B. Overview of HUD's Market Share Methodology

1. Definition

The size of the market for each housing goal is one of the factors that the Secretary is required to consider when setting the level of each housing goal. Using the Low- and Moderate-Income Housing Goal as an example, the market share in a particular year is defined as follows:

Low- and Moderate-Income Share of Market: The number of dwelling units financed by the primary mortgage market in a particular calendar year that are occupied by (or affordable to, in the case of rental units) families with incomes less than the area median income divided by the total number of dwelling units financed in the conforming conventional primary mortgage market.

There are three important aspects to this definition. First, the market is defined in terms of "dwelling units" rather than, for example, "value of mortgages" or "number of properties." Second, the units are "financed" units rather than the entire stock of all mortgaged dwelling units; that is, the market-share concept is based on the mortgage flow in a particular year, which will be smaller than total outstanding mortgage debt. Third, the low- and moderate-income market is expressed relative to the overall conforming conventional market, which is the relevant market for the GSEs.8 The low- and moderate-income market is defined as a percentage of the conforming market; this percentage approach maintains consistency with the method for computing each GSE's performance under the low- and moderate-income goal (that is, the number of low- and moderate-income dwelling units financed by GSE mortgage purchases relative to the overall number of dwelling units financed by GSE mortgage purchases).

2. Three-Step Procedure

Ideally, computing the low- and moderate-income market share would be straightforward, consisting of three steps:

(Step 1) Projecting the market shares of the four major property types included in the conventional conforming mortgage market:

(a) Single-family owner-occupied dwelling units (SF-O units);

⁷Sections 1332(b)(4), 1333(a)(2), and 1334(b)(4).

(b) Rental units in 2–4 unit properties where the owner occupies one unit (SF 2–4 units); ⁹

(c) Rental units in one-to-four unit investor-owned properties (SF investor units); and,

(d) Rental units in multifamily (5 or more units) properties (MF units).¹⁰

(Step 2) Projecting the "goal percentage" for each of the above four property types (for example, the "low-and moderate-income goal percentage for single-family owner-occupied properties" is the percentage of those dwelling units financed by mortgages in a particular year that are occupied by households with incomes below the area median).

(Step 3) Multiplying the four percentages in (2) by their corresponding market shares in (1), and summing the results to arrive at an estimate (weighted average) of the overall share of dwelling units financed by mortgages that are occupied by lowand moderate-income families.

The four property types are analyzed separately because of their differences in low- and moderate-income occupancy. Rental properties have substantially higher percentages of low-and moderate-income occupants than owner-occupied properties. This can be seen by the following illustration of Step 3's basic formula for calculating the size of the low- and moderate-income market: 11

Property type	(Step 1) share of mar- ket (per- cent)	(Step 2) low- mod share (per- cent)	(Step 3) mul- tiply (1) x (2) (per- cent)
(a) SF-O (b) SF 2-4 (c) SF Investor (d) MF	71.0 2.0 10.6 16.4	36 85 85 90	25.6 1.7 9.1 14.8
Total Mar- ket	100.0		51.2

In this example, low- and moderateincome dwelling units are estimated to account for slightly over 51 percent of the total number of dwelling units financed in the conforming mortgage market. To examine the other housing goals, the "goal percentages" in Step 2 would be changed and the new "goal percentages" would be multiplied by Step 1's property distribution, which remains constant.

3. Data Issues

Unfortunately, complete and consistent mortgage data are not readily available for carrying out the above three steps. A single data set for calculating either the property shares or the housing goal percentages does not exist. However, there are several major data bases that provide a wealth of useful information on the mortgage market. HUD combined information from the following sources: the Home Mortgage Disclosure Act (HMDA) reports, the American Housing Survey (AHS), HUD's Survey of Mortgage Lending Activity (SMLA), and the Census Bureau's Residential Finance Survey (RFS).

Property Shares. To derive the property shares, HUD started with forecasts of single-family mortgage originations. These forecasts, which are readily available from industry groups and the GSEs, are based on HUD's SMLA. The SMLA does not provide information on conforming mortgages, on owner versus renter mortgages, or on the number of units financed. Thus, to estimate the number of single-family units financed in the conforming conventional market, HUD had to project certain market parameters based on its judgment about the reliability of different data sources. Sections D and E report HUD's findings related to the single-family market.

Total market originations are obtained by adding multifamily originations to the single-family estimate. Because of the wide range of estimates available. the size of the multifamily mortgage market turned out to be one of the most controversial issues raised in the public comments. In 1994, HMDA reported about \$15 billion in conventional multifamily originations while the SMLA reported double that amount (\$30 billion). Because most renters qualify under the low- and moderate-income goal, the chosen market size for multifamily can have a substantial effect on the overall estimate of the low- and moderate-income market (as well as on the estimate of the special affordable market). Thus, it is important to have a reliable estimate of the size of the multifamily market. Section C discusses this issue in detail.

Goal Percentages. To derive the goal percentages for each property type, HUD relied heavily on HMDA and AHS data. For single-family owner originations, HMDA provides comprehensive information on borrower incomes and

⁸So-called "jumbo" mortgages, greater than \$203,150 for 1-unit properties, are excluded in defining the conforming market. There is some overlap of loans eligible for purchase by the GSEs with loans insured by the FHA and guaranteed by the Veterans Administration.

⁹The owner of the SF 2–4 property is counted in

¹⁰ Property types (b), (c), and (d) consist of rental units. Property types (b) and (c) must sometimes be combined due to data limitations; in this case, they are referred to as "single-family rental units" (SF-R units).

¹¹The property shares and low-mod percentages reported here are based on one set of model assumptions; other sets of assumptions are discussed in Section E.