

INCOME MATCH STUDY

FY 2010 Final Report

September 2, 2011

Prepared for:

Office of Policy Development and Research
Department of Housing and Urban Development
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**Quality Control for Rental Assistance
Subsidy Determinations**

Final Income Match Report FY 2010

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A. Overview

As part of the Quality Control for Rental Assistance Subsidy Determinations Study, the U.S. Department of Housing and Urban Development (HUD) has contracted with ICF Macro to conduct an income match between the National Directory of New Hires (NDNH) income data and the Quality Control (QC) income data collected during field data collection. All household members in the FY 2010 HUDQC study were matched through their social security numbers with the Enterprise Income Verification (EIV) system and NDNH files. This report includes results of the income match for the PHA-administered Public Housing, Section 8 Housing Choice Voucher, and Moderate Rehabilitation programs; and the Housing-administered Section 8, Section 202 and Section 811 Project Rental Assistance Contracts (PRAC) and Section 202/162 Project Assistance Contracts (PAC). The findings from the FY 2010 analysis of NDNH data indicate that intentional unreported income results in an estimated overpayment of \$203.2 million in annual HUD subsidy costs. Exhibit 1 provides subsidy cost information by program type.

Exhibit 1
Summary of FY 2010 Subsidy Cost Estimates Associated with Intentional Unreported Income by Program Type, Nationally Weighted

Program Type	Subsidy Cost	95% Confidence Intervals
PIH-administered - Public Housing	\$45,432,813	±\$52,778,456
PIH-administered - Section 8 Voucher	\$86,708,910	±\$82,440,522
Owner-administered	\$71,056,286	±\$44,583,690
Total	\$203,198,010	±\$117,533,806

Given the limited number of cases with new unreported income, the variance and confidence intervals are fairly large but reasonable.

B. Background

NDNH data is used to identify sources of earned income or unemployment compensation not found during the QC field data collection process.¹ The NDNH data contain quarterly information on the source and amount of nearly all legally reportable sources of earned income and unemployment compensation benefits. These data, however, exclude sole proprietors without any employees. For each source of earned or unemployment compensation income identified through NDNH, a determination is made about whether the source is new, or if it is one that was previously identified during the QC field data collection process. Each case is thoroughly analyzed to avoid double counting income. For cases where a potential new source of income is identified, third-party verification data are gathered. This third-party verification is used to confirm the tenant's employment and amount of monthly income. Confirmed new sources of income are added to the QC files and rent is recalculated to estimate the impact of the unreported income on HUD subsidies.

¹ QC field data were collected from three primary sources; the 50058/50059 Forms found in tenant files, documentation found in tenant files, and household interviews. A fourth source, third-party verification obtained by ICF Macro was also used on an as-needed basis.

ICF Macro conducted a similar income match using FY 2009 data, and estimated an annual subsidy overpayment of \$302.5 million associated with unreported income.

C. Methodology

In preparation for the FY 2010 income match, ICF Macro reviewed HUD guidelines and protocols, in addition to the correspondence and forms used in the FY 2009 income match. The forms were revised as appropriate, and instructions for processing the data were updated. The income match review and analysis was conducted by following the detailed procedures found in the *FY 2010 Income Match Plan* dated April 18, 2011.

In brief, the four step protocol for reviewing and analyzing household member income data is as follows:

- Step 1: Each case is reviewed and organized by aggregating cases with similar categorizations, such as whether the employer is the same as that identified during the QC study or a potential new employer.
- Step 2: After each case is categorized, a more thorough review is conducted for cases where it is unknown whether the employer from the NDNH data matches the QC employer. During this second review, all the cases are re-categorized into two classes, either resolved (no new income discovered) or unresolved (potential new source of income exists). As part of the review process, NDNH earned income was excluded for household members who were live-in-aides or dependents.
- Step 3: For cases with a potential new source of income, further follow-up actions are taken:
 1. Verification of each potential new source of information is requested. If the employer is connected with The Work Number,² verification is requested through The Work Number. Otherwise verification is requested through the mail.
 2. Follow-up calls are made to all employers who do not respond to the request for verification seven business days after the date the request was mailed.
- Step 4: The following rules are followed to determine the dollar amount of new sources of income:
 1. If third-party verification supports NDNH data indicating the household member was employed (by an employer not identified during the QC field data collection effort), the income received during the QC Quarter³ is multiplied by four to determine the annual countable income.

² The Work Number is a private accounting firm contracted by employers to process payrolls and provide employment verification and payroll data to authorized third-parties.

³ The QC Quarter is the calendar quarter in which the QCM falls. The QCM (quality control month) is the month and year for which data are collected for the Quality Control study. This date represents the date the rent was calculated.

2. In the absence of third-party verification, earnings that start or end in the QC Quarter are not considered new sources of income, unless the amount earned during that quarter is similar (between 85% -115%) to the income earned in either the previous or subsequent quarters. Assuming the income meets this criterion; the income received during the QC Quarter is multiplied by four to determine the annual countable income.

Based on the four step process described above, each match with NDNH data is given a final QC resolution code and categorized into one of the following groups:

QC Resolution Code 1 – The NDNH employer and the QC employer were the same.

QC Resolution Code 2 – The NDNH employer was not considered a new source of income.

QC Resolution Code 3 – The NDNH employer was a new source of income

The annual subsidy loss associated with the new sources of income is determined by adding these new sources of income to the income already identified during the QC field data collection, and recalculating the household's rent. Weights are used to determine nationally representative subsidy losses associated with all the income discovered for the households in the QC sample.

D. Summary of Findings from the Review of the NDNH Data

As mentioned earlier, the NDNH match provides data for both earned income and unemployment compensation benefit income for the household members included in the FY 2010 QC sample. Comprehensive findings are presented for households with earned income and households with unemployment compensation benefit income.

Earned Income. The match with the NDNH database identified earned income for 1,011 households from the FY 2010 QC sample. During the *initial* review of the data, households were categorized as follows:

- NDNH and QC employer are the same. The employer identified through the NDNH data was the same as the employer identified through the QC process.
- NDNH earnings are not considered a new source. The earnings identified through the NDNH match were not considered new sources of income (primarily because they were not earned during the appropriate time period).
- Unclear whether NDNH employer is new. It was not clear whether the earnings identified through the NDNH match were the same as earnings identified during the QC process. These cases required further investigation to determine if the income was from a newly identified source.

Exhibit 2 summarizes how households were categorized by program type.

Exhibit 2
Initial Categorization of Earned Income for Each Household by Program Type

Categories	PIH-administered		Owner-administered		Total	
	Number	Percent	Number	Percent	Number	Percent
NDNH and QC employer are the same (code 1)	449	60%	142	54%	591	58%
NDNH earnings are not considered to be new (code 2)	180	24%	85	33%	265	26%
Unclear whether NDNH and QC are the same (code 3)	121	16%	34	13%	155	15%
TOTAL	750	100%	261	100%	1011	100%

Data in this exhibit are unweighted

A more detailed review was conducted for the 155 households where it was not clear if the NDNH and QC income were the same income. For each of the employers involved, one or more of the following types of actions were taken to obtain additional information:

- The Work Number was used to gather wage information.
- Employers were sent a letter requesting wage verification.
- Employers were called to clarify the employee name or to determine if the QC and NDNH employer were the same.
- An Internet search was conducted to obtain additional information about both the QC and NDNH employers.

Unemployment Compensation Benefits. The match with the NDNH database identified unemployment compensation (UC) income for 325 of the households in the FY 2010 QC sample. During the step 1, review these households were categorized as follows:

- NDNH and QC benefits were the same. Unemployment compensation benefits were identified in both the QC and the NDNH data.
- NDNH benefits were not considered to be new. Unemployment compensation benefits identified through the NDNH match were not received during the appropriate time period.
- NDNH benefits were considered to be a potential new source of income. Unemployment compensation benefits were a potential source of new income.

After reviewing the information obtained through the NDNH match and all the verification received from the third-parties, it was determined that there were thirty-nine households with new sources of earned income.

Exhibit 3 summarizes how households were categorized by program type.

Exhibit 3
Categorization of Unemployment Compensation for Each Household by Program Type

Categories	PIH-administered		Owner-administered		Total	
	Number	Percent	Number	Percent	Number	Percent
NDNH and QC benefits were the same	84	33%	22	31%	106	32%
NDNH benefits were not considered to be new	150	59%	41	58%	191	59%
NDNH benefits were considered to be a potential new source of income	20	8%	8	11%	28	9%
TOTAL	254	100%	71	100%	325	100%

For the 28 households where the NDNH identified benefits were considered to be a potential new source of income, verification requests were sent to the appropriate agencies identified in NDNH data as administering the benefits.

After reviewing the information obtained through the NDNH match and all the verification received from the third-parties, it was determined that there were nine households with new sources of unemployment compensation income.

See Section G for additional information and a summary regarding methods of verification requests by program types and the results of the request process.

E. Summary of Income Match Analysis

Exhibit 4 provides a summary of case dispositions for the households included in the FY 2010 HUDQC sample after the four step process was completed.

**Exhibit 4
Income Match Final Case Dispositions**

Case Disposition	PIH-administered		Owner-administered	Total
	Public Housing	Section 8 Vouchers		
QC Household Sample	804	800	800	2,404
QC Households Reporting Earnings or Unemployment Compensation	313	312	204	829
Households where NDNH Data Identified Potential New Sources of Income				
Earned Income	43	81	31	155
Unemployment Compensation	11	9	8	28
Households with Countable Unreported Income				
Earned Income	18	13	8	39
Unemployment Compensation	2	1	6	9
Total Countable Sources of Unreported Income that Affected Subsidy Determinations for QC Households	20	14	14	48

Exhibit 5 provides a summary of weighted and unweighted subsidy discrepancies associated with the 39 households where *new earned income* sources were identified.

**Exhibit 5
Summary of Subsidy Cost Estimates for Earned Income**

Program Type	Unweighted Values	Nationally Weighted Values
	Cases w/ Unreported Income	Cases w/ Unreported Income
PIH-administered - Public Housing		
Households in Error	18	22,000
Unreported Income	\$314,880	\$421,503,000
Subsidy Cost	\$37,020	\$44,412,000
PIH-administered - Section 8 Vouchers		
Households in Error	13	30,000
Unreported Income	\$154,956	\$341,125,000
Subsidy Cost	\$38,040	\$84,878,000
Owner-administered		
Households in Error	8	15,000
Unreported Income	\$139,332	\$245,309,000
Subsidy Cost	\$29,724	\$52,204,000
Total		
Household in Error	39	67,000
Unreported Income	\$609,168	\$1,007,937,000
Subsidy Cost	\$104,784	\$181,494,000

Exhibit 6 provides a summary of weighted and unweighted subsidy discrepancies associated with the nine households where *new unemployment compensation benefits* were identified.

Exhibit 6
Summary of Subsidy Cost Estimates for Unemployment Compensation

Program Type	Unweighted Values	Nationally Weighted Values
	Cases w/ Unreported Income	Cases w/ Unreported Income
PIH-administered - Public Housing		
Households in Error	2	1,000
Unreported Income	\$6,052	\$3,868,000
Subsidy Cost	\$1,512	\$1,021,000
PIH-administered - Section 8 Vouchers		
Households in Error	1	2,000
Unreported Income	\$4,424	\$7,758,000
Subsidy Cost	\$1,044	\$1,831,000
Owner-administered		
Households in Error	6	11,000
Unreported Income	\$55,232	\$99,637,000
Subsidy Cost	\$10,848	\$18,852,000
Total		
Households in Error	9	14000
Unreported Income	\$65,708	\$111,264,000
Subsidy Cost	\$13,404	\$21,704,000

Exhibit 7 provides a summary of weighted and unweighted subsidy costs associated with the 48⁴ households where new income sources were identified. The discrepancies are presented by program type; however, these numbers are provided for informational purposes and are not statistically reliable due to the low incidence of error. Furthermore, program subsidy cost errors are less than expected based on the dollar reporting errors. This occurs because seven households had no subsidy cost associated with them. Six of those households were already paying the maximum rent for that program type and one new source of income was associated with a full time student. The total subsidy error associated with the income from the NDNH data is estimated to be \$203.2 million.

⁴ The 48 households in error include (39 households with new earned income, and 9 households with new unemployment compensation benefits.)

Exhibit 7
Summary of Subsidy Cost Estimates for both Earned Income
And Unemployment Compensation

Program Type	Unweighted Values	Nationally Weighted Values
	Cases w/ Unreported Income	Cases w/ Unreported Income
Earned Income		
PIH-administered - Public Housing		
Households in Error	18	22,000
Unreported Income	\$314,880	\$421,503,000
Subsidy Cost	\$37,020	\$44,412,000
PIH-administered - Section 8 – Vouchers		
Households in Error	13	30,000
Unreported Income	\$154,956	\$341,125,000
Subsidy Cost	\$38,040	\$84,878,000
Owner-administered		
Households in Error	8	15,000
Unreported Income	\$139,332	\$245,309,000
Subsidy Cost	\$29,724	\$52,204,000
Unemployment Compensation		
PIH-administered - Section 8 – Public Housing		
Households in Error	2	1,000
Unreported Income	\$6,052	\$3,868,000
Subsidy Cost	\$1,512	\$1,021,000
PIH-administered - Section 8 – Vouchers		
Households in Error	1	2,000
Unreported Income	\$4,424	\$7,758,000
Subsidy Cost	\$1,044	\$1,831,000
Owner-administered		
Households in Error	6	11,000
Unreported Income	\$55,232	\$99,637,000
Subsidy Cost	\$10,848	\$18,852,000
Total		
Households in Error	48	81,000
Unreported Income	\$674,876	\$1,119,200,000
Subsidy Cost	\$118,188	\$203,198,000

F. Comparison of FY 2009 and FY 2010 Findings

Exhibit 8 below provides a comparison of the nationally weighted findings from the FY 2009 Income Match task with the FY 2010 findings. As the exhibit indicates, the subsidy costs associated with unreported sources of income decreased from \$302.5 million in FY 2009 to \$203.2 million in FY 2010. The decrease subsidy cost could be attributed to the increase in use of EIV which assists in the identification of employers and income for tenants.

Exhibit 8
Comparison of FY 2009 and FY 2010 Findings Using Nationally Weighted Values

Program Type	FY 2009	FY 2010
	Cases w/ Unreported Income	Cases w/ Unreported Income
Earned Income		
PIH-administered - Public Housing		
Households in Error	35,000	22,000
Unreported Income	\$409,298,000	\$421,503,000
Subsidy Cost	\$80,394,000	\$44,412,000
PIH-administered - Section 8 – Vouchers		
Households in Error	36,000	30,000
Unreported Income	\$533,158,000	\$341,125,000
Subsidy Cost	\$108,992,000	\$84,878,000
Owner-administered		
Households in Error	15,000	15,000
Unreported Income	\$343,428,000	\$245,309,000
Subsidy Cost	\$84,779,000	\$52,204,000
Unemployment Compensation		
PIH-administered – Public Housing		
Households in Error	1,000	1,000
Unreported Income	\$14,464,000	\$3,868,000
Subsidy Cost	\$4,339,000	\$1,021,000
PIH-administered - Section 8 – Vouchers		
Households in Error	6,000	2,000
Unreported Income	\$41,570,000	\$7,758,000
Subsidy Cost	\$12,485,000	\$1,831,000
Owner-administered		
Households in Error	5,000	11,000
Unreported Income	\$38,545,000	\$99,637,000
Subsidy Cost	\$11,547,000	\$18,852,000
Total		
Households in Error	98,000	81,000
Unreported Income	\$1,380,463,000	\$1,119,200,000
Subsidy Cost	\$302,536,000	\$203,198,000

While there was a decrease in dollar error, we cannot say that the difference is statistically significant.

G. Summary of Verification Requests by Program Type and Results of the Requests

This section details the number of verification requests for both earned income and unemployment compensation benefits. The exhibits provide data by PIH-Administered and Owner-administered assisted households. For earned income the method of request (The Work Number or mail) is also provided.

Earned Income. Of 177 sources of income where it was not clear if the NDNH data identified was a new source of income, verification was requested as detailed below. The 177 sources of income represent 155 households and 170 employers.

Exhibit 9 presents the results of the verification requests.

Exhibit 9
Results of Verification Attempts for Earned Income

Third-Party Verification Requests	PIH-administered			Owner-administered			Total		
	# Requested	Received		# Requested	Received		# Requested	Received	
		#	%		#	%		#	%
Directly to the employer	103	84	82%	32	24	75%	135	108	80%
The Work Number	34	34	100%	8	8	100%	42	42	100%
Total number of requests	137	118	86%	40	31	78%	177	149	84%

Data in this exhibit are not weighted

Exhibit 10 compares FY 2009 to FY 2010 for the number of *households* with potential new sources of income, number of *employers* to whom third-party requests were sent, and number of *employers* from whom third-party verification was received. In certain cases, as indicated by the table below, some households had multiple sources of potential new sources of income identified by the NDNH data. Therefore the number of households and number of employers do not correspond one-to-one.

Exhibit 10
Comparison of FY 2009 and FY 2010 Verification Requests
for Potential New Sources of Income

	FY 2009			FY 2010		
	Owner-Admin	PIH-Admin	Total	Owner-Admin	PIH-Admin	Total
Total Households with Potential New Sources of Income	54	167	221 (9% of QC households)	34	121	155 (6% of QC households)
Employers to whom Third-Party Requests Were Sent*	68	208	276	40	137	177
Employers Where Third-Party Verification Was Received*	58	176	234 (85% return rate)	31	118	149 (84% return rate)

*Some households have multiple potential sources of new income from the NDNH data.

Unemployment Compensation Income. Exhibit 11 provides a comparison of the response rates for FY 2009 and FY 2010 for requests for verification for benefit information from unemployment compensation state agencies.

Exhibit 11
Comparison of FY 2009 and FY 2010 Verification Requests
for Potential New Source of Unemployment Compensation Benefits

Third-Party Verification Requests	FY 2009			FY 2010		
	Owner-Admin	PIH-Admin	Total	Owner-Admin	PIH-Admin	Total
Requests sent to the appropriate state agency	11	35	46	8	20	28
Total number received	11 (100% return rate)	29 (83% return rate)	40 (87% return rate)	4 (50% return rate)	16 (80% return rate)	20* (71% return rate)

*Of the 20 responses received, 16 provided income data; and 6 did not because the agency required a fee or notarization.