Special Attention of:

NOTICE PDR-2010-01

Regional Directors, Field Office Directors,
Economists, Public & Indian Housing
Division Directors, Multifamily Hub Directors,
Multifamily Program Center Directors

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Subject: Estimated Median Family Incomes for Fiscal Year 2010

This memorandum transmits median family income (MFI) and income distribution estimates for Fiscal Year (FY) 2010. They are calculated for each metropolitan and nonmetropolitan area using the Fair Market Rent (FMR) area definitions applied in the Section 8 Housing Choice Voucher Program. The estimated MFI for the United States for FY 2010 is $64,400.

The methodology used to produce FY 2010 Median Family Incomes (MFI) is unchanged from FY 2009. Data from the Bureau of Census American Community Survey (ACS) has been updated from 2007 three-year data to 2008 three-year data. The factor used to trend the 2008 estimates to the midpoint of FY 2010 MFIs is unchanged at 3 percent per year. This trend, produced last year using the annualized change in the ACS national median family income estimate between 2000 and 2007, does not change using the 2008 national estimate in place of the 2007 estimate, so the trend factor is also unchanged from last year.

As outlined last year, HUD shifted from use of one-year ACS survey data to three-year ACS survey data for FY 2009 MFIs; use of three-year data continues for FY 2010 MFIs. HUD uses three-year estimates to dampen the impact of year-to-year fluctuations in ACS measured MFI on programs relying on these parameters. These fluctuations are primarily, but not exclusively observed in areas where the margin of error estimates for the ACS data are large. In these areas, fluctuations in measured median income are far more likely to be caused by sampling errors. The three-year ACS data have much smaller margins of error because the number of observations in three-year estimates is three times the number of observations in one-year estimates. Perhaps more importantly, because only one third of the data are replaced every year in three-year estimates, and because economic cycles tend to be shorter than three years, use of three-year estimates also has the effect of smoothing out real fluctuations in MFIs. This smoothing effect is particularly important in times of economic turbulence; for program purposes, MFIs that do not hit all of the peaks and valleys of the economic cycle are preferable to MFIs that do. For the same reasons, when five-year ACS estimates become available, HUD plans to use them instead of ACS three-year estimates to update MFIs. Additionally, use of five-year ACS estimates will allow HUD to have more localized information to better update areas with the smallest populations.

An explanation of the methodology used to develop FY 2010 MFIs and related documents are attached. Attachment 1 provides an explanation of the estimation methodology used. Attachment 2 provides state-level MFI estimates. The tables showing the deciles distributions of MFIs by metropolitan-area and nonmetropolitan-county are provided on the data disk along with a file on area definitions. Files are also provided on Section 8 Income Limits and Section 236 Income Limits that are not part of this transmittal notice, for you information.

Please note that the use of the HUD MFI estimates is subject to individual program guidelines covering definitions of income and family, family size, effective dates, and other factors. If you have any questions concerning these matters, please refer them to your field office economist.

HUD MFI estimates are also available at the Department's Internet site, which provides a menu from which you may select the year and type of data of interest (**http://www.huduser.org/portal/datasets/il.html**).

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Attachments

ATTACHMENT 1

HUD METHODOLOGY FOR ESTIMATING FY 2010
MEDIAN FAMILY INCOMES

FY 2010 HUD estimates of median family income are based on 2000 Census median family income (MFI) estimates updated using Census American Community Survey (ACS) state-level MFI estimates and/or ACS local area MFI estimates. Separate HUD MFI estimates are calculated for all Metropolitan Statistical Areas (MSAs), HUD Metro FMR Areas, and nonmetropolitan counties.

FY 2010 HUD MFI estimates continue HUD's use of American Community Survey data. Similarly to the previous two years, the manner in which ACS data are used depends on the type of data available, which differs by place size. Local ACS MFI estimates are available for areas with populations of 20,000 or more, but the statistical reliability of these estimates differs. When local MFI estimates are available, HUD MFI estimates are based partly on local ACS estimates and partly on state-level ACS estimates. The higher the statistical reliability of local estimates, the more heavily HUD estimates rely on local ACS estimates. Local ACS MFI estimates are used in inverse proportion to the size of their margin of error ratios (MoERs)[1]. In practice, estimates for areas with small MoERs are almost entirely based on local ACS estimates but, where MoERs are large, state-level estimates more heavily influence results. All areas with less than 20,000 people and areas with MoERs of more than 10 percent are updated exclusively with update factors generated using 2000 Census to 2008 ACS three-year state MFI changes. All estimates are then updated from December 2008 to April 2010 using a trend factor of 3.0 percent, which reflects the annual change in median income from the Census 2000 Supplemental Survey[2] to the 2008 one-year ACS national estimate.

While the ACS provides the best data on local medians since the 2000 Census, ACS estimates differ from those of the 2000 Census in significant ways. Neither annual nor three-year ACS estimates of MFI have the same reliability as Decennial Census estimates. This is primarily due to the fact that ACS survey samples are still significantly smaller than decennial census "long-form" samples, which results in larger estimated MoERs for the ACS surveys.[3]

A principal objective of the MFI estimates program is to minimize the possibility of publishing income estimates with annual changes driven more by sampling error than changes in underlying economic conditions. HUD therefore uses a formula to incorporate 2008 ACS local median income estimates into its FY 2010 MFI estimates that explicitly considers the MoER in the local ACS results. The formula gives low weight to ACS local median income estimates with large MoERs,

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[1] The MoER is computed as the ratio of margin of error for the median family income estimate to form the "90 percent confidence interval" for the estimate itself. There is a 90 percent probability that any random sample of the same size from the population will yield an estimate of the median family income in this range.
[2] The Census 2000 Supplemental Survey was a developmental and testing version of the ACS conducted in 2000 to aid comparison of ACS techniques with 2000 Census results.
[3] For more technical details concerning the reliability of 1-year and 3-year ACS data and 2000 Decennial Census data, please see page 20 of the FY2009 Income Limits Briefing Materials, available at http://www.huduser.org/portal/datasets/il/il09/IncomeLimitsBriefingMaterial_FY09.pdf

thereby limiting the influence of these local ACS estimates on the HUD MFI estimates. Conversely, the formula gives high weights to ACS local median income estimates with small MoERs, allowing the ACS estimate to be the dominant component of the HUD estimate in these areas.

Put simply, the formula produces a multiplicative update factor for the 1999 MFI reported in the 2000 Census. The factor is a weighted average of (a) the change in local area MFI from 1999 (2000 Census) to 2008 (local 2008 ACS), and (b) the change in state MFI from 1999 (state 2000 Census estimates) to 2008 (state 2008 ACS estimates). The weight assigned to the change in state MFI (b) is ten times the local MoER, or one, whichever is smaller. The MoER is defined as the margin of error of the 2008 ACS local estimate divided by the 2008 ACS estimate of local MFI. The weight assigned to the change in local median family income from the ACS (a) is the larger of 1 minus 10 times the MoER or zero.

When multiplied by the 1999 MFI reported in the 2000 Census, the weighted average factor defined above produces a FY 2008 MFI estimate equivalent to the ACS survey estimate. This estimate is then trended forward from December 2008 to April 2010 by multiplying it by the national average annual income growth factor.

The step-by-step procedures used to develop FY 2010 estimates for areas of 20,000 plus are as follows:[4]

1. The 2000 Census was used to estimate what are treated as mid-1999 local median family income estimates[5].

2. The 2000 Census estimates are updated from mid-1999 to end-2008 using the following formula:

    (1 - 10*margin of error) * (ACS2008 local median[6]/Census 2000 local median) +
    (10*margin of error) * (ACS2008 state median/ Census 2000 state median)

3. Median family income estimates for April 1, 2010, are then estimated as follows:

    Step 1 median family income
    * Step 2 adjusted local update factor
    * 1.03 (3% annual trending)^1.25 years[7]
    = FY 2010 Median Family Income estimate

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[4] For each area, these calculations are detailed in HUD's FY2010 Median Family Income documentation system, available at http://www.huduser.org/portal/datasets/il/index_il2009_mfi.html

[5] Estimates of income need to be associated with a point in time. This poses the need to attribute an "as of" date to estimates when such dates are not explicitly defined. The 2000 Census income data, for instance, are based on questions regarding total income for 1999. For most households, income for a year is based on an income stream with at least some changes during the year. For purposes of estimation, HUD assumes that the 2000 Census income estimates have an "as of" date of mid-1999.

[6] ACS estimates are based on samples drawn throughout the survey year that ask about income for the previous 12 months, thereby reflecting income over a 24-month period. Three-year estimates reflect income data over a 48-month period. All responses are then adjusted by the Bureau of the Census to "annual" 2008 values using the average of the sum of the CPI indexes for the number of months before the survey date over the annual CPI index for the year. See "Income, Earnings, and Poverty from the 2007 American Community Survey", August 2008 (Update) at http://www.census.gov/prod/2008pubs/acs-09.pdf. HUD makes a further adjustment to these values by moving the "as of" date to December of the survey year, again using CPI indexes. Specifically, HUD adjusts the annual 2008 estimate to December using the seasonally adjusted December 2008 CPI (211.339) over the 2008 annual CPI (215.303).

[7] The caret symbol (^) means applying the exponent 1.25, commonly phrased "raised to the power".

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ATTACHMENT 2

FY 2010 MEDIAN FAMILY INCOMES FOR STATES, METROPOLITAN AND NONMETROPOLITAN PORTIONS OF STATES

	-------- TOTAL	FY 2010 METRO	-------- NONMETRO	-------- TOTAL	1999 METRO	-------- NONMETRO
ALABAMA	54100	57600	47600	41657	44345	36633
ALASKA	78400	81300	71900	59036	61161	54142
ARIZONA	61500	63200	44500	46723	47998	33811
ARKANSAS	49000	53700	43400	38664	42408	34268
CALIFORNIA	71000	71500	56300	53025	53451	42074
COLORADO	71000	73700	56400	55870	58000	44319
CONNECTICUT	86200	86800	80700	65521	65943	61354
DELAWARE	69800	74100	57100	55258	58619	45203
DISTRICT OF COLUMBIA	68600	68600	51600*	46283	46283	.
FLORIDA	59400	60300	47200	45625	46300	36238
GEORGIA	61300	65400	46400	49280	52536	37277
HAWAII	77900	82200	69100	56961	60118	50547
IDAHO	56500	60500	50900	43490	46523	39157
ILLINOIS	69600	72900	54600	55545	58226	43564
INDIANA	60800	62600	55300	50261	51692	45683
IOWA	62400	68100	57000	48005	52409	43847
KANSAS	63100	69900	52800	49624	54949	41507
KENTUCKY	53000	62500	42500	40938	48265	32782
LOUISIANA	53700	57000	44100	39774	42193	32654
MAINE	58600	64400	52000	45179	49629	40087
MARYLAND	85700	86700	69400	61875	62636	50109
MASSACHUSETTS	82600	82600	78200	61663	61673	58382
MICHIGAN	62800	66200	51800	53457	56384	44086
MINNESOTA	73100	79800	58700	56872	62082	45635
MISSISSIPPI	47300	54500	42400	37405	43160	33535
MISSOURI	58700	64700	45700	46045	50798	35838
MONTANA	56200	60000	54200	40488	43226	39044
NEBRASKA	62600	71200	54200	48032	54645	41598
NEVADA	66300	66600	64200	50849	51078	49209
NEW HAMPSHIRE	78000	84600	69100	57370	62442	50966
NEW JERSEY	86300	86300	51600*	65370	65370	.
NEW MEXICO	52700	57700	44900	39425	43195	33627
NEW YORK	68500	70100	55300	51691	52887	41753
NORTH CAROLINA	57600	61900	50400	46335	49800	40571
NORTH DAKOTA	61500	70200	55900	43656	49842	39664
OHIO	61400	63400	53700	50037	51617	43778
OKLAHOMA	54100	58800	47200	40709	44258	35546
OREGON	61800	65900	50600	48680	51880	39834
PENNSYLVANIA	64200	66600	54100	49184	50959	41452
RHODE ISLAND	72400	72400	51600*	52780	52780	.
SOUTH CAROLINA	55700	58200	49100	44227	46219	38930
SOUTH DAKOTA	58900	66300	53800	43234	48701	39484
TENNESSEE	54600	58700	46400	43517	46735	36972
TEXAS	58600	61000	46500	45862	47797	36410
UTAH	65600	67200	53000	51022	52316	41227
VERMONT	64400	73400	61100	48625	55412	46087
VIRGINIA	74100	79400	53300	54169	58055	39000
WASHINGTON	70400	73200	55400	53761	55868	42260
WEST VIRGINIA	48800	54100	43400	36484	40433	32454
WISCONSIN	66500	70400	58600	52912	56008	46677
WYOMING	66100	66800	65800	45685	46159	45472
US	64400	67400	51600	50046	52389	40094

* US non-metropolitan median