Special Attention of:

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

NOTICE PDR-2003-01

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Cross References:

Subject: Estimated Median Family Incomes for FY 2003

This memorandum transmits median family income and income distribution estimates for Fiscal Year 2003 (FY 2003). 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 2003 is $56,500.

The FY 2003 HUD median family income estimates are based on 2000 Census data on family incomes updated to 2003 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 Office's economist.

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

ATTACHMENT 1

HUD METHODOLOGY FOR ESTIMATING FY 2003 MEDIAN FAMILY INCOMES (ECONOMIC AND MARKET ANALYSIS DIVISION, OFFICE OF ECONOMIC AFFAIRS, PD&R)

FY 2003 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 survey data are used to develop national, regional, and state estimates, and BLS wage data 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 P60 national data were used to supplement ACS data to cover the period between the 2000 Census and the first ACS data. No local median family income data are currently available on a current basis, but local wage change data are available from the BLS and can be used to identify areas with income changes that were above or below average State-level changes.

The Census, ACS, and CPS estimates are all based on different samples, different timing, somewhat different methodologies, and do not produce the same estimates.[1] 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 Census has the largest samples, but is only available every 10 years. The ACS has relatively large samples, will produce annual estimates, and should be less subject to non-response bias than the Census. Because of smaller sample sizes, the CPS should be less accurate than the ACS.

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 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 have a mid-year "as of" date.

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

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[1] The national MFI from the Census was $50,056; the mid-1999 HUD-equivalent estimate was $48,278 (the FY 1999 estimate plus 1 percent); 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.

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 2001 American Community Surveys were used to estimate the change in national and State MFIs for the mid-2000 to mid-2001 period. (The national change for this period was 2.4 percent.) The ACS income change factors for the nation and each State for the 2000-2001 period were calculated as follows:

$$\frac{\text{ACS MFI (2001)}}{\text{ACS MFI (2000)}} = \text{1-year increase factor for ACS Median Family Income}$$

4. The State and local (metropolitan areas and nonmetropolitan counties) BLS average wage changes for all employees for the 1999-2000 period were calculated:

$$\frac{\dfrac{\text{BLS Wages (2000)}}{\text{BLS Employees (2000)}}}{\dfrac{\text{BLS Wages (1999)}}{\text{BLS Employees (1999)}}} = \text{1 year BLS wage increase factor}$$

5. The sum of the 1999-2000 CPS MFI change and the 2000-2001 ACS State MFI change is compared with the 1999-2000 BLS wage change to provide a means of calculating a BLS wage adjustment factor. This factor, when multiplied by the State-level BLS wage change, produces the CPS/ACS 1999-2001 State change factor. The advantage of constructing this factor is that it provides a means of using BLS data to measure differential patterns of income change within a State which, in total, will equal the CPS/ACS measured change.

$$\frac{\text{2-year MFI increase factor at State level from ACS and CPS}}{\text{1-year increase factor for State BLS Wages}} = \text{Ratio of State ACS\&P-60 MFI changes to ratio of BLS wage changes}$$

6. Calculate the 1999-2001 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:

$$\frac{\text{Local BLS Wages (2000)}}{\text{Local BLS Employees (2000)}} \Big/ \frac{\text{Local BLS Wages (1999)}}{\text{Local BLS Employees (1999)}} * \text{Ratio of State ACS\& P-60 MFI to State BLS wages} = \text{Mid-1999 to mid-2001 adjustment factor for MSA or County}$$

7. **Convert the step 6 mid-1999 to mid-2001 adjustment factor to a mid-1999 to April 1, 2003 change factor by applying an annual trending figure of 3.5 percent for 21 months (i.e., mid-2001 to the mid-point of Fiscal Year 2003 [April 1, 2003]). This 6.125 percent trending is needed 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 Census 2000 median family income.)**

   (Step 6 adj. factor) * 1.06125 = mid-1999 to April 1, 2003 adjustment factor

8. **Calculate median family incomes for FY 2003 by multiplying the step 1 Decennial 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 2003 MFI est.

9. **American Housing Survey data will be reviewed on an ongoing basis for information about area incomes. There was no metropolitan areas AHS in 2000, so as to avoid conflicts with Census taking.**

10. **During intercensal periods, median family income estimates are normally frozen if they would otherwise be less than the previous year's estimate. Since this year's estimates rebenchmark median family income estimates with the 2000 Census, some estimates are less than the 2002 estimates.**

ATTACHMENT 2

FY 2003 MEDIAN FAMILY INCOMES
FOR STATES, METROPOLITAN AND NONMETROPOLITAN
PORTIONS OF STATES

	FY 2003			1999		
	TOTAL	METRO	NONMETRO	TOTAL	METRO	NONMETRO
Alabama	46900	50600	39600	41866	45178	35392
Alaska	68200	73600	64800	59106	64188	55695
Arizona	52700	54600	40000	46840	48482	36239
Arkansas	43400	48900	38500	38768	43576	34741
California	60300	60900	45400	53597	54128	41832
Colorado	62200	64600	50200	56241	58317	46107
Connecticut	75400	75900	68800	65805	66083	60607
Delaware	62800	66700	50900	55407	58757	45214
District of Columbia	52300	52300	na	46347	46347	na
Florida	50200	51000	41400	45675	46435	37621
Georgia	56700	63500	44300	49345	55110	39192
Hawaii	62200	65200	55100	57349	60142	50671
Idaho	46400	52500	42400	43698	48605	40907
Illinois	62200	65600	48200	55853	58901	43531
Indiana	56900	59300	52000	50317	52419	45939
Iowa	54900	61000	50800	48163	53536	44650
Kansas	52900	60800	44900	49646	57039	42281
Kentucky	46200	55500	38600	41054	49006	34673
Louisiana	46600	49300	39400	39798	42116	33557
Maine	47700	54800	44400	45188	52034	42029
Maryland	70700	72300	54700	62291	63641	48646
Massachusetts	72400	73100	60300	62024	62501	53012
Michigan	60500	63900	48300	53904	56909	43315
Minnesota	65100	72200	51700	57174	63222	46242
Mississippi	40700	48900	36500	37599	44952	33815
Missouri	54100	61200	43000	46127	52009	37039
Montana	43800	47200	42200	40545	43605	39145
Nebraska	55400	63800	48300	48133	55404	42143
Nevada	57600	57800	56000	51070	51162	50536
New Hampshire	66100	72400	58400	57967	63287	51551
New Jersey	74200	74200	na	65733	65733	na
New Mexico	43800	50100	36900	39480	45011	33588
New York	57400	58600	47300	52073	53149	43096
North Carolina	53000	57500	45200	46458	50290	40082
North Dakota	51800	59000	46800	43785	49854	39695
Ohio	56900	58700	50600	50044	51580	44769
Oklahoma	45900	50600	39400	40800	44859	35269
Oregon	56300	61100	45700	48751	52491	40819
Pennsylvania	56600	58800	47400	49236	51052	41696
Rhode Island	59100	58400	67300	53138	52636	59829
South Carolina	52400	55400	46100	44329	46777	39268
South Dakota	48800	55900	45200	43355	49922	40019
Tennessee	47200	51500	39800	43680	47585	37312
Texas	52100	54600	41200	45935	48132	36870
Utah	57100	60000	48400	51277	53843	43964
Vermont	55700	65600	52800	48776	57616	46214
Virginia	62500	68500	45400	54601	59750	40787
Washington	61200	64200	48700	54196	56860	43085
West Virginia	43000	49100	39100	36623	41683	33350
Wisconsin	58400	62100	52000	53282	56585	47514
Wyoming	51600	53700	50700	45712	46124	45506
US	56500	60300	45000	50056	53279	40547

NOTE: Definitions of metropolitan areas are current as of October 2002.