Use of Sampling in Auditing

The primary purpose behind the Board of Equalization’s (BOE) audit program is to determine, with the least possible expenditure of time for both the taxpayer/feepayer and the BOE, the accuracy of reported amounts. Sampling serves to accomplish this purpose.

Sampling is a process of drawing a conclusion about an entire body of information based on measurements of a representative sample of that information. Sales and use taxes are transaction taxes, meaning that tax is determined on a transaction-by-transaction basis. Therefore, verification must be done at the source document level. Since in many cases it is economically impractical to audit all transactions, the BOE encourages the use of sampling whenever feasible.

There are generally two methods of sampling: judgment sampling and statistical sampling. A judgment sample includes all samples obtained by non-statistical sampling methods. The most common type of judgment sample is the examination of a block period of time (for example, day, week, month, or quarter). A statistical or random sample is a sample in which each item in the population has an equal or known chance of being selected for examination. Examples of statistical or random sampling techniques include unrestricted sampling, stratified sampling, systematic sampling with random start, and cluster sampling.

While judgment samples are not necessarily less accurate than statistical samples, there is no way of objectively evaluating the accuracy or reliability of the test. The advantages of statistical sampling over non-statistical sampling are:

- It provides a selection process representative of the types of transactions involved and eliminates bias, since every item in the population has an equal or known chance of being selected.
- It provides an advance estimate of the sample size required for a given objective.
- The results can be objectively evaluated.
- Multiple samples may be combined and evaluated.
- Properly conducted statistical sampling can yield more reliable results than judgment sampling.
- It is a method approved and recommended by the American Institute of Certified Public Accountants (AICPA).

Other factors to be considered in determining the best type of sample to conduct are the format, condition, storage, and availability of business records. The auditor and taxpayer/feepayer should discuss the most beneficial approach to examining source documents after the auditor has had an opportunity to review the business records but prior to the selection of the sample.

The attached BOE-472, Audit Sampling Plan, was developed to document the sampling plan and to set the criteria by which the sample results will be evaluated. The purpose of this form is to obtain information regarding the taxpayer’s/feepayer’s operations in order to establish the most effective and efficient means of developing a sampling plan. The form covers many common situations that might arise in sampling which should be discussed with the taxpayer/feepayer. This form should be completed with the assistance of the taxpayer/feepayer, prior to the selection of the sample.

The information and methods documented in this form are not binding for either the taxpayer/feepayer or BOE staff. The sampling plan can, and should, be continually evaluated (and changed, if necessary) based upon information obtained during the auditing process. In addition, it is possible that stratification or expansion of this sample may be necessary depending on the results produced by this process. However, should any deviation to this plan be required, it will be fully discussed with the taxpayer/feepayer and documented in the audit and on the sampling plan.

If you have any questions regarding this form and accompanying information, please contact your auditor.
AUDIT SAMPLING PLAN

PART A. SAMPLE SET UP

THE OBJECTIVE(S) OF THIS TEST

THE POPULATION AND PERIOD BEING TESTED

THE SPECIFIC TYPE OF RECORDS TO BE EXAMINED IN THE POPULATION

THE FILING METHOD FOR THE RECORDS TO BE EXAMINED (for example, numerical, alphabetical, electronic)

THE POPULATION WILL BE VALIDATED TO THE BOOKS AND RECORDS USING THE FOLLOWING METHOD

TYPE OF SAMPLES

- Statistical Sample
- Block Sample
- Other (describe)

THE SPECIFIC SAMPLING UNIT EXAMINED IN THE SAMPLE (for example, invoice, purchase order, line items, manifest, bill of lading)

REASON FOR SELECTING THE TEST PERIOD AND SAMPLING UNIT

THE FOLLOWING WILL BE USED IN THE SAMPLE SELECTION

- Computer Audit Specialist
- Random Number Generator
- Random Number Tables
- Other (describe)

PART B. SAMPLE PARAMETERS

<table>
<thead>
<tr>
<th>TEST PERIOD OR STRATA BOUNDARIES</th>
<th>SAMPLE BASE (UNITS)</th>
<th>SAMPLE BASE (DOLLARS)</th>
<th>POPULATION BASE (UNITS)</th>
<th>POPULATION BASE (DOLLARS)</th>
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ADDITIONAL INFORMATION OR STRATA

PART C. SPECIFIC TESTING SITUATIONS

DUPLICATE SAMPLE UNITS WILL BE

- Replaced
- Not replaced (each duplicate unit will be included in the sample)

MISSING SAMPLE UNITS

If a selected document is missing, the auditor should ascertain the reason for the missing or incomplete documents and/or use other available information to determine if the sample unit represents an error. Based upon the facts of the situation, the auditor and the taxpayer/feepayer together should discuss whether to consider missing or incomplete documents as incorrect (error), correct (no error), or whether to substitute another sample unit, or whether they should be removed from the sample base and projection (as set forth in section 1302.25 of the Audit Manual).
VOIDS OR CANCELLED TRANSACTIONS
- Leave voids and cancelled transactions in the population and treat as a non-error.
- Remove voids and cancelled transactions from the sample and population.
- Voids are not included in the population and will be disregarded.

SAMPLE UNIT IS A CREDIT INVOICE, CREDIT MEMO, OR DEBIT MEMO
- Method 1—Remove credits from population. Allowable credit transactions may be examined and offset as needed.
- Method 2—Credit transactions will remain in the sample and will be treated as non-errors.
- Method 3—Credit transactions will remain in the sample and will be treated in the same manner as positive transactions.

SAMPLE UNIT IS FOR “TAX” ONLY
- Consider correct (non-error)  □  Other (describe)  □

The following situations will be handled accordingly:
- **Sample unit is an error, but the transaction later resulted in a bad debt:** Allowable bad debts will either be offset against sample items or be tested and adjusted separately (as set forth in section 1302.25 of the Audit Manual).
- **Sample unit is an error, but the transaction is corrected at a later date:** If a sample unit is an error, but the transaction is corrected at a later date, the sample unit will be considered a non-error. However, if a sample unit is an error, but the transaction is corrected as a result of the audit investigation, the sample unit will be considered an error for projection of error purposes, and an offset credit should be allowed in the amount of the error.
- **Sample unit is a partial/down/installment or progress payment:** Partial, down, installment, or progress payments will not constitute differences for sampling purposes because they do not represent a sale. On the other hand, payments made in conjunction with an act that constitutes a sale will be considered a difference for sampling purposes and may be considered an error upon investigation (as set forth in section 1302.25 of the Audit Manual).

**PART D. PROJECTION OF ERROR**

The BOE’s minimum error policy is as follows:
- A minimum of three errors are required in a statistical sample or stratum before the errors may be projected.
- Errors in block samples should be projected even if the errors are from the same customer or vendor when the sample is representative of the business for the time period in question. This applies even when there are three or fewer errors. Auditors must justify their decision to project or not to project the errors in the verification comments.
- Cluster samples do not require a minimum number of errors to project.

**IF ERRORS FROM A SAMPLE WILL BE PROJECTED, THEY WILL BE PROJECTED USING THE FOLLOWING METHOD**

- Percentage of Error  □  □  Difference Estimation
- Mean Per Unit Estimation  □  Other (describe)  □

If it is decided to not project the error(s), the auditor may use one of the alternatives listed below to handle the error(s) in that sample or stratum. The auditor, if necessary, will discuss the alternatives with the taxpayer/feepayer after the sample results are known and then make a decision on the alternative to use:
- Assess or allow known errors on an actual basis for the audit period.
- If feasible, expand that sample or stratum.
- Examine specific customers, vendors, accounts, known errors, etc., on an actual basis for that stratum.

**PART E. TAXPAYER’S/FEEPAYER’S SIGNATURE FOR RECEIPT**

This sampling plan is a collaborative effort by the auditor and taxpayer/feepayer to determine the most efficient method of determining the accuracy of reported amounts and establishing an estimated percentage of error, if any, for the population being tested. BOE staff should aid the taxpayer/feepayer in gaining a correct understanding of the law and demonstrate that we are as willing to recommend a refund of an overpayment as we are to propose a deficiency determination. The information and methods documented in this form are not binding on either the taxpayer/feepayer or BOE staff. This sampling plan may be modified if new or additional data is encountered. Should any deviation to this plan be required, it will be fully discussed with the taxpayer/feepayer.

AUDITOR’S SIGNATURE  □  DATE (copy of this sampling plan was provided to the taxpayer/feepayer)

TAXPAYER’S/FEEPAYER’S SIGNATURE FOR RECEIPT OF COPY  □  DATE