Final Report Benefit Accuracy Measurement Crossmatch Pilot

Summary

In response to recommendations included in the Department of Labor (DOL) Office of the Inspector General (OIG) report "Improved Quality Control Practices Within the Benefit Accuracy Measurement System Could Save the Unemployment Insurance Trust Fund Approximately \$400 Million Annually" (OIG Report Number 22-03-009-03-315, September 30, 2003), the Employment and Training Administration (ETA) agreed to conduct a pilot test of wage record and State Directory of New Hires (SDNH) crossmatches as part of the Benefit Accuracy Measurement (BAM) case investigation methodology. The OIG audit of the BAM survey concluded that the current BAM methodology missed potential overpayments to claimants who continued to claim and receive Unemployment Insurance (UI) benefits while earning wages during their benefit years. Results of the BAM crossmatch pilot showed that overpayment detection increased if either the wage record or SDNH crossmatches are included in the BAM audit. Requiring BAM investigations to include SDNH crossmatches would be less costly than requiring wage record crossmatches and would present fewer operational problems. However, the recently completed pilot test using the National Directory of New Hires (NDNH) suggests that integrating the NDNH crossmatch into the BAM methodology is an even more attractive alternative

Background

The BAM survey has identified unreported or erroneously reported benefit year earnings (BYE) as the leading cause of UI overpayment errors. In calendar year (CY) 2004 BAM estimated that BYE issues accounted for \$950 million of the \$3.4 billion in UI benefits that were overpaid, which represents nearly 2.8 percent of the \$34.4 billion in UI benefits paid in CY 2004.

During fiscal year 2003 the DOL OIG conducted an audit of the BAM program. The OIG final report (Number 22-03-009-03-315, September 30, 2003) concluded that while the BAM program was methodologically sound and accurately detected and reported UI payment errors, additional overpayments due to unreported earnings could be detected by conducting a crossmatch of the UI claimant's Social Security Number (SSN) against the state's intrastate wage records 180 days following the week ending date of the compensated week selected in the BAM sample. The use of the state wage record files was considered when BAM was designed but was not included in the methodology because employer reporting of wage data does not occur in time to insure the timely completion of BAM cases. BAM established a 90-day timeliness standard to insure that information bearing on the propriety of the UI payment was accurate and contemporaneous.

The OIG also noted that states with access to their SDNH could use this resource to detect unreported wages earlier in the claimant's benefit year than was possible using the wage record crossmatch. Use of the SDNH as a BAM audit resource is included in the BAM State Operations Handbook (ET Handbook No. 395, 4th ed., chapter VI, p. 5):

The potential for claimant employment during the benefit year should be verified using

the State Directory of New Hires where available. This new hire directory is mandatory under section 453A of the Social Security Act, and BAM should access this resource when possible.

However, prior to the pilot, the extent to which BAM investigations are currently using the SDNH resource and the utility of the SDNH as a UI payment audit tool had not been evaluated.

BAM Crossmatch Pilot

Because of the importance of identifying and preventing erroneous UI payments, ETA agreed to conduct a pilot test of including the wage record and SDNH crossmatches as part of the BAM case investigation methodology. The purpose of the pilot was to obtain information that will allow ETA to:

- estimate the magnitude of overpayments attributable to unreported earnings that are not detected through current BAM audit methods but are detected through the use of SDNH or wage record crossmatches;
- identify other issues that might affect the eligibility for the compensated week selected for the BAM sample (for example, voluntary quit or discharge from employment in the benefit year);
- measure the additional cost to the BAM program of implementing these methods; and
- identify operational issues that would need to be addressed prior to national implementation, assuming that the cost-benefit analysis indicated that inclusion of these procedures as part of the BAM audit was justified.

ETA solicited state participation in the pilot in May 2004, and seven states volunteered their participation – Alabama, Idaho, Illinois, Maine, Missouri, South Carolina, and Washington. ETA issued the pilot technical specifications in June, and states began their pilot activities in August / September 2004, depending on the state.

Additional codes were added to the BAM data collection instrument to capture information for the pilot. All investigations conducted as a result of the SDNH and wage record crossmatches followed the guidelines and requirements in ET Handbook No. 395. Agencies were instructed to take official action to establish overpayments or correct underpayments identified as a result of the investigations conducted subsequent to the SDNH and wage record crossmatches if permitted by state law. The pilot protocols and additional codes are provided in the Attachment.

The pilot was conducted in two phases.

Phase I - Wage Record Crossmatch

In Phase I, BAM paid claims cases that were sampled and completed during CY 2003 were crossmatched by the claimant's SSN with the employer wage records for the calendar quarter in

which the compensated week of UI -- BAM key week (KW) -- fell. For those BAM cases that did not match any SSN in the appropriate quarter's wage record file, no further action was taken. For those cases that did match a SSN in the appropriate quarter's wage record file, BAM investigators conducted a post-audit investigation to follow up with the claimant, employer, and relevant third parties to determine if the claimant had earnings during the compensated week of the BAM sample case.

The primary purpose of the wage record crossmatch was to detect BYE issues. However, the post-audit also identified other issues that affected the claimant's KW eligibility, such as separation or able and available (A & A) issues. Based on the information obtained through the post-audit investigation, BAM determined whether the claimant was properly paid for the KW and, for improper payments identified in the original audit, whether there were additional issues affecting the accuracy of the payment.

If the post-audit investigation identified issues affecting the claimant's KW eligibility, BAM investigators coded the type of payment error (fraud, nonfraud recoverable, nonfraud nonrecoverable), the amount of error, cause, responsible party, the point where the error was first detected by the QC investigation, and prior agency action.

Phase II - SDNH Crossmatch

Because data from the SDNH are available much sooner than wage record data, this audit tool was tested as part of the BAM investigation for 26 consecutive weekly samples of compensated UI weeks. As with the wage record crossmatch, BAM units crossmatched the claimant's SSN with their SDNH. For those BAM cases that did not match any SSN in the SDNH, the rest of the BAM audit proceeded according to the state's procedures and the guidelines in ET Handbook No. 395. For those BAM cases that did match a SSN in the SDNH, investigators followed up with the claimant, employer, and relevant third parties to determine if the claimant had earnings during the compensated week of the BAM sample case. Although the primary purpose of the SDNH crossmatch was to detect unreported earnings during the KW, if the BAM investigation identified other issues that affected the claimant's eligibility for the compensated week, such as separation or A & A issues, these were coded as well.

BAM investigators determined whether the claimant was properly paid for the KW based on the information obtained through the complete audit, including the SDNH crossmatch. If the investigation identified issues affecting the claimant's KW eligibility, BAM investigators coded the type of payment error (fraud, nonfraud recoverable, nonfraud nonrecoverable), the amount of error, cause, responsible party, the point where the error was first detected by the QC investigation, and prior agency action.

Pilot Results - Phase I: Wage Record Crossmatch

Due to staffing and administrative issues, Maine was unable to complete work on either the wage record crossmatch of their CY 2003 cases or the SDNH crossmatch. The other six states completed work on Phase I of the pilot by March 2005. The following table summarizes the outcomes of the crossmatches of the CY 2003 BAM cases with the state wage record files.

Collectively, the wage record crossmatch detected new issues affecting the claimant's UI eligibility for only 36 of the 3,048 cases (1.18 percent) that were crossmatched.

	TOTAL	PCT.
No New Issues Detected By Xmatch:		
Original Audit Proper Payment	2400	78.74%
Original Audit Improper Payment	612	20.08%
New Issues Detected By Xmatch:		
Original Audit Proper Payment	28	0.92%
Original Audit Improper Payment	8	0.26%
Total Cases Crossmatched	3048	100.00%

The aggregate CY 2003 Annual Report overpayment rate for the six pilot states (AL, ID, IL, MO, SC, and WA) increased from 9.23 percent to 9.78 percent, which represents an increase of 0.55 percentage points in the overpayment rate. As expected, most of the increase was in the BYE overpayment rate, which increased from 2.74 percent to 3.25 percent (+0.51 percentage points).

	PILOT	PILOT			NONPILOT	NONPILOT
	ORIGINAL	POST- AUDIT	DIFF.	RATIO	ORIGINAL	ADJUSTED
Benefit Year						
Earnings	2.741%	3.250%	0.509	1.186	2.133%	2.529%
ES Registration	1.940%	1.941%	0.001	1.001	0.705%	0.705%
Separation	1.424%	1.425%	0.001	1.000	2.245%	2.246%
Work Search	1.164%	1.129%	-0.035	0.970	1.547%	1.500%
A & A	0.526%	0.500%	-0.026	0.950	0.555%	0.527%
Oth. Eligibility	0.485%	0.485%	0.000	1.000	0.645%	0.645%
Base Period						
Wages	0.312%	0.312%	0.000	1.001	0.659%	0.660%
Other Causes	0.375%	0.375%	0.000	1.000	0.496%	0.496%
SSI / Sev. / Vac.						
Pay	0.254%	0.254%	0.000	0.999	0.332%	0.332%
Back Pay	0.005%	0.110%	0.105	24.119	0.000%	0.000%
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TOTAL	9.226%	9.781%	0.555		9.317%	9.640%

The estimated impact on the national overpayment rate was computed by applying the percentage change in each cause category for the pilot states to the corresponding cause category in the non-pilot states. This takes into account the different distribution of overpayment causes in the pilot and non-pilot states. For example, in the non-pilot states the BYE overpayment rate was 2.13 percent. This rate was multiplied by the ratio (the pilot post-audit rate divided by pilot state's original rate), which represents the percentage increase observed for the pilot states, producing an adjusted BYE overpayment rate of 2.53 percent in the non-pilot states.

The effect on the national Annual Report overpayment rate of crossmatching BAM cases with state wage records was estimated by multiplying the cause category overpayment rates for the

pilot and non-pilot states by their weights. The weights equal the aggregate amounts of UI benefits paid in the pilot and non-pilot states divided by the U.S. total amount of UI benefits paid. Collectively, the pilot states paid approximately 13.4 percent of total UI benefits paid in CY 2003, and the non-pilot states paid 86.6 percent. For example, the estimated BYE overpayment rate for the U. S., adjusted for the increase due to the wage record crossmatch is: $(3.25\% \times 1.134) + (2.53\% \times .866) = 2.63\%$. These weighted estimates were summed for all causes to produce the revised Annual Report rate for the U. S.

Most of the overpayment errors detected through the wage record crossmatch were BYE errors. Based on the original BAM audits conducted in CY 2003, the pilot states had a higher overpayment rate attributable to BYE (2.74 percent of UI benefits paid) compared with the non-pilot states (2.13 percent). Therefore, the estimated revised U. S. overpayment rate is 9.66 percent, compared with the 9.30 percent overpayment rate estimated from the original CY 2003 sample data -- a difference of 0.36 percentage points.

	US	US		ORIGINAL	ADJUSTED	
	ORIGINAL	ADJUSTED	DIFF.	\$ OP	\$ OP	DIFF.
Benefit Year						
Earnings	2.216%	2.626%	0.410	\$907,942,488	\$1,075,737,930	\$167,795,441
Separation	2.139%	2.136%	-0.003	\$876,393,945	\$875,140,459	-\$1,253,487
Work Search	1.489%	1.450%	-0.039	\$610,075,075	\$594,281,868	-\$15,793,207
ES Registration	0.868%	0.870%	0.002	\$355,638,123	\$356,610,029	\$971,906
Oth. Eligibility	0.620%	0.624%	0.004	\$254,027,231	\$255,584,070	\$1,556,839
Base Period						
Wages	0.616%	0.613%	-0.003	\$252,388,345	\$251,267,207	-\$1,121,138
A & A	0.549%	0.524%	-0.025	\$224,937,015	\$214,587,188	-\$10,349,828
Other Causes	0.479%	0.494%	0.015	\$196,256,522	\$202,470,985	\$6,214,463
SSI / Sev. / Vac.						
Pay	0.325%	0.321%	-0.004	\$133,159,435	\$131,666,896	-\$1,492,539
TOTAL	9.301%	9.659%	0.358	\$3,810,818,179	\$3,957,346,630	\$146,528,451

In terms of the amount overpaid, the revised estimate of \$3.957 billion, including additional overpayments detected through the wage record crossmatch, is \$146 million greater than the original estimate of \$3.811 billion. Overpayments due to BYE issues increased by \$168 million. The decreases in work search and A & A issues are the result of previously detected nonfraud work search or A & A issues being "replaced" by a fraud BYE issue identified through the pilot. For multi-issue overpayments, fraud takes precedence over nonfraud issues when allocating the amounts overpaid up to the amount paid.

A couple of caveats are in order in interpreting the estimated effect of the wage record crossmatch on the overpayment rate. First, the estimated increase in the CY 2003 U. S. overpayment rate of 0.36 percentage points is less than the sampling error of the original Annual Report overpayment rate estimate (a 95 percent confidence interval of +/- 0.50 percentage points). In other words, the measurement error due to missed issues is less than the sampling error inherent in the survey design. Second, because we are assuming that the results in the pilot states are representative of the outcomes in the non-pilot states, small changes in the pilot state samples can affect the adjusted U. S. estimate. For example, one pilot state identified through

the crossmatch one overpayment attributable to a back pay award (cause code 620). Because BAM classifies these overpayments as "Other Causes", this state's Other Cause overpayment rate increased by 0.234 percentage points. This, in turn, nudged the U. S. Other Cause rate up by 0.015 percentage points, which represents \$6.2 million. However, back pay award issues are rarely detected in the current BAM audits, so the increase attributed to this cause may be exaggerated.

The increase in UI overpayments due to unreported earnings estimated from the wage record crossmatch is slightly less than the increase estimated by the OIG. The increase of \$167.8 million represents an increase of approximately 18.5 percent from the \$907.9 million estimated from the original BAM audits. The OIG conducted a wage record crossmatch of 580 randomly selected CY 2001 BAM cases in six states (not the same states that participated in the BAM crossmatch pilot). Wage matches were referred to the state BAM units to follow-up with employers to verify when wages were earned. Following the normal BAM audit procedures, BAM investigators determined whether an overpayment had occurred. In their report the OIG concluded:

BAM projected unreported earnings overpayments at \$92 million in the six states we visited and our statistical projection was \$112 million. The \$20 million difference (22 percent) represents an opportunity to improve the BAM system. [OIG Report Number 22-03-009-03-315, Section 1, p. 6.]

Given the level of precision of the OIG and BAM wage record crossmatch pilot estimates and the differences with respect to the states selected for each study and the different periods involved, the BAM pilot and OIG results are in reasonable agreement. However, the overall impact on the Annual Report rate is much less. As discussed above, additional overpayment errors identified through the wage record crossmatch were sometimes detected for UI payments in which other overpayment issues had been identified through the original BAM audit. In addition, BYE overpayment errors accounted for only around 25 percent of all overpayment errors in CY 2003. Consequently, the net effect of crossmatching BAM cases with wage records increases estimated UI overpayments by \$146 million, about a 3.8 percent increase from the \$3.8 billion estimated from the original audits.

2. Operational Overpayment Rate

When overpayments detected through the wage record crossmatch are included, the aggregate CY 2003 operational overpayment rate for the six pilot states increases from 5.31 percent to 5.77 percent, an increase of 0.46 percentage points. This represents an increase of nearly 9 percent in the operational rate (0.46 / 5.31%), compared with an increase of 6 percent in the Annual Report rate (0.55 / 9.23%).

	PILOT	PILOT			NONPILOT	NONPILOT
		POST-				
	ORIGINAL	AUDIT	DIFF.	RATIO	ORIGINAL	ADJUSTED
Benefit Year						
Earnings	2.764%	3.198%	0.434	1.157	2.071%	2.396%
Separation	1.212%	1.235%	0.023	1.019	1.461%	1.489%
A&A + Oth. Elig.	0.942%	0.942%	0.000	1.000	1.105%	1.105%
Other Causes	0.391%	0.391%	0.000	1.000	0.289%	0.289%
TOTAL	5.309%	5.766%	0.457		4.925%	5.278%

The change in the operational rate is due mainly to an increase in BYE overpayments (+0.43 percentage points), although overpayments due to separation issues increased slightly as well (+0.02 percentage points). As with the Annual Report rate, the pilot states had a higher operational overpayment rate attributable to BYE (2.76 percent of UI benefits paid), excluding overpayments identified through the wage record crossmatch, compared with the non-pilot states (2.07 percent). So, the national operational rate increased somewhat less than the 0.46 percentage point increase for the pilot states -- from 4.98 percent to 5.34 percent (+ 0.36 percentage points). The revised estimate of \$2.189 billion in operational overpayments is \$150 million greater than the estimated \$2.039 billion based on the original BAM investigations.

The impact of the wage record crossmatch results on the national operational overpayment rate is summarized in the following table.

	US	US		ORIGINAL	ADJUSTED	
	ORIGINAL	ADJUSTED	DIFF.	\$ OP	\$ OP	DIFF.
Benefit Year						
Earnings	2.164%	2.503%	0.340	\$886,458,564	\$1,025,633,969	\$139,175,405
Separation	1.428%	1.455%	0.027	\$584,882,105	\$595,986,263	\$11,104,158
Oth. Eligibility	1.083%	1.083%	0.000	\$443,737,501	\$443,766,427	\$28,926
A & A	0.303%	0.303%	0.000	\$124,029,939	\$123,989,356	-\$40,583
TOTAL	4.977%	5.344%	0.367	\$2,039,108,109	\$2,189,376,016	\$150,267,907

Pilot Results - Phase II: SDNH Crossmatch

The pilot states included the SDNH crossmatch as part of their BAM investigations for paid claims samples selected over a six-month period. Pilot state start dates varied from batch 200430 (week ending July 24, 2004) to batch 200440 (week ending October 2, 2004).

1. Annual Report Overpayment Rate

When the overpayments detected through the SDNH crossmatch are included, the aggregate Annual Report overpayment rate for the six pilot states increases from 10.36% to 10.79%, an increase of 0.43 percentage points. All of the change is due to additional BYE overpayments detected through the SDNH crossmatch.

					NONPILOT	NONPILOT
	EX-SDNH	POST PILOT	DIFF	RATIO	ORIGINAL	ADJUSTED
Benefit Year						
Earnings	2.345%	2.778%	0.433	1.185	2.494%	2.955%
Separation	1.288%	1.288%	0.000	1.000	2.283%	2.283%
Work Search	3.547%	3.547%	0.000	1.000	1.073%	1.073%
ES Registration	0.803%	0.803%	0.000	1.000	0.991%	0.991%
A & A	0.308%	0.308%	0.000	1.000	0.571%	0.571%
Oth. Eligibility	0.446%	0.446%	0.000	1.000	0.187%	0.187%
Base Period						
Wages	0.214%	0.214%	0.000	1.000	0.721%	0.721%
Other Causes	1.408%	1.408%	0.000	1.000	0.778%	0.778%
TOTAL	10.359%	10.792%	0.433		9.098%	9.559%

As with the wage record crossmatch, the estimated impact of the SDNH crossmatch on the national overpayment rate was computed by applying the percentage change in each cause category for the pilot states to the corresponding cause category in the non-pilot states. A combined weighted estimate was then made by multiplying the cause category overpayment rates for the pilot and non-pilot states by their weights, based on UI benefits paid. For the SDNH crossmatch, the pilot states paid approximately 12.6 percent of total UI benefits paid, and the non-pilot state paid 87.4 percent.

For the Annual Report rate, the only cause category with a measurable change was BYE, which increased from 2.35 percent to 2.78 percent among the pilot states. During the period covered by the SDNH crossmatch, the pilot states had a lower overpayment rate attributable to BYE (2.35 percent of UI benefits paid) excluding overpayments identified through the SDNH crossmatch, compared with the non-pilot states (2.49 percent). This is the opposite of the wage record crossmatch results, in which the pilot states had a higher overpayment rate attributable to BYE, and has the effect of somewhat magnifying the impact on the U. S. data. The national Annual Report overpayment rate, adjusted for SDNH data, increased from 9.26 percent to 9.71 percent (+ 0.45 percentage points). In terms of the amount overpaid, the revised estimate of \$1.639 billion is \$77 million higher than the \$1.562 billion excluding the SDNH crossmatch.

BAM results for batches 200440 through 200513 (October 2004 through March 2005) were used for the non-pilot states. Because the pilot states began the SDNH crossmatch with different batches, the reference period for the non-pilot states does not coincide exactly with the period included for all of the SDNH pilot data. However, the estimated overpayment rate for the non-pilot states does not change significantly by shifting the beginning and end dates of the 26-batch period by a few weeks.

The impact of the SDNH results on the national data is summarized in the following table.

	US	US		ORIGINAL	ADJUSTED	
	ORIGINAL	ADJUSTED	DIFF.	\$ OP	\$ OP	DIFF.
Benefit Year						
Earnings	2.475%	2.932%	0.457	\$417,657,551	\$494,777,261	\$77,119,710
Separation	2.158%	2.158%	0.000	\$364,079,318	\$364,079,318	\$0
Work Search	1.385%	1.385%	0.000	\$233,617,970	\$233,617,970	\$0
ES Registration	0.967%	0.967%	0.000	\$163,221,209	\$163,221,209	\$0
A & A	0.538%	0.538%	0.000	\$90,759,238	\$90,759,238	\$0
Oth. Eligibility	0.220%	0.220%	0.000	\$37,056,393	\$37,056,393	\$0
Base Period						
Wages	0.657%	0.657%	0.000	\$110,885,024	\$110,885,024	\$0
Other Causes	0.857%	0.857%	0.000	\$144,661,161	\$144,661,161	\$0
TOTAL	9.257%	9.714%	0.457	\$1,561,937,864	\$1,639,057,573	\$77,119,710

Some states that did not participate in the BAM pilot already use SDNH and wage record data as part of their BAM investigations. For the period October 2004 to March 2005 (batches 200440 to 200513), seven non-pilot states reported one or more overpayment errors detected through either the wage record or SDNH crossmatch. For that period, the U. S. paid claims overpayment rate was 9.35 percent. Excluding overpayments detected using either the SDNH or wage records, the overpayment rate decreases to 9.27 (-0.08 percentage points). The BYE overpayment error rate was 2.55 percent including crossmatch overpayments, compared with 2.47 percent excluding crossmatch overpayments (-0.08 percentage points).

2. Operational Overpayment Rate

The aggregate operational overpayment rate for the six pilot states increases from 4.62 percent to 5.05 percent, when overpayments detected through the SDNH crossmatch are included. Because all of the overpayments detected through the SDNH crossmatch are recoverable, the percentage point increase in the operational rate of 0.43 percentage points is the same as the increase in the Annual Report rate. However, this represents an increase of over 9 percent in the operational rate (0.43 / 4.62%), compared with an increase of a little more than 4 percent in the Annual Report rate (0.43 / 10.36%).

					NONPILOT	NONPILOT
	EX-SDNH	POST PILOT	DIFF	RATIO	ORIGINAL	ADJUSTED
Benefit Year						
Earnings	2.317%	2.750%	0.433	1.187	2.424%	2.877%
Separation	1.096%	1.095%	-0.001	0.999	1.378%	1.377%
A&A + Oth.						
Eligibility	0.694%	0.694%	0.000	1.000	0.620%	0.620%
Other Causes	0.509%	0.509%	0.000	1.000	0.343%	0.343%
TOTAL	4.616%	5.048%	0.432		4.765%	5.217%

Most of the change in the operational rate is due to an increase in BYE, although there is a slight adjustment in the overpayment rate for separations, due to a single multiple issue case in which a BYE issue identified through the SDNH crossmatch "replaced" a separation issue identified by other means. As with the Annual Report rate, the pilot states have a lower operational overpayment rate attributable to BYE (2.32 percent of UI benefits paid) excluding overpayments identified through the SDNH crossmatch compared with the non-pilot states (2.42 percent). So, the increase in the national operational rate is somewhat greater -- from 4.75 percent to 5.20 percent (+ 0.45 percentage points).

The impact of the SDNH results on the national data is summarized in the following table.

	US	US		ORIGINAL	ADJUSTED	
	ORIGINAL	ADJUSTED	DIFF.	\$ OP	\$ OP	DIFF.
Benefit Year						
Earnings	2.411%	2.861%	0.450	\$406,738,538	\$482,749,668	\$76,011,130
Separation	1.342%	1.341%	-0.001	\$226,524,139	\$226,317,457	-\$206,683
A&A + Other						
Eligibility	0.629%	0.629%	0.000	\$106,187,589	\$106,187,589	\$0
Other Causes	0.364%	0.364%	0.000	\$61,402,941	\$61,402,941	\$0
TOTAL	4.746%	5.195%	0.449	\$800,853,208	\$876,657,655	\$75,804,447

For the period October 2004 to March 2005 (batches 200440 to 200513), the U. S. operational overpayment rate for all states is 4.85 percent. Excluding overpayments detected using either the SDNH or wage records by both the pilot and non-pilot states, the operational overpayment rate decreases to 4.76 (-0.09 percentage points). The BYE overpayment error rate is 2.49 percent including crossmatch overpayments, compared with 2.41 percent excluding crossmatch overpayments (-0.08 percentage points).

Effect on GPRA / UI Performs Overpayment Detection Measure

The increases in the U. S. operational rate as a result of either the wage record or the SDNH crossmatches will likely affect the GPRA / UI Performs overpayment detection measure. The reason for this is that the increase in the operational rate represents a significant increase as a percentage of the unadjusted rate. For example, the estimated increase in the operational rate as a result of the SDNH crossmatch is approximately 9.5 percent (0.45 / 4.75%). Therefore, the estimated overpayments that should be detected for recovery by BPC will also increase 9.5 percent.

For the CY 2004 BPC period (pre-pilot BAM period July 2003 to June 2004), the BAM operational rate was 5.16 percent. If all states conducted SDNH crossmatches for this period and the operational rate increased by the same percentage as that observed for the pilot, the operational rate would increase to 5.65 percent, and the overpayment detection ratio would decrease from 57.08 percent to 52.14 percent. If all states had conducted the wage record crossmatch in CY 2003, the BAM operational rate would increase to 5.34 percent, and the overpayment detection ratio would decrease from 59.61 percent to 55.52 percent, corresponding to the overpayments established for recovery by BPC for the period July 2003 to June 2004.

Pilot Cost Data

In order to estimate the costs for national implementation, ETA requested that states participating in the pilot provide time and cost information for both ADP requirements (programming costs to run the crossmatch) and BAM investigation costs.

ADP costs varied considerably among states. Two of the pilot states were already using the SDNH as part of BAM, so they incurred no implementation costs for the pilot. For those states that incurred programming costs to implement the SDNH crossmatch, costs averaged \$2,216, based on an average 37 staff hours. All states reported ADP implementation costs for the wage record crossmatch. These costs averaged \$2,727 based on an average 61 staff hours. However, the costs to implement the wage record crossmatch are skewed by the much higher costs reported by one of the pilot states, which could not automate the wage record crossmatch within the pilot schedule. Consequently, all CY 2003 BAM cases were manually checked by BAM staff against the state's wage record database. This labor intensive effort drove up the costs significantly. Excluding this state, ADP implementation costs for the wage record crossmatch averaged \$1,422 and 21 staff hours.

With respect to case investigation, the wage record crossmatch is much more labor intensive and therefore costly. Pilot states averaged over 580 staff hours and over \$18,580 to complete investigations for the BAM cases crossmatched with the wage record files. However, one pilot state reported costs far in excess of the costs reported by the other states. Excluding this "outlier" data, costs averaged \$8,252, based on an average staff time of 305 hours. The SDNH investigations required only 63 hours and \$1,856.

The large differences are attributable to the number of cases crossmatched (all of CY 2003 cases for the wage record crossmatch versus six months of cases for the SDNH crossmatch) and the fact that the retroactive crossmatch of the CY 2003 cases with the wage record data resulted in many "hits" within the same quarter as the original compensated week that was sampled. All of these hits had to be investigated, although in most cases employment did not coincide with the KW or the issue was already detected in the original investigation. The SDNH, on the other hand, was simply one of several tools used during the original BAM investigation. States did not have to investigate as many hits because 1) most of the information that documented a key week issue affecting payment accuracy was obtained though the traditional methods used by BAM -- claimant and employer interviews, agency records, and third party sources; and 2) agencies accessed the SDNH coincident with the investigation. Therefore, the window during which hits could occur was much narrower than the wage record crossmatch, which encompassed a full calendar quarter.

Pilot cost data are summarized in the following table.

	ADP Ti	me / Cost	BAM Case Investigation Time / Cost			
Crossmatch	Average Time (Staff Hrs.)	Average Cost	Average Time (Staff Hrs.)	Average Cost		
Wage Record (1)	60.6	\$2,727	583.2	\$18,582		
(2)	20.7	\$1,422	305.1	\$ 8,252		
SDNH	36.9	\$2,216	63.1	\$ 1,856		

- (1) All pilot states
- (2) Excluding "outlier" state.

Conclusions

As summarized in the following table, use of either the wage record or SDNH crossmatches increases both the Annual Report and operational UI payment accuracy rates.

	U.S. Annual Report Rate			U.S. Operational Rate			
Crossmatch	Pct. OP (Percentage Point	Percentage Increase	Est. \$ OP Increase	Pct. OP (Percentage Point	Percentage Increase	Est. \$ OP Increase	
	Increase)			Increase)			
Wage	9.66%	3.85%	\$146.5 M	5.34%	7.37%	\$150.3 M	
Record	(+0.36)			(+0.36)			
SDNH	9.71%	4.94%	\$77.1 M	5.20%	9.47%	\$75.8 M	
	(+0.45)			(+0.45)			

Note: Wage record results apply to a one-year period; SDNH results apply to a six-month period.

Of the two methods tested, crossmatching BAM cases with the SDNH makes more sense for the following reasons.

- The investigation costs of the state wage record crossmatch cases are a little more than twice the costs of investigating SDNH cases. The cost of investigating wage record crossmatch cases was \$8,252, compared with a six-state average cost of approximately \$3,700 to investigate SDNH crossmatch hits (adjusted to reflect a full year's sample).
- Pilot results indicate that the SDNH crossmatch is somewhat more effective than the wage record crossmatch in detecting additional overpayment errors. However, the differences in payment accuracy rate increases attributable to the wage record and SDNH crossmatches are not large enough to be considered statistically significant.
- The wage record crossmatch would require the revision of BAM payment accuracy rates to reflect the results of the post-audit. Chapter VI of ET Handbook No. 395 requires

that "a minimum of 98 percent of cases for the year must be completed within 120 days of the ending date of the Calendar Year." Final BAM data could not be published until all of the wage record follow-up audits are completed, which could be several months after the 120-day close-out deadline for the original BAM investigations. In comparison, because the new hire directory crossmatches are concurrent with the rest of the BAM investigation, the BAM data publication schedule should not be adversely affected.

• Implementation of a post-audit requirement would also likely have a negative impact of BAM case completion timeliness. As each quarter's cases are crossmatched with the most recent wage records, BAM investigators would have to follow-up hits for several completed cases while they are conducting audits for current cases. This would likely delay completion of the on-going sample cases.

In August 2004, P. L. 108–295, Section 3, authorized state workforce security agencies to access the NDNH "for purposes of administering an unemployment compensation program under Federal or State law". During FY 2005, the Texas, Utah, and Virginia UI agencies participated in a pilot test which matched UI payments against the NDNH data. The results of this pilot indicate that because the NDNH includes data for out-of-state, Federal civilian, and military employment, and in-state hires by some multi-state employers, it is a more effective tool in identifying potentially disqualifying employment than the SDNH, which includes only intrastate employment data.

Office of Workforce Security Division of Performance Management January 27, 2006

Benefit Accuracy Measurement (BAM) Pilot Study: State Directory of New Hires and UI Wage Record Crossmatch

The purpose of this study is to evaluate two investigative tools as part of the BAM audit methodology. Participating state agencies will crossmatch BAM sample cases with the State Directory of New Hires (SDNH) and state UI wage records files to provide information that will allow us to:

- estimate the magnitude of overpayments attributable to unreported earnings that are not detected through current BAM audit methods but are detected through the use of SDNH or wage record crossmatch;
- identify other issues that might affect the eligibility for the compensated week selected for the BAM sample (for example, voluntary quit or discharge from employment in the benefit year);
- measure the additional cost to the BAM program of implementing these methods; and
- identify operational issues that would need to be addressed prior to national implementation, assuming that the cost-benefit analysis indicated that inclusion of these procedures as part of the BAM audit was justified.

These audit tools will be tested on two different sets of BAM cases. Because of the lag between the time that a claimant receives a UI payment and the time that the wage record files are available for the calendar quarter that includes the compensated week that BAM sampled, the wage record crossmatch will be performed for BAM cases that have already been completed. This replicates the procedures that will be used if the wage record crossmatch is included as part of the BAM audit nationwide: BAM investigators will continue to investigate and complete cases within the prescribed 90-day period, following the methods described in ET Handbook No. 395, 3rd ed. A post-audit crossmatch of the completed cases will then be run against the state's wage record files when these become available. Therefore, in order to collect data in a timely manner, the wage record crossmatch for the pilot will be conducted for cases that BAM has sampled and completed prior to the pilot.

Because data from the SDNH are available much sooner than wage record data, this audit tool will be tested as part of the BAM investigation for BAM cases selected as of the BAM pilot start date and will continue for 26 consecutive batches. Timing issues are discussed below in the section on the SDNH crossmatch.

The following sections describe the pilot methodology in detail. Additional codes, which are referenced in these sections, have been added to the BAM data collection instrument (see attachment) to capture information for the pilot. All investigations conducted as a result of the SDNH and wage record crossmatches should follow the guidelines and requirements in ET Handbook 395. Agencies should take official action to establish overpayments or correct underpayments identified as a result of the investigations conducted subsequent to the SDNH and wage record crossmatches if permitted by state law.

Post-Audit Crossmatch and Investigation

- 1. Completed BAM paid claims cases sampled during calendar year 2003 (batches 200301 through 200352) will be included in the pilot.
- 2. The Social Security Numbers (SSNs) of the CY 2003 BAM sample cases (step 1) will be crossmatched with the UI wage records for the calendar quarter in which the BAM key week (KW) falls. For the purposes of conducting the crossmatch, the KW week ending date (BAM data element mkw) will be used to determine the calendar quarter: KW ending dates in January, February, and March 1st quarter, April, May, June 2nd quarter, etc. Some BAM cases sampled during CY 2003 will have KW ending dates in calendar year 2002. These should be included in the study.
 - ▶ If the KW ending date is more than 14 days prior to the end of the calendar quarter, the claimant's SSN will be crossmatched with the wage records for only that quarter.
 - ▶ If the KW ending date is 14 days or less prior to the end of the calendar quarter (March 17-24, June 16-30, September 16-30, December 17-31), the claimant's SSN will be crossmatched with the wage records for that quarter <u>plus</u> the subsequent quarter. This is to insure that wages earned near the end of the quarter but reported by the employer as paid in the subsequent quarter are identified.

Crossmatches will be conducted initially for those UI benefit recipients with KW ending dates that fall within the calendar quarters for wage record files already available to the state. Crossmatches for the remaining claimants identified in step 1 will be performed as subsequent wage record files become available.

3. For those BAM cases that do <u>not</u> match any SSN in the appropriate quarter's wage record file, the case will be reopened using reopen code '8' (see attachment) and KW Action Code (h1) '4' or '5' will be entered, depending on the status of the case after the original BAM investigation. No other action is required for these cases.

Note: The time lapse for cases reopened using code '8' will <u>not</u> be recalculated; timeliness will be calculated from the <u>original</u> supervisor sign-off date or the latest reopen date using reopen code '3' (state reopened to correct or revise data from original BAM audit).

4. For those BAM cases that <u>do</u> match a SSN in the appropriate quarter's wage record file, BAM investigators will conduct a post-audit investigation to follow up with the claimant, employer, and relevant third parties to determine if the claimant had earnings during the compensated week of the BAM sample case.

The primary purpose of the wage record crossmatch is to detect benefit year earnings (BYE). However, if the BAM post-audit identifies other issues that affect the claimant's eligibility for the KW, such as separation or able and available (A & A) issues, these will be coded as well.

- Example 1: BAM contacts the employer submitting the matched wage record. The employer states that the claimant worked for a few weeks prior to the KW that BAM sampled, and then voluntarily quit. BAM will code the separation issue if it affects the claimant's eligibility for the KW.
- Example 2: During the claimant interview, the claimant verifies employment prior to the KW but states he or she could not continue employment because of illness or injury. BAM will code the A & A issue if it affects the claimant's eligibility for the KW.
- 5. BAM will determine whether the claimant was properly paid for the KW based on the information obtained through the post-audit investigation. The case will be reopened using reopen code '8' and the appropriate KW Action Code (h1) will be entered:
 - '4' if the payment was <u>proper</u> after the original BAM investigation at time of supervisor sign-off, and <u>no</u> key week error issues were detected through the crossmatch with the state UI wage record files.
 - '5' if the payment was <u>improper</u> after the original BAM investigation at time of supervisor sign-off, but <u>no additional</u> key week error issues were detected through the crossmatch with the state UI wage record files.
 - Example 1: The original BAM investigation identified an A & A issue in the KW and the post-audit investigation of the crossmatch hit determines that no wages were paid during the KW and that there are no other issues arising from BY employment that affect the claimant's eligibility for the KW.
 - Example 2: The original BAM investigation identified a BYE issue in the key week and the post-audit investigation of the crossmatch hit verifies that the information coded based on the original investigation (amount of error, type of error, responsibility, etc.) is correct.
 - '7' if the payment was <u>proper</u> after original BAM investigation at time of supervisor signoff, but is improper after crossmatch with the state UI wage record files.
 - '8' if the payment was <u>improper</u> after original BAM investigation at time of supervisor sign-off, but <u>additional KW error issues</u> were identified through the crossmatch with the state UI wage record files or <u>additional information</u> is identified through the crossmatch that requires revising the coding of an issue identified in the original BAM audit.
 - Example 1: The original BAM investigation identified a reporting issue in the KW, and the post-audit investigation of the crossmatch hit verifies that the claimant was employed during the KW and identifies an overpayment due to BYE.
 - Example 2: The original BAM investigation identified a KW BYE issue and the postaudit investigation of the crossmatch hit identifies additional information that requires revision of the information coded based on the original investigation (amount of error,

type of error, responsibility, etc.).

6. If the post-audit investigation identifies issues affecting the claimant's KW eligibility, (Action Flag codes '7' or '8'), these issues will be coded in the error issue table. Additional codes have been added for Point of Detection (ei5) and Prior Agency Action (ei6). For any error issue detected as a result of a hit through the wage record crossmatch, Point of Detection will be coded with a '90' series code. Per the definition of this data element in Handbook 395, Point of Detection should reflect "the point where the error was first detected by the QC investigation." Although the information that establishes the BYE or other issue may be identified through wage verification or interviews with the claimant, employer, or third party that are conducted subsequent to the crossmatch, we want to distinguish those errors that were <u>first</u> identified through the wage record crossmatch.

States should use the state option codes in the second digit to specify the point of detection in the investigation subsequent to the initial crossmatch hit for information that documents a payment error.

State wage record file crossmatch plus subsequent actions:

- 91 = Verification of work search contact
- 92 = Verification of wages and/or separation
- 93 = Claimant interview
- 94 = Verification of eligibility with 3rd parties
- 95 = UI Records
- 96 = Job Service/Employment Service records
- 97 = Verification with union
- 7. If the state agency (through its Benefit Payment Control unit, for example) detected the payment error as a result of a crossmatch of the claimant's SSN with state wage record files and has taken official action to establish an overpayment for recovery before the BAM post-audit investigation was completed, Prior Agency Action should be coded '70'. States can use state option codes 71 79 to capture additional information. If the state agency has not taken official action with respect to the payment error issue, the appropriate Prior Agency Action code (10 59) should be entered.
- 8. The amount of overpayments (h5) and underpayments (h6) for the KW should be adjusted, based on the results of the post-audit crossmatch. The amount that the claimant should have been paid (h2), total overpayments (h3), and total underpayments (h4) officially established as a result of the BAM investigation should also be adjusted, based on the results of the post-audit crossmatch.
- 9. Data for this phase of the pilot will be entered into the UI database on the state's Sun computer system no later than 120 days from the beginning of the pilot.

SDNH Crossmatch

1. States will crossmatch the SSNs of the claimants selected in the BAM samples for 26 consecutive batches (sampling weeks) with the SDNH. The SDNH crossmatch will begin <u>no later than</u> batch 200440 (week of September 26 - October 2). However, because the amount of time that states need to begin the SDNH phase of the pilot is expected to vary among the pilot participants, states may begin with any batch prior to 200440. States will notify the Department of Labor of their beginning date. Once beginning the SDNH crossmatch, states <u>must</u> continue for 26 consecutive batches.

These cases will be investigated according to the state's procedures and the guidelines in ET Handbook 395. BAM will determine whether the claimant was properly paid for the KW based on the information obtained through the SDNH crossmatch investigation along with all other information collected as part of the BAM investigation: claimant interview, employer and third party contacts, and agency records.

- 2. SDNH file access and retention are expected to vary among the pilot states. States should crossmatch the SSNs of the BAM sample cases with SDNH records that include the period from the claimant's benefit year beginning date (or 365 days prior to the KW ending date, whichever is less) to 30 days after the KW ending date of the sampled week. If a state does not have access to SDNH records for this period, it should notify the Department and provide the period of coverage for which they will be able to perform the crossmatch.
- 3. For those BAM cases that do <u>not</u> match any SSN in the SDNH, the rest of the BAM audit will proceed according to the state's procedures and the guidelines in ET Handbook 395.
- 4. For those BAM cases that <u>do</u> match a SSN in the SDNH, investigators will follow up with the claimant, employer, and relevant third parties to determine if the claimant had earnings during the compensated week of the BAM sample case. The primary purpose of the SDNH crossmatch is to detect BYE. However, if the BAM investigation identifies other issues that affect the claimant's eligibility for the compensated week, such as separation or A & A issues, these will be coded as well. (See #4 under "Post-Audit Crossmatch and Investigation" for examples.)
- 5. BAM will determine whether the claimant was properly paid for the key week based on the information obtained through the complete audit, including the SDNH crossmatch. For most cases, the BAM audit should be completed in sufficient time to meet the timeliness requirements. However, if information is pending from the SDNH crossmatch follow-up investigation and all other audit requirements for the case have been met, the supervisor can sign off the case and reopen it at a later date, using reopen code '7', when the SDNH information is complete. As with the wage record crossmatch, for cases reopened using code '8', the appropriate KW Action Code (h1) '4', '5', '7', or '8' will be entered. (See #5 under "Post-Audit Crossmatch and Investigation" for definitions and examples.) The time-lapse for cases using reopen code '7' will not be recalculated; timeliness will be calculated from the original supervisor sign-off date or the latest reopen date using reopen code '3' (state reopened to correct or revise data from original BAM audit).
- 6. For any error issue detected as a result of a hit through the SDNH crossmatch, Point of Detection will be coded with an '80' series code. Although the information that establishes the

BYE or other issue may be identified through wage verification or interviews with the claimant, employer, or third party, we want to distinguish those errors that were <u>first</u> identified through the SDNH crossmatch. States should use the state option codes in the second digit to specify the point of detection in the investigation subsequent to the initial SDNH crossmatch hit for information that documents a payment error.

SDNH Crossmatch plus subsequent actions:

81 = Verification of work search contact

82 = Verification of wages and/or separation

83 = Claimant interview

84 = Verification of eligibility with 3rd parties

85 = UI Records

86 = Job Service/Employment Service records

87 = Verification with union

- 7. If the state agency (through its Benefit Payment Control unit, for example) detected the payment error as a result of a crossmatch of claimant's SSN with the SDNH and has taken official action to establish overpayment for recovery before the BAM investigation was completed, Prior Agency Action should be coded '60'. States can use state option codes 61 69 to capture additional information. If the state agency has not taken official action with respect to the payment error issue, the appropriate Prior Agency Action code (10 59) should be entered.
- 8. The amount of overpayments (h5) and underpayments (h6) for the KW should be adjusted, based on the results of the SDNH crossmatch. The amount that the claimant should have been paid (h2), total overpayments (h3), and total underpayments (h4) officially established as a result of the BAM investigation should also be adjusted, based on the results of the SDNH crossmatch.
- 9. Data for this phase of the pilot will be entered into the UI database on the state's Sun computer system (supervisor sign-off plus reopen for follow-up investigation) no later than 120 days from the batch week ending date of the BAM sample case.

Cost Accounting

In order to estimate the costs for national implementation, states participating in the pilot will provide the following information to the Department of Labor (Attn: Andy Spisak, aspisak@dol.gov or fax: 202-693-3975) no later than 30 days from the conclusion of the pilot.

Task	Time (Staff Hours)	Personnel Cost (Direct salary plus overhead)	ADP Cost (Run time plus ADP overhead, e.g. facility or job / task charges)
ADP programming costs to crossmatch the BAM sample cases with the state's intrastate			

wage record files*	
ADP programming costs to crossmatch the BAM sample cases with the State Directory of New Hires*	
Follow-up investigation for cases with crossmatch hits from state's intrastate wage record files	N/A
Follow-up investigation for cases with crossmatch hits from SDNH	N/A

SDN	NH							
* I1	Include software development, testing, and production run.							
Comments (Please note any unusual or unanticipated tasks or issues):								

Additional Codes for BAM Pilot

Key Week Action Code Flag (h1)

- 4 Payment correct after original BAM investigation at time of supervisor sign-off; payment also correct after crossmatch with State Directory of New Hires or state UI wage record files.
- 5 Payment improper after original BAM investigation at time of supervisor sign-off; <u>no</u> additional key week error issues detected after crossmatch with State Directory of New Hires or state UI wage record files.
- 6 [Definition Reserved]
- 7 Payment correct after original BAM investigation at time of supervisor sign-off; payment improper after crossmatch with State Directory of New Hires or state UI wage record files (requires entry of data in the error issue table).
- 8 Payment improper after original BAM investigation at time of supervisor sign-off; additional key week error issues identified through the crossmatch with State Directory of New Hires or the state UI wage record files <u>or</u> additional information is identified through the crossmatch which requires revision of the previous coding (**requires entry of data in the error issue table**).

Edits: Key Week Action Flag Codes 4, 5, 7, and 8 valid <u>only</u> if reopen code = 7 or 8.

Error Cause (ei3)

480 - 489 Claimant filed UI claim using the identity of another person (Identity Theft).

Edits: If Error Cause Code = 480 - 489, KW Action (ei2) must equal 10, 11, 12, 13, or 15; Responsibility (ei4) code must equal 1[xxx] (1 in any combination with codes 0, 2, 3, and 4).

Note: This code can be used for any BAM paid claim sample case, not only for BAM pilot cases.

Point of Detection (ei5)

- 80 89 Crossmatch of claimant SSN with State Directory of New Hires.
- 90 99 Crossmatch of claimant SSN with State wage record files.

Prior Agency Action (ei6)

60 - 69 State agency had detected payment error as a result of crossmatch of claimant SSN with State Directory of New Hires and had taken official action to establish overpayment for recovery (or issue supplemental check or increase claimant's WBA, MBA, RB) before the BAM investigation was completed.

70 - 79 State agency had detected payment error as a result of crossmatch of claimant SSN with State wage record files and had taken official action to establish overpayment for recovery (or issue supplemental check or increase claimant's WBA, MBA, RB) before the BAM post-audit investigation was completed.

Reopen Code (ro1)

- 7 Case reopened to record results of crossmatch of claimant SSN with State Directory of New Hires.
- 8 Case reopened to record results of crossmatch of claimant SSN with State wage record files.

Edits: If Reopen Code = 7 or 8, Key Week Action Flag Code (h1) must equal 4, 5, 7, or 8. Timeliness will <u>not</u> be recalculated for cases reopened using reopen codes 7 or 8; timeliness will be based on the latest date in supervisor completion date (h10) or reopen date (ro2) for records with reopen code 3.