Special Attention of:

NOTICE PDR-2004-01

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

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Cross References:

Subject: Estimated Median Family Incomes for FY 2004

This memorandum transmits median family income and income distribution estimates for Fiscal Year 2004. 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 median family income for the United States for FY 2004 is $57,500.

The Fiscal Year 2004 HUD median family income estimates are based on 2000 Census data on family incomes updated to 2004 using a combination of Bureau of Labor Statistics earnings and employment data, Census P-60 median family income data, and Census American Community Survey data on changes in state median family incomes. Attachment 1 provides an explanation of the methodology used to develop these estimates. Attachment 2 provides median family income estimates for states. Attachment 3 provides metropolitan area and nonmetropolitan county estimates of median family incomes. Attachment 4 provides the area definitions used for income limits.

Please note that the use of the HUD median family income estimates and income limits 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.

Distribution: W-3-1

HUD median family income estimates are also available at the Department's World Wide Web site, which provides a menu from which you may select the year and type of data of interest (**http:\\www.huduser.org\datasets\il.html**).

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Attachments

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HUD METHODOLOGY FOR ESTIMATING FY 2004
MEDIAN FAMILY INCOMES
(ECONOMIC AND MARKET ANALYSIS DIVISION,
OFFICE OF ECONOMIC AFFAIRS, PD&R)

FY 2004 HUD estimates of median family income are based on 2000 Census data estimates updated with a combination of local Bureau of Labor Statistics (BLS) data, Census American Community Survey (ACS) State data, and Census Current Population Survey (CPS) data. Separate median family income estimates (MFIs) are calculated for all Metropolitan Statistical Areas (MSAs), Primary Metropolitan Statistical Areas (PMSAs), and nonmetropolitan counties.

The income adjustment factors used to update the 2000 Census-based estimates of Median Family incomes (MFIs) are developed in several steps. Census CPS and ACS survey data are used to develop national and state level estimates of change in median family incomes. BLS wage data are used as an indicator of relative change within states. Annual data on median family incomes are available at the national and regional level from the CPS. Starting in 2000, state-level income data became available from the ACS, and ACS-based estimates will eventually be available for metropolitan areas and nonmetropolitan counties. CPS P-60 national data were used to cover the period between the 2000 Census and the first ACS data. Local BLS wage data are available to identify areas with income changes that are above or below average State-level changes.

In processing FY 2004 income adjustment factors it was noticed that some areas' factors were showing large increases or decreases that were not supportable with other locally available data for a small number of nonmetropolitan areas. After further analysis, three constraints were placed to control for unusual BLS changes caused by application of BLS data: FY 2004 MFIs are not allowed to be more than 10% greater than FY 2003 MFIs; FY 2004 MFIs are not allowed to be more than 30% greater than 2000 Census MFIs[1]; and, FY 2004 MFIs are not allowed to be less than 2000 Census MFIs. In all instances where these constraints are operative, unusual BLS changes that are not believed to be reflective of median family income changes had produced questionable FY 2003 median family income estimates.

The Census, ACS, and CPS estimates are all based on different samples, different timing, somewhat different methodologies, and produce somewhat different estimates.[2] The year-to-year change for these data sets (e.g., the national CPS MFI from one year to the next) should, however, be reliable and reasonably consistent over time. The decennial Census has the largest samples, but is only available every 10 years and is sometimes subject to non-response bias. The ACS has relatively large samples, will produce annual estimates, and should be less subject to non-response bias than the Census. The ACS has larger sample sizes than the CPS, and therefore produces more accurate estimates.

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

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[1] 30% represents 1.0357*1.1*1.1*1.035*1.02625 rounded, which is the National CPS for 1999-2000 times 10% for two years times the trending factor all of which is meant to replicate a maximum reasonable amount of income growth for the period from 1999 census to April, 2004 the as of date of the FY 2004 Income limits.

[2] The national MFI from the Census was $50,046; the March 2000 CPS produced a MFI estimate of $48,952; and the first ACS survey, which collected data during the course of 2000 and effectively represented a measurement a year after those of the other surveys, had a MFI estimate of $49,628.

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 therefore assumes that the 2000 Census income estimates have an "as of" date of mid-1999. For the same reason, it assumes that March CPS income estimates, which are based on responses to questions about the previous year's total income, also relate to the middle of the previous calendar year.

ACS estimates present a more complex timing issue, because they are based on samples drawn throughout a year that ask about income for the previous 12 months. Adjustments are made to incomes collected prior to December to make them approximate December reporting. Income figures collected in January are inflated by the CPI change from January to December of that year, the February changes are inflated from February to December, etc. If median income changes during the year (which are not known when the estimates are done) exactly paralleled the CPI changes, an ACS-based median family income estimate would approximate a median family income estimate based on surveying all respondents in December. That, in turn, means that the ACS income data have an approximate "as of" date of the middle of the year if median incomes changed at the same pace during the course of a year.

The importance of the "as of" assumptions becomes less important over time. After the initial income estimates are produced, annual updates are estimated using the same data sources. Any estimation error or bias associated with the "as of" assumptions effects only the first year a data series starts to be used. The impact of this type of bias cannot be measured but, since it is a fixed amount and incomes increase over time, the effect should be modest. The potential for bias is further mitigated by the fact that the CPI and CPS changes for the period in question were very similar at the national level.

The step-by-step normal procedures used to develop FY 2003 estimates are as follows:

1.   The 2000 Census was used to estimate what is treated as a mid-1999 median family income point-in-time estimate.

2.   The March 2000 and 2001 CPS surveys were used to measure the change in the national median family income level from mid-1999 to mid-2000, which was 3.57 percent. (Divisional CPS estimates were not used, because it is questionable whether they improve estimation accuracy if used only for one year.)

3.   The 2000 and 2002 American Community Surveys were used to estimate the change State in MFIs for the mid-2000 to mid-2002 period. The ACS income change factors for each State for the 2000-2002 period were calculated as follows:

$$\frac{\text{ACS MFI (2002)}}{\text{ACS MFI (2000)}} = \begin{array}{l}\text{2-year increase factor for} \\ \text{ACS Median Family Income}\end{array}$$

4.   The State and local (metropolitan areas and nonmetropolitan counties) BLS average wage changes for all employees for the 1999-2001 period were calculated:

```
    BLS Wages (2001)
  BLS Employees (2001)
_____      =  2 year BLS wage
                                       increase factor
   BLS Wages (1999)
  BLS Employees (1999)
```

5.   The product of the 1999-2000 CPS National MFI change and the 2000-
       2002 ACS State MFI change is divided by the 1999-2001 BLS wage
       change to calculate a BLS based 1999 – 2002 state wage change
       factor. In the next step, this factor is multiplied by the local
       BLS wage change factor. The advantage of constructing this factor
       is that it provides a means of using local BLS data to measure
       differential patterns of income change within a State which, in
       total, will equal the CPS/ACS measured change.

```
   3-year MFI increase factor at
   State level from ACS and CPS      =   Ratio of State ACS & P-60
   2-year increase factor for            MFI changes to ratio of State
        State BLS Wages                  BLS wage changes
```

6.   Calculate the 1999-2002 increase factors for the individual
       metropolitan areas and nonmetropolitan counties by applying the
       CPS/ACS/BLS State-level factor from steps 5 to local BLS data:

```
   Local BLS Wages (2001)
   Local BLS Employees (2001)     Ratio of State      Mid-1999 to mid-2002
   _____  *  ACS & P-60      =    adjustment factor
                                  MFI to State         for MSA or County
   Local BLS Wages (1999)         BLS wages
   Local BLS Employees (1999)
```

7.   Convert the step 6 mid-1999 to mid-2002 adjustment factor to a mid-
       1999 to April 1, 2004 change factor by applying an annual trending
       figure of 3.5 percent for 21 months (i.e., mid-2002 to the mid-point
       of Fiscal Year 2004 [April 1, 2004]). This 6.125 percent trending
       is needed be because of lags in Bureau of Labor Statistics, ACS and
       P-60 Series data availability. (The 3.5 percent trending factor is
       based on national income change patterns over the 1990-2000 period;
       it is the 10th root of the change in Census 1990 median family income
       to 2000 Census median family income.)

       (Step 6 adj. factor) * 1.06125 =
                           mid-1999 to April 1, 2004 adjustment factor

8.   Calculate median family incomes for FY 2004 by multiplying the step
       1 2000 Census-based estimate of median family income by the income
       adjustment factor derived in Step 7:

        2000 Census Median Family Income * Step 7 factor = FY 2004 MFI est.

9.   American Housing Survey data is reviewed on an ongoing basis for
       information about area incomes. There have been no AHS based
       changes in income this year.

10.   Two floors and two caps were then placed on median family incomes.
       First, MFI changes are capped at 10% over last year. Then, MFIs are
       required to be at least at the 2000 Census MFI level. There are two
       non-metropolitan counties that receive a greater than 10% annual
       increase due to the constraint that the MFI not be less than the
       Census 2000 MFI. After that, MFIs are frozen if they would

otherwise be less than the previous year's estimate (held harmless).
Lastly, the MFI change is capped at 30% over of the 2000 Census
estimate. This last cap caused the MFI of seven non-metropolitan
counties to fall. Both caps and floors will continue to be
considered in light of any additional local data.

FY 2004 MEDIAN FAMILY INCOMES FOR STATES, METROPOLITAN
AND NONMETROPOLITAN PORTIONS OF STATES

	-------- FY 2004 --------			-------- 1999 --------		
	TOTAL	METRO	NONMETRO	TOTAL	METRO	NONMETRO
Alabama	47700	51400	40000	41866	45178	35392
Alaska	72400	78700	68200	59106	64188	55695
Arizona	53300	55200	40600	46840	48482	36239
Arkansas	45300	51200	40000	38768	43576	34741
California	62500	63100	49100	53597	54128	41832
Colorado	63500	65900	51700	56241	58317	46107
Connecticut	76100	76500	69700	65805	66083	60607
Delaware	63300	67400	50900	55407	58757	45214
District of Columbia	55000	55000	.	46347	46347	.
Florida	51900	52700	43200	45675	46435	37621
Georgia	57200	64000	44700	49345	55110	39192
Hawaii	62600	65700	55400	57351	60142	50680
Idaho	48900	54200	45700	43698	48605	40907
Illinois	62900	66400	48800	55853	58901	43531
Indiana	57300	59800	52000	50317	52419	45939
Iowa	55800	62200	51500	48163	53536	44650
Kansas	55800	63900	47600	49646	57039	42281
Kentucky	48000	57600	40100	41054	49006	34673
Louisiana	46700	49400	39400	39798	42116	33557
Maine	50900	58400	47400	45188	52034	42029
Maryland	72000	73700	54900	62291	63641	48646
Massachusetts	73700	74400	61700	62024	62501	53012
Michigan	60700	64100	48900	53904	56909	43315
Minnesota	66000	73300	52200	57174	63222	46242
Mississippi	40700	48900	36500	37599	44952	33815
Missouri	56100	63300	44400	46127	52009	37039
Montana	47500	51000	45900	40545	43605	39145
Nebraska	56300	64400	49700	48133	55404	42143
Nevada	57600	57800	56200	51070	51162	50536
New Hampshire	68000	74300	60300	57967	63287	51551
New Jersey	77800	77800	.	65733	65733	.
New Mexico	46200	52800	39100	39480	45011	33588
New York	59700	61000	47700	52073	53149	43096
North Carolina	53000	57500	45200	46458	50290	40082
North Dakota	52700	59700	48000	43785	49854	39695
Ohio	56900	58700	50600	50044	51580	44769
Oklahoma	47400	52100	41000	40800	44859	35269
Oregon	58600	63300	48300	48751	52491	40819
Pennsylvania	57300	59500	47700	49236	51052	41696
Rhode Island	60300	59700	67900	53138	52636	59829
South Carolina	52400	55400	46100	44329	46777	39268
South Dakota	49400	57100	45400	43355	49922	40019
Tennessee	49600	54100	41600	43680	47585	37312
Texas	53000	55500	42400	45935	48132	36870
Utah	57100	60000	48400	51277	53843	43964
Vermont	58600	68800	55700	48776	57616	46214
Virginia	62800	68900	45400	54601	59750	40787
Washington	61500	64400	49900	54196	56860	43085
West Virginia	44400	50400	40600	36623	41683	33350
Wisconsin	59500	63300	52900	53282	56585	47514
Wyoming	54500	55300	54200	45712	46124	45506
US	57500	61200	46000	50056	53279	40547