAA Virginia Housing Development Authority
VIA Virgin Islands Housing Finance Authority
VTA Vermont Housing Finance Agency
WAA Washington State Housing Finance Commission
WIA Wisconsin Housing and Economic Development Authority
WVA West Virginia Housing Development Fund
WYA Wyoming Community Development Authority