

**UNEMPLOYMENT INSURANCE
DATA VALIDATION HANDBOOK**

Contribution Reports

October 2002

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INTRODUCTION

A. OVERVIEW OF DATA VALIDATION: PRINCIPLES AND APPROACH

Principles

States regularly report to the U.S. Department of Labor (DOL) under the Unemployment Insurance Required Reports (UIRR) system. In particular, states submit a quarterly report on their activities collecting Unemployment Insurance (UI) employer contributions (taxes). This is the Employment and Training Administration (ETA) 581 report entitled “Contribution Operations.”

Data from the ETA 581 report are used for three critical purposes: (1) allocation of UI administrative funding based on state workload, (2) performance measurement to ensure the quality of state Unemployment Insurance program operations, and (3) calculation of state and national economic statistics. Exhibit I.1 summarizes the types and use of the data. Exhibit I.2 displays the ETA 581 report.

EXHIBIT I.1			
TYPES AND USES OF ETA 581 DATA			
Data Type	Funding/ Workload	Performance/Tax Performance System (TPS) Computed Measures	Economic Statistics
Active Employers	✓	✓	✓
Report Filing		✓	
Status Determinations		✓	✓
Accounts Receivable		✓	✓
Field Audits		✓	
Wage Items	✓		✓

Because the data have these critical uses, it is essential that states report their activities accurately and uniformly. Data validation is intended to assure accurate reporting of employer contribution activities. Two principles underlie a comprehensive data validation process:

1. If data are collected, they should be thoroughly validated to ensure that they are valid and usable.

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EXHIBIT I.2 FORM ETA-581

Contribution Operations

U.S. Department of Labor
Employment and Training Administration



A. Report for quarter ended		B. Region Code	C. State Code	D. State	E. Wage Reporting Basis ("X" one) <input type="checkbox"/> Request Reporting <input type="checkbox"/> Wage Record		OMB Approval No. 1205-0178 Expires: 8/31/2002		
Employer Count	Line	End of Quarter Employers			Delinquency Cutoff Date		Total Number of Wage Items Received		
		1. Contributory	2. Reimbursing	3. Total	4.		5.		
Employer Reports	201	Filing Reports For Preceding Quarters						12. No. of Outstanding Quarters Prior to Report Quarter	13. Total Estimated Contributions Due
		Contributory Employers			Reimbursing Employers				
		6. Filing Timely	7. Secured	8. Resolved	9. Filing Timely	10. Secured	11. Resolved		
Status Determinations	301	Status Determinations Made During Report Quarter						20. Inactivations/Terminations	
		Newly Established Accounts			Successor Accounts				
		14. Number	15. Time Lapse of 90 Days or less	16. Time Lapse of 180 Days or Less	17. Number	18. Time Lapse of 90 Days or less	19. Time Lapse of 180 Days or Less		
Contributory Employers: Receivables	401	21. Total Receivables at Beginning of Period	22. Amount Determined Receivable During Report Period	23. Receivables Liquidated During Report Period	24. Receivables Declared Uncollectible During Report Period	25. Receivables Removed at End of Report Period	26. Total Receivables at End of Report Period	27. No. of Employers Owing Receivables	
		28. 6 Months or Less	29. 9 Months	30. 12 Months	31. 15 Months	32. Over 15 Months			
Reimbursing Employers: Receivables	403	33. Total Receivables at Beginning of Period	34. Amount Determined Receivable During Report Period	35. Receivables Liquidated During Report Period	36. Receivables Declared Uncollectible During Report Period	37. Receivables Removed at End of Report Period	38. Total Receivables at End of Report Period	39. No. of Employers Owing Receivables	
		40. 6 Months or Less	41. 9 Months	42. 12 Months	43. 15 Months	44. Over 15 Months			
Audit Activity	501	Number of Audits		48. Calendar Quarters Audited	Total Wages Audited		51. Hours Spent in Auditing	52. No. of Employees Misclassified as Indep. Contractors	
		45. Large Employer Audits	46. Change Audits	47. Total Audits	49. Pre-Audit	50. Post Audit			
		Amount Underreported			Amount Overreported				
	502	53. Total Wages	54. Taxable Wages	55. Contributions	56. Total Wages	57. Taxable Wages	58. Contributions		
F. Signature		Title				Date			

Persons are not required to respond to this collection of information unless it displays a currently valid OMB control number. Respondents obligation to reply to these reporting requirements are required to obtain or retain benefits (SSA302(a)). Public reporting burden for this collection of information is estimated to average 8 1/2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Labor, Office of Unemployment Insurance, Room S-4516, Washington, DC 20210 (Paperwork Reduction Project 1205-0178).

ETA-581 (Rev. Mar. 1999)

INTRODUCTION

2. To be practical for national implementation, the validation approach must be efficient and cost effective.

These two principles have been used to develop this system for validating data that states report to the U.S. Department of Labor on the ETA-581 form. The comprehensive data validation program described in this handbook ensures the accuracy of the UIRR data. It validates most items on the ETA 581 report using a process that is highly automated and complements existing quality control programs such as the Tax Performance System (TPS).

This handbook explains in detail how to do data validation. In addition to the handbook, DOL provides a software application that processes state-produced extract files, then uses them to validate the ETA 581 report.

Approach

The basic approach used in data validation is to *reconstruct* the numbers that should have been reported on the ETA 581 form. Because state UI records are highly automated, states can develop computer programs that go through their electronic databases and extract all transactions that should have been on the report. Automation reduces the burden on validators and state data processing staff as they extract records from state files, assemble those records for analysis, and assess validation results. Once transactions are extracted, they are subjected to a series of “logic rules.” These rules test the accuracy of the reconstructed data, assuring that states have used the most definitive source of information and have adhered to Federal definitions. After it is determined that the extract data meet the logic rules, they are used to produce validation counts that are compared to what the state has reported. If the validation counts confirm what was reported, within plus or minus 2 percent, then the reporting system is judged valid.

Modules 1, 2, and 3 of this handbook explain how to create and test reconstruction files. Although the basic approach is standard for all states, the instructions are state-specific in that they present many details of the validation process using terminology and data elements familiar to each individual state.

The instructions guide the state as it goes back to its automated databases to select transactions for analysis. Following the specifications in the handbook, the state extracts all records that should be counted on the Federal report.

Once the state has developed an accurate reconstruction of the transactions that should have been reported on the ETA 581, the handbook guides the state in the use of UI Tax Data Validation software to compare the reconstructed counts to the values that were actually reported.

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Modules 4 and 5 of this handbook provide instructions for two validation tasks that do not use an automated reconstruction approach. Module 4 tests the procedures for selecting samples used in the Tax Performance System. Module 5 describes procedures for validating counts of wage items processed.

B. DATA ERRORS IDENTIFIED THROUGH VALIDATION

Validation is intended to ensure that data on the ETA 581 report are error free. Thus the design of the data validation system is grounded in an understanding of likely sources of reporting error — both systematic errors and random errors. Systematic errors involve faulty design or execution of reporting procedures or the automated programs that generate reported counts. Random errors are mistakes in judgment or data entry that corrupt the information entered in data systems or recorded on reports. The validation design addresses both types of error.

- **Systematic errors** can be serious because they are imbedded in automated reporting programs and standard state reporting procedures, including incorrect definitions and procedures. Thus, when they occur at all, they occur repeatedly. On a more positive note, the systematic nature of these errors means that they do not need to be assessed very often, and, once corrected, are unlikely to reoccur.

Systematic errors can produce three types of misreporting: (1) too many transactions (overcounts), (2) too few transactions (undercounts), and (3) misclassification of transactions. The primary purpose of the data validation process is to identify the occasions when systematic errors produce incorrect reports.

- **Random errors** are more variable. They include problems such as input errors or judgment errors, for example, misunderstanding or misapplying Federal definitions. In general, random errors occur intermittently. For example, a few data entry errors may occur even when most information is entered correctly. Correcting one error does not ensure that similar errors will not occur in the future.

Many of the more common random, judgment, and definitional errors can be detected through existing Tax Performance System (TPS) reviews. TPS acceptance samples for status determinations and field audits are used to evaluate the accuracy of transaction classification and posting. TPS system reviews look for strong supervision, up-to-date documentation, and other controls that limit human error. Data validation does not attempt to repeat TPS reviews. Rather, it supplements TPS with a review of systematic errors while remaining alert to additional sources of random error.

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Consistent and accurate reporting requires both good data and accurate systems for reporting the data. Data validation and TPS together test whether data are entered accurately and whether they are counted correctly.

C. DATA SOURCES FOR FEDERAL REPORTING AND VALIDATION

States use different methods to prepare the ETA 581 report. Some states produce the Federal reports directly from the employer contribution database. Computer programs scan the entire database to select, classify, and count transactions. Other states produce a database extract or statistical file as transactions are processed, essentially keeping a running count of items to be tabulated for the report. Still other states use a combination of these methods. The basic approach to data validation is the same no matter how the report is developed — states reconstruct the transactions that should have been reported and do so using standard national criteria.

The validation methodology is flexible in accommodating the different approaches used by states. However, validation is most effective when validation data are produced directly from the employer contributions database. For cost reasons and to minimize changes in data over time, some states prefer to use daily, weekly, or monthly statistical extract files instead. When extract files are used, other types of system errors may occur. Reportable transactions may be improperly excluded from the employer master file. Furthermore, the statistical file may contain corrupt data. The statistical file is not used as part of the daily tax system and, therefore, errors may not be detected and corrected through routine agency business.

The only way to test for these problems is to independently reconstruct or query the employer master file. States that produce validation data from the same extract files used to produce the ETA 581, rather than directly from the database, must ensure that the extract files contain all the appropriate employers or transactions. The way to do this is to recreate the logic used to produce the reports. This handbook includes a validation tool, “independent count validation,” specifically for this purpose. The specific type of independent count (simple query, multiple queries, cross tabulation) must be determined by state programming staff.¹

Exhibit I.3 outlines variations in the validation methodology, based on typical state approaches to ETA 581 reporting and data validation reconstruction. To identify the specific validation methodology to be implemented, the state validator or

¹ There is no way to accurately reconstruct the report count when the statistical file contains transactions that are no longer present in the database (e.g., when it includes status determinations deleted from the main database after a corrected status determination for the same employer).

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Federal representative should identify the state's ETA 581 report source and validation reconstruction source for each population to be validated.

D. BASIC VALIDATION APPROACH

States themselves perform validation and report the results to DOL. The UI Tax Data Validation software provided by DOL processes data extract files produced by the state and generates all required validation reports.

Data validation provides a reconstruction or audit trail to support the counts and classifications of transactions that were submitted on the ETA 581 report. Through this audit trail, the state proves that its UIRR data have been correctly counted and reported. For example, if a state reports 5,000 reimbursable employers at the end of the quarter, then the state must create a file listing all 5,000 employers as well as relevant characteristics, such as the Employer Account Number (EAN), employer type, liability date, number of liable quarters, and sum of wages in those quarters. Analysis of these characteristics can assure validators that the file contains 5,000 correctly classified employers. The reported number is proved and the report is considered valid.

To assure that the reconstruction of report counts has been done correctly, UI Tax Data Validation software tests the accuracy of the reconstruction process:

- Automated error checking eliminates records from the reconstruction files if they contain errors due to missing data, out-of-range values, duplicate transactions, or incorrectly specified data. (Module 2.1)

There are two additional data edits that are only partially automated:

- File Integrity Validation requires the validator to review employer histories to ensure that the correct data have been extracted from the state's database. (Module 2.2)
- Range validation tests that data validation files include the correct information. It instructs the validator on how to use state data to test that all records are within specified ranges. (Module 2.3)

These checks build validators' confidence in the reconstruction count. Thus, when they tabulate the numbers of transactions in the validation file and compare them to the reported numbers, they can feel sure that they are accurately testing the validity of the reports.

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EXHIBIT I.3

VARIATIONS IN VALIDATION METHODOLOGIES BASED ON STATE APPROACHES TO REPORTING AND RECONSTRUCTION

Scenario	Transactions Overwritten on Database	ETA 581			Data Validation			Independent Count Required	Source Documentation Review Required	Comments
		Program Type	Source	Timing	Program Type	Source	Timing			
1	No	Count	Database	Snapshot	DRE	Database	Snapshot	No	No	Best scenario because comparing snapshots eliminates timing discrepancies
2	No	Count	Statistical file	Daily	DRE	Database	Snapshot	No	No	Database is only reconstruction source. There could be changes in transaction characteristics (but will find all transactions).
3	No	DRE	Database	Snapshot	DRE	Database	Snapshot	Yes	No	Reporting and validation are the same program. Independent count may mirror that program.
4	No	DRE	Statistical file	Daily	DRE	Statistical file	Daily	Yes	Yes	Since transactions are not overwritten, states should be able to do Scenario 2 instead.
5	Yes	DRE	Statistical file	Daily	DRE	Statistical file	Daily	NA	NA	No alternative validation source. Cannot reconstruct from the database. Not thorough validation.
6	Yes	Count	Statistical file	Daily	Must create a daily extract	NA	NA	NA	NA	Cannot reconstruct from database. Must change reporting process to Scenario 5.

NOTE: Snapshot is of the last day of the reporting period.

DRE = Detail Record Extract

NA = Not Available

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After states complete validation, the Federal partner may audit the results. To facilitate the Federal audit, the state must prepare and maintain a validation package. This package enables the Federal auditor to easily follow the validator's work, without requiring the state to print out entire reconstruction files. The components of the package are discussed in more detail in Modules 1 and 2.²

E. UNITS OF ANALYSIS

There are 50 ETA 581 report items to validate.³ Each item has its own set of definitions, rules, and validation requirements. To minimize the burden of reconstructing item counts, the validation process is streamlined by breaking it down into manageable components and providing a software package that does much of the analysis. The data to be validated are grouped into mutually exclusive *populations* and *subpopulations*. The validation process itself is organized into a series of *modules* that are the logical steps in the process. This structure lets the state validation team focus on one type of data at a time, and validate each type of data one step at a time.

A single employer account transaction may be counted in several different ETA 581 report items. For example, a contributions report that is filed timely is counted in two items for the current report quarter (timely reports and reports secured) and in one item in the following report quarter (reports resolved).

Validation reconstructs and analyzes each transaction only once, even if it is counted in multiple cells on the report. Employers or transactions are classified into mutually exclusive groups — specifically, five types of employers or transactions (populations), which are further divided into 46 mutually exclusive groups (subpopulations). All validation counts are built from these subpopulations. The five populations are: (1) Active Employers, (2) Report Filing, (3) Status Determinations, (4) Accounts Receivable, and (5) Fields Audits.

² This handbook provides detailed validation instructions for each state to ensure that state and Federal staff understand all relevant aspects of the state's employer contributions reporting system. In specifying how to reconstruct reported transactions, the methodology explains the criteria that states should use in their Federal employer contributions reporting. Thus in addition to guiding the states through the validation process, this handbook provides technical guidance on Federal ETA 581 reporting requirements.

³ Wage items processed (item 5 on the ETA 581) are validated but through a less comprehensive process. They are not included as a reconstruction population.

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Exhibit I.4 lists the ETA 581 populations and subpopulations that are reconstructed and the number of report items being validated for each. It also describes the dimensions along which populations are sorted as they are divided into subpopulations.

EXHIBIT I.4				
ETA 581 REPORT, BY TRANSACTION POPULATION				
Transaction Population	ETA 581 Line Numbers	Dimensions Used to Distinguish Subpopulations	Number of Report Items	Number of Subpopulations
1. Active Employers	101	Employer status <ul style="list-style-type: none"> • contributory • reimbursing 	3	2
2. Report Filing	201	Timing of report receipt and resolution <ul style="list-style-type: none"> • timely • secured within the quarter • resolved within two quarters 	6	16
3. Status Determinations	301	Type of status determination <ul style="list-style-type: none"> • new • successor • inactive • terminated Time lapse of the determination	7	8
4. Accounts Receivable	401 402 403 404	Type of receivable processing <ul style="list-style-type: none"> • amounts established • liquidated • declared uncollectible • removed from the report • outstanding debt. 	22	16
5. Field Audits	501 502	Employer size <ul style="list-style-type: none"> • small • large Audit result <ul style="list-style-type: none"> • change • no change 	11	4
Wage Items Processed	101		1	N/A

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F. HANDBOOK OVERVIEW

State staff produce a series of extract files that contain all relevant data for each population to be validated. These extract files are imported to the UI Tax Data Validation software which reads these files, checks for errors, eliminates invalid records, sorts populations into subpopulations, counts transactions, compares validation counts to reported counts, and displays the results in spreadsheet formats. The UI Tax Data Validation software also produces a list of invalid records and the type of error that caused each record to be rejected.

To assure that reported data are accurate and meet Federal reporting definitions, there are five validation processes or “modules.” These modules provide all the tools to be used in validating the quantity and quality of Federally reported data.

Modules

- **Module 1 — Report Validation (RV) Item Count**

Module 1 validates that the programs that create the Federal reports are functioning correctly. The module provides instructions for creating the extract files that are audit trails for information in the ETA 581 report. Detailed specifications for these extract files can be found in Module 1 and Appendix A. Once the extract files are created, they are arrayed in a standard format that can be imported into the UI Tax Data Validation software for error checking and tabulation.

Data validation software compares the count in each Federal report item with the count from its corresponding subpopulations in the reconstruction files. It performs all necessary calculations and determines whether any differences between the counts are within an acceptable level of error. The results are displayed in a Report Validation Spreadsheet report.

- **Module 2 — Data Element Validation (DEV)**

Module 2 validates individual transactions to determine the accuracy of both the state reconstruction files and the data elements used to classify the transactions.

(2.1) Error Checking. UI Tax Data Validation software checks every record in the extract file for missing data, out-of-range values, duplicate transactions, and invalid data. Invalid cases are eliminated from the reconstruction file. The software produces an error report that lists invalid records and the type of error involved.

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- (2.2) **File Integrity Validation.** For a minimum sample of two (2) transactions per subpopulation, the validator compares characteristics in the record to all available documentation in the state's files. The transactions to be reviewed are selected by the UI Tax Data Validation software. This test ensures that the data in the reconstruction file accurately reflect the correct employer records in the state's database. An FIV samples worksheet is provided with the Federal software. It is used to enter and display FIV results.
- (2.3) **Range Validation** presents additional validity tests that examine whether characteristics associated with a transaction are in the correct range for the particular population and subpopulation in which the transaction has been placed .
- (2.4) **Corrective Action Planning.** When the data validation process detects problems with the data on reports, the state must institute a corrective action plan (CAP) in accordance with its state Quality Service Plan (SQSP). The CAP process allows states to resolve any invalid data and re-validate their reports.

- **Module 3 — State-Specific Data Element Validation Instructions**

Module 3 contains the state-specific set of instructions that the validator uses in DEV. The module also provides Federal definitions for all data elements. The instructions refer the validator to the appropriate screen, field, and code used to validate the data item in that state. Each data element has its own "Step." The Step numbers are used throughout the handbook to refer readers with questions to the appropriate section of Module 3.

- **Module 4 — TPS Validation**

This module describes a process to validate that TPS acceptance samples were selected using appropriate methods.

- **Module 5 — Wage Item Validation**

This module explains how the counts of wage items are to be validated.

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Appendices

- **Appendix A — Part I: Inclusion Criteria** specifies the types of employers and transactions that states extract and import into the Federally provided software. **Part II: RV Specifications** contains detailed specifications for dividing the extract files into subpopulations.
- **Appendix B — Independent Count** provides a mechanism for the validator to determine whether any transactions have been excluded from any ETA 581 report item. This mechanism is applicable to states that create the ETA 581 from the same extract files used to generate the reconstructed files. An independent count is not required for states that use separate programs to generate Federal reports and to reconstruct the reported transactions.

G. WALKTHROUGH OF THE DATA VALIDATION METHODOLOGY

Exhibit I.5 illustrates the data validation process detailed in the handbook modules and appendixes, using ETA 581 active employers as an example.⁴

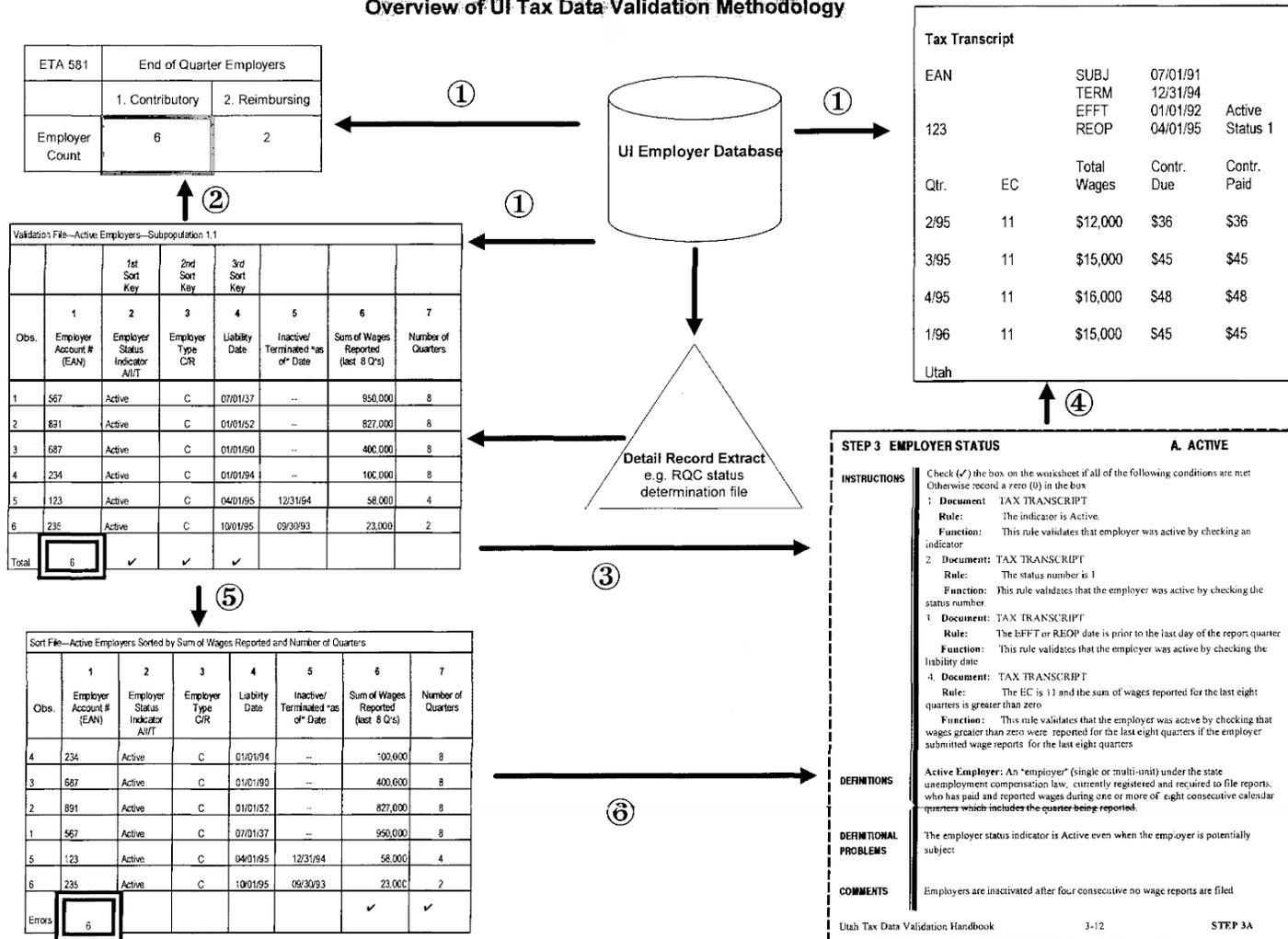
- ① The “*UI Employer Database*” represents the state’s master file, or perhaps several databases storing data on different parts of the tax operation. As states manage employer contributions, they enter data in the database. There may also be times when the system automatically places data in employer accounts, for example, when an automated flag is placed in an employer file to indicate that a report is delinquent.

As Exhibit I.5 shows graphically, the state may view data from the database in several different ways. A state may query the database, for example, by referring to a query screen such as the “Tax Transcript” at the top right of the figure. The state may also produce more formal reports such as the ETA 581, a portion of which is shown at the top left.

⁴ The validation file, sort file, and state-specific handbook have been modified slightly in Exhibit I.5 for presentation purposes. Utah’s Tax Transcript screen and handbook are shown.

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**Exhibit I.5
Overview of UI Tax Data Validation Methodology**



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- ② To validate the official report, the *state data validation staff* develops a detailed record extract, or *reconstruction file* — a list of all transactions on the state database that should be reported for a single item on the ETA 581. The file is displayed for review by validators (middle figure in left column).

The *UI Tax Data Validation software* displays the file for review by validators, compares the reconstructed count (here 6) to the reported count (also 6), and checks transactions for duplicates and other errors.

The state should concurrently generate the ETA 581 and the validation file (the reconstructed “audit trail”) from the employer database. At the same time the state should produce supporting documentation from the employer database (for example, query screens) for File Integrity Validation (FIV) (Module 2).⁵ Alternatively, the state may generate the ETA 581 and/or the validation file from a detail record extract statistical file (such as a TPS universe).

The *validator* assembles a package of materials — electronic and hard copy listings of the beginning and end of reconstruction files, population spreadsheets, worksheets, and screens — to be used during validation and for review by an auditor from the U.S. Department of Labor.

- ③ The *validator*, following the “step” numbers in each column heading on the reconstruction specification, tests the integrity of the reconstructed data. The bottom right portion of Exhibit I.5 shows a page of Module 3. The “Steps” in Module 3 contain state-specific instructions for checking that the reconstruction files have been built correctly.
- ④ The handbook refers to state source documentation (usually query screens) that the validator compares to the reconstruction file to complete FIV.
- ⑤ The validator, again guided by step numbers in each column heading, refers to specific steps in the state-specific validation handbook to

⁵ Given the highly automated nature of tax data validation, database screens are generally the only supporting documentation needed. Therefore, this handbook refers to screens, rather than to supporting documentation, throughout. To prevent inconsistencies due to timing, screens to validate the accuracy of transfer of data from the database should be printed at the same time as the reconstruction file is created.

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validate that the individual data elements have been accurately classified and match the Federal definitions.

- ⑥ If necessary, after reconstruction files have been tested and corrected, the validator makes a final comparison between the reconstruction counts and the report counts.

H. OVERVIEW: PREPARATION FOR DATA VALIDATION — TASK 1

From time to time this handbook provides *recommendations* for managing the validation process. These recommendations are described in “Task” exhibits. For each task the handbook provides a listing of activities to be completed and the staff who are likely to take the lead on each activity. Staff roles and responsibilities for preparing for data validation are summarized in Exhibit I.6 below. Staff roles will be divided among:

- *Automated data processing* (ADP) staff, who have the primary responsibility for extracting data from the database to create the reconstruction files. UI Tax Data Validation software sorts and formats those files so they are useful to validators.
- *Validators*, the end users who test the reconstructed data and then assess the validity of the information the state has reported on the ETA 581 report. Validators should work closely with ADP staff to determine the information that belongs in the reconstruction files.
- *Managers*, who are responsible for assuring that (1) the data validation process stays on track and (2) the data validation team has the resources it needs to meet the requirements of this handbook and the schedule set by the state.

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EXHIBIT I.6 TASK 1: PREPARING FOR DATA VALIDATION	
Activity	Roles
Assemble data validation team.	Managers
Review handbook.	Validators, ADP
Attend training. Share training with staff who did not attend.	Validators, ADP
Review and update state-specific information in Module 3 of the handbook. Send U.S. DOL and its contractor a copy of the module with any needed changes clearly marked.	ADP, with help from validators
Develop a data validation plan with: <ul style="list-style-type: none">• Schedule for completing data processing and validation review <i>for each population.</i>• Staff assignments for each step in the data validation process.	Managers, validators, ADP

The remainder of this handbook guides users through the data validation process. Modules 1, 2, and 3 describe the major steps that states must follow when conducting data validation. Appendices provide the forms and specifications needed as the state proceeds through these steps. The general process is that the state produces a series of files that list all transactions that are to be counted on the ETA 581 report. The files are imported into UI Tax Data Validation software which reads transactions, compares validation counts to reported counts, and displays the results in a spreadsheet format.

Module 1

REPORT VALIDATION – ITEM COUNT

Module 1, Item Count, describes the process that state staff use to produce reconstruction/extract files. These files contain all transactions from the state Unemployment Insurance database that should be counted for a single quarter on the Federal report.

Reconstruction files are created for five different categories of data, referred to as data populations. The populations are listed in Exhibit 1.1 along with their corresponding sections of the ETA 581 report.

EXHIBIT 1.1		
SUMMARY OF REPORT VALIDATION POPULATION FILES		
File Specification	Population	ETA 581 Line Number
1	Active employers	101
2	Report filing	201
3	Status determinations	301
4	Accounts receivable	401, 402, 403, 404
5	Field audits	501, 502

Once created, the reconstruction files are imported into the UI Tax Data Validation software. That software reconstructs counts of transactions or employers and compares those counts to the numbers that were submitted on the ETA 581 report for the comparable quarter.

Before the data counts and validation results are judged to be final, the validation files are subjected to both automated and manual error-checking procedures. These checks eliminate invalid cases, ensuring that the reconstruction is based on an accurate and unduplicated count of transactions.

A. Specifications for Creation of Report Validation (Extract) Files

Appendix A contains instructions that specify how extract files are to be created for each population and subpopulation:

- Inclusion criteria are found in Appendix A, Part I. This section specifies the kinds of employers and transactions that are to be included in each population.

- The record layouts found in the User Guide¹ for the UI Tax Data Validation software specify how the state should organize and format the data for each record so that it will be accepted by the UI Tax Data Validation software.
- Appendix A, Part II, gives the specifications that the UI Tax Data Validation software will follow as it assigns records to subpopulations. The state does not need to intervene to allocate transactions to subpopulations. However, it is important that state staff understand the specifications. The ETA 581 data are validated using counts of the number of transactions in each subpopulation.

Since every transaction is assigned to one, and only one, subpopulation, the data processing staff can also use Appendix A, Part II, as a programming guide. If they choose, they can build a separate file for each subpopulation. These files can be concatenated to create the extract file for the entire population. Building the population one subpopulation at a time allows data processing staff to build the extract file one manageable piece at a time.

1. Transactions to be Included in the Extract File.

To create the report validation file, the state must go back to its source files (database) and select every transaction that meets the criteria for inclusion. These criteria can be found in Appendix A, Part I. An example of the inclusion criteria for Population 1 appears in Exhibit 1.2.

The narrative in this section describes which transactions or employers to select for inclusion in the extract file for each population. Inclusion criteria should be used in conjunction with the information in the column entitled “**Module 3 Reference.**” That column refers the reader to a “step” in Module 3 of this handbook. If you turn to that step, you will find more detailed information regarding the definition of the data element being used by the inclusion criteria.

Example (see Exhibit 1.2):

The instructions tell the state that the extract file for Population 1 should include only employers that are active as of the last day of the report quarter (RQ). If the state needs more information on what is meant by an active employer, this is provided in Step 3A of Module 3.

¹ The User Guide for the software is a separate document that can be downloaded from the Federal web site: www.ows.doleta.gov/dv.

2. Layout of Records in Data Validation Extract Files

Transactions must be extracted from the state database in the specified standard format. For each transaction selected, the state will list many data elements. Those elements are the characteristics of the transaction that are necessary to determine the subpopulation (and hence reporting item) to which it should be assigned.

Record layouts for each of five populations are included in both the software and the User Guide. The User Guide also provides instructions for using the record layouts. Inclusion criteria and record layout for Population 1 are presented here to illustrate the process. States should create an ASCII file with one column for each field listed in the record

EXHIBIT 1.2 POPULATION ONE INCLUSION CRITERIA
<p>Population 1 should include all employers who were active as of the last day of the report quarter.</p> <p>To be included:</p> <ul style="list-style-type: none">• The employer must have an employer type that is active (Step 3A).• The most recent liability date, initial or reopen, must be prior to the end of the quarter and must be later than any inactive/terminated date that appears in the employer's file (Steps 4 & 5).• The employer must have submitted at least one report indicating wages paid in the eight consecutive quarters ending with RQ. (Step 7A).

layout. The fields should be listed in the order they appear in the layout. Commas should be entered to separate each field.

An example of the second part of the record layout specifications for Population One is found in Exhibit 1.3. To help you understand the exhibit let us discuss each column.

Number and Field Name identify the characteristics or fields that should be listed for each transaction.

Module 3 Reference guides state staff to a portion of the handbook where they can find more detailed instructions for the information to be entered in the field. Module 3 of this handbook is organized by steps. Turn to Module 3 and you will see step numbers prominently displayed at the bottom and top of each page.

When you turn to the step indicated in the record layout, two types of information will be provided regarding the field. First, there will be an annotated version of the *Federal definition* for the field. Second, at the start of the step will be a section labeled *File Integrity Validation*. In that section there will be a **document** and **rule** that indicate where the information for the field can be found in the state database. The location will be identified by reference to fields in query screens used in the state's UI tax automated system ("document") and particular fields on each screen ("rule").

Field Description provides a narrative explanation of the data to be recorded in the field.

Data Type/Format specifies how the data should be displayed. Where the data are numeric, the word "Number" will appear. Numerical fields will accept ten digits. Fields containing dollar amounts will accept numerical entries of any size. Of dollar amounts are listed showing cents, the decimal points should be included. All other numerical fields should be whole integers with no decimal points.

If the field is alphanumeric the word "Text" will appear. The listing also indicates the alpha codes that must be used. The alpha codes are the generic indicators that allow common coding across states. States should also list their own indicators. *The listing should include both the generic and state codes separated by a dash, for example, C-01, where 'C' is the generic code and '01' is the state code for employer type that is listed in the database for this transaction.*

Exhibit 1.4 displays a sample printout of a portion of an extract file in the prescribed format.

EXHIBIT 1.3
SAMPLE RECORD LAYOUT FOR POPULATION ONE

Extract file type is: ASCII, comma delimited columns. The record layout should be used to create a reconstruction file of all active employers on the last day of the Report Quarter (RQ) covered by the ETA 581 being validated. Reconstruction should be done at the end of the RQ being validated (when the ETA 581 report program is run). The module 3 reference indicates the step where the state-specific values are documented. Data must be in the order and format listed in the Data Type/Format column. The Data Type/Format column also indicates the generic values for text fields. These must be followed by a dash and the state-specific value. All fields listed as mandatory are required fields. All other field values are required only for specific types of employers as noted. If a state declares employers inactive after less than eight liable quarters of zero wages, the header of the reconstruction file should indicate the maximum number of liable quarters of zero wages that are permitted.

Number	Field Name	Module 3 Reference	Field Description	Data Type/Format
1.	OBS		Sequential number, start at 1.	Number - 00000000 (Mandatory)
2.	EAN	Step 1A	Employer Account Number	Number - 00000000 (Mandatory)
3.	Employer Status Indicator	Step 3A	Indicate that the employer is an active employer.	Text – A (Mandatory)
4.	Employer Type	Step 2A Step 2B	Indicate whether the employer type is contributory or reimbursable.	Text – C; R (Mandatory)
5.	Liability Date (Initial)	Step 4A	Indicate the date on which the employing unit meets the state’s definition of an employer and is registered and required to file reports.	Date – MM/DD/YYYY (Mandatory)
6.	Liability Date (Reopen)	Step 4B	Indicate the date an employing unit which was previously inactive or terminated again meets the definition of employer in the state unemployment compensation laws.	Date – MM/DD/YYYY (Mandatory if Liability Date Initial blank)
7.	Inactive/Terminated “as of” Date	Step5	Indicate the effective date for the termination or inactivation status of the employer.	Date – MM/DD/YYYY
8.	Activation Processing Date	Step 15	Indicate the date on which an account was established on state’s system for an “employer,” under the state unemployment compensation law.	Date – MM/DD/YYYY
9.	Number of Liable Quarters	Step 7B	Indicate the number of consecutive quarters between the date the employer was last activated on state’s system and the report quarter. If the number of liable quarters is eight or more, the value should be reported as eight.	Number – 0 (Mandatory)

Number	Field Name	Module 3 Reference	Field Description	Data Type/Format
10.	Wages in Quarter 1	Step 7A	Total wages for the employer in the quarter prior to the report quarter. Field is unlimited length.	Number – 000000000000.00 (Mandatory)
11.	Wages in Quarter 2	Step 7A	Total wages for the employer in the second quarter prior to the report quarter. Field is unlimited length.	Number – 000000000000.00 (Mandatory)
12.	Wages in Quarter 3	Step 7A	Total wages for the employer in the third quarter prior to the report quarter. Field is unlimited length.	Number – 000000000000.00 (Mandatory)
13.	Wages in Quarter 4	Step 7A	Total wages for the employer in the fourth quarter prior to the report quarter. Field is unlimited length.	Number – 000000000000.00 (Mandatory)
14.	Wages in Quarter 5	Step 7A	Total wages for the employer in the fifth quarter prior to the report quarter. Field is unlimited length.	Number – 000000000000.00 (Mandatory)
15.	Wages in Quarter 6	Step 7A	Total wages for the employer in the sixth quarter prior to the report quarter. Field is unlimited length.	Number – 000000000000.00 (Mandatory)
16.	Wages in Quarter 7	Step 7A	Total wages for the employer in the seventh quarter prior to the report quarter. Field is unlimited length.	Number – 000000000000.00 (Mandatory)
17.	Wages in Quarter 8	Step 7A	Total wages for the employer in the eighth quarter prior to the report quarter. Field is unlimited length.	Number – 000000000000.00 (Mandatory)
18.	User Field		User-defined field.	Text (Optional)

EXHIBIT 1.4
SAMPLE EXTRACT FILE FOR POPULATION FOUR

00002,0001907002,C,04/01/2001,12/31/2000,200102,01/31/2001,Liq,,0.01,,,,,
00003,0002247003,C,04/02/2001,03/31/1998,200102,04/30/1998,Liq,,196.00,,,,,
00004,0002247003,C,04/02/2001,03/31/1999,200102,04/30/1999,Liq,,196.00,,,,,
00005,0002247003,C,04/02/2001,03/31/2000,200102,04/30/2000,Liq,,120.57,,,,,
00006,0002247003,C,04/02/2001,06/30/2000,200102,07/31/2000,Liq,,29.42,,,,,
00007,0003727009,C,06/04/2001,12/31/2000,200102,01/31/2001,Liq,,78.81,,,,,
00008,0004680006,C,04/30/2001,12/31/2000,200102,01/31/2001,Liq,,330.00,,,,,
00009,0005591007,C,05/25/2001,03/31/2001,200102,04/30/2001,Liq,,1469.80,,,,,
00010,0006870007,C,05/14/2001,03/31/2001,200102,04/30/2001,Liq,,606.16,,,,,
00011,0007064004,C,05/25/2001,03/31/2001,200102,04/30/2001,Liq,,3000.00,,,,,
00001,0009336001,C,,09/30/1999,199902,07/31/1999,,,,,85.88,,,
00002,0029406006,C,,09/30/1999,199902,07/31/1999,,,,,35.36,,,
00003,0030266005,C,,09/30/1999,199902,07/31/1999,,,,,229.74,,,
00004,0031888000,C,,09/30/2000,199902,07/31/1999,,,,,141.76,,,
00005,0038864009,C,,03/31/2000,199902,07/31/1999,,,,,559.65,,,
00006,0044497000,C,,09/30/1999,199902,07/31/1999,,,,,75.35,,,
00007,0048925006,C,,03/31/2000,199902,07/31/1999,,,,,113.29,,,
00008,0050129004,C,,12/31/1999,199902,07/31/1999,,,,,145.82,,,
00009,0050818004,C,,09/30/1999,199902,07/31/1999,,,,,0.01,,,
00010,0051117000,C,,09/30/2000,199902,07/31/1999,,,,,412.08,,,
00011,0052141001,C,,09/30/1999,199902,07/31/1999,,,,,0.01,,,
00001,0000441007,C,,03/31/2001,200102,04/30/2001,B,,,,,12.67,,
00002,0001961004,C,,12/31/2000,200102,01/31/2001,B,,,,,1601.15,,
00003,0003831000,C,,03/31/2001,200102,04/30/2001,B,,,,,31.92,,
00004,0004680006,C,,12/31/2000,200102,01/31/2001,B,,,,,88.41,,
00005,0005058007,C,,03/31/2001,200102,04/30/2001,B,,,,,14.40,,
00006,0008224005,C,,03/31/2000,200102,04/30/2000,B,,,,,0.01,,
00007,0009413006,C,,03/31/2001,200102,04/30/2001,B,,,,,278.07,,

3. Importing Extract Files into UI Tax Data Validation software

Once the file is arrayed according to the standard format it can be imported into the UI Tax Data Validation software. Instructions for how to import the file can be found in the User Guide. The software will screen each record in the file, reject it if it is invalid and assign it to a proper counting category if it is valid. Module 2 discusses the data tests that occur as the file is imported.

4. Report Validation File Specifications

Once the extract file for each population has been imported, the UI Tax Data Validation software organizes each population into its component subpopulations. These subpopulations are designed to correspond to the basic counting categories for reporting. For example, the extract file imported into the software for Population 5 will contain all field audits completed during a report quarter. The population will be automatically divided into subpopulations such as *large employer audits with “no change”* because the Federal report counts the number of large employers audited and the number of those audits that resulted in changes to an employer’s contribution report.

Even though states can allow the UI Tax Data Validation software to sort populations into subpopulations, it is important that they understand how the software makes those assignments. Subpopulations are the basic counting categories that will be used to judge whether state reports are valid.

Understanding the concept of subpopulations will also help you understand the population’s contents. Remember that the records included in each subpopulation are mutually exclusive. Each transaction is to be listed in one and only one subpopulation. The population is a combination of the records from all subpopulations. By examining the specifications for each subpopulation, state staff can understand the pieces that make up the population as a whole, and they can do so one piece at a time.

The structure of the subpopulations is specified in tables contained in Appendix A, Part II. Exhibit 1.5 is a copy of the first page of the reconstruction file specifications for population 1, Active Employers.² It may be helpful to walk through the key features of the specifications, by the numbers.

- ① Appendix A, Part II, includes a table for each of five transaction populations. Each population captures a single category of data.

Example: This table is for population 1, active employers.

² The entire specification can be found in Appendix A, page A10.

- ② Each transaction population is further divided into subpopulations to match the types of transactions that are reported on ETA 581. For example, population 1 is subdivided into two subpopulations by type of employer (contributory and reimbursing). The first column in the table lists the subpopulation numbers.

Each row in the table provides the specifications for the entire reconstruction file for the subpopulation. This subpopulation will be a portion of the reconstruction file for the whole population. The state produces the extract file with the full set of data elements required by this specification. The UI Tax Data Validation software sorts the transactions into appropriate subpopulations.

Example: This row shows that the UI Tax Data Validation software selects appropriate records from the extract file to create a list of all contributory employers that were liable at the end of the report quarter (subpopulation 1.1). Other employers from the extract file (i.e., reimbursing employer) are assigned to subpopulation 1.2.

- ③ Written descriptions of the subpopulations follow each table in Appendix A, Part II. These descriptions are the first place to look to understand the subpopulations. Once the narrative description has made the conceptual framework clear, it should be easier to understand the more cryptic symbols in the grid.
- ④ The second column in the specification indicates the ETA 581 item(s) to which this subpopulation count is compared. In population 1, there is a one-to-one match between subpopulation counts and report items. However, in other populations one subpopulation may be used in the validation of two or more report items.

Example. In population 2, the validation count for Total Reports Secured is calculated by adding together validation counts for two subpopulations — subpopulation 2.1 (reports received timely) and subpopulation 2.2 (non-timely reports secured by the end of the report quarter). It is this sum that is compared to the value found on ETA 581 for Item 7, Secured reports. The validation count for subpopulation 2.1, by itself, is also the comparison value for 581 Item 6, reports received Timely.

- ⑤ In the table, the **non-blank columns** provide the specifications to determine which transactions or employers should be included in the subpopulation.

Example: To be included in subpopulation 1.1 an employer must:

- (a) be Active at the end of the quarter,*
- (b) be a Contributory employer,*
- (c, d) have an initial liability or reactivation (reopen) date prior to the end of the report quarter (RQ),*
- (e) not have a termination date unless it either preceded the most recent reopen date or did not occur until after the end of the report quarter, and*
- (f, g) not have filed reports for eight or more consecutive liable quarters or reported zero wages for the last eight of them.*

①

**Exhibit 1.5
Reconstruction File Specifications, Active Employers**

Report Quarter:

Date:

These subpopulations constitute the unique subgroups of all active employers on the last day of the Report Quarter (RQ) covered by the ETA 581. Reconstruction should be done at the end of the RQ being validated (when the ETA 581 report program is run).

Subpopulation	④ Reported in 581 Item #'s	1 (Step 1A) Employer Account # (EAN)	2 (Step 3A) Employer Status Indicator A/I/T	3 (Step 2A) (Step 2B) Employer Type C/R	4 (Step 4A) Liability Date (Initial)	5 (Step 4B) Liability Date (Reopen)	6 (Step 5) Inactive/ Terminated "as of" Date	7 (Step 15) Activation Processing Date	8 (Step 7B) Number of Liable Quarters	9 (Step 7A) Sum of Wages (Last 8 Q's)
1.1 ②	1	⑤→	A	C	<=RQ	<=RQ	>RQ, or <liability date (reopen), or none			(If col. 8 ≥ 8) >\$0
1.2	2		A	R	<=RQ	<=RQ	>RQ, or <liability date (reopen), or none			(If col. 8 ≥ 8) >\$0

Notes:

- 1) Analysis will treat columns 4 and 5 as a single date, using the most recent. One of the two must be a date earlier than the end of the report quarter.
- 2) Column 8 reports the consecutive number of liable quarters ending with the report quarter. If the number is > 8, simply list 8.
- 3) Column 9 sums the reported wages from each employer for the last 8 quarters. (Actually, the data validation software asks states to list the wages paid in each of the last all 8 quarters and then it does the addition automatically.)

③

Subpopulation descriptions:

- 1.1 Active contributory employers liable by the end of the report quarter.
- 1.2 Active reimbursable employers liable by the end of the report quarter.

5. Report Quarter Terminology

The specifications in this handbook use a shorthand terminology to refer to report quarters. Exhibit 1.6 on page I-14 is a time line illustrating how terms and symbols are used.

- The **Report Quarter (RQ)** is the time period shown on ETA 581 in the block labeled “A. Report for quarter ended.” This means that the ETA 581 report is showing transactions that occurred during the quarter or the status of transactions as of the end of the quarter. For example, the ETA 581 report includes items such as the number of active employers at the end of the report quarter and the number of timely employer reports received during the report quarter. The report quarter ends at point A. (Point A is also the time when the state runs programs to download data for both the ETA 581 counts and the data validation reconstruction files.) The ETA report that relates to the report quarter is due at the hashmark labeled “ETA 581 Due” in Exhibit 1.6.
- Contribution and wage reports received from employers during the report quarter reflect employer activity that occurred during the quarter before the report quarter (**RQ-1**). Because this prior quarter is the subject of employer reports received during the RQ, RQ-1 is sometimes referred to as **Employer Report Quarter (ERQ)**. When specifications need to refer to earlier quarters, they will extend the basic convention. The quarter prior to RQ-1 is RQ-2, the quarter prior to that is RQ-3, and so on.
- The specifications refer to the quarter after the report quarter using the term **RQ+1**. This term is used most often for population 3, report filing, where states have through RQ+1 to resolve reports due in RQ.

6. Issues to Consider When Producing RV Files

Timing. The ETA 581 report is a snapshot of performance at one point in time. Like the well-advertised “Kodak moment,” if you miss the moment, the picture may be gone. Depending on the state’s system, employer records may be continually changing as employers are terminated or added to the rolls, payments and adjustments modify account balances, long-delinquent reports finally show up, and so forth. When this happens, state data systems may overwrite earlier records, making them inaccessible.

EXHIBIT 1.6											
QUARTERLY TIMELINE											
2001						2002					
3			4			1			2		
Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
RQ-1 (ERQ) • reports covering activity in this quarter can be resolved by RQ+1			RQ: Report Quarter States: • register employers • determine their liability status • receive reports on activity in RQ-1 • pursue delinquent reports • establish, liquidate, and write off receivables • conduct field audits			RQ+ 1 States: • receive reports on activity in RQ • resolve reports due in RQ on activities in RQ-1					
Employer Reports Due (for RQ-2)			Employer Reports Due (for RQ-1)			ETA 581 Due (for RQ)			ETA 581 Due (for RQ+1)		
A						B					
A Data Processing Staff: Produce Report Counts Complete Validation Extract (except for Population 2) Prepare Screen Prints											
B Validation extract completed for Population 2											

States should produce the RV reconstruction files (i.e., extract files) at the same time they produce the ETA 581 report. This will eliminate the possibility that validation counts will differ from the report simply because transactions were added to or removed from the employer account in the interval between running the ETA 581 report and the data validation reconstruction. If there is a slight difference in the timing of the two runs, the data “as of” the time when the ETA 581 report was run can sometimes be reconstructed if the state has a complete audit trail. Theoretically the validator could use the audit trail to verify that a transaction was correct at the time of reporting. However, this would be cumbersome. It is better to download data simultaneously for reconstruction files and the ETA 581 report.

Capture files. There is another, more troublesome problem related to the production of the RV files — certain transactions will be overwritten or changed in some state databases. Thus, if the original record is not captured and saved before it is overwritten, it will disappear and will not be available to validators. In data validation, overwritten transactions are a problem primarily in two populations:

- **Status determinations (population 3)** where, for example, an employer is registered as newly liable. Later, another entry is made to the employer account to indicate that the employer is now classified as a successor, having taken over an existing business. The record of the first status determination, the one classifying the employer as newly liable, is erased and replaced.³
- **Accounts receivable (population 4)** where payments and adjustments can change the values in employer accounts, overwriting the prior account status and making that status information accessible only by referring to internal audit trails.

It may be necessary to create special capture files to ensure that the reconstruction files have access to all transactions. These new files will capture and store all transactions for each employer account. By capturing this information, states can maintain records of status determinations or other overwritten transaction types even if the transactions are later canceled, adjusted, or superseded on the main tax system.

If states need to develop special files to capture an audit trail of all transactions, the capture program must run for one full reporting period before validation can be done.

Listing the reconstruction files. The UI Tax Data Validation software will produce complete reports for each reconstruction file. The state validator and the Federal validation auditor may view these reports on screen.

³ The information is probably retained in an employer history file but is more difficult to locate and reconstruct.

B. OVERVIEW: Module 1

At this point in Module 1, you have completed the instructions for producing report validation (RV) files. Before continuing with the discussion of Module 1, it may be helpful to review the steps the validation team will need to complete as the RV files are constructed. That review is presented as Exhibit 1.7.

EXHIBIT 1.7	
TASK 2: CREATING RECONSTRUCTION (RV) FILES	
Activity	Roles
Review specifications, product requirements, and schedules.	ADP, Validators
Convert handbook specifications into programming specifications.	ADP
Develop “capture” programs if needed.	ADP
Develop and run file extract programs.	ADP
Import extracted files into the UI Tax Data Validation software. Review errors both by referring to error reports and by inspection of listings.	Validators
Modify programs to correct any problems identified.	ADP
Schedule data validation extract programs to run at the same time ETA 581 programs are executed. Also arrange to print any screens needed for Module 2 at the same time.	Managers, ADP, Validators

C. Reporting Data Validation Findings

1. Report Validation (RV) Reports

The UI Tax Data Validation software produces five reports in spreadsheet format comparing ETA 581 reported counts and validation findings. The spreadsheets compare subpopulation counts with Federal report item counts and the sort counts for each of the five transaction populations.⁴

The spreadsheet automatically calculates validation counts from the report validation files. The values from the Federal reports must be entered manually by state staff. They do so using the *Enter Reported Counts* screen available through the UI Tax Data Validation software (go to File – Report Validation). An example of that screen is shown in Exhibit 1.8.

⁴ States should treat the final results as *provisional* until they have completed Module 2, verifying the accuracy of the reconstruction. The provisional entry will identify any large differences between validation counts and reported counts, thereby alerting validators to potential errors in the program that the state has created to produce extract files. Once Module 2 is completed and the validation data are fully checked, the validator will return to the spreadsheet to enter final values.

Exhibit 1.8
Sample: Enter Reported Counts Screen for Population 3

Counts		Dollars	
	Report Item	Description	Count
▶	14	Total New	2
	15	New, <=90 days	2
	16	New, <= 180 days	2
	17	Total Successor	5
	18	Successor, <=90 days	2
	19	Successor <= 180 days	6
	20	Inactive Terminations	3

Enter counts

2. Process for Completing the RV Spreadsheets

- a. Using the Enter Report Counts screen, state staff enter reported counts and dollar amounts from the ETA 581 Contribution Operations report.
- b. The UI Tax Data Validation software fills in the counts or dollar totals from each subpopulation on the RV file in the *Validation Count/\$* column of the RV spreadsheet.⁵
- c. When there is not a one-to-one relationship between the validation counts and the ETA 581 counts, the UI Tax Data Validation software automatically adds or subtracts validation counts for different subpopulations as necessary to make the proper match. For example, counts for subpopulations 2.1 through 2.8 must be added together to match the reported count for resolved reports for contributory employers during a report quarter (ETA 581 item 8).
- e. The *Count Difference* and the *Count % Difference* between the count from the ETA 581 report and the comparable validation count(s) are automatically calculated at the subpopulation and the population levels. If the Count % Difference is greater than plus or minus 2 percent, the Count Pass/Fail column will indicate “Fail.”⁶

D. EXAMPLE — VALIDATION REPORTS

Exhibit 1.9 is a sample of a portion of an RV file for population 1 (in the UI Tax Data Validation software, go to Report Validation – View Source Table) . Population 1 has two subpopulations and the RV file shows the transactions (employers) that the state programmer included in subpopulations 1.1 and 1.2. Subpopulation 1.1 represents active contributory employers and subpopulation 1.2 represents active reimbursing employers. The software assigned employers to their appropriate subpopulations. There are 38,222 valid transactions listed in subpopulation 1.1 and 793 valid transactions in 1.2.

Exhibit 1.10 is a sample RV spreadsheet generated by the UI Tax Data Validation software for population 1 (go to Report Validation –Report Validation Summary) Here the software has calculated the validation counts of 38,222 for subpopulation 1.1 and 793 for subpopulation 1.2. State staff have entered the reported counts of 38,222 for ETA 581 item 1 and 793 for ETA 581 item 2. When the validation counts are compared to the reported counts for items 1 and 2

⁵ The dollar amounts entered on the spreadsheet are the sum of all amounts listed in a column for all subpopulations in the reconstruction file.

⁶ For time lapse measures, the tolerance will be 1%.

on the ETA 581, the UI Tax Data Validation software calculates that there is a count difference of zero percent, and displays, a “Pass” next to each ETA 581 report item.

Exhibit 1.9
Sample RV File for Population 1

Validation	Work Sheets	Utilities	Window	Help													
IN	EmpStatus	EmpType	LiabInltDate	LiabRopenL	LTDate	ActiveDate	LiabQtrs	WagesQtr1	WagesQtr2	WagesQtr3	WagesQtr4	WagesQtr5	WagesQtr6	WagesQtr7	WagesQtr8	Userld	
1	A	C	1/1/1974				8	354287	70000	105000	75848	355846	602771	628909	314196		
2	A	C	1/1/1978				8	274400	235200	306400	269700	365400	263200	355400	359600		
3	A	C	11/1/1951				8	80741469	89698509	92079709	89739706	33749637	21905136	64076739	79363824		
4	A	C	1/1/1977				8	11144115	9798345	22860325	13397827	12367592	12195894	24087093	15918578		
5	A	C	1/1/1978				8	876100	686600	1291006	1079600	1167200	1071850	1132000	1034000		
6	A	C	1/1/1978				8	1686880	1936480	1647840	1922480	1587360	1942164	1613280	1868160		
7	A	C	1/1/1978				8	1466400	1664600	820920	1264820	1116840	1320980	1428980	1222040		
8	A	C	1/1/1981				8	3836257	4326178	3874762	3799308	3928195	4175604	4702875	4863009		
9	A	C	1/1/1978				8	552480	456400	380800	346000	617400	630000	735000	735000		
10	A	C	7/1/1950				8	67694474	65005934	62238705	58464462	55565369	62143249	62432843	54117365		
11	A	C	1/1/1978				8	420000	360000	392000	336000	392000	336000	392000	392000		
12	A	C	1/1/1978				8	1500378	1328500	1487920	1275360	1487920	894400	1524210	1108800		
13	A	C	4/1/1977				8	4627406	3765887	3993751	4231378	4172648	3922918	3708540	3855390		
14	A	C	9/7/1982				8	7768481	3496685	4173065	7526101	6431790	2938376	4818450	5405520		
15	A	C	1/1/1978				8	351000	332820	322510	317512	326766	300708	289224	341709		
16	A	C	1/1/1978				8	1067760	896305	896840	921856	1050000	614400	1113520	1203440		
17	A	C	6/4/1971				8	7064614	7434528	8466899	7530727	7183118	5412781	6852487	6222815		
18	A	C	1/1/1978				8	1167400	1167400	1167400	1167400	912600	912600	905360	898120		
19	A	C	8/15/1981				8	1152000	1516890	2342690	2328000	2328000	1552000	3028000	2328000		
20	A	C	10/1/1981				8	800250	131250	1821491	2202754	2747676	2714613	3238386	2678215		
21	A	C	12/1/1958				8	27461330	27365447	97745469	25514671	24884448	24966491	64080927	24340369		
22	A	C	1/1/1978				8	194400	189600	130624	132677	102335	114799	111717	87210		
23	A	C	1/1/1978				8	2606313	2825955	2726500	2596063	2554574	2221956	2697683	2498449		
24	A	C	5/1/1968				8	46731417	50667757	38643837	26562317	49577299	21804226	42280547	35246107		
25	A	C	6/4/1971				8	38041386	37987119	43436660	37006803	36079585	37692625	41868460	33129471		
26	A	C	1/1/1941				8	4334450	9270501	494071	2084661	6286855	6240877	6996599	7014349		
27	A	C	6/4/1971				8	9540500	9591072	10156079	7866198	8034258	7984078	8582249	7665250		
28	A	C	12/1/1952				8	75905720	62488071	67063496	78680639	74387690	63046340	77133596	78606656		
29	A	C	8/16/1938				8	2400800	5080800	2080800	2080800	2060800	2050800	2050800	2050800		
30	A	C	10/1/1981				8	17428247	15660627	18147270	18824677	21846128	19639078	20737321	25538117		
32	A	C	9/14/1965				8	60268221	1235070	76668636	58534110	71668109	51437822	69928124	60327878		
33	A	C	8/1/1981				8	269289	213300	219650	354000	314250	405750	290400	175000		
34	A	C	9/1/1981				8	1294000	1294000	1294000	1352000	1294000	1236000	1352000	1294000		
35	A	C	1/1/1967				8	432600	535600	535600	576800	535600	535600	566200	617200		
36	A	C	3/1/1971				8	412000	520000	488000	394000	502000	520000	560000	520000		
37	A	C	10/1/1976				8	584294	643082	610686	512117	699592	754375	564030	620193		
38	A	C	3/1/1971				8	1293000	1209000	2333431	1134500	1252500	1168000	2938661	1160000		
39	A	C	6/4/1971				8	36891074	35896681	34932923	33366228	33527738	32664102	32494049	30623108		
40	A	C	6/4/1971				8	80059522	77451409	37667530	78968307	80154860	78875673	31884827	78403807		
41	A	C	6/20/1939				8	3448232	3040382	2645150	2587667	2412530	2513520	2397125	3410017		
42	A	C	8/1/1976				8	4238809	3697139	5639050	3343308	3767456	3152749	5448380	3264169		
43	A	C	6/4/1971				8	80464955	81557466	81399715	78740269	78942052	76864135	86580863	72327380		
44	A	C	4/1/1979				8	2770725	2744475	2506550	2073200	1779200	1245600	1116800	1276625		
45	A	C	5/8/1979				8	1493133	1099468	1268804	1440868	1269077	1331088	1430696	1451361		
46	A	C	6/4/1971				8	12747421	18003749	15258488	12596248	11395800	13987042	33354198	16852908		
47	A	C	1/1/1937				8	13406771	13423617	18020395	12776100	12133756	12284864	17090796	11706900		
48	A	C	1/1/1937				8	1218077	1175746	1224657	1190226	1201774	1161651	1116601	1287424		
49	A	C	1/1/1941				0	5200000	3900000	3900000	3900000	2600000	3900000	4900000	2600000		
50	A	C	1/1/1966				8	3831665	3781457	4086278	4182216	5440614	5429327	5510035	5492028		
51	A	C	1/1/1979				8	4802659	4333958	4781789	4194534	4882634	6581352	5703190	4925041		
52	A	C	11/24/1976				8	5566211	5156868	5783561	6508861	6733457	7788628	7806913	7047843		
53	A	C	5/1/1983				8	12622853	11792060	12837381	11466140	15970284	13010083	16538099	14724067		

Exit

ds in Population: 39015 Reporting Period - 1/1/2001 - 3/31/2001 (200101) DB: UIDVTax 2/20/2002

<p>Exhibit 1.10</p> <p>Sample RV File for Population 1</p>
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Report Validation Summary (Tax): Population 1 - for Report C

Description	ETA 581 Item	Reported Count	Subpopulation	Validation Count	Count Difference	Count% Difference	Count Pass/Fail
Actively contributory employers	1	38,222	1.1	38,222	0	.00%	Pass
Actively reimbursing employers	2	793	1.2	793	0	.00%	Pass
All active employers		39,015	Total	39,015	0	.00%	Pass

E. FINAL RESULTS

The RV spreadsheet generated by the UI Tax Data Validation software documents, by type of error, discrepancies between the RV files and the Federal ETA 581 report. This allows the validator to identify trends and systematic errors. The validator should further research any “Fail” indicators to determine the source of errors and should document findings in the Comments column on the RV spreadsheet.

See Module 2.4 for a discussion of required *corrective action* when validation identifies errors.

Module 2

DATA ELEMENT VALIDATION

Before validators use reconstruction files to assess reported counts, they must assure themselves that those files are as accurate as possible. **Module 2** focuses on the elimination of errors that occur as the State builds its reconstruction (extract) files. It discusses the processes used to test that individual transactions have been correctly selected for inclusion in the validation counts.

Module 2.1, Error Detection, reviews key data tests used by the UI Tax Data Validation software as it screens transactions for inclusion in the validation counts.

Module 2.2, File Integrity Validation (FIV), checks that the correct information was brought over from the database to build the reconstruction file.

Module 2.3, Range Validation, presents additional validity tests that examine whether characteristics associated with a transaction are in the correct range for the particular population in which the transaction has been placed.

Once these checks are complete and any problems resolved, the state validation team can be confident that the validation counts are correct. If, in the end, there are differences between the *validation* counts and the *report* counts, states will conclude that the *reported* counts are not valid.

Module 2.4, Corrective Action Plan (CAP), reviews the actions states must take when reported data prove to be invalid.

MODULE 2.1 — ERROR DETECTION

A. Overview of Error Checks

Module 2.1 tests that all transactions contain complete and usable information, and that all transactions meet the specifications for inclusion in the population extract file to which they have been assigned. All tests described in this section are done by the UI Tax Data Validation software, which automatically eliminates records of any transactions that do not meet established standards. This section describes the basis of each test to assist the state in anticipating and resolving any problems.

Data validation software tests the data in four ways and eliminates data that fail any one of the tests. It tests that:

- Each transaction contains all the necessary data elements listed in the record layouts (see the UI Tax Data Validation software user Guide).
- All data listed for each transaction follow the coding conventions specified in record layouts. For example, dates must be in ‘mm/dd/yyyy’ format and items listed as numeric must contain no symbols or letters, only numbers.
- There are no duplicates — no transaction appears in the report validation (RV) file more than once. Note that no duplicate check is done for Population 4.
- All transactions included in an extract file meet the parameters for inclusion in their population. The requirements for each population are provided in the inclusion criteria found in Appendix A, Part I.

If a transaction fails to pass any of these tests, it will be removed from the analysis file and not included in the count of transactions. A report will be provided identifying the transactions that failed each test and the reason for failure (See example in Exhibit 2.1). If the UI Tax Data Validation software generates large or systematic exclusions of transactions from the original extract file, the state should review and revise the procedures used to produce the extract file. Any problems must be corrected and another version of the file produced. The new version of the extract file should again be loaded into the UI Tax Data Validation software for testing.¹

Similarly, after the extract file is successfully loaded into the UI Tax Data Validation software, a large or systematic difference between the validation count and the count reported on the Federal report may indicate that the extract file needs refinement. In this instance as well, states should review and revise the procedures for creating the extract file, then begin the extract process again.

States should work to correct systematic problems identified by data validation even when the amounts in question appear small. It is expected that the procedures developed now will be used again for data validation in future years. It is easier to correct the problems now while design decisions are fresh in mind.

¹ Building the extract file may require more than one iteration. In preparing the file, states must follow the record layout precisely. To produce final and correct extract files, states may need to make several trial runs.

EXHIBIT 2.1
SAMPLE ERROR REPORT

errors in file: C:\Program Files\UIDUTax\extracts\pop3\pop3-1465.txt on 3/8/2002 4

Error with OBS code - 000002. Object required error in column #7 Item is required.
Error with OBS code - 000013. Object required error in column #7 Item is required.
Error with OBS code - 000015. Object required error in column #7 Item is required.
Error with OBS code - 000037. Object required error in column #7 Item is required.
Error with OBS code - 000038. Object required error in column #7 Item is required.
Error with OBS code - 000039. Object required error in column #7 Item is required.
Error with OBS code - 000071. Object required error in column #7 Item is required.
Error with OBS code - 000092. Object required error in column #7 Item is required.
Error with OBS code - 000093. Object required error in column #7 Item is required.
Error with OBS code - 000106. Object required error in column #7 Item is required.
Error with OBS code - 000107. Object required error in column #7 Item is required.
Error with OBS code - 000108. Object required error in column #7 Item is required.
Error with OBS code - 000110. Object required error in column #7 Item is required.
Error with OBS code - 000111. Object required error in column #7 Item is required.
Error with OBS code - 000112. Object required error in column #7 Item is required.
Error with OBS code - 000134. Object required error in column #7 Item is required.
Error with OBS code - 000135. Object required error in column #7 Item is required.
Error with OBS code - 000150. Object required error in column #7 Item is required.
Error with OBS code - 000163. Object required error in column #7 Item is required.

B. DETAILED INFORMATION ON SCREENING TESTS

This section provides details on the parameters used in the screening tests that the UI Tax Data Validation software uses when it determines which transactions belong in each data validation population. The section reviews two sets of parameters: (1) data elements used to identify duplicates, and (2) parameters used to determine whether transactions are included in the file.

1. Duplicate Detection

A basic tenet of the data validation design is that no transaction or entity should be counted more than once. The UI Tax Data Validation software provided by the U.S. Department of Labor identifies any duplicate transactions as it creates the report validation file. When state ADP staff first build the extract files for data validation, they are instructed to exclude duplicate records. Thus it is not expected that many duplicates will need to be excluded by the analysis software. The test for duplicates is included mostly for completeness.

As the extract file is loaded into the UI Tax Data Validation software, a check for duplicates is conducted.² After this is completed, the software produces a report that counts the number of potential duplicate cases found and lists each duplicate record. The report lists all data elements present in the extract for each duplicate record. States may want to examine this report closely for two reasons. First, it will help identify the source of duplicates so they can be eliminated systematically in the future. Second, the review may show records that are identical on the test data elements but different elsewhere. This will allow the state to identify apparent duplicates that are really legitimate separate records.

Exhibit 2.2 lists the data elements that are examined to determine whether transactions are duplicates. For each set of elements, the exhibit also lists the criteria for review of duplicates.

² The software checks for duplicates in Populations 1,2,3,and 5. It currently does not check for duplicates in Population 4 (accounts receivable).

EXHIBIT 2.2		
CRITERIA FOR IDENTIFYING DUPLICATE TRANSACTIONS		
Population	Data Element	Criterion
1. Active Employers	Employer Account Number (EAN)	No employer should be counted twice. Since each employer should have a unique EAN, no EAN should appear twice. (Multi-unit employers are counted as one employer.)
2. Report Filing	EAN, Employer Report Quarter (ERQ)	Each employer owes only one report for each quarter. The EAN should not appear twice for a single ERQ. (If an EAN has reports for multiple employer report quarters (ERQs), only the report for the ERQ immediately preceding the report quarter (RQ) is countable. Reports from multi-unit employers are counted as one report.)
3. Status Determinations	EAN, Status Determination Type Indicator, Status Determination Date, Status Determination Processing Date (if different from determination date), Predecessor Account Number	No single status determination transaction should appear twice. Individual EANs may appear more than once. For example, there might be two transactions listed for a single EAN if an employer acquires two businesses at different times during the quarter, resulting in two successorship determinations. Multiple determinations may be legitimate, as long as they do not reflect clerical errors.
4. Accounts Receivable	Established Date, Employer Report Quarter (cont.), Balance at end of Quarter, Due Date (reimb). Transaction Date, Transaction Type, Transaction Amount (established, liquidated, uncollectible)	No transaction should be listed more than once. ADP staff should ensure that the extract file does not include duplicate transaction. Currently, the UI Tax Data Validation software does not check for duplicates in Population 4. Two transactions of the same amount, type, date and original quarter due will be assumed to be duplicates. No employer's account balance should be listed more than once. Two transactions established in the same quarter, for the same quarter, and with the same balance will be assumed to be duplicates.
5. Field Audits	EAN, Audit ID#	The same employer ID and Audit Identification Number should not appear twice.

2. Parameters for Inclusion in Report Validation File

As it loads information from the extract file that the state has produced, the UI Tax Data Validation software checks that transactions are within allowable ranges. Most often this involves tests that reported transactions took place within the report quarter. The software will produce a list of all transactions that do not fall within the allowable range. States should review the report and, as necessary, correct their procedures for creating their extract files.

Exhibit 2.3 lists the parameters that determine whether transactions are included in each population. The UI Tax Data Validation software checks that all transactions meet these parameters and then assigns each transaction to its subpopulation. The specifications for assignment to subpopulations appear in Appendix A, Part II.

EXHIBIT 2.3
PARAMETERS FOR INCLUSION TESTED BY UI TAX DATA VALIDATION SOFTWARE
Population 1: Active Employers
<ul style="list-style-type: none"> • All employers must be active as of the end of the quarter. • Liability dates must precede the end of the quarter. • If the employer is inactive at any time during the quarter there must be a subsequent reopening of liability within the report quarter. • An employer should be included as active only if it has submitted at least one report indicating wages paid in one of the last eight consecutive quarters of liability .
Population 2: Report Filing
<ul style="list-style-type: none"> • Reports must be received on time, secured by the end of the report quarter or resolved by the end of the quarter following the report quarter. • For subpopulations 2.3 through 2.6, 2.8, 2.12 through 2.14, and 2.16 there must be a processing date during the quarter (Assessment date, date that liability status was corrected). • In subpopulations 2.7 and 2.13, the suspended as of quarter must equal the ERQ.
Population 3: Status Determinations
<ul style="list-style-type: none"> • All transactions must have a status determination made during the report quarter. • All associated processing dates must be within the report quarter. • “Successor” determinations must have an associated predecessor account number. (May not be applicable in all states.)
Population 4: Accounts Receivable
<ul style="list-style-type: none"> • Any transaction date that is present must be within the report quarter. • The record must indicate either an accounting transaction that establishes, liquidates or declares uncollectible a past due amount, or a balance at the end of the quarter.
Population 5: Field Audits
<ul style="list-style-type: none"> • All listed audits must have a completion date within the report quarter.

MODULE 2.2 — FILE INTEGRITY VALIDATION (FIV)

Module 2.1 reviewed data checks that were automatically performed on the data validation extract files produced by the state. Module 2.2 presents several additional tests. Completion of these tests requires action by state validators. The primary test is File Integrity Validation (FIV). State staff examine data items in the validation files to assure that they accurately represent information in the state data system.

A. Steps in File Integrity Validation

Module 2.2 checks whether each transaction in the extract file, and each data element listed with the transaction, is an accurate representation of the information in the state UI contributions database. Remember, this is a test of whether the extract file has been created accurately. State validators compare each data element in the transaction record to the source information in the state database. This ensures that the correct data have been used to assemble the record. The review is done in a series of simple steps.

1. ***Obtain a copy of the FIV Samples Worksheet listing the data items for two transactions in each subpopulation.***

The sampling function of the UI Tax Data Validation software should be used to select two transactions from each subpopulation (Go to FIV/DEV – FIV Samples worksheet). For each of these transactions, the software will provide an FIV Samples Worksheet listing all data items for that transaction (see example in Exhibit 2.4). For each data element in these two transactions, the validator will compare the entry to source documents. Based on that comparison, the validator will record whether the entry matches what is in the state database.

The FIV validation check can be done using a very small number of transactions because the process that states use to build the extract files is highly automated. Automated processes are repetitive. If, for example, a certain field in the employer history file is extracted and placed in the fifth column of the reconstruction file for one transaction, that same field will be used for the fifth column of every transaction. Thus, if we know that all data elements have been transferred correctly for the two transactions, we can be reasonably assured that all similar transactions are done correctly.

EXHIBIT 2.4
SAMPLE FIV SAMPLES WORKSHEET

UI Tax Data Validation System (For Population 1 - Active Employers) - [U010 - Data Validation Sampling.]

File Import Data Change Population Report Validation FIV/DEV Utilities Window Help

Validation Population 1
Active Employers.

Summary of Samples Taken **Sample Detail**

FIV - Sample 1.1 - 1.2 Number samples inspected: 4

Seq	OBS	SubPc	1 (Step 1A) Employer Account # (EAN)	Pass /Fail	2 (Step 3A) Employer Status Indicator A/I/T	Pass /Fail	3 (Step 2A) (Step 2B) Employer Type C/R	Pass /Fail	4 (Step 4B) Liability Date (Initial)	Pass /Fail	5 (Step 4A) Liability Date (Reopen)	Pass /Fail	6 (Step 5) Inactive/ Terminated	Pass /Fail
▶ 1	1	1.1	000000007	1	A	1	C	0	1/1/1974	0		0		0
2	2	1.1	000000011	0	A	1	C	0	1/1/1978	0		0		0
3	117	1.2	000000739	0	A	0	R	0	1/1/1972	0		0		0
4	138	1.2	000000878	0	A	0	R	0	1/1/1972	0		0		0

Match Errors	Emp Status	Emp Type	Liab Init Date	Liab Ropen Date	I/T Date	Active Date
▶ 1	2	0	0	0	0	0

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2. *Validate the selected transactions on the worksheet by checking each item (column) against the corresponding field on the database screens printed from the employer master file.*

The validator compares each characteristic listed for the two selected transactions to supporting documentation in the state's database. By checking the data in every column the validator ensures that the full complement of data in the reconstruction file is accurate. The source data can be found by referring to query screens from the state data system. These screens display information on transactions and the status of employer accounts. It is strongly recommended that the necessary screens be printed at the time the reconstruction file is originally created.³

3. *Follow the "step" number in the column heading of the reconstruction printout to find the appropriate page in the state-specific segment of this handbook (Module 3).*

Exhibit 2.5 is a sample page of Module 3. For each step listed in Module 3, **File Integrity Validation Instructions are provided.** These instructions help the validator locate and compare specific pieces of information from the supporting documentation with the corresponding data on the reconstruction file, and to determine the validity of the information (pass or fail).

The instructions for each step or substep identify the supporting documentation (screens and fields) that the validator will need to examine. A set of logic tests, called validation *rules*, determines the accuracy of each characteristic of a given transaction. A subsection, called *function*, explains the purpose of each *rule*.

Definitions listed within each step in Module 3 give the Federal definition of the item being validated. This definition is followed by further information on the data element – *examples, includes* (situations falling within the definition), and *excludes*. Where state and Federal definitions differ, be sure to follow the Federal rules as required by the reporting instructions.

Definitional Issues describes known discrepancies between state and Federal definitions. This section serves an important role in systematically documenting validation issues in advance, letting validators and auditors

³ Elements requiring data from multiple fields pose a greater risk of reconstruction error. For example, the reactivation date for status determinations may not come directly from one field in a state's database, but instead from a combination of a transaction code and a transaction date field. There may be a series of applicable transaction codes representing reactivations. In these instances, the state or region may want to examine the elements in greater detail.

EXHIBIT 2.5

SAMPLE PAGE FROM MODULE 3

Step 03 Employer Status

B. Inactive/Terminated

**FILE
INTEGRITY
VALIDATION
INSTRUCTIONS**

Checkmark the data element on the selected case if all of the following conditions are met. Otherwise circle the data element. Complete the validation worksheet as specified.

1. Document :

TAX058 screen

Rule :

The STATUS CODE indicator on the screen matches the Employer Status indicator on the reconstruction file.

Function :

This rule validates that the employer status indicator (for inactive, terminated, withdrawn or canceled) on the screen matches the employer status indicator on the reconstruction file.

Comments:

**Definitional
Issues:**

Massachusetts has two different definitions for inactivations and terminations, but uses only one status code in the system.

Inactive - Employer no longer required to report, could be in suspense.
Terminated - Must be inactivated and must be at least e

Definitions:

Employer Status- Inactivations/Terminations:

Terminated Employer. An employer who may or may not have previously been granted permission to suspend filing quarterly reports indefinitely (made inactive) but who has requested and been granted termination of coverage, or has administratively been granted termination of coverage by reason of not meeting the definition of "EMPLOYER" in the State unemployment compensation law.

Inactive Employer. An employer who does not qualify for termination of coverage by reason of no longer meeting the State's definition of "EMPLOYER" but:

a. has notified the agency it is no longer paying wages and has been granted permission to indefinitely suspend filing of quarterly reports, or

b. has been administratively granted permission to indefinitely suspend filing quarterly reports by reason of no longer paying wages, or

c. without notification to the agency or prior to administrative action by the agency, has eight consecutive quarters of liability with no wages on account (or fewer than eight quarters if so specified in State rules), even if the inactivation is done automatically with no person making a determination). The effective date is the last day of the eighth quarter for which there are no wages. For any combinations of delinquent reports, zero assessments and no wage reports resulting in eight quarters of zero wages, the State must count the employer as inactive on the ETA 581. (If, for example, an employer submits "no wage" reports for six quarters and then fails to submit reports for two quarters, the SESA should inactivate the employer.)

Includes:

"Inactive" employers meeting the Federal definition, even if State law requires additional procedures or waiting periods before terminating an employer account on State records.

Accounts set up or reactivated only to make a correction or to post information or payments and then immediately closed.

know when problems are anticipated. State staff were interviewed during the design of data validation. Known issues were listed at that time and additional issues will be added by states as they are identified during the validation process.

Comments provide additional information that state staff or Federal auditors may need in order to handle unusual situations.

4. ***Using the Pass/Fail column of the FIV worksheet record whether each data element passes (matches the source file) or does not pass.***

Put a zero (0) on the review sheet next to each data element that successfully passes a step. Place a one (1) if a data element does not pass the step.

Based upon the pass/fail entries, the worksheet will provide an item-by item count of the number of data elements that failed.

5. ***If the FIV process shows errors, reprogram the report validation file.***

The reconstruction file is the basis of all validation exercises and must be proved valid before proceeding any further.

6. ***Save the printout with 0 or 1 (pass/fail) entered next to each validated item.***

They will be used during the Federal monitoring review of the validation process.

B. OVERVIEW OF MODULE 2.2

Module 2.2 provides tools to test that the data used to create RV files accurately reflect the information in the state’s UI database. Exhibit 2.6 summarizes the steps in the File Integrity Validation Process.

EXHIBIT 2.6	
TASK 3: FILE INTEGRITY VALIDATION	
Activity	Roles
Secure File Integrity Validation Samples Worksheet listing all data elements for two records from the RV file for each subpopulation.	Validator, ADP
Produce necessary query screens at the same time reconstruction file is created.	Validator or ADP
Following the steps indicated in Module 3, review and validate every item (column) on the printout for the two selected records. The review compares information listed in the reconstruction file to source documentation, typically query screens on the UI database.	Validator
Record the results on the File Integrity Validation screen of the UI Tax Data Validation software.	Validator
If invalid data were used in the creation of the reconstruction file, correct the file and begin this task over again. This is obviously a step that should be done well before the scheduled date for the actual validation.	ADP
If the first Report Validation file is incorrect, conduct File Integrity Validation for corrected versions of the RV file.	Validator

MODULE 2.3 — RANGE VALIDATION

Module 2.3 presents additional validity tests. They examine whether characteristics associated with a transaction are in the correct range for the particular population and subpopulation in which the transaction has been placed.

The UI Tax Data Validation software assigns transactions to subpopulations. It does so using the generic codes used by all states, e.g. 'C' to mean contributory. As discussed in Module 2.1 the software also conducts automated edit checks. The tests ensure that, based on these generic codes, all transactions are listed in the correct population.

In some states there are additional data that can be used to determine whether data elements are in the correct range.

- The additional data may be in another data element. Some states use the value of the Employer Account Number to indicate whether the employer type is contributory or reimbursing. For example, employers that are reimbursing might be assigned EANs where the first two digits are '90.'

The EAN, then, is another piece of information that could be used to determine if the employer type is used correctly. It supplements the employer type indicator.

- Additional data may be included in a single data element. Exhibit 2.7 shows a variety of codes one state uses to indicate a status determination that an employer is either newly liable or a successor to an existing employer. When states have more detailed codes they are instructed to include both the generic code and state codes as a single data element in the data validation extract file. For example, in the status determination population the 'status determination type indicator' might be 'New-09.' 'New' is the generic code used in all states. The '09' is a state-specific code. If the code were from exhibit 2.7 it would indicate that a 'new' status determination was made because the employer met the subjectivity threshold for agricultural payroll. The more detailed state codes provide additional information for testing data validation transactions.

Exhibit 2.7	
Subjectivity Reason Codes	
<p>This exhibit is an actual listing, now out of date, of codes a state used to indicate the reason employers were subject to the provisions of unemployment insurance law. In data validation these would be the codes to which the state would refer to identify that a status determination was as a 'new' employer or as a 'successor.' This state had an equally long list of codes indicating inactivations and terminations.</p>	
Code	Reason
01	Payroll
02	Employment 13 th week
03	FUTA
04	Whole Successor allowed
05	Part Successor
06	Consolidation allowed
07	Revived with new number
08	Payroll domestic
09	Payroll agriculture
10	Employment agricultural
11	Whole successor denied (No notice)
12	Whole successor denied (Predecessor delinquent)
13	Consolidation denied (No notice)
14	Consolidation denied (Predecessor delinquent)
15	Multi-predecessor consolidation
16	Refund only

The additional data can be examined as another test of whether the data validation files have placed the record in the correct subpopulation.

- In the example of the employer type, looking at the first two digits of the EAN is another way to tell if the employer is reimbursing and thus belongs in subpopulation 1.2 rather than 1.1.
- With the new determination the validator could look at the state code to see whether it contained a code such as 01, 02, or 08 (types of ‘new’ status) rather than another code such as 04 that would mean the transaction should be assigned to a subpopulation of employers with successor determinations.

This additional information can help validators determine whether the validation files are built correctly. However, the DOL-provided software cannot use this information since the meaning of codes is different in each state. States must conduct the range validation tests following the methodology listed below. Range validation is to be done only in states that have relevant codes that provide more information than the generic codes.

The validation approach involves sorting the records in the extract file so state validators can easily see if data are in the correct range. Once the records are sorted it is easy for the validator to spot records that are out of range. Sorting is easy to do since it can occur at a click of a button once the file is imported into the UI Tax Data Validation software.

Methodology.

1. Examine the range validation criteria in Exhibit 2.8. For each potential sort look at the column entitled “When to Do this Range Validation Sort” to determine if the sort is applicable in the state. The sort will only be used when the state data provide more information than the single generic indicator.
2. To begin range validation, log into the UI Tax Data Validation software using the population to be reviewed. Click the tab labeled “Report Validation” then the tab labeled “View Report Validation Table.” A summary report validation table will appear.
3. Using Exhibit 2.8, identify the subpopulations to test (under the “Subpopulations Sorted” column) and the data element by which the file will be sorted (under “Test data element”).

4. Apply the “test criterion” from Exhibit 2.8 to identify whether or not any transactions are out of range.
5. If problems are identified, correct the extract file.
6. Record the results of each sort using the UI Tax Data Validation Software. To do so click the "FIV/DEV" button on the menu bar. Then click the button that indicates "Enter Data Element Validation Counts." Enter the number of records you have sorted and the number of errors found. The results will be displayed in the Summary and Analytic Report.
7. Save a copy of the first two pages and last page of each sort conducted. These materials will be used in the Federal review of the validation process.

Module 2.4 — Corrective Action

Validation is not an end in itself; it is a means toward correct reporting. If validation identifies reporting errors, the state should correct them as soon as possible.

Corrective Action Plan. To document the steps required for corrective action and the timetable for completion, the state must provide to its ETA Regional Office a brief Corrective Action Plan (CAP) in accordance with the annual State Quality Service Plan (SQSP) containing the following information on every validated report element found to be in error by more than validation limits:

- Report element(s) in error.
- Magnitude of error found.
- Status/Plan/Schedule for correcting. Note: If reporting errors were corrected in the course of the first validation, the report should simply note “corrected during validation”).

Timing of CAP. The CAP should be submitted within one month of submitting the Validation Summary Report. CAPs are considered additions to the SQSP. If the state is conducting the validation in segments, e.g., Benefits first, then Tax, and a CAP is required based on a segment’s validation results, the CAP should be prepared within a month of the completion of that segment.

Revalidation. Every element in error by more than the stated validation limit must be revalidated the following year. A “clean” validation confirms the success of the corrective action, or, if the state has not completed corrective action, identifies the current extent of error.

Errors Discovered Outside the Validation Process. During the validation process, errors in reporting may be identified that are outside the scope of the validation program. Such errors should be included in the state’s Validation Summary Report in the comments section and included in the CAP if warranted.

Exhibit 2.8 Range Validation Criteria						
Popu- lation	Sort	Subpopu- lations Sorted	When to Do Range Validation	Test Data Element	Test Criteria	Module 3 References
1	S1.1	1.1	When the value of an employer’s account number indicates whether it is contributory or reimbursing	EAN	All EANs must be in ranges allocated to contributory employers	Step 1A
1	S1.2	1.2	When the value of an employer’s account number indicates whether it is contributory or reimbursing	EAN	All EANs must be in ranges allocated to reimbursing employers	Step 1A
1	S1.3	1.1 and 1.2	When different employer status codes are used to represent different ‘active’ employer statuses	Employer Status Indicator	All status codes must represent active employers	Step 3A
1	S1.4	1.1	When states have more than one code that represents a ‘contributory’ employer type	Employer Type Indicator	All employer type codes must represent contributory employers	Step 2A
1	S1.5	1.2	When states have more than one code that represents a ‘reimbursing’ employer type	Employer Type Indicator	All employer type codes must represent reimbursing employers	Step 2B
2	S2.1	2.1- 2.8	When the value of an employer’s account number indicates whether it is contributory or reimbursing	EAN	All EANs must be in ranges allocated to contributory employers	Step 1A
2	S2.2	2.9-2.18	When the value of an employer’s account number indicates whether it is contributory or reimbursing	EAN	All EANs must be in ranges allocated to reimbursing employers	Step 1A
2	S2.3	2.1-2.8	When there are multiple codes, other than EAN, to indicate whether the employer type is contributory	Employer type	All employer type codes must represent contributory employers.	Step 2A

Exhibit 2.8 Range Validation Criteria						
Popu- lation	Sort	Subpopu- lations Sorted	When to Do Range Validation	Test Data Element	Test Criteria	Module 3 References
2	S2.4	2.9-2.18	When there are multiple codes, other than EAN, to indicate whether the employer type is reimbursing	Employer Type	All employer type codes must represent reimbursing employers.	Step 2B
3	S3.1	3.1, 3.3	When the state uses more than one code to indicate that status determination type is new.	Status Determination Type	All status determination type codes must represent 'new' status determination type	Step 11A
3	S3.2	3.4, 3.6	When the state uses more than one code to indicate that status determination type is successor.	Status Determination Type	All status determination type codes must represent 'successor' status determination type	Step 11B
3	S3.3	3.7	When the state uses more than one code to indicate that status determination type is inactivation.	Status Determination Type	All status determination type codes must represent 'inactivation' status determination type	Step 11C
3	S3.4	3.8	When the state uses more than one code to indicate that status determination type is termination.	Status Determination Type	All status determination type codes must represent 'termination' status determination type	Step 11D
4	S4.1	4.1, 4.9	When the state uses more than one code to indicate that the transaction type is establishment	Transaction Type Indicator	All transactions must be establishment of accounts receivable	Step 21A
4	S4.2	4.2, 4.10	When the state uses more than one code to indicate that the transaction type is liquidation	Transaction Type Indicator	All transactions must be liquidations of accounts receivable	Step 21B
4	S4.3	4.3, 4.4, 4.11, 4.12	When the state uses more than one code to indicate that the transaction type is declared uncollectible	Transaction Type Indicator	All transactions must be accounts receivable declared uncollectible	Step 21B

Module 3

FEDERAL DEFINITIONS AND STATE-SPECIFIC VALIDATION INSTRUCTIONS

The inclusion of state-specific information in this module is not to be deemed to be a finding that such information is in compliance with Federal reporting data definitions.

Module 4

TAX PERFORMANCE SYSTEM ACCEPTANCE SAMPLE VALIDATION

Tax Performance System (TPS) validation reviews sample selection procedures used by TPS (formerly RQC, Revenue Quality Control). It ensures that the samples drawn to assess status determination and field audit quality are randomly selected from the correct populations.

There are two basic approaches to selecting samples. The first is a conventional interval sample: the programmer (or a utility program) divides the size of the desired sample (say 30) into the size of the population (say 300) and derives the sample interval (every 10th observation). The programmer or the utility program then selects a random start point (in this instance) between 1 and 10 and selects every tenth case from that point. The second approach is to use a sampling utility program that randomizes the file and selects the first 30 observations. This approach is somewhat more difficult to validate, but could involve a review of the sample against the source file or review of the utility program specifications.

Tasks to Complete Acceptance Sample Validation

1. Obtain copies of the universe files for Status Determinations and Field Audits. The universe listings should cover all quarters for which the acceptance sample was drawn. For status determinations there will be three TPS universes: (1) New, (2) Successor, and (3) Inactive/Terminated.
2. Compare the total count of the three status determination universes and one field audit universe for the quarter to the count reported on the ETA 581 for that three-month period. This validates that the correct universe was used.
3. Determine if an interval sample was drawn (and how it was drawn) or if the file was randomized such that the first set of cases could be selected without establishing intervals.
4. If an interval sample was drawn, check to see that the proper cases were selected (that is, if the random start was 10 and the interval was every 40th case, check to see that cases 50, 90, 130, and so forth were selected). The validator can identify the sampled cases from the quality review documentation.

5. If the sample was drawn from a randomized file, print the file and ensure that it was not ordered by date, employer, or some other nonrandom means. The validator can compare the printout with the way the file was ordered prior to randomization to ensure that the file was randomly reordered.

Recording the Results of Acceptance Sample Validation

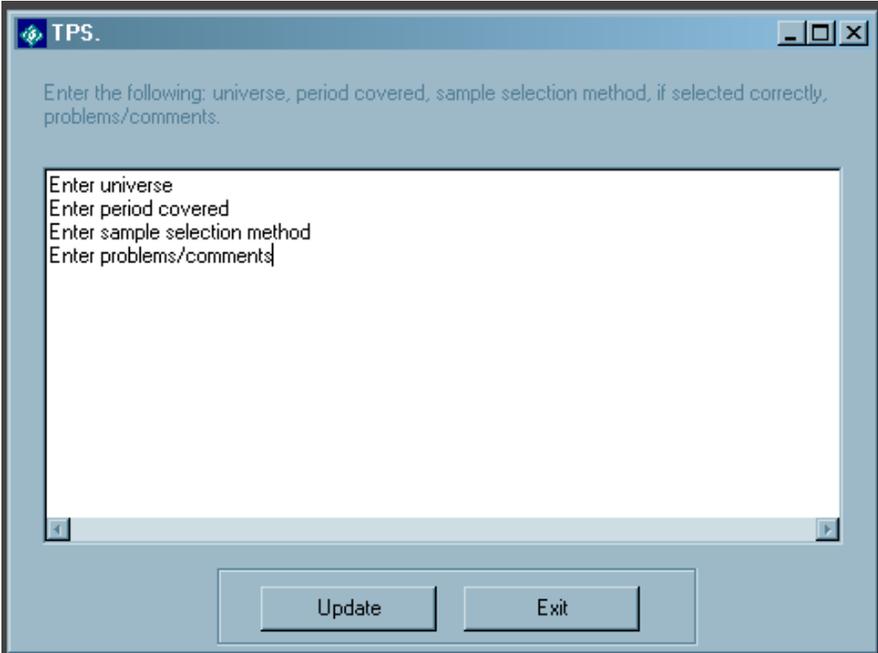
Upon completing the review the validators should record their results. Forms for entering findings are provided as part of the UI Tax Data Validation software on the *Enter TPS comments* screen. There is one form for each of the four universes. An example can be found in Exhibit 4.1.

On the form the validator will find room to enter:

- The universe reviewed,
- The validator and state,
- The time period from which the sample was drawn,
- The type of sampling procedure used (skip interval or automated), and
- The results of the review.

If the sampling method was not correct or was not implemented properly, the validator should discuss the problems with the programmer. If the programmer confirms that the process was incorrect, the validator should record the problems on the TPS comments form. The Enter TPS Comments screen is found on the FIV/DEV menu.

Exhibit 4.1
Sample TPS Comments Screen



MODULE 5

WAGE ITEM VALIDATION

Wage item validation verifies that wage item transactions processed in the report quarter are accurately reported on the ETA 581. This helps ensure equitable funding when this item is used to determine state workload. A wage record is the listing of an individual's earnings in covered employment. Each individual employee's earnings are listed by social security number (SSN) and are submitted by employers each quarter. Employers may submit wage records as paper records or as computerized files stored on magnetic tapes, diskettes, CD-ROMs, or files transmitted over the Internet.

Wage item validation tests that the ETA 581 report contains a correct count of wage items processed during the report quarter. Validators test that every wage item is counted and that the count does not include:

- Corrections (the system must be able to process corrections without double counting the item).
- Incomplete wage records (for example, if the identifier or wage amount is missing for the employee).
- Duplicate records.

Methodology for Completing Wage Item Validation

1. Identify the specific modes of data capture used for processing wage items and list them on the Wage Item Validation Worksheet provided in the UI Tax Data Validation software (a sample hard copy is presented in Appendix C).
2. Choose the procedure you will use to select wage items for review. States have two choices for selecting wage items for review. They may choose to select *five batches* of wage items or they may select *wage items processed during a representative period* of time. The selection procedure for each approach is as follows:
 - **Five batches.** Select the five batches using, among them, all methods of entry for wage items in the state. Select at least one batch of wage items from each method of data entry. If there are more than five methods for processing wage items, expand the item

processing method is proved invalid through the recount pro number of batches so at least one can be selected to represent each method. If there are fewer than five methods used in the state, one method may be chosen for more than one batch. However, no method should be selected more than twice unless at least two batches have been selected from all methods used.

- **A representative period of time.** Select a period of time when each mode of wage item processing is in use. Typically the time period is a full day. It may be necessary to select time periods from different days to ensure that each mode of data capture is examined. For each method of wage item processing, select all wage records processed during the selected period of time. Record the periods of time selected on the Wage Item Validation Worksheet.

3. For each of the applicable modes on the Wage Item Validation Worksheet, enter the number of wage items reported in the ETA 581 count for the particular batch being examined. This information must be obtained from the system used to compile the wage item count for the ETA 581.
4. Recount the number of wage items in each of the batches or time periods, for each mode, using the Federal definition for a countable wage item.
5. Ensure that there are no duplicate entries — that each wage record is counted only once.
6. The validator must count only wage items that are complete. This means each processed entry should include the following criteria:
 - Employee Identifier (Name or SSN)
 - Employer Identifier (Name or EAN)
 - Wage dollar amount

If a wage record is incomplete, count only those records containing a dollar amount and another element that positively identifies the worker either by name or SSN and by employer name and account number.

7. Corrected wage items are counted only if they were not previously included.
8. Enter the total number of wage items in the recount on the *Wage Item Validation Worksheet*. If any duplicates or errors have been identified,

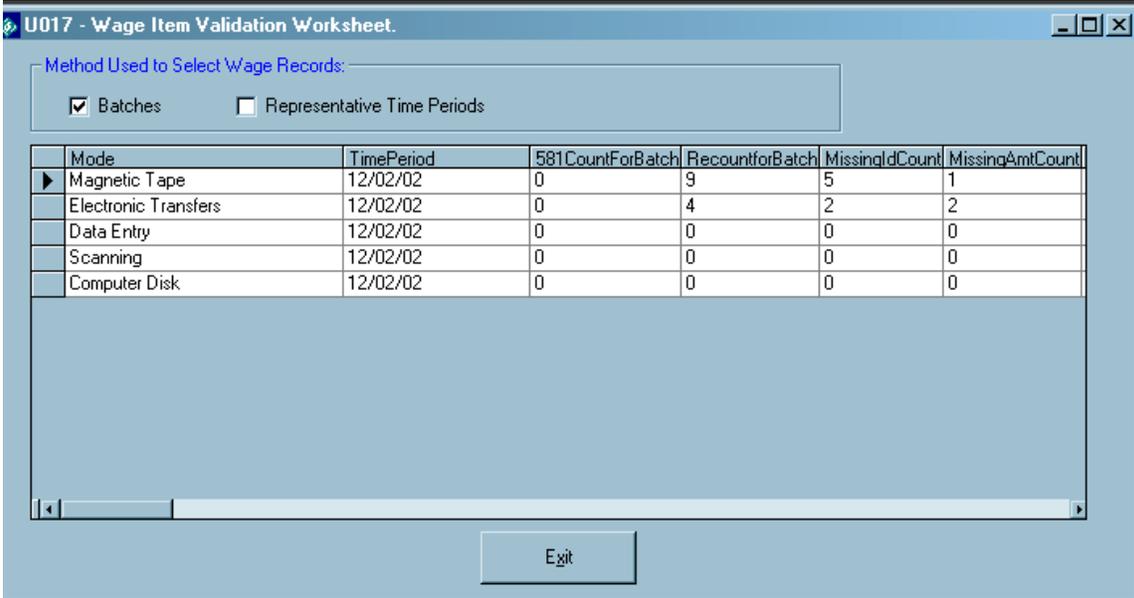
the validator indicates these errors in the appropriate columns on the worksheet.

9. The UI Tax Data Validation software will calculate any differences between the validation and reported counts.
10. If the wage item validation identifies errors, the validator should discuss the problems with the programmer or individual responsible for wage item processing, and the necessary efforts should be made to determine if the error may affect other batches of wage items as well.

Example of a Wage Item Validation Worksheet

Exhibit 5.1 shows an example of a Wage Item Validation Worksheet, listing a number of possible modes of wage item processing in the first column. In this particular state, the validator has chosen only the applicable modes and selected an appropriate time period for each mode. The column labeled “581 Count for Batch” has been filled in with the number of wage items processed in this batch as reported on the ETA 581. Once the validator has recounted the wage items for each of the modes, this number is reported in the column labeled “Recount for Batch.” In this example, the wage items that were electronically transferred and processed using CD-ROMs show no discrepancies between the two counts and are therefore proven to be valid. The recount of the magnetic tape processing, however, indicates a duplicate wage item, and therefore the counts do not match. This requires further research to establish the reason for the miscount and to correct any other errors caused by the use of this mode of processing.

Exhibit 5.1
Wage Item Validation Worksheet



APPENDIX A

Part I Inclusion Criteria for Extract Files by Population

Part II Subpopulation Specifications Tables for Each Population

APPENDIX A

REPORT VALIDATION SPECIFICATIONS

INTRODUCTION

As described in Module 1 of the handbook, the first step in the data validation process is to create report validation (RV) files (also referred to as extract or reconstruction files). These files list all transactions of a single type that are to be reported on the ETA 581 report. Each transaction is listed in a single population and in only one subpopulation within the population.

Part I of this appendix defines the inclusion criteria for each population. It specifies the type of employer or transaction that should be included in the population. Tables 1 through 5 in **Part II** of Appendix A specify how the populations are to be divided into subpopulations. Each row of the table is the specification for a single, mutually exclusive subpopulation. At the end of each table is a written description of each subpopulation. This should help readers orient themselves to the information in the table.

Each column header includes a step number that refers to the state-specific portion of the handbook in Module 3. Validators and programmers should refer to the indicated step number for detailed instructions on how to validate the data in that column, as well as for the definition of the data element. Each specification includes a column and/or row entitled “ETA 581 Item #’s,” which indicates the Item number on the ETA 581 that the count or dollar amount in the column or row is compared with on the RV spreadsheet.

States should reconstruct each population as specified for a recent ETA 581 report quarter (RQ). In addition, states that administer unemployment insurance together with other taxes should capture tax type, to distinguish between the taxes being validated on the ETA 581 and others which are not countable on the report.¹

¹ Some states may have other unique types of data elements which should be captured in the reconstruction file to facilitate validation. For example, some states may have an indicator for seasonal employers which would be helpful in validating subpopulations 2.7 and 2.15 on Table 2.

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Abbreviations:

RQ	ETA 581 report quarter
ERQ	Employer Report Quarter (quarter covered by employer’s contribution report)
FDRQ	First day of the report quarter
LDRQ	Last day of the report quarter
FD(RQ+1)	First day of the quarter after the report quarter
FD(RQ-1)	First day of the quarter before the report quarter
DD	Report due date
A	Active
N	Newly Liable
S	Successor
I	Inactivation/inactive
T	Termination/terminated
C	Contributory Employer
R	Reimbursing Employer
OBS	Observation number
>	After the date or quarter specified, e.g., >RQ means “after the report quarter.”
<	Before the date or quarter specified, e.g., <RQ means “prior to the report quarter.”

Calculating quarters with a time line: in the example below, if the report quarter being validated is the fourth quarter of 2001, then RQ-8 is the fourth quarter of 1999.

1999-04		2001-04	2002-01	2002-02
RQ-8		RQ-4	RQ	RQ+1
				RQ+2

Part I

Inclusion Criteria

Extract Files by Population

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Population 1: Active Employers Inclusion Criteria

Population 1 should include all employers who were active as of the last day of the report quarter.

To be included:

- The employer must have an employer type that is active (Step 3A).
- The most recent liability date, initial or reopen, must be prior to the end of the quarter and must be later than any inactive/terminated date that appears in the employer's file (Steps 4 & 5).
- The employer must either have submitted **at least one** report indicating wages paid in the eight consecutive quarters ending with RQ (Step 7A) or been subject for fewer than 8 quarters.

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Population 2: Report Filing Inclusion Criteria

States should create a reconstruction file of all employers owing contributions or required reports for employer report quarter (ERQ), due in RQ, which were received timely or secured in the RQ, or reported as resolved in RQ+1. The entire population extract can be run at the end of RQ+1. The reconstruction file includes:

- Contributory or reimbursable employers owing reports for activities in the quarter prior to the report quarter, who filed reports during the report quarter or the quarter after the report quarter. That is, the received date for these reports is in the RQ or RQ+1. (Step 9)
- Contributory or reimbursable employers owing reports for activities in the quarter prior to the report quarter, who did not submit a report but received a final assessment during the report quarter or quarter after the report quarter. That is, the final assessment date for these reports is in the RQ or RQ+1, and the assessment is for ERQ. (Step 10)
- Contributory or reimbursable employers owing reports for activities in the quarter prior to the report quarter, who were made inactive as of a date prior to the ERQ, through a transaction occurring during the report quarter, or during the quarter after the report quarter. That is, the inactivation termination processing date for these reports is in the RQ or RQ+1, and the inactive/terminated “as of” date for these reports is before the ERQ. (Step 5)
- Contributory or reimbursable employers owing reports for activities in the quarter prior to the report quarter, whose liability date (met threshold) was changed from prior to the report quarter, to a date after the report quarter, through a transaction occurring during the report quarter or the quarter after the report quarter. That is, the liability date (met threshold) for these reports was changed to a date after RQ-1, and was changed during RQ or RQ+1. (Step 14)
- Contributory or reimbursable employers owing reports for activities in the quarter prior to the report quarter, whose suspended “as of” quarter equals the ERQ. That is the suspended “as of” quarter for these reports equals RQ-1 and the action that suspended them took place during RQ or RQ+1. (Step 5)
- Contributory or reimbursable employers owing reports for activities in the quarter prior to the report quarter, whose liability date (initial or reopen) and inactive/terminated “as of” date for these reports are equal. In addition, the inactivation/termination processing date is during RQ or RQ+1.

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Population 3: Status Determination Inclusion Criteria

Population 3 includes all status determinations made during the quarter. More than one status determination may be made and reported during the report quarter for a single employer. To be included:

- A status determination must have a status determination date during the quarter (Step 13) and a determination type indicating that the employer is newly liable, a successor, inactivated or terminated (Step 11).
- A termination determination must *not* be for an account that was previously inactivated.
- If, instead of the status determination date, the state uses separate dates for activation processing (Step 15), reactivation processing (Step 16), Successorship processing (Step 17) or inactivation/termination processing (Step 6) that date must be within the report quarter and must correspond to the type of status determination being made.

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Population 4: Accounts Receivable

Inclusion Criteria

Population 4 includes all *accounting transactions* made during the report quarter that establish or modify a receivable (past due taxes owed) for an employer account. There may be more than one such transaction for a single employer during the report quarter. To be included:

- A transaction must have a transaction type that is established, liquidated or declared uncollectible (Step 21).
- The transaction date (Step 19A) must be within the report quarter.
- The transaction must *not* liquidate or declare uncollectible a receivable that was removed from the report in a quarter prior to the report quarter (Step 25).

Population 4 also includes all *receivable amounts in accounts that have a balance due* at the end of the quarter (Step 26). Amounts in this population include those that were ‘removed from the report’ during the report quarter. Included are accounts that:

- Were removed from the report during the report quarter (Step 25). To be removed the receivable amount must have been reported in item 32 or 44 on the ETA 581 report, for receivables aged more than 15 months. To have been in one of those report cells for the required two quarters the receivable amount must either have been (a) established prior to RQ-2 and due for ERQ RQ-8 or (b) due for a quarter earlier than RQ-8 and established in RQ-2.

Do not include any receivable amounts that were removed from the report in prior quarters, or amounts liquidated or declared uncollectible during the report quarter.

- Also included are receivable amounts that result in an account balance at the end of the report quarter and were not removed from the report during the report quarter or any prior quarter.

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Population 5: Field Audits Inclusion Criteria

Population 5 includes all field audits completed during the reported quarter. To be included an audit must have an audit completion date during the report quarter (Step 30).

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Part II

Subpopulation Specifications

Tables for Each Population

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 1: Reconstruction File Specifications, Active Employers

Report Quarter:

Date:

These subpopulations constitute the unique subgroups of all active employers on the last day of the Report Quarter (RQ) covered by the ETA 581. Reconstruction should be done at the end of the RQ being validated (when the ETA 581 report program is run).

		1 (Step 1A)	2 (Step 3A)	3 (Step 2A) (Step 2B)	4 (Step 4A)	5 (Step 4B)	6 (Step 5)	7 (Step 15)	8 (Step 7B)	9 (Step 7A)
Subpopulation	Reported in 581 Item #'s	Employer Account # (EAN)	Employer Status Indicator A/I/T	Employer Type C/R	Liability Date (Initial)	Liability Date (Reopen)	Inactive/ Terminated "as of" Date	Activation Processing Date	Number of Liable Quarters	Sum of Wages (Last 8 Q's)
1.1	1		A	C	<=RQ	<=RQ	>RQ, or <liability date (reopen), or none			(If col. 8=8) >\$0
1.2	2		A	R	<=RQ	<=RQ	>RQ, or <liability date (reopen), or none			(If col. 8=8) >\$0

Notes

- 1) Analysis will treat columns 4 and 5 as a single date, using the most recent. One of the two must be a date earlier than the end of the report quarter.
- 2) Column 8 reports the consecutive number of liable quarters ending with the report quarter. If the number is > 8, simply list 8.
- 3) In column 9 add together the reported wages for the last 8 quarters. The record layout for the software specifies the states list all 8 quarters. The software does the addition automatically.

Subpopulation descriptions:

- 1.1 Active contributory employers liable by the end of the report quarter.
- 1.2 Active reimbursable employers liable by the end of the report quarter.

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 2: Reconstruction File Specifications, Report Filing

Report Quarter (ETA 581):

Date:

Employer Report Due Date: The Due Date (DD) is defined as the date after which the state can impose penalty and/or interest, whichever is first applicable. It is a state-specific date.

These subpopulations constitute the unique subgroups of all employers owing contributions or required reports during the same ETA 581 report quarter (RQ), which were received timely or secured in the RQ, or reported as resolved in RQ+1. Programmers and validators should note that timely, secured, and resolved are here defined as discrete filing statuses, whereas the ETA 581 reports cumulative counts for these categories. Because of the static nature of the received date, which is a key data element for subpopulations 2.1, 2.2, 2.3, 2.9, 2.10, and 2.11, the entire population extract can be run at the end of RQ+1. The validation counts in subpopulations 2.1, 2.2, 2.9, and 2.10 are compared with ETA 581 counts for the RQ; all subpopulation validation counts are compared with reported counts for RQ+1 (see 581 item # references below.)

		1 (Step 1B)	2 (Step 1B)	3 (Step 2A) (Step 2B)	4 (Step 9)	5 (Step 10)	6 (Step 4A) (Step 4B)	7 (Step 14)	8 (Step 5)	9 (Step 5)	10 (Step 6A) (Step 6B) (Step 6C)
Sub-population	Reported in 581 Item #s	Employer Account # (EAN)	Employer Report Q (ERQ)	Employer Type C/R	Received Date	Final Assessment Date	Liability Date (Initial or Reopen)	Liability Date (Met Threshold)	Inactive/Terminated "as of" Date	Suspended "as of" Qtr.	Inactivation/Termination Processing Date
2.1	6,7,(8 in RQ+1)		RQ-1	C	<=DD	none					
2.2	7,(8 in RQ+1)		RQ-1	C	> DD but within RQ	none					
2.3	8 in RQ+1		RQ-1	C	within RQ+1	none					
2.4	8 in RQ+1		RQ-1	C	none	w/in RQ or RQ+1					
2.5	8 in RQ+1		RQ-1	C	none				< RQ-1		within RQ or RQ+1
2.6	8 in RQ+1		RQ-1	C	none			>=RQ	>RQ and >liability date, or none		

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 2: Reconstruction File Specifications, Report Filing

		1 (Step 1B)	2 (Step 1B)	3 (Step 2A) (Step 2B)	4 (Step 9)	5 (Step 10)	6 (Step 4A) (Step 4B)	7 (Step 14)	8 (Step 5)	9 (Step 5)	10 (Step 6A) (Step 6B) (Step 6C)
Sub-population	Reported in 581 Item #s	Employer Account # (EAN)	Employer Report Q (ERQ)	Employer Type C/R	Received Date	Final Assessment Date	Liability Date (Initial or Reopen)	Liability Date (Met Threshold)	Inactive/Terminated "as of" Date	Suspended "as of" Qtr.	Inactivation/Termination Processing Date
2.7	8 in RQ+1		RQ-1	C	none					(RQ-1)	
2.8	8 in RQ+1		RQ-1	C	none		=col 8 date		=col 6 date		Within RQ or RQ+1
2.9	9,10,(11 in RQ+1)		RQ-1	R	<=DD	none					
2.10	10,(11 in RQ+1)		RQ-1	R	> DD but <=LDRQ	none					
2.11	11in RQ+1		RQ-1	R	within RQ+1	none					
2.12	11in RQ+1		RQ-1	R	none	<=LDRQ+1					
2.13	11in RQ+1		RQ-1	R	none				<RQ-1		within RQ or RQ+1
2.14	11in RQ+1		RQ-1	R	none			>=RQ	>RQ and >liability date, or none		
2.15	11in RQ+1		RQ-1	R	none					(RQ-1)	
2.16	11in RQ+1		RQ-1	R	none		=col 8 date		=col 6 date		Within RQ or RQ+1

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 2: Reconstruction File Specifications, Report Filing

Notes:

- 1) A few states resolve reports for seasonal employers by suspending the report filing requirement in off seasons (subpopulations 2.7 and 2.15). Other states will have no entry in this column.
- 2) States may identify all contributory and reimbursing employers who were subject to file a required report covering the quarter prior to the ETA 581 report quarter, on the last day of the quarter prior to the ETA 581 report quarter. That data file can then be used in the validation reconstruction, even though not every report owed will be resolved. (If this approach is workable for states, it can also be done every quarter to program the ETA 581.)
- 3) Some states may use a delinquency flag instead of the preferred received date; this creates audit trail issues to be reviewed on a state-specific basis.
- 4) If an employer has more than one resolved date under columns 4, 5, 8, or 9, the software assigns the record to the first subpopulation for which it meets the criteria.

Subpopulation descriptions:

The software assigns records to the first subpopulation for which it meets the subpopulation criteria. Each record is compared to the requirements for subpopulation 1 and the software determines if the record meets the subpopulation 1 criteria. If it does, the record is assigned to subpopulation 1. If it does not, the software then compares the record to the requirements for subpopulation 2 and determines if the record meets the subpopulation 2 criteria. This process continues as necessary comparing each record to the requirements for each successive subpopulation.

- 2.1 Contributory employers owing contributions reports for activities in the quarter prior to the report quarter, who filed contribution reports timely during the report quarter.
- 2.2 Contributory employers owing contributions reports for activities in the quarter prior to the report quarter, who filed untimely contribution reports by the end of the report quarter (secured, but not timely).
- 2.3 Contributory employers owing contributions reports for activities in the quarter prior to the report quarter, who filed contribution reports during the quarter after the report quarter (resolved, neither secured nor timely).
- 2.4 Contributory employers owing contributions reports for activities in the quarter prior to the report quarter, who did not submit a report but received a final assessment by the end of the quarter after the report quarter (resolved, neither secured nor timely).

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 2: Reconstruction File Specifications, Report Filing

- 2.5 Contributory employers owing contributions reports for activities in the quarter prior to the report quarter, who were made inactive during the report quarter, or during the quarter after the report quarter (resolved, neither secured nor timely).
- 2.6 Contributory employers owing contributions reports for activities in the quarter prior to the report quarter, whose liability date (met threshold) was changed from prior to the report quarter, to during or after the report quarter (resolved, neither secured nor timely).
- 2.7 Contributory employers owing contributions reports for activities in the quarter prior to the report quarter, who were suspended from filing contribution reports due in the report quarter by virtue of being seasonal employers, an administrative decision not to pursue report filing, for domestic employers who elect to file annually, or for other reasons (resolved, neither secured nor timely).
- 2.8 Contributory employers owing contributions reports for activities in the quarter prior to the report quarter, whose accounts were withdrawn by making the liability date and the inactive/terminated “as of” date equal (resolved, neither secured nor timely). This includes canceled, withdrawn, closed, dropped, etc. accounts.
- 2.9 Reimbursable employers owing required reports for activities in the quarter prior to the report quarter, who filed required reports timely during the report quarter.
- 2.10 Reimbursable employers owing required reports for activities in the quarter prior to the report quarter, who filed untimely required reports by the end of the report quarter (secured, but not timely).
- 2.11 Reimbursable employers owing required reports for activities in the quarter prior to the report quarter, who filed required reports during the quarter after the report quarter (resolved, neither secured nor timely).
- 2.12 Reimbursable employers owing required reports for activities in the quarter prior to the report quarter, who did not submit a report but received a final assessment by the end of the quarter after the report quarter (resolved, neither secured nor timely).
- 2.13 Reimbursable employers owing required reports for activities in the quarter prior to the report quarter, who were made inactive during the report quarter, or during the quarter after the report quarter (resolved, neither secured nor timely).
- 2.14 Reimbursable employers owing required reports for activities in the quarter prior to the report quarter, whose liability date (met threshold) was changed from prior to the report quarter, to during or after the report quarter (resolved, neither secured nor timely).
- 2.15 Reimbursable employers owing required reports for activities in the quarter prior to the report quarter, who were suspended from filing required reports due in the report quarter by virtue of being seasonal employers, an administrative decision not to pursue report filing, for domestic employers who elect to file annually, or for other reasons (resolved, neither secured nor timely).
- 2.16 Reimbursable employers owing required reports for activities in the quarter prior to the report quarter, whose accounts were withdrawn by making the liability date and the inactive/terminated “as of” date equal (resolved, neither secured nor timely). This includes canceled, withdrawn, closed, dropped, etc. accounts.

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 3: Reconstruction File Specifications, Status Determinations Entered within Report quarter (RQ)

Report Quarter:

Date:

These subpopulations constitute the unique subgroups of all status determinations made by the state during the ETA 581 Report Quarter (RQ). States that overwrite status determinations on their master tax file may use the TPS universe for reconstruction. Programmers and validators should note that time lapse categories are discrete subpopulations, whereas the ETA 581 reports time lapse cumulatively.

		1 (Step 1C)	2 (Step 2A) (Step 2B)	3 (Step 11A) (Step 11B) (Step 11C) (Step 11D)	4 (Step 12)	5 (Step 13)	6 (Step 14)	7 (Step 14)	8 (Step 15)	9 (Step 16)	10 (Step 17)	11 (Step 18)	12 (Step 6A) or (Step 6B)	13 (Step 6A) or (Step 6C)
Sub-population	ETA 581 Item #'s	EAN	Employer Type C/R	Status Deterin. Type Indicator	Time Lapse (Calculated)	Status Deterin. Date(s)	Liability Date (Met Threshold)	End of Liable Quarter (Calculated)	Activation process date	Reactivation process date(s)	Successorship process date(s)	Predecessor account number	Inactivation process date(s)	Termination process date(s)
3.1	14,15,16			New	<=90 days	within RQ			within RQ, or <column 9 date	within RQ, or none			< active/ reactivation date, or blank	< active/ reactivation date, or blank
3.2	14,16			New	>=91 but <=180 days	within RQ			within RQ, or <column 9 date	within RQ, or none			< active/ reactivation date, or blank	< active/ reactivation date, or blank
3.3	14			New	>=181 days	within RQ			within RQ, or <column 9 date	within RQ, or none			< active/ reactivation date, or blank	< active/ reactivation date, or blank
3.4	17,18,19			Successor	<=90 days	within RQ			<= successorship date	<= successorship date, or none	within RQ	non-blank		

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 3: Reconstruction File Specifications, Status Determinations Entered within Report quarter (RQ)

		1 (Step 1C)	2 (Step 2A) (Step 2B)	3 (Step 11A) (Step 11B) (Step 11C) (Step 11D)	4 (Step 12)	5 (Step 13)	6 (Step 14)	7 (Step 14)	8 (Step 15)	9 (Step 16)	10 (Step 17)	11 (Step 18)	12 (Step 6A) or (Step 6B)	13 (Step 6A) or (Step 6C)
Sub-population	ETA 581 Item #'s	EAN	Employer Type C/R	Status Determin. Type Indicator	Time Lapse (Calculated)	Status Determin. Date(s)	Liability Date (Met Threshold)	End of Liable Quarter (Calculated)	Activation process date	Reactivation process date(s)	Successorship process date(s)	Predecessor account number	Inactivation process date(s)	Termination process date(s)
3.5	17,19			Successor	>=91 but <=180 days	within RQ			<= successor - ship date	<= successor - ship date, or none	within RQ	non-blank		
3.6	17			Successor	>=181 days	within RQ			<= successor - ship date	<= successor - ship date, or none	within RQ	non-blank		
3.7	20			Inactivations	n/a	within RQ	n/a	n/a	n/a	n/a	n/a		within RQ ^a	blank
3.8	20			Terminations	n/a	within RQ	n/a	n/a	n/a	n/a	n/a		blank	within RQ

^a There is the same issue as under Population #1, where the employer could be inactive based on 8 quarters of no wages (or fewer depending on the state's threshold), but for some reason the inactivation date/flag was not triggered. We may be able to cross-reference by EAN (by programming or on the printout) the employers identified as falling in this category from the Population #1 specifications, since they are identical, as long as the same RQ is validated.

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 3: Reconstruction File Specifications, Status Determinations Entered within Report quarter (RQ)

Notes:

- 1) States that prefer to validate contributory and reimbursing employer status determinations separately may do so by replicating the eight subpopulations (one set of eight subpopulations for each type of employer). States may prefer to validate the two types of employers separately if they are processed in very different ways.
- 2) Time Lapse is the difference, in days, between the last day of the liable quarter and the status determination date.

Subpopulation Descriptions:

- 3.1 Status determinations of new employers made during the report quarter, which were made within 90 days of the end of the quarter in which the employer became liable. (Employers changing from contributory to reimbursing status and vice versa are included in subpopulations 3.1 - 3.3.)
- 3.2 Status determinations of new employers made during the report quarter, which were made between 91 and 180 days of the end of the quarter in which the employer became liable.
- 3.3 Status determinations of new employers made during the report quarter, which were made 181 days or later from the end of the quarter in which the employer became liable.
- 3.4 Status determinations of successor employers made during the report quarter, which were made within 90 days of the end of the quarter in which the employer became liable.
- 3.5 Status determinations of successor employers made during the report quarter, which were made between 91 and 180 days of the end of the quarter in which the employer became liable.
- 3.6 Status determinations of successor employers made during the report quarter, which were made 181 days or later from the end of the quarter in which the employer became liable.
- 3.7 Inactivations of employers made during the report quarter.
- 3.8 Terminations of employers made during the report quarter.

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 4: Reconstruction File Specifications, Accounts Receivable

Report Quarter:
Date:

	1 <i>(Step 1D)</i>	2 <i>(Step 2A)</i> <i>(Step 2B)</i>	3 <i>(Step 19A)</i>	4 <i>(Step 19B)</i>	5 <i>(Step 1D)</i>	6 <i>(Step 20)</i>	7 <i>(Step 21A)</i> <i>(Step 21B)</i> <i>(Step 21C)</i>	8 <i>(Step 22)</i>	9 <i>(Step 23)</i>	10 <i>(Step 24)</i>	11 <i>(Step 25)</i>	12 <i>(Step 26)</i>	13 <i>(Step 27A)</i> <i>(Step 27B)</i>
Sub-population	EAN	Employer Type C/R	Transaction Date	Established Q/Date	Employer Report Quarter (ERQ)	Due Date (DD)	Transaction Type/Indicator	Amount Established in RQ	Liquidated (Pay/Adj)	Uncollectible	Removed	Balance at end of RQ	Age
4.1		C		RQ			Establishment	\$	blank	blank	blank	blank	blank
4.2		C	RQ	blank			Liquidation	blank	\$	blank	blank	blank	blank
4.3		C	RQ		>RQ-8		Uncollectible	blank	blank	\$	blank	blank	blank
4.4		C	RQ	>RQ-3	<=RQ-8		Uncollectible	blank	blank	\$	blank	blank	blank
4.5		C	blank	<RQ-2	RQ-8	blank	blank	blank	blank	blank	\$		blank
4.6		C	blank	RQ-2	<=RQ-8	blank	blank	blank	blank	blank	\$		blank
4.7		C	blank		>RQ-8	blank	blank	blank	blank	blank	blank	\$	
4.8		C	blank	>RQ-2	<=RQ-8	blank	blank	blank	blank	blank	blank	\$	
ETA Item #								22	23	24	25	26	

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 4: Reconstruction File Specifications, Accounts Receivable

	1 (Step 1D)	2 (Step 2A) (Step 2B)	3 (Step 19A)	4 (Step 19B)	5 (Step 1D)	6 (Step 20)	7 (Step 21A) (Step 21B) (Step 21C)	8 (Step 22)	9 (Step 23)	10 (Step 24)	11 (Step 25)	12 (Step 26)	13 (Step 27A) (Step 27B)
Sub-population	EAN	Employer Type C/R	Transaction Date	Established Q/Date	Employer Report Quarter (ERQ)	Due Date (DD)	Transaction Type/Indicator	Amount Established in RQ	Liquidated (Pay/Adj)	Uncollectible	Removed	Balance at end of RQ	Age
4.9		R		RQ			Establishment	\$	blank	blank	blank	blank	blank
4.1		R	RQ	blank			Liquidation	blank	\$	blank	blank	blank	blank
4.11		R	RQ			>RQ-7	Uncollectible	blank	blank	\$	blank	blank	blank
4.12		R	RQ	>RQ-3		≤RQ-7	Uncollectible	blank	blank	\$	blank	blank	blank
4.13		R	blank	<RQ-2	blank	RQ-7	blank	blank	blank	blank	\$		blank
4.14		R	blank	RQ-2	blank	≤RQ-7	blank	blank	blank	blank	\$		blank
4.15		R	blank		blank	>RQ-7	blank	blank	blank	blank	blank	\$	
4.16		R	blank	>RQ-2	blank	≤RQ-7	blank	blank	blank	blank	blank	\$	
ETA Item #								34	35	36	37	38	

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 4: Reconstruction File Specifications, Accounts Receivable

Notes:

- Values in column 8 for all observations in subpopulations 4.1 - 4.8 should be totaled, for comparison to ETA Item #22.
- Values in column 9 for all observations in subpopulations 4.1 - 4.8 should be totaled, for comparison to ETA Item #23.
- Values in column 10 for all observations in subpopulations 4.1 - 4.8 should be totaled, for comparison to ETA Item #24.
- Values in column 11 for all observations in subpopulations 4.1 - 4.8 should be totaled, for comparison to ETA Item #25.
- Values in column 12 for all observations in subpopulations 4.1 - 4.8 should be totaled, for comparison to ETA Item #26.
- Values in column 8 for all observations in subpopulations 4.9 - 4.16 should be totaled, for comparison to ETA Item #34.
- Values in column 9 for all observations in subpopulations 4.9 - 4.16 should be totaled, for comparison to ETA Item #35.
- Values in column 10 for all observations in subpopulations 4.9 - 4.16 should be totaled, for comparison to ETA Item #36.
- Values in column 11 for all observations in subpopulations 4.9 - 4.16 should be totaled, for comparison to ETA Item #37.
- Values in column 12 for all observations in subpopulations 4.9 - 4.16 should be totaled, for comparison to ETA Item #38.

Subpopulation descriptions:

- 4.1 Receivable amounts established as past due in the report quarter for contributory employers.
- 4.2 Receivable amounts liquidated during the report quarter for contributory employers.
- 4.3 Receivable amounts declared uncollectible during the report quarter for contributory employers where the receivable is less than eight quarters old.
- 4.4 Receivable amounts declared uncollectible during the report quarter for contributory employers where the receivable is more than seven quarters old but was established within the report quarter or the two preceding quarters. The establishment date parameter is used to confirm that these transactions have not yet been removed.
- 4.5 Receivables removed during the report quarter for contributory employers where the receivable is eight quarters old and was established prior to two quarters before the report quarter.
- 4.6 Receivables removed during the report quarter for contributory employers where the receivable was at least eight quarters old and was established two quarters prior to the report quarter.

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 4: Reconstruction File Specifications, Accounts Receivable

- 4.7 Receivable balances at the end of the report quarter for contributory employers which were less than eight quarters old. (The receivable was not yet old enough to be removed.)
- 4.8 Receivable balances at the end of the report quarter for contributory employers which were more than eight quarters old but which were established within the report quarter or the preceding quarter. (The receivable is old enough to be removed but is not removed because it has not yet sat for 2 quarters in the 'greater than 15 months' aging category.)
- 4.9 Receivable amounts established as past due in the report quarter for reimbursable employers.
- 4.10 Receivable amounts liquidated during the report quarter for reimbursable employers.
- 4.11 Receivable amounts declared uncollectible during the report quarter for reimbursable employers where the receivable is less than eight quarters old.
- 4.12 Receivable amounts declared uncollectible during the report quarter for reimbursable employers where the receivable is more than seven quarters old but was established within the report quarter or the two preceding quarters.
- 4.13 Receivables removed during the report quarter for reimbursable employers where the receivable is eight quarters old and was established prior to two quarters before the report quarter.
- 4.14 Receivables removed during the report quarter for reimbursable employers where the receivable was at least eight quarters old and was established two quarters prior to the report quarter.
- 4.15 Receivable balances at the end of the report quarter for reimbursable employers which were less than eight quarters old. (The receivable was not yet old enough to be removed.)
- 4.16 Receivable balances at the end of the report quarter for reimbursable employers which were more than eight quarters old but which were established within the report quarter or the two preceding quarters. (The receivable is old enough to be removed but is not removed because it has not yet sat for 2 quarters in the 'greater than 15 months' aging category.)

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 5: Reconstruction File Specifications, Field Audits

Report Quarter:
Date:

These subpopulations constitute the unique subgroups of all field audits completed during the ETA 581 Report Quarter (RQ). Data elements specified on the file specification may not be captured on the state's system when they are not reported on the 581. They are however included in the auditor's file. When states cannot capture such information automatically, the column can be completed from the auditor's paper files during the validation for the selected cases.

							Total Wages					Taxable Wages					Contributions				
		1 (Step 1E)	2 (Step 1E)	3 (Step 28A) (Step 28B)	4 (Step 29A) (Step 29B)	5 (Step 30)	6 (Step 31A)	7 (Step 31B)	8 (Step 31C)	9 (Step 31D)	10 (Step 31E)	11 (Step 32A)	12 (Step 32B)	13 (Step 32C)	14 (Step 32D)	15 (Step 32E)	16 (Step 33A)	17 (Step 33B)	18 (Step 33C)	19 (Step 33D)	20 (Step 33E)
Sub-population	ETA 581 Items #s	EAN	Audit ID #	Employer size L/S	Change audit Y/N	Audit completion date	Pre	Post	Under	Over	Total reconciliation amount	Pre	Post	Under	Over	Tax reconciliation amount	Pre	Post	Onder	Over	Cont. reconciliation amount
5.1	45, 46, 47			L	Y	within RQ	T1\$	T2\$	T3\$	T4\$	0	X1\$	X2\$	X3\$	X4\$	0	C1\$	C2\$	C3\$	C4\$	0
5.2	45, 47			L	N	within RQ															
5.3	46, 47			S	Y	within RQ															
5.4	47			S	N	within RQ															
ETA Item #							49	50	53	56				54	57				55	58	

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 5: Reconstruction File Specifications, Field Audits

Notes:

- 1) Some states may want to capture and store in the data file the number of employees pre-and post-audit. Some states allocate a percentage of their UI receipts to special funds or programs; if so, the employer's discount rate and amount discounted should be included on the printout.
- 2) Post audit figures for total wages, taxable wages and contributions reflect the net increase or decrease of under and over reporting identified during the audit, even though the netted figures are not reportable on the ETA 581. Referring to the specification:
 - Subtract the positive net of (T3 - T4) from the positive net of (T1 - T2). The result in column 10 should be zero.
 - Subtract the positive net of (X3 - X4) from the positive net of (X1 - X2). The result in column 15 should be zero.
 - Subtract the positive net of (C3 - C4) from the positive net of (C1 - C2). The result in column 20 should be zero.

For example, if Employer A under reported total wages by \$5000 and also over reported total wages by \$1000, the Employer's post-audit total wages would increase by \$4000. So, if the validator nets the under and over reported wages the result is \$4000, and nets pre and post audit wages the result is \$4000. These two results should always reconcile to zero. Referring again to the printout specification:

 - If T1 = \$10,000, T2 = \$14,000, T3 = \$5,000, T4 = \$1,000, then $(\$10,000 - \$14,000) - (\$5,000 - \$1,000) = 0$.
 - Also, if T1 = \$10,000, T2 = \$6,000, T3 = \$1,000, T4 = \$5,000, then $(\$10,000 - \$6,000) - (\$1,000 - \$5,000) = 0$.
- 3) The number of observations in all four subpopulations should be totaled, for comparison to ETA Item #47.
 - Dollar values in column 6 for all observations in all four subpopulations should be totaled, for comparison to ETA Item #49.
 - Dollar values in column 7 for all observations in all four subpopulations should be totaled, for comparison to ETA Item #50.
 - Dollar values in column 8 for all observations in all four subpopulations should be totaled, for comparison to ETA Item #53.
 - Dollar values in column 9 for all observations in all four subpopulations should be totaled, for comparison to ETA Item #56.
 - Dollar values in column 13 for all observations in all four subpopulations should be totaled, for comparison to ETA Item #54.
 - Dollar values in column 14 for all observations in all four subpopulations should be totaled, for comparison to ETA Item #57.
 - Dollar values in column 18 for all observations in all four subpopulations should be totaled, for comparison to ETA Item #55.
 - Dollar values in column 19 for all observations in all four subpopulations should be totaled, for comparison to ETA Item #58.

APPENDIX A: REPORT VALIDATION SPECIFICATIONS

Table 5: Reconstruction File Specifications, Field Audits

Subpopulation descriptions:

- 5.1 Large employer audits completed during the report quarter, which were change audits.
- 5.2 Large employer audits completed during the report quarter, which were not change audits.
- 5.3 Small employer audits completed during the report quarter, which were change audits.
- 5.4 Small employer audits completed during the report quarter, which were not change audits.

APPENDIX B

INDEPENDENT COUNT

APPENDIX B

INDEPENDENT COUNT

Appendix B

INDEPENDENT COUNT

APPENDIX C IS ONLY APPLICABLE TO POPULATIONS FOR WHICH THE STATE HAS PRODUCED THE RV FILE FROM THE SAME EXTRACT FILES USED TO PRODUCE THE ETA 581 REPORT.

A. PURPOSE

The validation exercises described in Modules 1.1 and 1.2, and those outlined in Module 2, address the validation of all UI contributions transactions that have been *included* in the ETA 581 report. However, it is also important to confirm that no transactions have been improperly or systematically *excluded* from the Federal report. Although this problem is a difficult one, it is important to ensure that funding, economic statistics, and performance outcomes are not biased by the systematic elimination of particular types of transactions.

This module is not applicable for states that produce the RV file directly from the employer contributions database, because the RV process itself constitutes an independent count through the process of reconstruction. When the RV file is produced from the same file used to produce the ETA 581 report, it is necessary to conduct an independent count in order to identify any errors that may have occurred in the ETA 581 report since these errors will be duplicated in the reconstruction file.

It is also not possible to perform an independent count when the database does not contain all of the reported transactions. In these circumstances, the statistical file is the only source of data to reconstruct reported counts on the ETA 581 report. It is unlikely that any state will need to perform an independent count for 581 validation as explained in Exhibit C.2 (it is more relevant to validating Federal benefits reports). This procedure is included in this handbook to ensure that states are aware of the possible problems with using statistical files for both reporting and validation when database files could be used.

APPENDIX C

B. MATERIALS (ADP STAFF)

1. Independent Count Files

ADP staff create independent total counts of transactions from the main database for comparison with counts generated on the extract files used to create the ETA 581. In general, the independent count is created opposite to the way the RV file is created. The RV file should be programmed from the bottom up, by selecting only the codes and criteria indicated on the file specification in Appendix A. However, the independent count should be programmed from the top down, by including all codes relevant to a population and then subtracting observations related to those not indicated on the file specification.

Exhibit C.1 indicates when independent count validation is required. There are six typical scenarios for how states produce the ETA 581 report and reconstruct counts for validation. The ETA 581 Report Source column indicates for each scenario the source files that states use to generate report counts. States may use different source files for different types of transactions. The Validation Reconstruction Source column indicates for each scenario the source files that states use to reconstruct lists of transactions for validation.

The Independent Count Required column of Exhibit C.1 indicates whether the state should conduct independent count validation for transaction types that match the report and validation scenario.

Exhibit C.2 describes independent count criteria for each population.

Exhibit C.3 shows a spreadsheet to record the results of an independent count if one proves necessary.

APPENDIX C

EXHIBIT B.1								
ETA 581 REPORTING AND VALIDATION CONFIGURATIONS								
Scenario	Transactions Overwritten on Database	ETA 581			Data Validation			Independent Count Required
		Program Type	Source	Timing	Program Type	Source	Timing	
1	No	Count	Database	Snapshot (for reporting period)	Detail Record Extract (DRE)	Database	Snapshot	No
2	No	Count	Stat file	Daily	DRE	Database	Snapshot	No
3	No	DRE	Database	Snapshot (for reporting period)	DRE	Database	Snapshot	Yes
4	No	DRE	Stat file	Daily	DRE	Stat file	Daily	Yes
5	Yes	DRE	Stat file	Daily	DRE	Stat file	Daily	NA
6	Yes	Count	Stat file	Daily	must create a daily extract	NA	NA	NA

APPENDIX C

EXHIBIT B.2	
INDEPENDENT COUNT CRITERIA, BY POPULATION (USING QUERY CAPABILITY)	
Population Description	Independent Count Criteria
1 Active Employers	States should not use statistical files to validate active employers because the count should be taken from the database as a snapshot at the end of the month. If states do not use this approach for reporting (if they instead derive the number from changes in status over the quarter), they must use it for validation (they cannot recreate the active employer population from the status changes). Therefore, there is no situation which would require an independent count.
2 Report Filing	States generally use data files containing a record for each employer quarter for both reporting and reconstructing counts of employer report statuses. Therefore, there is not likely to be a situation where statistical files are used for reporting or validation. If a state uses a statistical file for validation, it should create a frequency distribution of received dates for every employer with a received date for the quarter being validated. This count can be used to validate that the statistical file data matches the data base for all timely and secured reports and for all reports which are resolved by receipt of report. This will validate subpopulations 2.1, 2.2, 2.3, 2.9, 2.10 and 2.11, which will be sufficient to demonstrate that the statistical file is valid.
3 Status Determinations	States often use statistical files for reporting status determinations when their system stores only the most recent status determination for each employer account and thus overwrites or overlays some status determinations. These files are often called "RQC files" because they were developed to provide a universe of determinations from which to derive the RQC sample. These states cannot perform an independent count from the database to validate the statistical file because the database will not contain records for all of the status determinations. Therefore, an independent count is not required for status determinations, because it is not possible to create such a count in states which use statistical files.
4 Accounts Receivable	All states must use a transaction history file or audit trail to correctly reconstruct payments (amounts liquidated), because only such files show the date that each payment was made. Transaction history files are also the source for receivable amounts established and amounts declared uncollectible in some states. There is only one source file for such transactions, so an independent count is not relevant. All states must use "employer quarter files" to reconstruct balances for reporting amounts removed and amounts outstanding at the end of the quarter. Some states use such balances for reporting amounts declared uncollectible. These balances are always captured as a "snapshot" at the end of the quarter from the database, so an independent count is not relevant.
5 Field Audits	States do not maintain more than one file with field audit results, thus an independent count is not relevant.