

Income Match Study for the FY 2011 Final Report

QUALITY CONTROL FOR RENTAL ASSISTANCE SUBSIDY DETERMINATIONS STUDY

September 14, 2012

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**Quality Control for Rental Assistance
Subsidy Determinations**

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Table of Contents

A.	Study Summary	1
B.	Methodology	3
	Earned Income	3
	Unemployment Compensation Benefits.....	5
	Calculating the Subsidy Cost	6
C.	Detailed Findings	7

List of Exhibits

Exhibit 1	Summary of FY 2011 Subsidy Cost Estimates Associated with Intentional Unreported Income by Program Type, Nationally Weighted for Both Earned Income and Unemployment Compensation.....	2
Exhibit 2	Summary of Subsidy Cost Estimates Associated with Intentional Unreported Income by Program Type for FY 2009 through FY 2011, Nationally Weighted for Both Earned Income and Unemployment Compensation	2
Exhibit 3	Initial Categorization of Earned Income for Each Household by Program Type.....	4
Exhibit 4	Comparison of FY 2010 and FY 2011 Verification Requests for Potential New Sources of Income.....	5
Exhibit 5	Categorization of Unemployment Compensation for Each Household by Program Type	6
Exhibit 6	Comparison of FY 2010 and FY 2011 Verification Requests for Potential New Source of Unemployment Compensation Benefits.....	6
Exhibit 7	Income Match Final Case Dispositions	7
Exhibit 8	Summary of Subsidy Cost Estimates for Earned Income.....	8
Exhibit 9	Summary of Subsidy Cost Estimates for Unemployment Compensation	9
Exhibit 10	Summary of Subsidy Cost Estimates for Both Earned Income and Unemployment Compensation	10
Exhibit 11	Comparison of FY 2009 through FY 2011 Findings Using Nationally-Weighted Values	11

As part of the Quality Control for Rental Assistance Subsidy Determinations Study, the U.S. Department of Housing and Urban Development (HUD) contracted with ICF 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 adult household members¹ in the Fiscal year (FY) 2011 HUDQC study were matched through their social security numbers with the NDNH files. This report includes results of the income match for the PHA-administered Public Housing, Section 8 - Voucher, and Section 8 - 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) programs.

This report is divided into three major sections: (A) study summary, (B) methodology and (C) detailed findings. The study summary section presents an overview of the study, a summary of the estimated subsidy costs associated with intentional unreported income for the FY 2011 study, and historical estimated subsidy costs associated with the FY 2009 and FY 2010 studies. The methodology section provides details on how each income record received from the NDNH match was reviewed and resolved, while the detailed findings section provides the subsidy cost associated with unreported income by program type, income type, and study year.

A. Study Summary

NDNH data is used to identify sources of earned income or unemployment compensation not found during the QC field data collection process.² 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 monthly employment income or the monthly unemployment compensation benefits. 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.

The findings from the FY 2011 analysis of NDNH data indicate that intentional unreported income results in an estimated overpayment of \$428.5 million in annual HUD subsidy costs. Exhibit 1 provides subsidy cost information by program type for the FY 2011 study.

¹ HUD was provided with SSN for all household members who were 18 or older, or head, co-head and spouses regardless of age.

² QC field data were collected from three primary sources: (1) the 50058/50059 Forms found in tenant files, (2) documentation found in tenant files, and (3) household interviews. A fourth source, third-party verification obtained by ICF, was also used on an as-needed basis.

Exhibit 1

Summary of FY 2011 Subsidy Cost Estimates Associated with Intentional Unreported Income by Program Type, Nationally Weighted for Both Earned Income and Unemployment Compensation

Program Type	Subsidy Cost	95% Confidence Intervals
PIH-administered – Public Housing	\$78,622,422	±\$50,494,615
PIH-administered – Section 8 Voucher	\$265,695,668	±\$129,281,809
Owner-administered	\$84,174,531	±\$75,991,304
Total	\$428,492,621	±\$142,533,806

Exhibit 2 summarizes the subsidy cost associated with unreported income for the FY 2009, FY 2010 and FY 2011 studies. Due to the limited number of cases with new unreported income, these estimates can fluctuate greatly from year to year. The FY 2011 subsidy overpayment cost is higher than in FY 2010. However, the estimated annual subsidy overpayment associated with unreported income for FY 2009 study was \$302.5 million.

Exhibit 2

Summary of Subsidy Cost Estimates Associated with Intentional Unreported Income by Program Type for FY 2009 through FY 2011, Nationally Weighted for Both Earned Income and Unemployment Compensation

Program Type	Subsidy Cost		
	FY 2009	FY 2010	FY 2011
PIH-administered Public Housing	\$84,733,153	\$45,432,813	\$78,622,422
PIH-administered Section 8 Vouchers	\$121,476,417	\$86,708,910	\$265,695,668
Owner-administered	\$96,325,996	\$71,056,268	\$84,174,531
Total	\$302,535,560	\$203,198,010	\$428,492,621

Given the limited number of cases with new unreported income, the variance and confidence intervals are fairly large but reasonable given HUD’s assisted-housing subsidies based on program types included in the HUDQC study. In FY 2011, the population totals were updated based on the FY 2011 HUDQC frame to better reflect the current population³. While the estimates of subsidy cost appear to have increased substantially from FY 2010 to FY 2011, it cannot be statistically determined whether the increase is due to an increase in subsidy cost or an increase in the population total. Results should be interpreted with caution.

³ Please refer to the *HUDQC FY 2011 Final Report*, Chapter 2: The Sample, for a more detailed explanation of this change.

B. Methodology

In preparation for the FY 2011 income match, ICF reviewed HUD guidelines and protocols in addition to the correspondence and forms used in the FY 2010 income match. The forms were revised as appropriate, and instructions for processing the data were updated. The income match review and analysis was conducted according to the detailed procedures found in *FY 2011 Income Match Plan* dated June 8, 2012.

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 2011 QC sample. Comprehensive findings are presented for households with earned income and households with unemployment compensation benefit income.

Two different processes are used to review earned income and unemployment compensation benefits records. Once the records have been processed, and sources of unreported new income are discovered, the same methodology is used to estimate the subsidy cost associated with the income.

The processes used are described separately below.

Earned Income

The match with the NDNH database identified earned income for 1,090 households from the FY 2011 QC sample. This study followed the below two step protocol for the initial categorization of household member income data:

- Step 1: Each case initially was reviewed and organized by aggregating cases with similar categorizations, such as whether the employer was the same as that identified during the QC study or a potential new employer.
- Step 2: After each case was categorized, a more thorough review was conducted for cases where it is unknown whether the employer from the NDNH data matched the QC employer. During this second review, all the cases were 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.

During the *initial* review of the data, households were categorized as follows:

- **NDNH and QC employers 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 the 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.

For cases that required further investigation to determine if the income was from a newly-identified source, employers were called to clarify the employee name or an Internet search was conducted to obtain additional information about both the QC and NDNH employers in order to determine if the QC and NDNH employers were the same.

Exhibit 3 summarizes how households were categorized by program type.

Exhibit 3
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 employers are the same	332	40%	98	38%	430	39%
NDNH earnings are not considered to be new	291	35%	90	35%	381	35%
Unclear whether NDNH employer is new	212	25%	67	26%	279	26%
TOTAL	835	100%	255	99*%	1090	100%

Data in this exhibit are unweighted

*numbers add to 99% due to rounding

For cases with a potential new source of income (279 households), further follow-up actions are taken to determine whether the income should be considered as unreported. The following steps are taken:

- If the employer was connected with The Work Number⁴, the Work Number was used to gather wage information.
- Employers were sent a letter requesting wage verification.
- Follow-up calls were made to all employers who do not respond to the request for verification within seven business days after the request was mailed.

⁴ 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.

Exhibit 4 compares FY 2010 to FY 2011 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 4
Comparison of FY 2010 and FY 2011 Verification Requests for Potential New Sources of Income

Third-Party Verification Requests	FY 2010			FY 2011		
	PIH-Admin	Owner-Admin	Total	PIH-Admin	Owner-Admin	Total
Total Households with Potential New Sources of Income	121	34	155 (6% of QC households)	211	67	278 (12% of QC households)
Employers to whom Third-Party Requests Were Sent*	137	40	177	282	95	377
Employers where Third-Party Verification Was Received*	118	31	149 (84% return rate)	233	82	315 (84% return rate)

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

Unemployment Compensation Benefits.

The match with the NDNH database identified unemployment compensation income for 379 of the households in the FY 2011 QC sample. During the initial 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.

Exhibit 5 categorizes households with unemployment compensation benefits records by program type, following the initial review described above.

Exhibit 5
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 were the same	80	26%	16	23%	96	25%
NDNH benefits are not considered to be new	186	60%	41	59%	227	60%
NDNH benefits were considered to be a potential new source of income	43	14%	13	19%	56	15%
TOTAL	309	100%	70	101%*	379	100%

*numbers add to 101% due to rounding

For the 56 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.

Exhibit 6 provides a comparison of the response rates for FY 2010 and FY 2011 for requests for verification for benefit information from unemployment compensation State agencies.

Exhibit 6
Comparison of FY 2010 and FY 2011 Verification Requests for Potential New Source of Unemployment Compensation Benefits

Third-Party Verification Requests	FY 2010			FY 2011		
	PIH-Admin	Owner-Admin	Total	PIH-Admin	Owner-Admin	Total
Requests sent to the appropriate State agency	20	8	28	43	13	56
Total number received	16 (80% return rate)	4 (50% return rate)	20* (71% return rate)	30 (70% return rate)	11 (85% return rate)	41* (73% return rate)

*Of the 41 responses received, 21 provided unemployment benefit data; the rest either required a fee or a specialized agreement in order to provide the data.

Calculating the Subsidy Cost

In order to determine whether an income (either from an employment or unemployment compensation) should be considered a new unreported source of income; third-party data and the NDNH quarterly wage/benefits were examined. Third-party verification was examined to determine whether the household member was employed the month before, during and after the QC month. In the absence of third-party verification, income that started or ended in the QC Quarter was not considered a new source of income unless the amount earned during that quarter

was similar (between 85–115%) to the income earned in either the previous or subsequent quarters.

The wage data provided by the third-party or NDNH met the criteria above; the income received during the QC Quarter was multiplied by four to determine the annual countable income. NDNH data was used to calculate the unreported income even if third-party verification income information was available.

C. Detailed Findings

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

Exhibit 7 provides a summary of case dispositions for the households included in the FY 2011 HUDQC sample after the process was completed. The table provides the number of total households selected for the QC study by program type, the number of households who in the QC had earned income or unemployment compensation, and the number of households for which NDNH provided unreported earned income or unemployment compensation benefits.

**Exhibit 7
Income Match Final Case Dispositions**

Case Disposition	PIH-administered		Owner-administered	Total
	Public Housing	Section 8 Vouchers		
QC Household Sample	804	800	800	2404
QC Households Reporting Earnings or Unemployment Compensation	318	366	191	875
Households where NDNH Data Identified Potential New Sources of Income				
• Earned Income	94	118	67	279
• Unemployment Compensation	23	20	13	56
Households with Countable Unreported Income				
• Earned Income	23	31	15	69
• Unemployment Compensation	5	N/A	NA	5
Total Countable Sources of Unreported Income that Affected Subsidy Determinations for QC Households	28	31	15	74

Exhibit 8 provides a summary of weighted and unweighted subsidy discrepancies associated with the 69 households where *new earned income* sources were identified.

Exhibit 8
Summary of Subsidy Cost Estimates for Earned Income

Program Type	Unweighted Values	Nationally Weighted Values
	Cases with Unreported Income	Cases with Unreported Income
PIH-administered - Public Housing		
Households in Error	23	30,000
Unreported Income	\$356,332	\$514,292,000
Subsidy Cost	\$44,748	\$64,351,000
PIH-administered - Section 8 Vouchers		
Households in Error	31	74,000
Unreported Income	\$450,232	\$1,144,493,000
Subsidy Cost	\$103,020	\$265,696,000
Owner-administered		
Households in Error	15	25,000
Unreported Income	\$185,516	\$304,059,000
Subsidy Cost	\$50,640	\$84,175,000
Total		
Household in Error	69	129,000
Unreported Income	\$992,080	\$1,962,845,000
Subsidy Cost	\$198,408	\$414,222,000

Exhibit 9 provides a summary of weighted and unweighted subsidy discrepancies associated with the five households where *new unemployment compensation benefits* were identified.

Exhibit 9
Summary of Subsidy Cost Estimates for Unemployment Compensation

Program Type	Unweighted Values	Nationally Weighted Values
	Cases with Unreported Income	Cases with Unreported Income
PIH-administered – Public Housing		
Households in Error	5	8,000
Unreported Income	\$38,524	\$61,272,000
Subsidy Cost	\$9,684	\$14,271,000
PIH-administered – Section 8 Vouchers		
Households in Error	0	0
Unreported Income	\$0	\$0
Subsidy Cost	\$0	\$0
Owner-administered		
Households in Error	0	0
Unreported Income	\$0	\$0
Subsidy Cost	\$0	\$0
Total		
Households in Error	5	8,000
Unreported Income	\$38,524	\$61,272,000
Subsidy Cost	\$9,684	\$14,271,000

Exhibit 10 provides a summary of weighted and unweighted subsidy costs associated with the 74⁵ 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 nine households had no subsidy cost associated with them. Seven 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 \$428.5 million.

Exhibit 10
Summary of Subsidy Cost Estimates for Both Earned Income and Unemployment Compensation

Program Type	Unweighted Values	Nationally Weighted Values
	Cases with Unreported Income	Cases with Unreported Income
PIH-administered - Public Housing		
Households in Error	28	38,000
Unreported Income	\$394,856	\$575,564,000
Subsidy Cost	\$54,432	\$78,622,000
PIH-administered - Section 8 – Vouchers		
Households in Error	31	74,000
Unreported Income	\$450,232	\$1,144,493,000
Subsidy Cost	\$103,020	\$265,696,000
Owner-administered		
Households in Error	15	25,000
Unreported Income	\$185,516	\$304,059,000
Subsidy Cost	\$50,640	\$84,175,000
Total		
Households in Error	74	137,000
Unreported Income	\$1,030,604	\$2,024,117,000
Subsidy Cost	\$208,092	\$428,493,000

Exhibit 11 below provides a comparison of the nationally-weighted findings from the FY 2009 and FY 2010 Income Match task to the FY 2011 findings.

The increase in cases with unreported income could reflect HUD’s new regulations that do not allow project staff to use EIV data to calculate the household’s income using wage or benefit data provided on EIV. It is possible the project staff knew of the income and were waiting for

⁵ The 74 households in error include 69 households with new earned income and 5 households with new unemployment compensation benefits.

more acceptable documentation to calculate the annual income. Furthermore, the Income Match study is conducted nine months after the end of the fiscal year, leaving the possibility that ICF had access to more wage and benefit information than the project staff.

**Exhibit 11
Comparison of FY 2009 through FY 2011 Findings Using Nationally-Weighted Values**

Program Type	FY 2009	FY 2010	FY 2011
	Cases with Unreported Income		
PIH-administered - Public Housing			
Households in Error	36,000	23,000	38,000
Unreported Income	\$423,298,000	\$416,371,000	\$575,564,000
Subsidy Cost	\$84,733,000	\$45,433,000	\$78,622,000
PIH-administered - Section 8 – Vouchers			
Households in Error	42,000	32,000	74,000
Unreported Income	\$574,728,000	\$348,883,000	\$1,144,493,000
Subsidy Cost	\$121,477,000	\$86,709,000	\$265,696,000
Owner-administered			
Households in Error	20,000	26,000	25,000
Unreported Income	\$381,973,000	\$344,946,000	\$304,059,000
Subsidy Cost	\$96,326,000	\$71,056,000	\$84,175,000
Total			
Households in Error	98,000	81,000	137,000
Unreported Income	1,380,463,000	\$1,110,200,000	\$2,024,117,000
Subsidy Cost	302,536,000	\$203,198,000	\$428,493,000

While there was an increase in dollar error, we cannot say that the difference is statistically significant because as indicated previously the FY 2011 population counts are different than the FY 2010 study. The FY 2011 population totals were updated based on the FY 2011 frame.