UNEMPLOYMENT INSURANCE DATA VALIDATION HANDBOOK

Tax

OFFICE OF UNEMPLOYMENT INSURANCE
DEPARTMENT OF LABOR

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INTRODUCTION

A. Objectives

States regularly report to the U.S. Department of Labor (DOL) under the Unemployment Insurance Required Reports (UIRR) system. In particular, states document their performance in collecting UI employer contributions (taxes) and employer reports on the Employment and Training Administration (ETA) 581 report entitled "Contribution Operations." (Figure A)

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 UI program operations, and (3) calculation of state and national economic statistics. Table A summarizes the types and uses of the data. Figure A displays the ETA 581 report.

Table A
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 ETA 581 data have these critical uses, it is essential that states report their activities accurately and uniformly. Data validation measures the accuracy of state reporting on employer contribution activities. Two principles underlie a comprehensive data validation process:

Figure A
Form ETA 581

ETA 581 - CONTRIBUTION OPERATIONS

STATE	REGION	REPORT FOR PERIOD ENDING
st	g_states.region	rptdate

	Line									
Employer Count	101	End Quarter Employers						Delinquency Cutoff Date	Total Number Wage Items Received	
		Contributory		Reim-bursement		Total				
		-1		-2		-3		-4	-5	
		c1		c2		c3		c4	c14	
Employer Reports for Preceding Quarters	201	Contributory Employers						Reimbursing Employers		
		Filing Timely		Secured		Resolved		Filing Timely	Secured	Resolved
		-6		-7		-8		-9	-10	-11
		c53		c54		c55		c56	c57	c58
Status Determinations	301	Newly Established Employers			Successor Employers			Inactivations/Terminations		
		Number	Time Lapse <= 90 days	Time Lapse <=180 days	Number	Time Lapse <= 90 days	Time Lapse <= 180 days			
		-14	-15	-16	-17	-18	-19	-20		
		c11	c61	c62	c68	c59	c60	c63		
Contributory Employer Receivables	401	Total Beginning Period	Deter-mined Receivable	Liquidated	Declared Uncol-lectible	Removed End Period	Total End Period	Number Employers Owing Receivables in (26)		
		-21	-22	-23	-24	-25	-26	-27		
		c14a	c15	c16	c17	c64	c18			
Age of Contributory Receivables	402	6 Months or Less	9 Months			12 Months		15 Months	Over 15 Months	
		-28	-29			-30		-31	-32	
		c43	c44			c45		c46	c47	
Reimbursing Employers Receivables	403	Total Beginning Period	Deter-mined Receivable	Liquidated	Declared Uncol-lectible	Removed End Period	Total End Period	Number Employers Owing Receivables in (38)		
		-33	-34	-35	-36	-37	-38	-39		
		c19a	c20	c21	c22	c65	c23	c24		
Age of Reimbursing Receivables	404	6 Months or Less	9 Months			12 Months		15 Months	Over 15 Months	
		-40	-41			-42		-43	-44	
		c48	c49			c50		c51	c52	
Audit Activity	501	Number of Audits			Calendar Quarters Audited	Total Wages Audited		Hours Spent Auditing	Number of Employees Misclassified	
		Large Employers	Change Audits	Total Audits		Pre-Audit	Post-Audit			
		-45	-46	-47	-48	-49	-50	-51	-52	
		c25a	c28a	c25b	c26a	c66	c67	c29a	c69	
	502	Amount Underreported				Amount Overreported				
		Total Wages		Taxable Wages	Contributions	Total Wages		Taxable Wages	Contributions	
		-53		-54	-55	-56		-57	-58	
		c37a		c38a	c39a	c40a		c41a	c42a	
SUTA Dumping	503	Number of Mandatory Transfers		Number of Prohibited Transfers	Total Net Contributions Due					
		-59		-60	-61					
		c70		c71	c72					

1. If data are collected, they should be valid and usable.
2. Given the high degree of automation of UI systems, it is feasible and cost-effective to validate most report cells.

States conduct the validation themselves and report the results to ETA. This handbook provides detailed validation instructions for each state. ETA also provides states with a Sun-based data validation software application (referred to as the Sun-based system in UIPL 22-05) to use in conducting the validation.

Validation is administered using a "validation year" that coincides with the State Quality Service Plan (SQSP) performance year. It comprises all reports for the four quarters beginning April 1 and ending March 31. Once validity is established by a passing validation, states are required to validate reported data every third year, except for data elements used to calculate the Government Performance and Results Act (GPRA) measures. GPRA data are validated annually. The SQSP is the vehicle through which states submit plans to implement validation or to revalidate failed items.

If states modernize their UI tax data management system, partially, completely, or in any way that impacts reporting and therefore data validation, states must validate *every* benefits population the following year once the new system is deployed or goes live. This requirement includes populations with passing scores that were previously valid for three years and not yet due for validation. Similarly, if a state does not submit the underlying benchmark populations (Benefits Populations 5 and 8; Tax Populations 3 and 5) to complete Module 4 within the three year validation cycle, the scores will also not be considered valid until these are transmitted. If a state revises an ETA UI Required Report for the same time period it used for data validation, the data validation score will not be considered valid until the state resubmits the results using the revised report counts.

B. Data Errors Identified Through Validation

Systematic errors and random errors are the two major types of data error in federal UIRR reports. Systematic errors involve faulty design or execution of reporting programs. Random errors involve judgment and input errors. Reporting system errors are always systematic, while errors stemming from human judgment can be either systematic or random. Both systematic and random errors must be addressed in the validation design.

- **Systematic errors** are addressed through validation of the reporting programs that states use to create federal reports. Systematic errors tend to be constant and fall into one of three categories: *1) too many transactions (overcounts), 2) too few transactions (undercounts), or 3) misclassified transactions.* Systematic human errors occur when staff are using incorrect definitions or procedures. For example, a reporting unit may establish its own definition for a data element that conflicts with the federal definition (this can happen deliberately or inadvertently). Systematic errors are the most serious because they occur repeatedly. They are also the easiest to detect and correct. Systematic errors do not need to be assessed very frequently, and each system error only needs to be corrected once. A one-time adjustment in a

retrieval code or calculation specification, or staff retraining on a corrected definition or procedure, will usually correct systematic errors.

- **Random errors** are more variable. They include problems such as input errors or judgment errors such as 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.

Consistent and accurate reporting requires both good practice and accurate systems for reporting the data. Data validation and Tax Performance System (TPS) reviews together test whether data are accurately posted to the state employer contributions system and reported correctly on the ETA 581.

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 contributions 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: using standard national criteria, states reconstruct the report counts, using only transactions that should have been reported; and compare what they reported to this reconstructed "validation" count.

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. Because the statistical file is not used as part of the daily tax system, errors are not likely to 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 statistical extract files used to produce the ETA 581 instead of directly from the database must ensure that the extract files contain all the appropriate employer transactions and statuses. The way to do this is to recreate the logic used to produce the ETA 581. This handbook includes a validation tool, "independent count validation," specifically for this purpose.[1] See Appendix B.

[1]There is no way to accurately reconstruct the reported 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 is made for the same employer).

Table B outlines variations in the validation methodology, based on typical state approaches to ETA 581 reporting and data validation reconstruction. To determine the specific validation methodology to be implemented, the state validator or 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

The basic approach used in data validation is to ***reconstruct*** the numbers that should have been reported on the ETA 581. Because state UI records are highly automated, states can develop computer programs that extract from electronic databases all transactions or statuses that they believe should have been counted on the report. Each extracted transaction or status is compiled as a record containing information on every dimension needed to classify it properly for reporting purposes. Automation reduces the burden on validators and state information systems (IS) staffs to extract records from state files, assemble those records for analysis, and assess validation results.

Once transactions and statuses are extracted, they are subjected to a series of quality tests. The DV software contains logic rules to ensure that the classifying elements in each record have values consistent with classification into report cells. The validator examines samples of the records to assess whether 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 quality tests, the data are used to produce "validation counts" that are compared to what the state has reported. If reported counts are within the appropriate tolerance (usually ± 2%) of the validation counts, the reporting system is judged valid.

States conduct validation using standardized web-based software that runs on DOL Sun computers in state UI offices. Results are transmitted to the same UI data base used for UI required reports, and from which results are extracted to monitor DV program compliance.

Table B

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

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 active reimbursable employers at the end of the quarter, then the state must be able to create a file listing all 5,000 employers as well as relevant characteristics such as the Employer Account Number (EAN), employer type, date the liability threshold was met, number of liable quarters, and wages in each of those liable quarters. Analysis of these characteristics can assure validators that the file contains 5,000 reimbursable employers correctly classified as active, and that the reported number is valid.

E. Reconstructing Federal Report Items

There are 37 ETA 581 report items to validate.[2] A single employer account transaction or status may be counted in several different ETA 581 report items. For example, a contributions report that is filed on time is counted in two items for the current report quarter (timely reports and secured reports) and in one item in the following report quarter (resolved reports).

A general principle of the validation design is to streamline the validation process as much as possible. Transactions and statuses are analyzed only once, even if they appear in multiple items. The streamlining is accomplished by classifying them into mutually exclusive groups, which match to one or more items on the federal report. Specifically, tax validation identifies five types of employer transactions or statuses (called 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) Field Audits.

Table C lists the ETA 581 populations and subpopulations that are reconstructed and the number of report items validated by each population. It also describes the dimensions used to divide populations into subpopulations.

[2]Wage items processed (item 5 on the ETA 581) are validated but through a less comprehensive process. The ETA 581 wage item count is not reconstructed.

Table C
ETA 581 Report, by Transaction Population

Population	ETA 581 Line Numbers	Dimensions Used to Create Subpopulations	Number of Report Items	Number of Subpopulations
1. Active Employers	101	Employer status: • contributory • reimbursing	2	2
2. Report Filing	201	Timing of report receipt and resolution: • timely • secured within the quarter due • resolved within two quarters	6	16
3. Status Determinations	301	Type of status determination: • new • successor • inactive • terminated • Time lapse of the determination	7	8
4. Accounts Receivable	401 402 403 404	Receivable amounts: • established • liquidated • declared uncollectible • removed from the report • outstanding at end of quarter	10	16
5. Field Audits	501 502	By employer size: • small • large By audit result: • change • no change	11	4
6. Wage Items Processed	101		1	N/A

F. Handbook Overview

To determine the extent to which reported data are accurate and meet federal reporting definitions, five separate validation "modules" have been developed. Four of these modules—1, 2, 4, and 5—are processes that include various tools to use in validating the quantity and quality

of federally reported data. Module 3 is not a process but a key map linking state data sources to Federal reporting definitions that is essential to building and testing extract files. The modules and accompanying appendices are outlined below.

- **Module 1—Report Validation (RV)**

Module 1 describes how to validate whether state ETA 581 reporting programs are functioning correctly. The Sun-based software systematically processes reconstruction files and compares the count in each federal report item to the count in the corresponding subpopulation. The validator examines transactions that the software rejects as invalid and determines whether the rejected records need to be eliminated from the validation files because they represent uncountable transactions (e.g., their dates put them out of range for the validated quarter) or are improperly-built but potentially countable records that need to be fixed in a regenerated file.

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

Module 2 describes how to test the extract files to validate that the correct data elements are used, and thus that validation counts can be trusted as accurate. Two tests are conducted as part of DEV:

(2.1) Minimum Samples (formerly called **File Integrity Validation, or FIV),** two records from each subpopulation, are examined to see that the correct data were extracted from the database to build the reconstruction file.

(2.2) Sort Tests check whether the primary letter codes in the validation files are supported by state database values, or whether Employer Account Numbers have the prefix, suffix, or range values the state uses to differentiate contributory from reimbursing employers. Not all sorts are applicable in all states.

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

Module 3 provides the state-specific instructions that the validator uses for investigating minimum samples and applying sort tests, and helps guide programmers in building extract files. Module 3 documents the system screens that display the data to be validated as well as the rules that must be applied to each data element to determine its accuracy. State definitions or procedures that affect validation are also documented to help state and federal staff interpret the validation results and improve procedures.

- **Module 4—TPS Validation**

Module 4 determines whether the state's TPS acceptance samples were selected randomly from the correct universe of transactions. The quality reviews are a key indicator of the state's performance; and it is important to review the sampling methodology to ensure the results are statistically valid.

- **Module 5—Wage Item Validation**

This module explains how wage item counts are validated.

- **Appendix A—Report Validation File Specifications**

Appendix A includes specifications for the five validation files that the state needs to generate. Its key element is a table for each population that shows how each subpopulation is defined by values of a record's data elements, where each element is defined in Module 3, and how each subpopulation relates to federal report cells validated. In addition, Appendix A provides information about timing issues for each population.

- **Appendix B—Independent Count**

Appendix B describes how to determine whether any transactions have been excluded from an ETA 581 report item. These procedures are applicable to states that create the ETA 581 from the same extract files used to generate the reconstruction files.

G. Walkthrough of Data Validation Methodology

Figure B is a schematic illustration of the DV process. This section provides IS and validation staff with a step-by-step walkthrough, using ETA 581 active employers as an example.[3] It references the handbook module in which that aspect of the data validation process is described. Readers should review the referenced modules for further information.

State **IS staff** generate the ETA 581 report from the state's UI employer database(s) or from statistical files of counts or detailed records. The report item in the upper left corner of Figure B represents the count of contributory and reimbursing employers reported on the ETA 581.

At the same time, guided by the file layout (DV Operations Guide, Appendix B), file specifications (Appendix A) and definitions (Module 3), **IS staff** extract detailed records for the reported transactions to reconstruct and provide an audit trail for the reported count. (See Module 1.) This may be an iterative process; the software may reject many observations from the initial version of the file as errors. The validator and programmers must examine errors and determine which records should be removed from the file (e.g., dates out of range, duplicate transactions) and which records are incorrectly built but are countable transactions and thus must be corrected and the file rebuilt. The file is not ready for its final import from which samples are drawn and RV results examined until all errors are dealt with.

The state should generate the ETA 581 and the validation file (the reconstructed "audit trail") from the employer database(s) at the same time. Ideally, to prevent inconsistencies due to timing, the state would then immediately import the validation file into the software so that

[3]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.

minimum samples can be drawn and the state can generate supporting documentation (for example, query screens) from the employer database(s).[4]

- The DV software compares the reconstructed count with the reported count. In this example, the validation screen shows the detailed records for the three contributory employers reported on the ETA 581.

- The software selects a sample of two records per subpopulation and displays them on the sample worksheet. (See Module 2.) The **validator** assembles the materials—Module 3, reconstruction files, sample worksheets, and screens—to be used during validation and for review by DOL auditors.

- The **validator**, following the "step" numbers in each column heading on the sample worksheet on the DV software, tests the accuracy of the reconstructed data using the state-specific instructions under the corresponding step number in the state's Module 3. The bottom right portion of Figure B shows a page from Utah's Module 3. (See Module 2.)

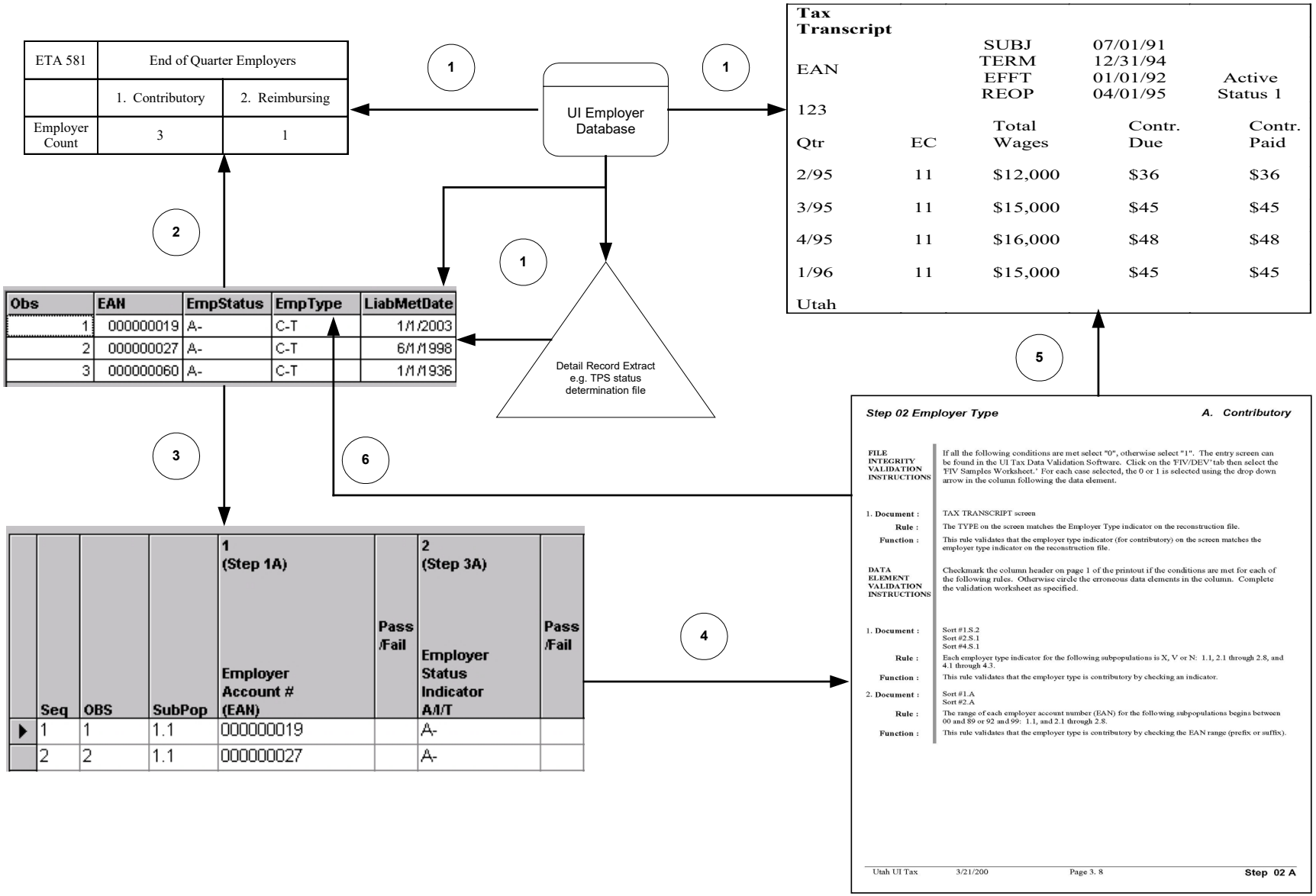
- Module 3 refers to state source documentation (usually query screens) and to specific fields on the screens.

- To complete the minimum sample reviews, the validator follows the rules for 2A (contributory employer) in Module 3. The rule for Step 2A requires the validator to compare the employer-type indicator on the screen to the employer-type indicator on the sample worksheet. Using the down arrow, the validator selects 'PASS' if the two indicators match; otherwise, 'FAIL.'

The validator repeats the process for each data element on the worksheet guided by the step numbers in each column heading. (See Module 2.)

[4] 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.

Figure B
Overview of UI Tax Data Validation Methodology



MODULE 1

Tax

REPORT VALIDATION

MODULE 1

A. Purpose

The report validation process is used to determine the accuracy of counts reported on the ETA 581 report. Five validation extract files are constructed according to specifications in the DV Operations Guide and Appendix A. These files are used to reconstruct the counts for the five types of employer contributions populations that the state is validating. The report validation files enable the validator to determine the accuracy of the ETA 581 report item counts. Table 1.1 lists the five report validation population files and the parts of the ETA 581 report they validate.

Table 1.1
Populations

Population	Population Description	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

B. Methodology

Step 1 Produce Report Validation Extract Files

State staff produces five report validation extract files–there is one extract file for each of the five populations of UI contributions transactions and statuses. State staff should use the following specifications to prepare the five files:

1. Extract File Specifications (Appendix B of the DV Operations Guide; also available on the DV Web page at **http://ows.doleta.gov/dv/**).

2. Population tables and timing specifications in Appendix A
3. Duplicate Detection Criteria (Appendix D of the DV Operations Guide)
4. State's Module 3

The extract file format is ASCII, comma delimited. See Figure 1.1 for an example of a record layout. Data must be in the order listed in the record layouts. The Data Type/Format column on the layouts indicates generic values for text fields. The generic values must be followed by a dash and the state-specific value. See Figure 1.2 for an example of an extract file.

It is best to generate the validation files at the same time as the ETA 581 to eliminate differences in data caused by changes in the employer database over time. Because the ETA 581 provides a "snapshot" of transactions and employer statuses during a specific time period, the validation is intended to verify the status of transactions at the time the report was run, even if data later changed. It is less efficient to compare a set of transactions or statuses captured at one point in time with those captured at another point in time, because many discrepancies will represent legitimate changes in a dynamic database, instead of systems errors or faulty data. For example, an employer's status can legitimately change from active to inactive. If states have a complete audit trail, timing should not affect the reconstruction of transactions. For example, states should maintain records of status determinations even if the employer's status changed in the same quarter. The validator can use these audit trails to verify that a transaction was correct at the time of reporting.

Step 2 Import Extract Files

The extract files are imported into the DV software following the instructions in the DV Operations Guide. The software processes each extract file and builds the subpopulations as specified in Appendix A. The subpopulations are based on the unique types of transactions and statuses that can occur and that can be reported on the federal reports. For example, Population 1, active employers, includes all employers who were active on the last day of the quarter. The software assigns each record to a subpopulation defined by unique combinations of characteristics such as employer status, employer type, liability date, and termination date. See Figure 1.3 for a sample of a validation file imported into the software.

Step 3 Examine Error Reports and Reload Extracts If Necessary

When the extract files are loaded, the DV software reads each record to ensure that all fields are valid. Any records with invalid data, missing mandatory data, or records which appear to be duplicates are rejected and an error report is produced. The record layouts in the DV Operations Guide specify the valid data formats for each field, and the population tables in Appendix A specify the valid values. The software uses the duplicate detection criteria in the DV Operations Guide to identify duplicate records that the validator must review.

After reviewing any error reports that are generated, state staff should determine if the extracts are correct or whether they need to be regenerated or reformatted and reloaded into the DV software. This process should be repeated until the extract files have no errors.

See Figure 1.4 for an example of an error report.

Step 4 Report Validation

The DV software calculates the validation count or dollar amount for each subpopulation specified in Appendix A. The validation values are compared to the corresponding reported values in the national UI database. The software then calculates the difference between the validation and reported values and also calculates an error rate. A reported value is considered valid and "passes" report validation if the error rate falls within the established tolerance (± 1% for data used in Government Performance and Results Act (GPRA) measures and ± 2% for all

others). The GPRA Tax measure is the percent of all New Status determinations made within 90 days; the elements with a ±1% tolerance are Total New Status Determinations and New Status determinations made within 90 Days.

The software produces a summary report that displays all of this information. This summary report is submitted to the UI national office.

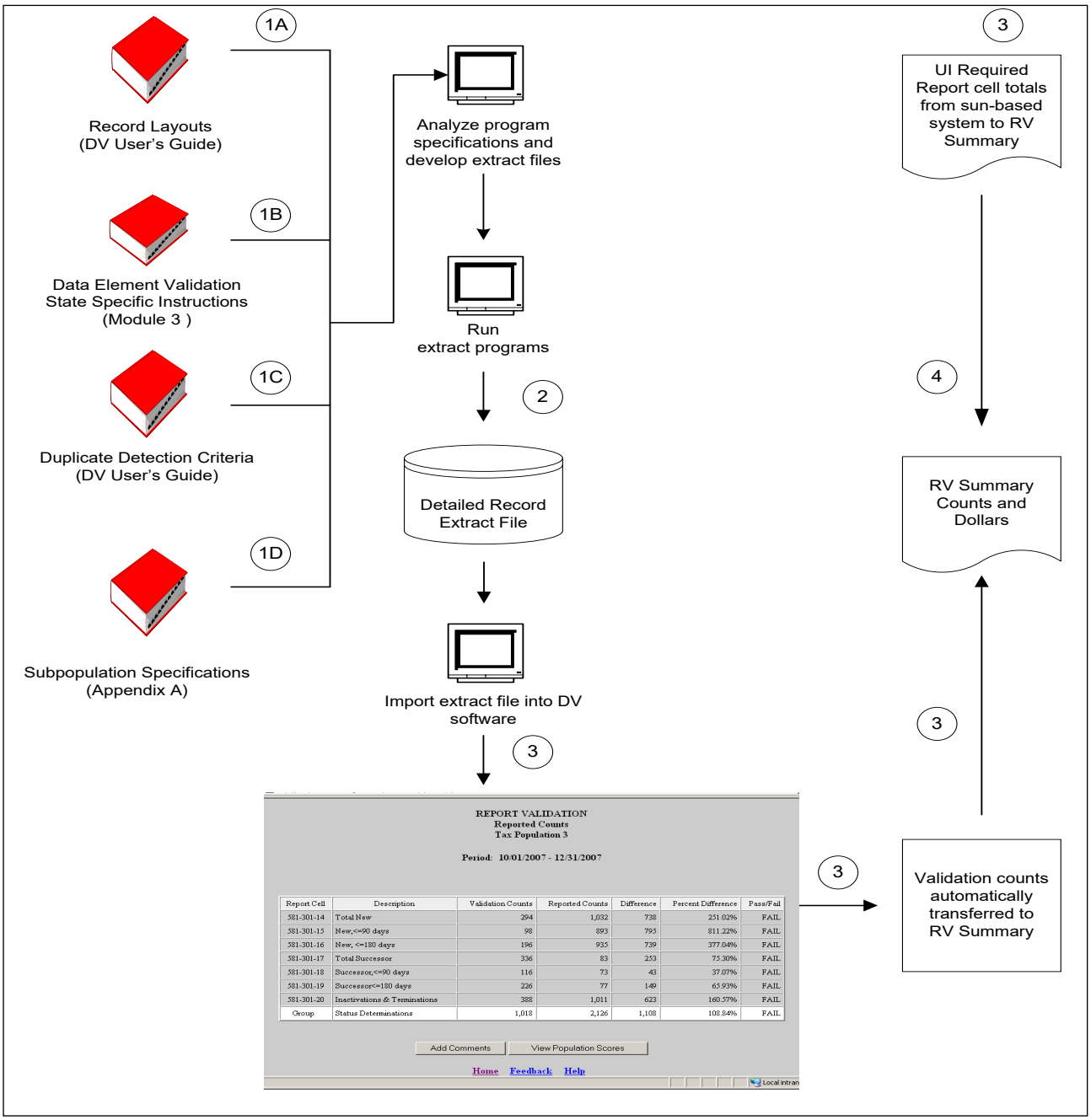
Overview of Module 1

Table 1.2 and Figure 1.1 show an overview of Module 2 methodology.

Table 1.2
Overview of Module 1

Step	Description of Step
1A – 1D	Analyze the validation program specifications including: **1A. Record Layouts (DV Operations Guide):** contains specifications to build the validation extract files **1B. Data Element Validation State Specific Instructions (Module 3):** Includes instructions and state's specific screen names, element names and value codes for validating each data element. **1C. Duplicate Detection Criteria (DV Operations Guide):** contains the criteria that the software uses to detect duplicates. **1D. Subpopulation Specifications (Appendix A):** contains reporting and sampling specifications for each population.
2	Extract transaction records from the state database(s), including all of the data elements specified in the record layouts. The extract process should include a routine to ensure that invalid duplicates are excluded from the file, as specified in the duplicate detection criteria in the DV Operations Guide.
3	Import the validation files into the DV software, which processes the files and assigns transactions to the subpopulations specified in Appendix A.
4	The RV screen compares the validation counts to the reported counts and displays the error rates and a pass/fail population score.

Figure 1.1
Overview of Module 1



The following figures are examples of:

1. Population 3 Record Layout (Figure 1.2)
2. Population 3 Sample Extract File (Figure 1.3)
3. Population 3 Validation File after Processed through DV Software (Figure 1.4)
4. Population 3 RV Summary (Figure 1.5)

Figure 1.2
Population 3 Record Layout (portion)

The record layout provides the format for the validation extract file. The extract file type must be ASCII, comma delimited columns. Data must be in the order listed in the record layout. The Data Format column indicates the generic values for text fields. **These must be followed by a dash and the state-specific value.** The Module 3 reference indicates the step where the state-specific values are documented.

Example: If the state-specific code for New Status Determination is NEW, then the data format would be N-NEW.

No.	*Field Name*	*Module 3 Reference*	*Field Description*	*Data Type/Format*	*DVWS*	*Constraint*
1	OBS		Sequential number, start at 1	Number - 00000000 (Required)	INTEGER	NOT NULL
2	EAN	Step 1A	Employer Account Number	Number - 000000000 (Required)	CHAR (20)	NOT NULL
3	Employer Type	Step 2A Step 2B	Indicate whether the employer type is contributory or reimbursable.	Text - C; R (Required)	CHAR (20)	NOT NULL
4	Status Determination Type Indicator	Step 11A- D	Indicate status determination type by New, Successor, Inactivation or Termination.	Text - N; S; I; T (Required)	CHAR (10)	NOT NULL
5	Time Lapse	Step 12	Place a zero (0) in this field. (Software generates the time lapse)	Number - 0	INTEGER	

Figure 1.3

A Population 3 Extract File in ASCI Comma-delimited Format

```
000000001,000000001,C-100,T-345,0,05/16/2003,03/31/2003,,,,,,05/16/2003,20031021140204
000000002,000000002,C-800,I-306,0,05/08/2003,09/30/2002,,,,,,05/08/2003,,20031021140204
000000003,000000003,C-100,N-106,0,04/02/2003,12/09/2002,,04/02/2003,,,,,,20031021140204
000000004,000000004,C-100,I-306,0,06/13/2003,06/30/2002,,,,,,06/13/2003,,20031021140204
000000005,000000005,C-100,I-325,0,06/16/2003,03/31/2002,,,,,,06/16/2003,,20031021140204
000000006,000000006,C-100,N-101,0,04/02/2003,03/31/2003,,04/02/2003,,,,,,20031021140204
000000007,000000007,C-100,I-306,0,06/13/2003,03/31/2003,,,,,,06/13/2003,,20031021140204
000000008,000000008,C-040,S-186,0,04/03/2003,01/01/2003,,04/03/2003,,04/03/2003,000281498,,,20031021140204
000000009,000000009,C-040,I-370,0,04/03/2003,12/31/1997,,,,,,04/03/2003,,20031021140204
000000010,000000010,C-420,S-186,0,04/03/2003,07/01/2002,,04/03/2003,,04/03/2003,000149776,,,20031021140204
000000011,000000011,C-420,I-370,0,04/03/2003,12/31/1980,,,,,,04/03/2003,,20031021140204
000000012,000000012,C-130,S-186,0,04/03/2003,10/02/2002,,04/03/2003,,04/03/2003,000051455,,,20031021140204
000000013,000000013,C-130,I-370,0,04/03/2003,03/31/1971,,,,,,04/03/2003,,20031021140204
000000014,000000014,C-000,S-165,0,04/21/2003,01/01/2002,,04/21/2003,,04/21/2003,000283912,,,20031021140204
000000015,000000015,C-100,I-306,0,06/03/2003,09/30/2002,,,,,,06/03/2003,,20031021140204
000000016,000000016,C-100,S-161,0,04/08/2003,01/24/2003,,04/08/2003,,04/08/2003,000309296,,,20031021140204
000000017,000000017,C-100,N-101,0,04/02/2003,12/31/2001,,04/02/2003,,,,,,20031021140204
000000018,000000018,C-100,N-101,0,04/02/2003,12/31/2002,,04/02/2003,,,,,,20031021140204
000000019,000000019,C-100,N-106,0,04/02/2003,12/22/2002,,04/02/2003,,,,,,20031021140204
000000020,000000020,C-100,N-101,0,04/02/2003,03/31/2003,,04/02/2003,,,,,,20031021140204
000000021,000000021,C-800,N-120,0,04/02/2003,06/30/2002,,04/02/2003,,,,,,20031021140204
000000022,000000022,C-800,I-306,0,04/02/2003,03/31/2002,,,,,,04/02/2003,,20031021140204
000000023,000000023,C-100,N-101,0,04/02/2003,12/31/2002,,04/02/2003,,,,,,20031021140204
000000024,000000024,C-100,N-101,0,04/02/2003,03/31/2002,,04/02/2003,,,,,,20031021140204
```

Figure 1.4
A Population 3 Validation File After Processing by DV Software

SOURCE TABLE
Tax Population 3

OBS	Employer Account Number	Employer Type	Status Determination Type	Time Lapse	Status Determination. Date	Liability Date	End of Liable Quarter	Activation Date	Reactivation Date	Successor ship Date	Predecessor Account Number	Inactivation Date	T I
16	0200080009	C	N-EWX	1.0	04/01/2006	03/01/2006	03/31/2006	04/01/2006	06/30/2006				C
17	0200085000	R	N-EWX	181.0	06/30/2006	12/01/2005	12/31/2005	04/01/2006	06/30/2006				C
18	0200088000	C	N-EWX	90.0	06/29/2006	03/01/2006	03/31/2006	06/30/2006					
19	0200089006	R	N-EWX	91.0	04/01/2006	10/01/2005	12/31/2005	04/02/2006	04/04/2006			04/03/2006	
20	0200090004	C	N-EWX	180.0	06/29/2006	12/31/2005	12/31/2005	06/30/2006					
21	0200092007	R	N-EWX	273.0	06/30/2006	07/01/2005	09/30/2005	04/01/2006	04/03/2006			04/02/2006	
22	0200093003	C	S-2	1.0	04/01/2006	03/01/2006	03/31/2006	04/01/2006		04/01/2006	000000001		
23	0200094000	R	S-2	90.0	06/29/2006	03/01/2006	03/31/2006	04/30/2006	05/02/2006	05/03/2006	000000002	05/01/2006	
24	0200095006	C	S-2	91.0	04/01/2006	10/01/2005	12/31/2005	04/02/2006	04/04/2006	04/04/2006	000000003	04/03/2006	
25	0200096002	R	S-2	180.0	06/29/2006	12/31/2005	12/31/2005	06/30/2006		06/30/2006	000000004		
26	0200097009	R	S-2	181.0	06/30/2006	12/01/2005	12/31/2005	04/01/2006	06/30/2006	06/30/2006	000000005		C
27	0200098005	C	S-2	273.0	06/30/2006	07/01/2005	09/30/2005	04/01/2006	04/03/2006	04/04/2006	000000006	04/02/2006	
28	0200099001	R	I-3	1.0	04/01/2006	01/09/2006	03/31/2006	03/03/2006				04/01/2006	
29	0200100000	C	I-3	91.0	06/30/2006	03/12/2006	03/31/2006	04/03/2006				06/30/2006	

Done Local intranet

Figure 1.5
Population 3 Report Validation Summary

Reported Counts for Population 3

Period: 10/01/2005 - 12/31/2005

Report Cell	Description	Validation Counts	Reported Counts	Difference	Percent Difference	Pass/Fail
581-301-14	Total New	1,186	0	1,186	100.00%	FAIL
581-301-15	New,<=90 days	1,186	0	1,186	100.00%	FAIL
581-301-16	New, <=180 days	1,186	0	1,186	100.00%	FAIL
581-301-17	Total Successor	138	[illegible]	[illegible]	[illegible]	FAIL
581-301-18	Successor,<=90 days	138	0	138	100.00%	FAIL
581-301-19	Successor<=180 days	138	0	138	100.00%	FAIL
581-301-20	Inactive Terminations	116	0	116	100.00%	FAIL
Status Determinations		4,088	0	4,088	100.00%	FAIL

Submit to National Office

Home Feedback Help

MODULE 2

Tax

DATA ELEMENT VALIDATION

MODULE 2

A. Purpose

The most important goal of the validation process is to determine how accurately employer contributions transactions and statuses have been reported on the ETA 581. After the report validation files have been built and each transaction has been assigned to a specific subpopulation, the key question is whether the data in each record are correct. This process is called data element validation (DEV). During DEV the validator will test whether the validation file is built from the correct elements, i.e., elements that are consistent with Federal reporting definitions. DEV comprises two separate testing procedures to ascertain whether key data elements in the report validation file have the values that should be used for building the file and validating the ETA 581 report counts. These are minimum samples and sorts/range tests. Only when a file has passed both procedures can it be considered the basis for judging the accuracy of ETA 581 report counts.

Module 2.1–Minimum Samples (formerly called File Integrity Validation (FIV). The DV software selects a sample of two (2) records per subpopulation that are then displayed on the sample worksheet. The validator reviews the sampled records using the state-specific data values and instructions in Module 3, which point the validator to the appropriate supporting documentation (such as employer history screens). The validator uses this documentation to validate that the data elements on the worksheets are accurate and that the transactions are assigned to the appropriate subpopulations. This test ensures that the data in the reconstruction file accurately reflect the correct employer records in the state's database(s). All states' populations have minimum samples.

Module 2.2–Sorts Tests/Range Validation provides additional validity tests that examine whether the primary letter codes used in building the extract file (e.g., N for New or S for Successor Status determinations) correspond to the proper state-specific codes, and whether Employer Account Numbers (EANs) have the right prefix, suffix or range values for Contributory or Reimbursing employer accounts in the state. Not all of these tests apply in all states.

MODULE 2.1—MINIMUM SAMPLES

B. Procedures

Task 1: Select Minimum Samples

The sampling function of the UI Tax DV software randomly selects two records from each subpopulation. See the tax tutorial for detailed instructions on how to use the Sun-based DV software. For each population, the software creates a Minimum Samples Worksheet listing all data elements for each sampled record (see example in Figure 2.1).

Minimum samples—instead of the larger random samples used in benefits--are sufficient for tax because tax database data are simpler than benefits data, and so the test of whether a file has been built correctly is whether the correct data have been retrieved for the extract file. The validator does not have to apply the kind of logic tests used in benefits to assess whether the correct data element has been used to build the file. The extract 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 record, that same field will be used for the fifth column of every record in that file. Thus, if we know that all data elements have been transferred correctly for the sampled records, we can be reasonably sure that all similar records are constructed correctly.

Task 2: Conduct Sample Investigation

For each data element in the sampled records, the validator compares the data value on the worksheet to source screens following instructions in Module 3. Based on that comparison, the validator records whether or not the value matches what is in the state database. 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.[5]

Figure 2.2 is a sample page from Module 3. For each step listed in Module 3, Minimum Sample Instructions are provided. These instructions help the validator locate and compare specific data elements in the state database corresponding to the data on the worksheet, and to determine the validity of the information (pass or fail).

The instructions for each step or substep identify the supporting documentation (screen and field names) 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 for 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, inclusions (situations falling within the definition), and exclusions.

Definitional Issues identify known discrepancies between state and federal definitions. This section provides a place for states to systematically document validation issues, letting validators and auditors know when problems are anticipated. Where state and federal definitions differ, be sure to follow the federal rules as required by the reporting instructions.

Comments provide additional information identified by states that state staff or federal auditors may need in order to handle unusual situations.

[5]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. A series of applicable transaction codes may represent reactivations. In these instances, the state or region may want to examine the elements in greater detail. As discussed in Module 1, states should produce the necessary screens as soon as possible after the reconstruction file is created.

Task 3: Produce Sample Results

Using the down-arrow on the software, select 'PASS' on the worksheet next to each data element that successfully passes a step. Select 'FAIL' if a data element does not pass the step. Each column on the worksheet must be validated before the record is considered complete, and Pass or Fail must be selected for every item of every record in the sample or else the summary line will indicate "Incomplete." The software will not transmit results of populations with incomplete DEV items. Based on the pass/fail entries, the worksheet will provide an item-by-item count of the number of data elements that failed. All sampled records must be completely free of errors for a state to pass a Minimum sample. Once the state validator has finished reviewing all of the sampled records for a population, the results should be saved following the instructions in the DV Operations Guide.

C. Examples

1. Example of Minimum Samples Worksheet (Figure 2.1)

2. Sample Page from Module 3 (Figure 2.2)

3. Minimum Sample Validation Procedures (Table 2.1 and Figure 2.3)

Figure 2.1

Example of Minimum Samples Worksheet

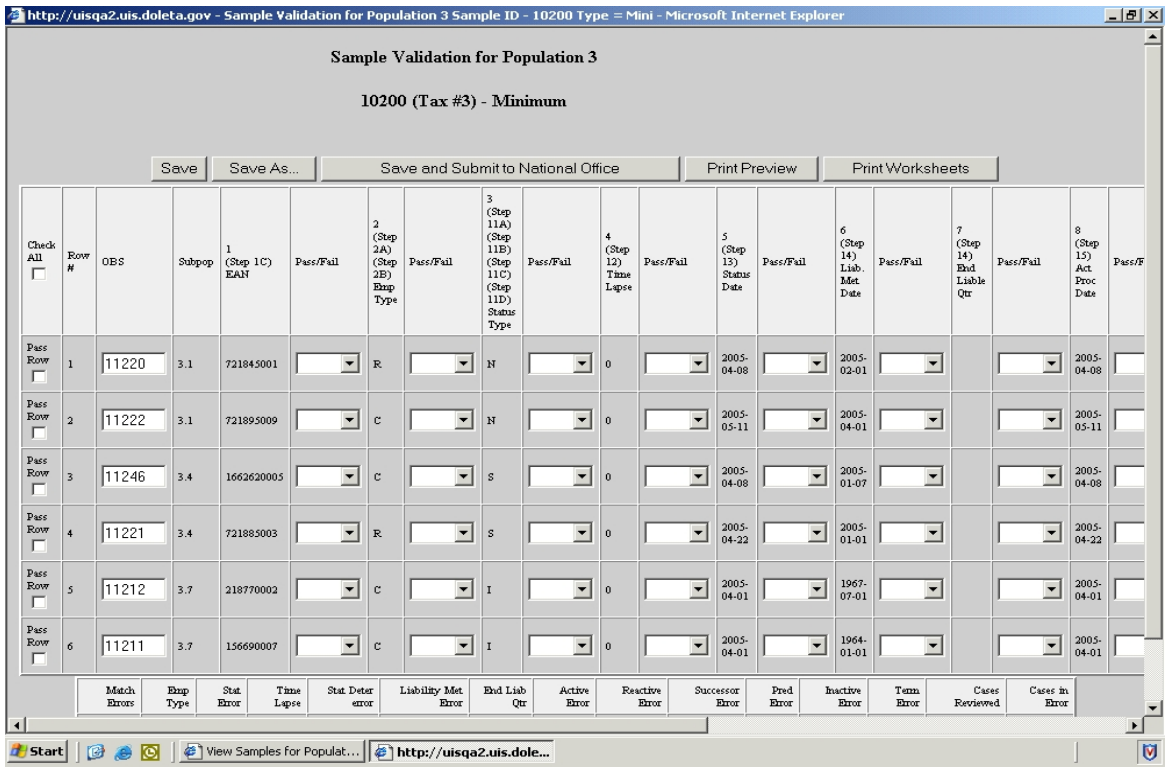


Figure 2.2

Sample Page from Module 3

Alabama Module 3

Step 7. Wages

Sub Step B. Number of Liable Quarters

Rules for this step/substep apply to Population 1

Minimum Sample

On Sample Validation worksheet, select Pass by using down-arrow if all conditions are met; otherwise select Fail.

Rule 1: This rule validates that the number of liable quarters for the most recent eight quarters on the screen matches the number of liable quarters on the reconstruction file.

Document 1: DA48 and DA58 screens

Validation: The number of consecutive QYRs listed on the screen matches the Number of Liable Quarters listed on the reconstruction file.

Federal Definition:	Number of Liable Quarters: The number of consecutive quarters between the date the employer last became active and was required to file reports and the report quarter. If the number of quarters is eight or more, the value should be reported as eight.
State Definitional Issues:	Alabama automatically inactivates employers following two consecutive calendar years of zero wage reports. (This can total up to eleven calendar quarters prior to inactivation.) Alabama cannot distinguish on the DA48 or any other screen whether no report was filed or whether a zero wage report was filed.

Overview of Module 2.1 (Figure 2.3)

Table 2.1 and Figure 2.3 summarize the tasks in the Minimum Sample review process.

Figure 2.3

Task No.	Description of Task	Who Performs Task
1	Open Minimum Samples Worksheet, which lists all data elements for two records from each subpopulation. A single worksheet is generated for each population.	Validator
2	Produce necessary query screens at the same time reconstruction file is created.	IS Staff Validator
3	The validator turns to the designated step in Module 3. Each step will have one or more rules listed. The purpose or "Function" of each rule is provided. In addition, each step includes the definition from the ETA 581. Use "Definitional Problems" to document instances where state regulations or practices conflict with the federal definitions. The validator can use the "Comments" field to record notes or document issues that may be helpful for future validations.	Validator
4	The validator locates the source Document listed to check each rule. The document is the source used to compare the data on the worksheet with the data residing in the state database or state files. In some cases, it will not be necessary to pull any additional documents when all of the data elements have been included on the worksheet. In other instances, it will be necessary for the validator to refer to screens and/or case files.	Validator
5	The validator determines whether the data element being validated passes all of the validation rules using the required documents.	Validator
6	If any of the rules for the step fail validation, the validator selects 'FAIL' on the worksheet for that step.	Validator
7	If the data element passes all of the rules, the validator selects 'PASS' on the worksheet for that step.	Validator

Module 2.2—SORTS TESTS

Sorts is the name given to a series of tests used in certain states to determine whether data element values such as C for Contributory or N for New status determinations used to build the extract file records are supported by underlying state database codes or Employer Account Number (EAN) values.

The validation software assigns records to subpopulations, in part by using the generic codes used by all states to build the validation files. For example, all states use 'C' to mean contributory followed by a dash and the state-specific code for contributory. Sorts tests must be conducted when states have multiple state-specific codes that could be assigned to a single generic code. A separate query test is also necessary when the state uses the prefix, or suffix, or value range of the EAN to identify whether the employer type is contributory or reimbursing.

Table 2.2 shows a variety of codes that one state uses to classify a status determination that an employer is either newly liable or a successor to an existing employer. In building its population 3 validation file, this state might have several acceptable state-specific codes to map to the generic status determination type indicators of "N" (new) and "S" (successor). For example, this state's validation file might show new status determination type indicator values of N-01, N-02, N-03, N-07, N-08, N-09 or N-10.

For most of the sorts, the validation software produces a distribution of all records in populations 1 – 4 in the extract file by certain key primary codes. It shows the relationship of the records with the primary code to the state's secondary codes captured when the file was built. The validator examines these codes to identify any state-specific codes that are not acceptable matches for the generic code. In the example above, any code other than 01-03 or 07-10 would not be consistent with a correct value of N on the record. For sorts 1.1, 1.2, 2.1 and 2.2, the software allows the validator to query Populations 1 and 2 to determine whether the prefix, suffix, or value range of the EAN is consistent with state procedures for classifying employers by type (contributory or reimbursing). A data element passes the sort test if no more than 2% of the sorted transactions include an incorrect state-specific code or the wrong EAN value. Unless a population extract file passes all applicable sorts tests and has no minimum samples with errors, the population cannot pass report validation because the integrity of the extract file used for the validation is not established.

The DV software provides a data entry screen on which the validator records, for each sort, the number of records subjected to the test and the number of records that are "out of range." It also allows the validator to check N/A if the sort does not apply in the state.

Table 2.2
Status Determination Reason Codes
This table lists codes that a state used to indicate the reason employers were subject to the provisions of UI law as either a 'new' employer or as a 'successor.'

Code	Reason
01	Payroll
02	Employment 13th 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

D. Procedures

Task 1: Identify Applicable Sorts Tests

Examine the sort criteria in Table 2.3 (pages 2-12 and 2-13, below). For each potential sort, look at the column entitled "When to Do Range Validation" to determine whether the test is applicable to the state. A sort is only applicable when there are multiple state codes that map to a single generic indicator, or when the state uses the Employer's Account Number (EAN) to identify whether an employer is contributory or reimbursing.

Task 2: Conduct Appropriate Test

To begin range validation, log onto the Sun-based DV software and select the appropriate population from the Tax Selection Criteria menu.

Select View Data Element Sorts from the drop-down list. The software presents a DATA ELEMENT SORTS table listing every sort for the population and a box for entering the number of errors you identify for that sort. The table displays the # of Cases to which the sort is applicable; the software has calculated them by summing the cases in the relevant subpopulations.

Click on the link for an applicable sort. If a sort is not applicable in your state, click the N/A box.

The DV software only queries records in the subpopulations applicable to the selected sort. Except for the EAN sorts, all of the sorts in Table 2.3 involve instances where a state may have multiple codes for employer status, employer type, or types of transactions. The software produces a distribution of the primary code by the state-specific secondary codes; validators can examine the individual sorted records for each secondary code by clicking on a link. See the DV Operations Guide for a detailed explanation of how to conduct EAN range validation (sorts 1.1, 1.2, 2.1, 2.2).

Task 3: Produce Range Validation Results

After examining the sorted records, the validator enters the total of errors on the Data Element Sorts screen. As soon as the SAVE button is clicked, the DV software calculates the error rate and indicates whether the sort passed or failed. The results are sent to the Population Scores table. When all sorts and Minimum samples are complete, the validator may transmit the results to the national office.

States have passed range validation when they have established that no more than 2% of the records in the tax extract files include incorrect state-specific codes or incorrect EANs representing employer type.

Task 4: Correcting Validation Errors

Validation is not an end in itself; it is a means toward correct reporting. If validation identifies reporting errors, the state should correct the reporting errors as soon as possible. To document the corrective action for resolving reporting errors, and the timetable for completion, the state must address the problem to its ETA Regional Office in accordance with the annual State Quality Service Plan (SQSP). This will be either in the SQSP narrative or as part of a Corrective Action Plan (CAP). (Any state that fails to conduct and submit the validation for one or more benefits or tax populations must address this failure in a CAP.) The narrative or CAP should contain the following information on every validated report element that exceeds the validation error rate tolerance:

- Report element(s) in error.
- Magnitude of error found.
- Status/Plan/Schedule for correcting. If reporting errors were corrected in the course of the first validation, the report should simply note "corrected during validation." (Validation of the affected transactions should occur immediately after these corrections have been made.)

Timing of CAP or Narrative. The plan for correcting the errors should be submitted within the established deadlines of the SQSP.

Revalidation. Populations that failed any validation must be revalidated the following year. A revalidation should confirm the success of the corrective action or, if the state has not completed corrective action, identify the current extent of the 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 comments section of the state's data validation reports.

Table 2.3

Sorts Validation Criteria

Population	Sort	Subpopulations Sorted	When to Do Sorts Validation	Test Data Element	Test Criteria	Module 3 References
1	S1.1	1.1	When the employer's account number indicates that the employer type is contributory.	EAN	All EANs must be in ranges allocated to contributory employers	Step 2A
1	S1.2	1.2	When the employer's account number indicates that the employer type is reimbursing.	EAN	All EANs must be in ranges allocated to reimbursing employers	Step 2B
1	S1.3	1.1 and 1.2	When more than one employer status code is used to indicate that the employer's status is active.	Employer Status Indicator	All status codes must represent active employers	Step 3A
1	S1.4	1.1	When more than one employer type code is used to indicate that the employer type is contributory.	Employer Type Indicator	All employer type codes must represent contributory employers	Step 2A
1	S1.5	1.2	When more than one employer type code is used to indicate that the employer type is reimbursing.	Employer Type Indicator	All employer type codes must represent reimbursing employers	Step 2B
2	S2.1	2.1- 2.8	When the employer's account number indicates that the employer type is contributory.	EAN	All EANs must be in ranges allocated to contributory employers	Step 2A
2	S2.2	2.9-2.18	When the employer's account number indicates that the employer type is reimbursing.	EAN	All EANs must be in ranges allocated to reimbursing employers	Step 2B
2	S2.3	2.1-2.8	When more than one employer type code is used to indicate that the employer type is contributory.	Employer Type Indicator	All employer type codes must represent contributory employers	Step 2A
2	S2.4	2.9-2.18	When more than one employer type code is used to indicate that the employer type is reimbursing.	Employer Type Indicator	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 the 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 the 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 the status determination type is inactivation.	Status Determination Type	All status determination type codes must represent 'inactivation' status determination type	Step 11C

Table 2.3

Sorts Validation Criteria

Population	Sort	Subpopulations Sorted	When to Do Sorts Validation	Test Data Element	Test Criteria	Module 3 References
3	S3.4	3.8	When the state uses more than one code to indicate that the 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 21C

Module 3

Tax

DATA ELEMENT VALIDATION

STATE SPECIFIC INSTRUCTIONS

MODULE 3

A. Purpose

Module 3 provides the set of actual state-specific instructions that the validator uses in data element validation. It lists the state system screens or documents that contain the data from which the extract files are built as well as the rules to validate them. State definitions or procedures that affect validation are also documented to help state and federal staffs interpret the validation results and improve procedures. **Although the intent of Module 3 is to identify state-specific data that are consistent with Federal reporting definitions, the inclusion of state-specific information in this module is not to be deemed a finding by itself that such information is in compliance with federal reporting data definitions.**

Module 3 is not included in this handbook. It is maintained in a database that contains data for every state. Since these instructions are state-specific, each state is responsible for reviewing and updating its Module 3 regularly. Every year by June 10 States need to certify that they have reviewed their Module 3 and that is up-to-date.

B. Methodology

Table 3.1 outlines each step in the state-specific validation instructions and its component substeps. Table 3.2 indicates the combination of validation steps required for validation of each population. The worksheet guides the validator to the necessary steps by the presence or absence of data in each column for a given transaction. Each column header identifies the steps to use in validating the data in that column. Once the validator learns the instructions and rules listed under each step and substep, it may not be necessary to refer to them for each transaction or element being validated.

The validator begins the validation by looking at the first transaction (first row) on the worksheet and then by looking at the first step listed in the column header at the top of the worksheet. The validator then locates that step in the state-specific instructions in Module 3.

If there are substeps, but the substep is not specified in the column heading, the first page for the step number will direct the validator to the appropriate substep.

> **Note**: Some steps in Module 3 indicate that they do not require validation or they are no longer required. The step numbers, however, have been retained in Module 3 to document the states' procedures for these steps.

Table 3.1

Data Element Validation Steps and Substeps

Step	Substep A	Substep B	Substep C	Substep D	Substep E
1. Match	Active Employers	Employer Report Filing	Status Determinations	Accounts Receivable	Field Audits
2. Employer Type	Contributory	Reimbursable			
3. Employer Status	Active	Inactive/ Terminated			
4. Liability Date	Initial	Reopen			
5. Inactive/Terminated as of Date					
6. Inactivation and Termination Processing Dates	Combined	Inactivation	Termination		
7. Wages	Quarterly Wages	Number of Liable Quarters			
8. Employer Report Filing	Timely	Secured	Resolved		
9. Received Date					
10. Final Assessment Date					
11. Status Determination Type	New	Successor	Inactivation	Termination	
12. Status Determination Time Lapse					
13. Status Determination Date					
14. End of Liable Quarter					
15. Activation Processing Date					
16. Reactivation Processing Date					
17. Successorship Processing Date					
18. Predecessor Account Number					
19. Receivable Dates	Transaction Date	Established Date			
20. Due Date					
21. Type of Transaction	Receivable Established	Receivable Liquidated	Declared Uncollectible		
22. Established Amount					
23. Liquidated Amount					
24. Amount Declared Uncollectible					
25. Amount Removed					
26. Balance at End of Quarter					

Step	Substep A	Substep B	Substep C	Substep D	Substep E
27. Age of Receivable	Contributory	Reimbursable			
28. Employer Size	Large	Not Large			
29. Change Audit Type	Change	No Change			
30. Audit Completion Date					
31. Total Wages	Pre-Audit	Post-Audit	Under Reported	Over Reported	Reconciled
32. Taxable Wages	Pre-Audit	Post-Audit	Under Reported	Over Reported	Reconciled
33. Contributions	Pre-Audit	Post-Audit	Under Reported	Over Reported	Reconciled

Table 3.2

Relevant Data Element Validation Steps, by Population

Population	Relevant Data Element Validation Steps[a]
1. Active Employers	1, 2, 3, 5, 7, 14, 15, and 16
2. Report Filing	1, 2, 4, 5, 6, 8, 9, 10, and 14
3. Status Determinations	1, 2, 6, 11, 12, 13, 14, 15, 16, 17, and 18
4. Accounts Receivable	1, 2, 19, 20, 21, 22, 23, 24, 25, 26, and 27
5. Field Audits	1, 28, 29, 30, 31, 32, and 33

[a] The population tables in Appendix A specify the appropriate substeps for each population.

MODULE 4

Tax

QUALITY SAMPLE VALIDATION

MODULE 4

A. Introduction

One of the Tax Validation responsibilities is to review the integrity of four key Tax Performance System (TPS) acceptance samples: the three Status Determination samples and the Field Audit sample. The objective of the DV reviews is to ensure that the samples are drawn randomly from the correct population or universe. The validator (a) reviews how the sample was selected and (b) compares the universe from which the sample is drawn to a reference count—ideally the *validated* reference count--from the ETA 581 report. To ensure that only random acceptance samples are investigated, the randomness of each TPS sample should be validated before the cases are given to the TPS reviewer for investigation. To keep from delaying the case investigations, do (a) as soon as the sample is drawn, as it does not depend on the 581 reference data. Comparing the universe count with the 581 reference count, (b), can be done later, when 581 data are submitted. That will be approximately February 20 for the Status Determination samples and November 20 or February 20 for the Field Audit sample (per UIPL 13-10, states have discretion in the review period for the Field Audit sample.)

States may select their TPS samples in either of two ways. 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). A random start point--in this instance between 1 and 10—is then applied, and the program selects every tenth case from that point. The National Office provides states with random start numbers for all TPS samples in December for the upcoming calendar year. States may also 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 reviewing the sample against the source file (see Step 2 below) or reviewing the utility program specifications.

B. Procedures

Task 1: Compare Universe Counts

From IS staff the validator should obtain copies of the universe files for Status Determinations and Field Audits. For status determinations there will be three TPS universes: (1) New, (2) Successor, and (3) Inactive/Terminated. The universe listings should cover all quarters for which the actual acceptance sample was drawn. These are as follows:

- Status Determinations: the four quarters of the calendar year
- Field Audits: Give period used for acceptance sample.
    - UIPL 13-10 changed period from first three calendar-year quarters to four quarters, but state may select either four calendar-year or four Federal fiscal-year quarters, e.g., 1/1/2010 – 12/31/2010 or 10/1/2009 – 9/30/2010.

Compare the count of each status determination universe and the field audit universe to the reference count reported on the ETA 581 (see below) for the same period. If the universe is within ±2% of the reference count, this indicates that the correct universe was used. Please note

that you may need to adjust the TPS universe count of Inactivation/Termination determinations to make a proper comparison with the 581 reference count. The TPS universe includes all inactivation/termination transactions actually entered on the state's system. In some states, there may be differences from the counts required to meet ETA 581 reporting requirements.

Reference Counts by line and UIDB cell number:

- New Status Determinations: ETA 581 line 301, column 14 (c11)
- Successor Determinations: ETA 581 line 301, column 17 (c68)
- Inactivations/Terminations: ETA 581 line 301, column 20 (c63)
- Field Audits: ETA 581, line 501, column 47 (c256)

NOTE: The TPS universe is to include all actual determinations to inactivate and/or terminate accounts during a calendar year. Federal reporting instructions may require different counts for Inactivations/Terminations on the 581; for example:

- An account that was first inactivated and later terminated would appear twice in the TPS universe, but would only be counted once on the 581 (581 instructions allow only the inactivation/termination of an *active* account).
- The 581 instructions also stipulate that the count of active employer accounts cannot include employers that have not reported wages for eight consecutive calendar quarters. However, some states' policies do not allow accounts to be inactivatied until additional steps occur beyond the Federal eight-quarter rule. Since it is the state's actual determination to terminate or inactivate an account that adds it to the TPS universe, such accounts are included in the 581 count of Inactivations/Terminations, but will not appear in the TPS universe until the actual inactivation or termination decision is issued.
- If such discrepancies arise, adjustments need to be made to the counts before comparison can be made. If the adjusted TPS universe is within ±2% of the 581 count, the TPS universe will be considered to contain the correct transactions.

Task 2: Review Sample Selection

Determine whether an interval sample was drawn (and how it was drawn) or whether the file was randomized such that the first set of cases could be selected without establishing intervals.

If an interval sample was drawn, check to see that the correct random start number was used and that proper cases were selected (for example, 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).

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.

Task 3: Record Findings on the Template

The Sun-based software does not include a screen for forwarding the results of the quality reviews. Results of the quality review validation should be documented in a Word® file using the format below and sent via email to the National Office to dvrpts@uis.doleta.gov. Note any problems in the Comments field.

State:

New Status Determinations (Tax Pop 3)

Calendar Year: YYYY

Universe: XXX,XXX

581 Count: XXX,XXX

Difference as % of 581 Count:

Sampling Method: (Interval or Randomized File)

Problems/Comments:

State:

Successor Status Determinations (Tax Pop 3)

Calendar Year: YYYY

Universe: XXX,XXX

581 Count: XXX,XXX

Difference as % of 581 Count:

Sampling Method: (Interval or Randomized File)

Problems/Comments:

State:

Terminations/Inactivation Status Determinations (Tax Pop 3)

Calendar Year: YYYY

Universe: XXX,XXX

Adjustments XXX,XXX

Adj Universe XXX,XXX

581 Count: XXX,XXX

Difference as % of 581 Count:

Sampling Method: (Interval or Randomized File)

Problems/Comments:

State:

Field Audit Quality (Tax Population 5)

Four Quarters Ending : YYYYQ

Universe: XXX,XXX

581 Count: XXX,XXX

Difference as % of 581 Count:

Sampling Method: (Interval or Randomized File)

Problems/Comments:

C. Results and Actions

If the sampling method was not correct or was not implemented properly, the validator should ensure that the sample is redrawn and is random before it is given to the TPS reviewer. The problems should be discussed with the programmer to ensure that next year's sample is drawn randomly. If the programmer confirms that the process was incorrect, the validator should record the problems in the comments section of the template.

If the universe for any TPS acceptance sample differs from the 581 reference count by more than ±2%, the review must be repeated the following year. Otherwise, the review need not be repeated for three years.

MODULE 5

Tax

WAGE ITEM VALIDATION

MODULE 5

A. Purpose

Each quarter, employers report to the state agency employee wages on a wage report (WR) and summary wage and contributions data on a contribution report (CR) on various media, including paper, magnetic tapes, diskettes, CD-ROMs, or files transmitted over the Internet. A WR includes a wage record for each employee: the individual's employee's name, social security number (SSN) and earnings in covered employment during the quarter. The agency creates a record in its files--called a wage item--that identifies the individual, his employer, and the individual's earnings for the quarter. The agency reports the number of wage items on the ETA 581 report; this count is one of the workload items used to allocate UI administrative funds. Wage item validation assesses the accuracy of the count of wage items reported on the 581, and alerts the state to correct any inaccuracies. This helps ensure equitable funding for this state workload activity. The following box gives a typical flow for processing reports and contributions.

It would be ideal to validate the count of wage items by building a reconstruction file as is done for the five Tax Populations. This is impractical for two reasons: (1) size of the extract file--California's file would contain over 18 million records--and (2) inability to conduct Data Element Validation (employers, not the agency, have the original wage information). Instead, validators recount small samples of wage records before they're processed, recount them, and compare this count with the count after those same records have been processed into wage items. In this process, DV makes an inference about the accuracy of the 581 count from those sample recounts.

In this recount, validators make sure that (a) every wage record was included as a wage item, and (b) that wage items did not include any:

- *Corrections* (the system must be able to process corrections without double counting the item); or
- *Incomplete wage records* (for example, if the identifier or wage amount is missing or 0 for the employee); or
- *Duplicate records*.

This approach allows states to validate wage items at any time as long as the original wage records can be retrieved. The validation approach involves selecting samples of wage records for a particular quarter that contains all modes through which employers have been submitting wage records to the state. The validator then manually determines how many of them should have been processed as wage items, and compares the count with the wage items the state obtained when it processed the same wage records. The relationship between the original count and the validated count is used to infer the accuracy of the state's 581 wage item count for that quarter.

In general, states process Wage Records into Wage Items and count them for reporting on the 581 as follows:

- State or Bank Lockbox receives quarterly Contribution and Wage Reports, and aggregates reports into batches based on how they will be processed. The first stage in the process for all reports is to separate and deposit money from the report, and then process the wage records.
    - Money → Deposit
    - Contribution Reports → Processing
- Wage records are processed and counted as follows:
    - <u>Processing</u>
        - *Received in Electronically Readable form* (disk, tape, EFT, Internet, etc.),
            - Send directly through front-end computer edits
                - Pass edits: add to Wage Record Database (WRD) as Wage Items
                - Fail edits: return to employer for correction
                - (see Corrected Records, below)
        - *Received as Paper reports and other media needing data entry*
            - Scan and OCR data
                - Pass edits: Add to WRD
                - Fail edits: data enter manually or reject
            - Send for data entry
                - Send data-entered records through front-end computer edits
                - Pass edits: add to WRD as Wage Items
                - Fail edits: return to employer for correction
                - (see Corrected Records, below)
        - *Corrected Records*
            - Send through front-end computer edits
                - Pass edits: add to WRD as Wage Items
                - Fail edits: reject
    - <u>Options for obtaining 581 Reported Count</u>
        - Take running count as items are processed
        - Sum wage items by batch
            - Aggregate batches to get to 581 count
        - Obtain 581 count as a snapshot of the MIS system for the quarter

B. Methodology

Task 1: Determine the modes the state uses to receive wage records, how each mode is processed, and how the 581 count is obtained.

- *Modes*. Identify the specific modes your state uses to receive or "capture" wage records.
- *Processing*. It is essential to understand the process your state uses to enter the records of each mode into your system as wage items and corrections. It may be helpful to build a simple flowchart, along the lines of the model above, of how wage records are received, processed into wage items and counted for the 581.

- *How does your state process wage records*?
  - If wage records are received on paper, how are they data-entered?
  - For records that are batch-processed, are the totals for wage items indicated for each batch, so that a recount of the batch can be compared with the original count of wage items?
  - Are items received subjected to front-end edits to look for probable SSN errors (less than 9 digits, impossible sequences), missing wages, missing names, etc.?
  - How are corrections handled and recorded so that you as a validator can note corrections?
- *Counting*. How is the 581 count taken?
  - Built up as a sum of counts of items from each batch?
  - As a snapshot of the wage file at the end of the report quarter?
  - Other?

Task 2. Set up the Worksheet in the Tax Validation Software

Establish a row on the Wage Item Validation Worksheet in the UI Tax Data Validation software for each mode in which your state receives wage items. See Figure 5.1 below and DV Operations Guide.

Task 3: Select Samples

States typically group or "batch" wage and contribution reports, by mode received, to process them and organize their accounting records. The definition of a "batch" may vary depending on the size of reports and how they are received. For example, you may batch paper wage reports in groups of 50 or 100 documents with a batch number identifier and summary transaction totals. Or, you may process a large wage file from a tape or an FTP transmission, each of which could be a single batch of thousands of records.

It has been determined that a sample of 150 records from each mode, investigated in two stages, will allow a sufficiently precise inference to be made about the accuracy of processing wage records into wage items. Stage 1 is a random set of 50 of the 150 records, and if necessary, Stage 2 is the remaining 100 records. On the basis of your study and flowcharting of wage record processing, select a point at which you can identify at least 150 wage records obtained by each mode of receipt.

- *For Each Mode:*
  - Pick a Batch of Wage Reports containing at least 150 wage records.
  - Randomly select 150 records of these records
  - Divide the 150 records into a Stage 1 set of 50 records and Stage 2 set of the remaining 100 records in such a way that the division between Stage 1 and Stage 2 is also random.
  - In a spreadsheet program such as Excel or a database, set up a means to track results of your investigations of the wage records.

Task 4: Review Sampled Records for Each Mode and Compare Count with Wage Items

Task 4a: Review and Compare Count for First 50 Records in each Mode

The validator must count only wage items that are complete. This means each countable entry must include each of the following elements:

- Employee Identifier (Name or SSN)
- Employer Identifier (Name or EAN)
- Wage dollar amount

Ensure that only complete records are counted, including corrected records. Enter the recount for each mode on your tracking worksheet.

Task 4b: Obtain the System Wage Item Count

How this is done will depend on how your state counts wage items.

- *Batch cumulating of Wage Items*. If your state obtains its 581 count by cumulating batch counts, and you have the original records with an indication of whether they were included as wage items or not, you can compare your results with those originals.
    - It may be easier to retrieve your wage history files to see which of the records in your set were counted.
- *Snapshot counting of Wage Items*. Ask the programmer to extract and count all wage items from your system for the validated quarter that have the combination of EAN and SSN included in your mode samples.

Enter this count as the "581 count for batch" on your worksheet.

Task 4c: Identify and Count Erroneous Records

If there are any discrepancies between your sample recounts and the 581 counts from the system, search for duplicates—including corrections counted as records—and incomplete records among the extracted records.

Task 4d: Determine Whether Stage 2 Investigation is needed

Proceed as follows at this point:

- If difference between your recount and 581 count is
    - = 0, the mode passes at Stage 1. The mode is done.
    - ≥ 4, the mode fails at stage 1. The mode is done.
    - = 1, 2, or 3, review remaining 100 cases for the mode, following Steps 4a-4c.

        - Even though the mode fails at stage 1, you may also want to review the remaining 100 cases to estimate the error rate in wage item processing for the mode.

Task 4e: Combine Results for Stages 1 and 2 if second stage was investigated.

Task 5: Enter Combined Results in Wage Item Validation Worksheet

From your tracking worksheet, enter the total number of valid wage items in the "Recount for Batch" column on the ***Wage Item Validation Worksheet*** on the DV software. If any duplicates or other errors have been identified, enter the count by type in the appropriate columns on the worksheet.

Task 6: UI Tax Validation Software

The UI Tax Data Validation software calculates the difference between the recount and reported counts for the validated sample of wage items. Wage Item Validation passes if, based on the sample results, each mode is likely to contain no more than 2% errors. Pass and fail for a mode is determined as follows:

- ***Pass***:
  - The Stage 1 sample of 50 wage records contains no errors.
  - The full sample of 150 wage records contains no more than 6 errors.
- ***Fail***:
  - The Stage 1 sample of 50 wage records 4 or more errors.
  - The full sample of 150 wage records contains 7 or more errors.

To pass Wage Item Validation, every mode must pass. If it passes, WIV does not need to be repeated for three years; if at least one mode fails, WIV must be repeated the following year.

- Note: Some modes may contain fewer than 150 records. In that case use the following table to determine pass and fail:

Sample	Max Failures To Pass
< 20	0
20 - 29	1
30 – 59	2
60 – 89	3
90 – 119	4
120 – 140	5
141 – 149	6

Task 7: Submitting and Saving Wage Item Validation Results

Submit Wage Item Validation results by clicking the "Transmit" button at the bottom of the Worksheet (Figure 5.1). Results for a validation year must be submitted by June 10. Because

the software only retains these results until the next validation or a reload of the software, it is recommended that the results be saved by taking a screen print or doing Save As.

Task 8: Following Up on Wage Item Validation Errors

If the wage item validation identifies errors, the validator should discuss the errors with the programmer or individual responsible for wage item processing, and the state should determine whether the error affects other batches of wage items as well.

Example of a Wage Item Validation Worksheet

Figure 5.1 shows an example of a Wage Item Validation Worksheet. The first column lists the state's modes for receiving wage records. The second column shows the dates of the batches from which samples of 150 wage records were drawn. The number of Cases Reviewed out of the 150 drawn depends on the results at Stage 1. The column labeled "581 Count" indicates how many of the reviewed wage records were counted as wage items and included in the ETA 581 count during the quarter. The validator's recount of those same wage records is entered in the column labeled "Recount for Batch." Pass and fail are based on the difference between the two counts and depend on the allowable errors explained in 4d above. In this example, the Fax mode passes with one error after all 150 cases were reviewed because the discrepancy was discovered at Stage 1. Internet, Magnetic Tape, and Diskette all pass with 0 differences in the 50 cases reviewed at Stage 1, but Paper failed with 5 errors out of 50 cases reviewed at Stage 1, and Scans failed with 7 errors out of 150 cases reviewed. The analysis of errors provides guidance for the corrective action process.

Figure 5.1

Wage Item Validation Worksheet

WAGE ITEM VALIDATION										
Validation Worksheet										
							Analysis of Errors			Delete
Mode	Date Received	Cases Reviewed	581 Count	Recount	Difference	Pass/Fail	ID missing	Amt Missing	Duplicate	Mode?
Fax	12/31/2008	150	148	147	1	Pass	1			
Internet	11/29/2008	50	50	50	0	Pass				**Delete**
Magnetic Tape	11/29/2008	50	49	49	0	Pass				**Delete**
Diskette	11/29/2008	50	48	48	0	Pass				**Delete**
paper	11/29/2008	50	49	44	5	Fail	2	3		**Delete**
Scans	12/8/2008	150	149	142	7	Fail	2	2	3	**Delete**
Overall Validation Score: Fail										

Save	Add Wage Item	Transmit	Add Comments

APPENDIX A

Tax

SUBPOPULATION SPECIFICATIONS

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APPENDIX A

A. 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 records of all transactions and account statuses that should be reported on the ETA 581 report. Each record is assigned to a single population and to only one subpopulation within the population.

Appendix A specifies how the populations are divided into subpopulations. Each row of a population table is the specification for a single, mutually exclusive subpopulation. Following each table is a written descriptions of each subpopulation which will help readers orient themselves to the information in the table.

Each column header includes a step number that refers to Module 3, the state-specific portion of the handbook. Validators and programmers should refer to the indicated step number for the definition of the data element and detailed instructions on how to validate it. Each population table includes a column or row entitled "Reported in ETA 581 Item #s;" it indicates the item number (ETA 581 report cell) that the count or dollar amount in the column or row is used to validate on the RV summary report.

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.[6]

B. Report Quarter Terminology

The specifications in this appendix use a shorthand terminology to refer to report quarters. Figure A.1 is a time line illustrating how terms and symbols are used.

- The **Report Quarter (RQ)** is the time period shown on the ETA 581 in the block labeled "A. Report for quarter ended." This means that the ETA 581 report is showing transactions that occurred during this quarter or the status of accounts at the end of this quarter. For example, the ETA 581 report includes items such as the number of active employers at the end of the RQ and the number of timely employer reports received during the RQ. The RQ ends at point A in Figure A.1. (Point A is also the time when the

[6] Some states may have other unique types of data elements that 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 in population 2. This could be used as a secondary code for Employer Type; and the software will identify all employers with the seasonal code for further examination when the state runs Sort 2.4.

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 RQ is due at the hash mark labeled "ETA 581 Due" in Figure A.1.

- Contribution and wage reports received from employers during the RQ reflect employer activity--payment of wages--that occurred during the quarter before the RQ, designated as **RQ-1**. (Because this prior quarter is the subject of employer reports received during the RQ, RQ-1 is often referred to as the **Employer Report Quarter, or ERQ).**

- When specifications need to refer to quarters before or after the RQ, they extend the basic convention of numbering relative to the RQ. The quarter prior to RQ-1 is RQ-2, the quarter prior to that is RQ-3, and so on. Similarly, the specifications refer to the quarter after the RQ using the term **RQ+1**. This term is used most often for population 2, report filing, where states have through RQ+1 to resolve reports due in the RQ.

Figure A.1
Quarterly Timeline

2010											
1			2			3			4		
Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
RQ-1 (ERQ) • contribution reports covering employer activity in this quarter can be resolved by RQ+1			**RQ: Report Quarter** States: • register employers • determine their liability status • receive contribution reports on employer activity in RQ- • pursue delinquent reports • establish, liquidate, and write off receivables • complete field audits			**RQ+1** States: • receive contribution reports on employer activity in RQ • resolve contribution reports due in RQ on employer 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 **IS Staff: Produce Report Counts**
Prepare Validation Extract Files (except for Population 2)
Prepare Screen Prints

B **IS Staff: Produce extract file for Population 2, as soon as all reports received during RQ+1 are posted**

The file specifications use the following abbreviations and terminology:

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

(RQ+1) Quarter after the report quarter

(RQ-1) Quarter before the report quarter

(RQ+n) n^{th} quarter after the report quarter

(RQ–n) n^{th} quarter prior to the report quarter

DD Due date for employer contribution reports

A Active

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 "before the report quarter."

≥ During or after the date or quarter specified, e.g. "≥ RQ" means "during or after the report quarter."

≤ Before or during the date or quarter specified, e.g. "≤ RQ" means "before or during the report quarter."

C. Validation Timelines

Each population on the ETA 581, and therefore each population file for validation, represents a particular timeline of UI tax operations activity. Populations 1, 3, and 5 are fairly straightforward — these populations are primarily focused on activities during or statuses at the end of the RQ. Populations 2 and 4 are more complex and require the validator to look back as far as eight quarters prior to the RQ, and forward as far as two quarters after the RQ. In Figure A.2 below, the RQ being validated is the second quarter of 2010, which means RQ-8 is the second quarter of 2008 and RQ+2 is the fourth quarter of 2010. Once the state has selected the quarters to be validated for populations 2 and 4, the validator should prepare a full timeline based on Figure A.2, identifying the eight quarters prior and two quarters after the selected RQ.

Figure A.2

Sample Timeline for Report Quarter 201002 (Second Quarter of 2010)

2008 Q2	2008 Q3	2008 Q4	2009 Q1	2009 Q2	2009 Q3	2009 Q4	2010 Q1	2010 Q2	2010 Q3	2010 Q4
RQ-8	RQ-7	RQ-6	RQ-5	RQ-4	RQ-3	RQ-2	RQ-1 (ERQ)	RQ	RQ+1	RQ+2

Overview of Populations

The ETA 581 for the second report quarter of 2010, which is due in August of 2010, contains the following information and is validated as follows:

<u>Population 1</u>

- The ETA 581 includes active employer information as of June 30, 2010.

- This report information is validated by building a Population 1 extract file for the second quarter of 2010. Population 1 should include a record for each employer who was active on the last day of the RQ.

- The DVWS filters pending employers out of the active employers count, in accordance with the Department of Labor's Change 12 to the ET 401 handbook. Specifically, the software will not include employers with a met-threshold date after 12/31/2002 in the count if their activation or reactivation processing date precedes the met-threshold date.

- Figure A.1, Point A, shows when the Population 1 validation file should be constructed.

Population 2

- The ETA 581 includes employer reports received on time and secured during the second quarter of 2010 that relate to employer activity during the first quarter of 2010, and resolved reports that were due during the first quarter of 2010 and relate to employer activity in the fourth quarter of 2009.

    - Population 2 should include all employers owing contributions or required reports for the same ERQ, due during the RQ, which were received on time or secured during the RQ or reported as resolved during RQ+1.

    - Timely, secured, and resolved counts for the same ERQ (e.g., 201001) are validated at the same time by building a Population 2 file that is extracted at the end of the third quarter of 2010. This Population 2 extract file validates timely and secured counts that are reported on the ETA 581 report for the second report quarter of 2010 and resolved counts that are reported on the ETA 581 report for the third quarter of 2010.

    - Note that timely, secured, and resolved are defined as discrete filing statuses for validation purposes, whereas on the ETA 581, secured includes timely and resolved includes both timely and secured.

The received date of the contributions report is used to assign records to subpopulations 2.1, 2.2, 2.3, 2.9, 2.10, and 2.11. Because the received date of a given contributions report does not change once it is entered into the state system, the validation records for timely and secured reports do not need to be extracted at the end of the RQ. Instead, the entire population extract can be run a soon as resolved report records for RQ+1 are available. 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 in the population tables on pages A.16 and A.17).

    - In preparing the Population 2 extract file, states will need to account for annual filers. According to DOL, annual filers must be counted as timely for the quarters in which their reports are not due, and as timely, secured or resolved, as appropriate for the quarters in which their reports are due. States will need to enter a default employer report quarter and default received date for annual employers for the quarterly reports that are not due, and either a received date, final assessment date, or appropriate resolved date for annual employers for the quarterly reports that are due. This should ensure that the quarterly reports that are not due are counted as timely, and that the quarterly reports that are due are counted appropriately as timely, secured or resolved.

    - Figure A.1, Point B, shows when the Population 2 validation file should be constructed.

Population 3

- The ETA 581 includes status determination activities that occurred during the second quarter of 2010.
    - This report information is validated by building a Population 3 extract file for the second quarter of 2010. Population 3 includes a record for each status determination the state made during the RQ; multiple determinations for the same employer are countable and should be included in the file as separate records.
    - 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.
    - The pending employer filter also applies to subpopulations 3.1 to 3.3, which are for new status determinations.
    - Figure A.1, Point A, shows when the Population 3 validation file should be constructed.

Population 4

- The ETA 581 includes receivables activity that occurred during the second quarter of 2010 related to wage reports and contributions that are past due from the ERQ of the first quarter of 2010 and previous quarters. This includes receivables established, liquidated, declared uncollectible and removed during the second quarter of 2010.
    - This report information is validated by building a Population 4 extract file for the second quarter of 2010. Population 4 includes all accounting transactions made during the RQ that establish or modify a receivable on an employer account, as well as balances due at the end of the quarter.
    - Receivables records need both the ERQ and the established date to be properly assigned to Subpopulations 4.4, 4.5, 4.6 and 4.8 (contributory employers), and both the due date and the established date to be properly assigned to Subpopulations 4.12, 4.13, 4.14 and 4.16 (reimbursing employers).
    - Occasionally, receivable balances due to be removed in the RQ are declared Uncollectible in the RQ. These should be reported as uncollectible on the ETA 581 and classified as uncollectible (code U) when the extract file is built. When the validation software encounters Uncollectible records that could be removed on the basis of their established dates and ERQs, it parses them as uncollectible records.

- For Population 4, Subpopulations 4.7, 4.8, 4.15 and 4.16, programmers should generate separate balance records for a single employer, for each ERQ where there is a balance at the end of the RQ.

- Figure A.1, Point A, shows when the Population 4 validation file should be constructed.

Population 5

- The ETA 581 includes audit activity (for example, audit completions) reported during the second quarter of 2010.

  - This report information is validated by building a Population 5 extract file for the second quarter of 2010 that includes all field audits completed during the RQ.

  - Data elements specified on the record layout 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 paper files during the validation for the cases sampled for FIV. 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.

  - Some states do not consider an audit to be a change audit until Post-versus-Pre amounts exceed some dollar threshold or tolerance, e.g., $1 or $10. The DV software considers an audit to be a change audit if any Pre-Post difference is $0.01 or more. If this difference in approach causes the state to fail validation, the state should note and document this fact in the Comments field on the RV screen, and apprise the National Office so that it can manually change the validation to Pass.

  - Figure A.1, Point A, shows when the Population 5 validation file should be constructed.

D. Population Table Specifications

Explanation of UI TAX data formats

Appendix A and Appendix B of the ETA Operations Guide 411 refer to 6 types of data formats.

1. **Required.** These fields cannot be blank. They may be mandatory codes, dates or dollar values. Required cells in Appendix A tables indicate the required code, date, or dollar value parameters, or display the word "Required." (Appendix F indicates constraint is NOT NULL.)

Required text fields have code values that must be entered, such as A, C, R, etc. All of the allowable generic values for each field are listed in the Data Type/Format column on the record layout. The generic values must be followed by a dash and the corresponding state-specific value.

2. **Conditionally required.** Data are included in these fields if the data are present in the state's system. Applies to date and wages fields.
3. **Optional.** These fields are gray in Appendix A and the word "Optional" is displayed. The software does not look at these fields at all. Any values can be entered or they can be left blank.
4. **Must be blank.** These are text or date fields where the presence of data indicates an error. Therefore, they must be left blank (such as population 4 transaction date for balance subpopulations 4.7, 4.8, 4.15, and 4.16).
5. **Must be blank or 0.** These are numeric fields where the presence of data other than 0 indicates an error. In tax these are primarily wages fields in populations 4 and 5.
6. **System generated.** These fields are generated by the DV software and data should not be placed in these fields in the extract files. These fields are primarily time lapse and age fields.

Some values are abbreviated in the record layouts (Appendix F) but are shown in the report validation specifications (Appendix A) in their entirety for informational purposes. ***Follow the record layout when building the extract file.***

Notes:

For most steps referenced in Appendix A column headers, Rule 1 is the indicator in the state system. However, if a state does not maintain the indicator specified in Rule 1, then the state programmer must apply the logic of the other rules in that step in order to develop the indicator for the extract file .

The extract file type is ASCII, comma delimited. Data must be in the order listed in the record layouts.

Population Tables

Table A.1
Population 1 Subpopulations
Active Employers

		2 *(Step 1A)*	**3** *(Step 3A)*	**4** *(Step 2A)* *(Step 2B)*	**5** *(Step 14)*	**6** *(Step 16)*	**7** *(Step 5)*	**8** *(Step 15)*	**9** *(Step 7B)*	**10** *(Step 7A)*
Subpopulation	Reported in ETA 581 Item #'s	EAN	Employer Status Indicator	Employer Type	Liability Date (Met Threshold)	Reactivation Processing Date	Inactive/ Terminated "as of" Date	Activation Processing Date	Number of Liable Quarters	Sum of Wages (Last 8 Q's)
1.1	1	Required	A	C	≤ RQ and (≤ activation date or ≤ reactivation processing date, if present)[1]	(≥ liability date met threshold)[1] and ≤ RQ and > activation processing date, or blank	> RQ, or < liability date met threshold, or blank	≤ RQ	If = 0, then activation processing date, or reactivation processing date, if present, must be in RQ	(If Col. 9 = 8) > $0
1.2	2	Required	A	R	≤ RQ and (≤ activation date or ≤ reactivation processing date, if present)[1]	(≥ liability date met threshold)[1] and ≤ RQ and > activation processing date, or blank	> RQ, or < liability date met threshold, or blank	≤ RQ	If = 0, then activation processing date, or reactivation processing date, if present, must be in RQ	(If Col. 9 = 8) > $0

Notes

1) Column 9 reports the consecutive number of liable quarters ending with RQ-1. If the number is greater than 8, simply list 8. An account newly activated or reactivated in the quarter will have 0 liable quarters.
2) Column 10 sums the reported wages for the 8 quarters ending with RQ-1. The record layout for the software specifies that the states provide data for all 8 quarters if available. The software detects non-zero values for wages across quarters.

[1] Condition applicable for liability (met threshold) dates after 12/31/2002.

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.

Table A.2
Population 2 Subpopulations
Report Filing

		2 *(Step 1B)*	**3** *(Step 1B)*	**4** *(Step 2A)* *(Step 2B)*	**5** *(Step 9)*	**6** *(Step 10)*	**7** *(Step 4A)* *(Step 4B)*	**8** *(Step 14)*	**9** *(Step 5)*	**10** (Step 5)	**11** *(Step 6A)* *(Step 6B)* *(Step 6C)*
Subpopulation	Reported in ETA 581 Item #'s	EAN	Employer Report Quarter (ERQ)	Employer Type	Received Date	Final Assessment Date	Liability Date (Initial or Reopen)	Liability Date (Met Threshold)	Inactive/ Terminated "as of" Date	Suspended "as of" Quarter	Inactivation/ Termination Processing Date
2.1	6, 7, (8 in RQ + 1)	Required	RQ - 1	C	≤ DD	Required if Date Exists	Required if Date Exists	Required if Date Exists	Required if Date Exists	Must be blank	Required if Date Exists
2.2	7, (8 in RQ + 1)	Required	RQ - 1	C	> DD but within RQ	Required if Date Exists	Required if Date Exists	Required if Date Exists	Required if Date Exists	Must be blank	Required if Date Exists
2.3	8 in RQ + 1	Required	RQ - 1	C	RQ + 1	Required if Date Exists	Required if Date Exists	Required if Date Exists	Required if Date Exists	Must be blank	Required if Date Exists
2.4	8 in RQ + 1	Required	RQ - 1	C	Required if Date Exists	RQ or RQ + 1	Required if Date Exists	Required if Date Exists	Required if Date Exists	Must be blank	Required if Date Exists
2.5	8 in RQ + 1	Required	RQ - 1	C	Must be blank	Required if Date Exists	Required if Date Exists	Required if Date Exists	< RQ - 1	Must be blank	RQ or RQ + 1
2.6	8 in RQ + 1	Required	RQ - 1	C	Must be blank	Required if Date Exists	Required if Date Exists	≥ RQ	> RQ and > liability date (met threshold), or blank	Must be blank	Required if Date Exists
2.7	8 in RQ + 1	Required	RQ - 1	C	Must be blank	Required if Date Exists	Required if Date Exists	Required if Date Exists	Required if Date Exists	RQ - 1	Required if Date Exists
2.8	8 in RQ + 1	Required	RQ - 1	C	Must be blank	Required if Date Exists	= Col. 9 date	Required if Date Exists	= Col. 7 date	Must be blank	RQ or RQ + 1

Table A.2
Population 2 Subpopulations
Report Filing

		2 *(Step 1B)*	**3** *(Step 1B)*	**4** *(Step 2A)* *(Step 2B)*	**5** *(Step 9)*	**6** *(Step 10)*	**7** *(Step 4A)* *(Step 4B)*	**8** *(Step 14)*	**9** *(Step 5)*	**10** (Step 5)	**11** *(Step 6A)* *(Step 6B)* *(Step 6C)*
Subpopulation	Reported in ETA 581 Item #'s	EAN	Employer Report Quarter (ERQ)	Employer Type	Received Date	Final Assessment Date	Liability Date (Initial or Reopen)	Liability Date (Met Threshold)	Inactive/ Terminated "as of" Date	Suspended "as of" Quarter	Inactivation/ Termination Processing Date
2.9	9, 10, (11 in RQ + 1)	Required	RQ - 1	R	≤ DD	Required if Date Exists	Required if Date Exists	Required if Date Exists	Required if Date Exists	Must be blank	Required if Date Exists
2.10	10, (11 in RQ + 1)	Required	RQ - 1	R	> DD but within RQ	Required if Date Exists	Required if Date Exists	Required if Date Exists	Required if Date Exists	Must be blank	Required if Date Exists
2.11	11 in RQ + 1	Required	RQ - 1	R	RQ + 1	Required if Date Exists	Required if Date Exists	Required if Date Exists	Required if Date Exists	Must be blank	Required if Date Exists
2.12	11 in RQ + 1	Required	RQ - 1	R	Required if Date Exists	RQ or RQ + 1	Required if Date Exists	Required if Date Exists	Required if Date Exists	Must be blank	Required if Date Exists
2.13	11 in RQ + 1	Required	RQ - 1	R	Must be blank	Required if Date Exists	Required if Date Exists	Required if Date Exists	< RQ-1	Must be blank	RQ or RQ + 1
2.14	11 in RQ + 1	Required	RQ - 1	R	Must be blank	Required if Date Exists	Required if Date Exists	≥ RQ	> RQ and > liability date (met threshold), or blank	Must be blank	Required if Date Exists
2.15	11 in RQ + 1	Required	RQ - 1	R	Must be blank	Required if Date Exists	Required if Date Exists	Required if Date Exists	Required if Date Exists	RQ - 1	Required if Date Exists
2.16	11 in RQ + 1	Required	RQ - 1	R	Must be blank	Required if Date Exists	= Col. 9 date	Required if Date Exists	= Col. 7 date	Must be blank	RQ or RQ + 1

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). Most states will not have values for "suspended as of quarter."

2) States should identify all contributory and reimbursing employers who, on the last day of the quarter prior to the ETA 581 report quarter, are required to file a report covering that quarter in 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 5, 6, 9, or 10, the software assigns the record to the first subpopulation for which it meets the criteria.

Subpopulation descriptions:

The software assigns a record 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 whether the record meets those 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 whether the record meets those 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 RQ - 1, who filed contribution reports by the due date (timely).

2.2 Contributory employers owing contributions reports for activities in RQ - 1, who filed untimely contribution reports by the end of RQ (secured, but not timely).

2.3 Contributory employers owing contributions reports for activities in RQ - 1, who filed contribution reports during RQ + 1 (resolved, neither secured nor timely).

2.4 Contributory employers owing contributions reports for activities in RQ - 1, who received a legally due and collectible enforcement (final assessment) by the end of RQ + 1 (resolved, neither secured nor timely).

2.5 Contributory employers owing contributions reports for activities in RQ - 1, who were made inactive during RQ or during RQ + 1 (resolved, neither secured nor timely), and whose inactivation was effective prior to the ERQ.

2.6 Contributory employers owing contributions reports for activities in the RQ - 1, whose liability date (met threshold) was changed from prior to the RQ, to during or after RQ (resolved, neither secured nor timely).

2.7 Contributory employers owing contributions reports for activities in RQ - 1, who were suspended from filing contribution reports due in RQ by virtue of being seasonal employers, an administrative decision not to pursue report filing, or for other reasons (resolved, neither secured nor timely).

2.8 Contributory employers owing contributions reports for activities in RQ - 1, 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 RQ - 1, who filed required reports by the due date (timely).

2.10 Reimbursable employers owing required reports for activities in RQ - 1, who filed untimely required reports by the end of the RQ (secured, but not timely).

2.11 Reimbursable employers owing required reports for activities in RQ - 1, who filed required reports during RQ + 1 (resolved, neither secured nor timely).

2.12 Reimbursable employers owing required reports for activities in RQ - 1, who received a legally due and collectible enforcement (final assessment) by the end of RQ + 1 (resolved, neither secured nor timely).

2.13 Reimbursable employers owing required reports for activities in RQ - 1, who were made inactive during the RQ or during RQ + 1 (resolved, neither secured nor timely), and whose inactivation was effective prior to the ERQ.

2.14 Reimbursable employers owing required reports for activities in RQ - 1, whose liability date (met threshold) was changed from prior to the RQ to during or after the RQ (resolved, neither secured nor timely).

2.15 Reimbursable employers owing required reports for activities in RQ - 1, who were suspended from filing required reports due in the RQ by virtue of being seasonal employers, an administrative decision not to pursue report filing, or for other reasons (resolved, neither secured nor timely).

2.16 Reimbursable employers owing required reports for activities in RQ - 1, 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.

Table A.3
Population 3 Subpopulations
Status Determinations

		2 *(Step 1C)*	**3** *(Step 2A)* *(Step 2B)*	**4** *(Step 11A)* *(Step 11B)* *(Step 11C)* *(Step 11D)*	**5** *(Step 12)*	**6** *(Step 13)*	**7** *(Step 14)*	**8** *(Step 14)*	**9** *(Step 15)*	**10** *(Step 16)*	**11** *(Step 17)*	**12** *(Step 18)*	**13** *(Step 6A)* *or* *(Step 6B)*	**14** *(Step 6A)* *or* *(Step 6C)*
Sub-population	Reported in ETA 581 Item #'s	EAN	Employer Type	Status Determin. Type Indicator	Time Lapse	Status Determin. Date	Liability Date (Met Threshold)	End of Liable Quarter	Activation Processing Date	Reactivation Processing Date	Successor-ship Processing Date	Predecessor Account Number	Inactivation Processing Date	Termination Processing Date
3.1	14, 15, 16	Required	C or R	New*	≤ 90 days	RQ	≤ activation processing date or ≤ reactivation processing date if present	Required if Date Exists	RQ or < Col. 10 date	RQ or blank	Optional	Optional	Optional	Optional
3.2	14, 16	Required	C or R	New*	≥ 91 but ≤ 180 days	RQ	≤ activation processing date or ≤ reactivation processing date if present	Required if Date Exists	RQ or < Col. 10 date	RQ or blank	Optional	Optional	Optional	Optional
3.3	14	Required	C or R	New*	≥ 181 days	RQ	≤ activation processing date or ≤ reactivation processing date if present	Required if Date Exists	RQ or < Col. 10 date	RQ or blank	Optional	Optional	Optional	Optional
3.4	17, 18, 19	Required	C or R	Successor*	≤ 90 days	RQ	≤ successorship date	Required if Date Exists	≤ successor-ship date	≤ successor-ship date, or blank	RQ	Required	Optional	Optional
3.5	17, 19	Required	C or R	Successor*	≥ 91 but ≤ 180 days	RQ	≤ successorship date	Required if Date Exists	≤ successor-ship date	≤ successor-ship date, or blank	RQ	Required	Optional	Optional
3.6	17	Required	C or R	Successor*	≥ 181 days	RQ	≤ successorship date	Required if Date Exists	≤ successor-ship date	≤ successor-ship date, or blank	RQ	Required	Optional	Optional
3.7	20	Required	C or R	Inactivations*	Optional	RQ	Required	Required if Date Exists	Optional	Optional	Optional	Optional	RQ[a]	Optional
3.8	20	Required	C or R	Terminations *	Optional	RQ	Required	Required if Date Exists	Optional	Optional	Optional	Optional	Optional	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.

* These values are abbreviated in the record layout.

Notes:

1) States that prefer to validate contributory and reimbursing employer status determinations separately for their own purposes 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. However, such states must still submit a single RV summary to the National Office with the combined results.

Subpopulation Descriptions:

3.1 Status determinations of new and reactivated employers made during the RQ, which were made within 90 days of the end of the quarter in which the employer became liable. (Subpopulations 3.1 - 3.3 include employers changing from contributory to reimbursing status or vice versa.)
3.2 Status determinations of new and reactivated employers made during the RQ, 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 and reactivated employers made during the RQ, 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 RQ, 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 RQ, 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 RQ, 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 RQ.
3.8 Terminations of employers made during the RQ.

Table A. 4
Population 4 Subpopulations
Accounts Receivable

	2 *(Step 1D)*	**3** *(Step 2A)* *(Step 2B)*	**4** *(Step 19A)*	**5** *(Step 19B)*	**6** *(Step 1D)*	**7** *(Step 20)*	**8** *(Step 21A)* *(Step 21B)* *(Step 21C)*	**9** *(Step 22)*	**10** *(Step 23)*	**11** *(Step 24)*	**12** *(Step 25)*	**13** *(Step 26)*	**14** *(Step 27A)* *(Step 27B)*
Sub-population	EAN	Employer Type	Transaction Date	Established Q/Date	Employer Report Quarter (ERQ)	Due Date	Transaction Type/Indicator	Amount Established in RQ	Amount Liquidated	Amount Uncollectible	Amount Removed	Balance at End of RQ	Age of Receivable
4.1	Required	C	RQ	RQ	Required	Optional	E	> 0	Must be blank or 0	Must be blank or 0	Must be blank or 0	Must be blank or 0	Optional
4.2	Required	C	RQ	Required	Required	Optional	L	Must be blank or 0	> 0	Must be blank or 0	Must be blank or 0	Must be blank or 0	Optional
4.3	Required	C	RQ	Required	> RQ - 8	Optional	U	Must be blank or 0	Must be blank or 0	> 0	Must be blank or 0	Must be blank or 0	Optional
4.4	Required	C	RQ	> RQ - 3	≤ RQ - 8	Optional	U	Must be blank or 0	Must be blank or 0	> 0	Must be blank or 0	Must be blank or 0	Optional
4.5	Required	C	Optional	< RQ - 2	RQ - 8	Optional	R	Must be blank or 0	Must be blank or 0	Must be blank or 0	> 0	Must be blank or 0	Optional
4.6	Required	C	Optional	RQ - 2	≤ RQ - 8	Optional	R	Must be blank or 0	Must be blank or 0	Must be blank or 0	> 0	Must be blank or 0	Optional
4.7	Required	C	Must be blank	Required	> RQ - 8	Optional	B	Must be blank or 0	Must be blank or 0	Must be blank or 0	Must be blank or 0	> 0	Optional
4.8	Required	C	Must be blank	> RQ - 2	≤ RQ - 8	Optional	B	Must be blank or 0	Must be blank or 0	Must be blank or 0	Must be blank or 0	> 0	Optional
Reported in ETA 581 Item #'s								22	23	24	25	26	

Table A. 4
Population 4 Subpopulations
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	Transaction Date	Established Q/Date	Employer Report Quarter (ERQ)	Due Date	Transaction Type/Indicator	Amount Established in RQ	Amount Liquidated	Amount Uncollectible	Amount Removed	Balance at End of RQ	Age of Receivable
4.9	Required	R	RQ	RQ	Optional	Required	E	> 0	Must be blank or 0	Must be blank or 0	Must be blank or 0	Must be blank or 0	Optional
4.10	Required	R	RQ	Required	Optional	Required	L	Must be blank or 0	> 0	Must be blank or 0	Must be blank or 0	Must be blank or 0	Optional
4.11	Required	R	RQ	Required	Optional	> RQ - 7	U	Must be blank or 0	Must be blank or 0	> 0	Must be blank or 0	Must be blank or 0	Optional
4.12	Required	R	RQ	> RQ - 3	Optional	≤RQ - 7	U	Must be blank or 0	Must be blank or 0	> 0	Must be blank or 0	Must be blank or 0	Optional
4.13	Required	R	Optional	< RQ - 2	Optional	RQ - 7	R	Must be blank or 0	Must be blank or 0	Must be blank or 0	> 0	Must be blank or 0	Optional
4.14	Required	R	Optional	RQ - 2	Optional	≤RQ - 7	R	Must be blank or 0	Must be blank or 0	Must be blank or 0	> 0	Must be blank or 0	Optional
4.15	Required	R	Must be blank	Required	Optional	> RQ - 7	B	Must be blank or 0	Must be blank or 0	Must be blank or 0	Must be blank or 0	> 0	Optional
4.16	Required	R	Must be blank	> RQ - 2	Optional	≤RQ - 7	B	Must be blank or 0	Must be blank or 0	Must be blank or 0	Must be blank or 0	> 0	Optional
Reported in ETA 581 Item #'s								34	35	36	37	38	

Notes:

Values in column 8 for all observations in subpopulation 4.1 should be totaled, for comparison to ETA Item #22.

Values in column 9 for all observations in subpopulation 4.2 should be totaled, for comparison to ETA Item #23.
Values in column 10 for all observations in subpopulations 4.3 - 4.4 should be totaled, for comparison to ETA Item #24.
Values in column 11 for all observations in subpopulations 4.5 - 4.6 should be totaled, for comparison to ETA Item #25.
Values in column 12 for all observations in subpopulations 4.7 - 4.8 should be totaled, for comparison to ETA Item #26.
Values in column 8 for all observations in subpopulation 4.9 should be totaled, for comparison to ETA Item #34.
Values in column 9 for all observations in subpopulation 4.10 should be totaled, for comparison to ETA Item #35.
Values in column 10 for all observations in subpopulations 4.11 - 4.12 should be totaled, for comparison to ETA Item #36.
Values in column 11 for all observations in subpopulations 4.13 - 4.14 should be totaled, for comparison to ETA Item #37.
Values in column 12 for all observations in subpopulations 4.15 - 4.16 should be totaled, for comparison to ETA Item #38.

1) There must be one record for each ERQ balance for an EAN to calculate aging.

2) If states bill reimbursing employers on a monthly basis, then they may have up to three records for a receivable establishment in the RQ.

3) States should not include negative values in individual transactions for report items. If a transaction made in one quarter is fully or partially adjusted in a subsequent quarter, the adjustment should be reported using a positive entry to an appropriate adjustment category on the report. For transactions made to an account that are fully or partially adjusted within the same quarter, states may report the net result. To ensure a proper audit trail for validation purposes, adjustments should only be netted when they actually *occur and are discovered* within the same RQ. In these same-quarter situations, states may net adjustments but are not required to net if they prefer to maintain records of each transaction. The following table gives examples of how to report and validate various types of receivables adjustments.

Adjustment	*ETA 581*
Error in new receivable identified and corrected within same reporting period	Report net result in Determined Receivable
$100 overstatement of new receivable identified and corrected in following quarter	+$100 Liquidation in next quarter's report
$500 check received in RQ, returned by bank for non-sufficient funds in same quarter	Report net result ($0) in Liquidated
$500 check received in RQ, returned by bank for non-sufficient funds in following quarter	+$500 Liquidated in RQ +$500 Determined Receivable in report for RQ+1

Subpopulation descriptions:

4.1 Receivable amounts established as past due in the RQ for contributory employers.
4.2 Receivable amounts liquidated during the RQ for contributory employers.
4.3 Receivable amounts declared uncollectible during the RQ for contributory employers where the receivable is less than eight quarters old.
4.4 Receivable amounts declared uncollectible during the RQ for contributory employers where the receivable is at least eight quarters old but was established within the RQ or the two preceding quarters. The establishment date parameter is used to confirm that these transactions have not yet been removed.
4.5 Receivable amounts removed during the RQ for contributory employers where the receivable is eight quarters old and was established prior to two quarters before the RQ.
4.6 Receivable amounts removed during the RQ for contributory employers where the receivable was at least eight quarters old and was established two quarters prior to the RQ.
4.7 Receivable balances at the end of the RQ 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 RQ for contributory employers which were at least eight quarters old but which were established within the RQ 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 RQ for reimbursable employers.
4.10 Receivable amounts liquidated during the RQ for reimbursable employers.
4.11 Receivable amounts declared uncollectible during the RQ for reimbursable employers where the receivable is less than seven quarters old based on the due date.

4.12 Receivable amounts declared uncollectible during the RQ for reimbursable employers where the receivable is at least seven quarters old based on the due date but was established within the RQ or the two preceding quarters.
4.13 Receivable amounts removed during the RQ for reimbursable employers where the receivable is seven quarters old based on the due date and was established prior to two quarters before the RQ.
4.14 Receivable amounts removed during the RQ for reimbursable employers where the receivable was at least seven quarters old based on the due date and was established two quarters prior to the RQ.
4.15 Receivable balances at the end of the RQ for reimbursable employers which were less than seven quarters old based on the due date. (The receivable was not yet old enough to be removed.)
4.16 Receivable balances at the end of the RQ for reimbursable employers which were at least seven quarters old based on the due date but which were established within the RQ 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.)

Table A.5
Population 5 Subpopulations
Field Audits

							Total Wages					Taxable Wages					Contributions				
		2 *(Step 1E)*	**3** *(Step 1E)*	**4** *(Step 28A) (Step 28B)*	**5** *(Step 29A) (Step 29B)*	**6** *(Step 30)*	**7** *(Step 31A)*	**8** *(Step 31B)*	**9** *(Step 31C)*	**10** *(Step 31D)*	**11** *(Step 31E)*	**12** *(Step 32A)*	**13** *(Step 32B)*	**14** *(Step 32C)*	**15** *(Step 32D)*	**16** *(Step 32E)*	**17** *(Step 33A)*	**18** *(Step 33B)*	**19** *(Step 33C)*	**20** *(Step 33D)*	**21** *(Step 33E)*
Sub-population	Reported in ETA 581 Items #'s	EAN	Audit ID #	Employer Size	Change Audit	Audit Completion Date	Pre-Audit (T1)	Post-Audit (T2)	Under-Reported (T3)	Over-Reported (T4)	Reconciliation Amount (System Generated)	Pre-Audit (X1)	Post-Audit (X2)	Under-Reported (X3)	Over-Reported (X4)	Reconciliation Amount (System Generated)	Pre-Audit (C1)	Post-Audit (C2)	Under-Reported (C3)	Over-Reported (C4)	Reconciliation Amount (System Generated)
5.1	45, 46, 47	Required	Required	L	Y	RQ	Required	Required	Must be > 0 if Cols. 10, 14, 15, 19, 20 all = 0	Must be > 0 if Cols. 9, 14, 15, 19, 20 all = 0	Must be blank or 0	Optional	Optional	Must be > 0 if Cols. 9, 10, 15, 19, 20 all = 0	Must be > 0 if Cols. 9, 10, 14, 19, 20 all = 0	Must be blank or 0	Optional	Optional	Must be > 0 if Cols. 9, 10, 14, 15, 20 all = 0	Must be > 0 if Cols. 9, 10, 14, 15, 19 all = 0	Must be blank or 0
5.2	45, 47	Required	Required	L	N	RQ	Required	Required	Must be blank or 0	Must be blank or 0	Must be blank or 0	Optional	Optional	Must be blank or 0	Must be blank or 0	Must be blank or 0	Optional	Optional	Must be blank or 0	Must be blank or 0	Must be blank or 0
5.3	46, 47	Required	Required	S	Y	RQ	Required	Required	Must be > 0 if Cols. 10, 14, 15, 19, 20 all = 0	Must be > 0 if Cols. 9, 14, 15, 19, 20 all = 0	Must be blank or 0	Optional	Optional	Must be > 0 if Cols. 9, 10, 15, 19, 20 all = 0	Must be > 0 if Cols. 9, 10, 14, 19, 20 all = 0	Must be blank or 0	Optional	Optional	Must be > 0 if Cols. 9, 10, 14, 15, 20 all = 0	Must be > 0 if Cols. 9, 10, 14, 15, 19 all = 0	Must be blank or 0
5.4	47	Required	Required	S	N	RQ	Required	Required	Must be blank or 0	Must be blank or 0	Must be blank or 0	Optional	Optional	Must be blank or 0	Must be blank or 0	Must be blank or 0	Optional	Optional	Must be blank or 0	Must be blank or 0	Must be blank or 0
Reported in ETA 581 Item #'s							49	50	53	56				54	57				55	58	

Notes:

1) Some states may want to capture and store in the validation file the pre- and post-audit number of employees. 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 in the file.

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 report validation file specification column headers:
Subtract the positive net of (T3 - T4) from the positive net of (T1 - T2). The result in column 11 should be zero.
Subtract the positive net of (X3 - X4) from the positive net of (X1 - X2). The result in column 16 should be zero.
Subtract the positive net of (C3 - C4) from the positive net of (C1 - C2). The result in column 21 should be zero.
For example, if Employer A under reported total wages by $5,000 and also over reported total wages by $1,000, the Employer's post-audit total wages would increase by $4,000. So, if the validator nets the under and over reported wages the result is $4,000, and nets pre- and post-audit wages the result is $4,000. These two results should always reconcile to zero. Referring again to the specification:
If TI = $10,000, T2 = $14,000, T3 = $5,000, T4 = $1,000, then ($10,000 - $14,000) - ($5,000 - $1,000) = 0.
Also, if TI = $10,000, T2 = $6,000, T3 = $1,000, T4 = $5,000, then ($10,000 - $6,000) - ($1,000 - $5,000) = 0.

The validation software will reject records if the *total wages reconciliation* amount is not zero. However, the software does not reject records if the taxable wages or contributions reconciliation amounts are not zero.

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.

<u>Subpopulation descriptions:</u>

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

APPENDIX B

Tax

INDEPENDENT COUNT

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APPENDIX B

A. Purpose

The validation procedures described in Modules 1 and 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 Appendix 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. It is not applicable when states 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, however, 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 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. For the reasons given in Table B.2 below, it is unlikely that any state will need to perform an independent count for 581 validation. It is expected to be relevant only to validating Federal benefits reports. Nevertheless, the 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.

B. Procedures

IS 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 that do not match the population and subpopulation specifications. State programming staff must determine the specific type of independent count (simple query, multiple queries, cross tabulation).

Table B.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 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 Data

Validation 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 Table B.1 indicates whether the state should conduct independent count validation for populations that match the report and validation scenario.

Table B.2 describes independent count criteria for each population.

Table 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

Table 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 that would require an independent count.
2. Report Filing	States generally use data files containing a record for each employer 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 a 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 previous status determinations. These statistical files are often called RQC or TPS files because they were developed to provide a universe of determinations from which to derive the Revenue Quality Control (now Tax Performance System) 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 that 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.