The Historical Accounting Plan For

Individual Indian Money Accounts

Prepared for the U.S. District Court
for the District of Columbia

Department of the Interior

January 6, 2003

EXECUTIVE SUMMARY

The U.S. Department of the Interior (Interior) is presenting a Plan to conduct a historical accounting for about 260,000 Individual Indian Money (IIM) accounts as directed by the United States District Court for the District of Columbia (Court).[1] The work described in this Plan is expected to take five years to complete [and] is preliminarily estimated to cost approximately $335 million. The successful implementation of this Plan is dependent upon sufficient appropriations.

Interior intends to conduct the historical accounting by a combination of: (1) transaction-by-transaction reconciliation methods (all transactions in certain account types), (2) reconciling all transactions over a certain dollar threshold, and (3) reconciling a statistical sample of lower dollar-value transactions. By using these different methods, Interior believes the IIM account holders will receive their Historical Statements of Account much sooner than if a transaction-by-transaction method for all IIM accounts was used. Further, the IIM account holders should also be able to place a high degree of confidence in the accuracy of those Statements.

Interior plans to separate the historical accounting into three distinct types of IIM accounts. These types are Judgment and Per Capita IIM accounts, land-based IIM accounts, and Special Deposit accounts. The reconciliation process will be different, and appropriate, for each type of account.

- For the approximately 42,200 Judgment and Per Capita IIM accounts, Interior intends to reconcile 100 percent of the transactions in each account transaction history, using transaction-by-transaction methods.

- For the approximately 200,000 land-based IIM accounts, Interior intends to undertake the historical accounting using both transaction-by-transaction and statistical methods. Interior plans to reconcile all transactions that are equal to or greater than $5,000, which in aggregate represent more than $1.5 billion, or 45 percent of the post-1985 dollar throughput of the land-based IIM accounts. Interior intends to examine transactions that are less than $5,000 through the use of statistically valid samples. Two statistically valid samples of about 80,000 transactions each will be selected from the Electronic Records Era (1985-2000). A similar approach will be used to sample transactions from the Paper Records Era (pre-1985). This statistically valid sampling methodology is expected to result in Interior being able to determine the accuracy rate of the historical accounting within each of the strata with 99 percent confidence.

- For the approximately 21,500 Special Deposit accounts, Interior intends to pursue a project to distribute the funds to the proper owners and to close those accounts.

[1] *Cobell v. Norton*, 226 F. Supp. 2d 1, 148 (D.D.C. 2002).

Interior also plans to conduct a number of system tests of the historical IIM Trust Fund operations to determine whether the various systems have been functioning properly. Taken together with the Judgment and Per Capita, land-based, and Special Deposit account reconciliations, the system tests are intended to show whether there was integrity in the overall processes and systems used to administer the IIM Trust Fund for the period at issue.

The historical accounting described in the Plan covers all IIM accounts that were open as of December 31, 2000, and all IIM accounts that were open as of October 25, 1994, or opened thereafter, but closed as of December 31, 2000.

Interior has engaged 14 consulting firms to assist it in the historical accounting effort, including five accounting firms (four of which are among the five largest firms in the United States), the largest commercial trust operator in the United States, two historian firms which have specialized in Indian issues for many years, and firms to assist in statistical matters, trust legal matters and other areas pertaining to historical accounting. Representatives from these firms have been instrumental in designing the Plan Interior is submitting to the Court.

At the end of the historical accounting process, Interior intends to be in the position to provide each IIM account holder with a Historical Statement of Account with sufficient information so that they can readily ascertain whether Interior has faithfully carried out its IIM Trust Fund accounting duties. Interior plans to provide information on how much money was credited to each account and from what sources, the amount of interest credited to each account, and the disbursements made from the account. Interior intends to provide its assessment of the accuracy of the account transaction history. This information should enable IIM account holders to ascertain whether their money has been properly accounted for.

Interior also intends to be in the position to provide the IIM account holder with information regarding their land assets as of December 31, 2000. The information on assets will be prepared by the BIA Land Title and Records Offices as a separate part of the package to be provided to IIM account holders. Together with the Historical Statements of Account, this will provide IIM account holders more information on their trust assets as of December 31, 2000. In the future, Interior intends to provide a listing of trust assets along with a report on the management of the funds generated from those assets and from other sources with each quarterly statement.

Overall, Interior's Plan is designed to allow Interior to draw conclusions regarding the accuracy of the account transaction histories and the integrity of the overall processes and systems used to administer the IIM Trust Fund for the period at issue. Moreover, Interior believes the implementation of this Plan will provide an important part of the foundation upon which to perform its IIM Trust Fund accounting obligations in the future.

I. INTRODUCTION TO THE HISTORICAL ACCOUNTING PLAN

The U.S. Department of the Interior (Interior) is presenting this Plan to conduct a historical accounting for about 260,000 Individual Indian Money (IIM) accounts as directed by the United States District Court for the District of Columbia (Court).[1]

Interior estimates that the accounting will take five years and cost $335 million. There is a high level of uncertainty in the cost estimates for the historical accounting project because many parameters continue to be refined and could significantly change the estimates developed. The successful implementation of this Plan is dependent upon sufficient appropriations.

Interior has made the performance of a historical accounting of IIM funds a priority. In July 2001, the Secretary established the Office of Historical Trust Accounting (OHTA). OHTA is engaged in the ongoing process of performing historical accountings for individual accounts and verifying their accuracy. As of November 1, 2002, Interior has reconciled 14,235 Judgment accounts with balances totaling over $40 million and has made substantial progress on reconciling a significant number of transactions in Per Capita accounts.

Interior intends to reconcile the account transaction histories of all 42,218 Judgment and Per Capita IIM accounts on a transaction-by-transaction basis by examining the original financial documents and related records to determine whether the transaction, as recorded, accurately reflects the proper allocation of collection, interest, or disbursement of funds (reconciliation). For the land-based IIM accounts, Interior intends to reconcile all transactions that are equal to or greater than $5,000. In addition, Interior proposes to review and test the accuracy of all transactions that are less than $5,000 through the examination of statistically valid samples. For the Special Deposit accounts (SDAs) that are inactive, Interior intends to pursue a project to distribute the funds to the proper owners. Interior also intends to conduct system tests to assess the underlying reliability of the IIM Trust Fund system.

Upon completion of the historical accounting, Interior will be in a position to provide each IIM account holder a Historical Statement of Account detailing the account transaction history. Interior will also be in a position to provide each IIM account holder with its conclusions about the accuracy of the account transaction history and the account balance as of December 31, 2000. Examples of quarterly account statements provided to account holders are included in Appendix A – *Examples of Quarterly Statements of Account to Account Holders*.

Interior has assembled a group of contractors to assist it in conducting this Plan.

- *Accounting Firms* — A total of five accounting firms are under contract to OHTA and working on projects already underway. These include: (1) Chavarria, Dunne & Lamey LLC (CD&L), (2) Deloitte & Touche LLP, (3) Ernst & Young

[1] *Cobell v. Norton*, 226 F. Supp. 2d 1, 162 (D.D.C. 2002).

LLP, (4) Grant Thornton LLP, and (5) KPMG LLP. These include four of the five largest accounting firms in the United States. The other firm—CD&L—has experience with numerous Bureau of Indian Affairs (BIA) and Office of Special Trustee for American Indians (OST) projects over the years.

- *Commercial Trust Operations* — The Bank of America, which has the largest commercial trust operation in the United States, is actively advising OHTA.

- *Statistical Consultant* — The National Opinion Research Center (NORC), an affiliate of the University of Chicago, has been working with OHTA.

- *Historians* — Morgan, Angel & Associates, L.L.C., and Historical Research Associates Inc., which have specialized in Indian issues over the years, are under contract to OHTA to provide information on leasing, the allotment process, reservation histories, and other matters.

- *Trust Legal Advisor* — The Washington-based law firm, Hughes & Bentzen PLLC, has trust law expertise, and is providing expert trust law advice.

- *Integration Contractor* — Booz Allen and Hamilton, Inc. has been working with OHTA providing information technology consulting, management coordination, and assistance for over a year.

- *Information Technology Security Advisor* — OHTA has engaged Government & Business Solutions Inc. to provide consulting on security of trust data and information technology security advice.

- *Cost Estimating and Control* — Upper Mohawk Inc., an Indian-owned business, provides cost estimating and cost control consulting to OHTA.

- *Geology Consultant* — OHTA had previously employed Gustavson Associates for assistance in identifying records relating to oil and gas leases on Indian allotted lands. Gustavson works with a number of U.S. government agencies on issues related to mineral leases (and may retain the firm—or another firm—in the future).

Interior is confident that the historical accounting described in this Plan will provide a reasonable basis for resolving questions that have been raised about IIM Trust Fund management in the past. Interior also believes that the historical accounting will provide a reasonable foundation on which to perform its IIM Trust Fund accounting obligations in the future.

II. OVERVIEW OF THE HISTORICAL ACCOUNTING PLAN

The United States holds approximately 10 million acres of land in trust for individual Indians. Interior manages revenue-producing activities on those lands, including oil and gas leases, farming and grazing, and timber harvesting. Beneficial ownership is divided among some four million interests and Interior must allocate the revenues accordingly. Interior also handles financial accounts for individual Indians—Individual Indian Money (IIM) accounts—into which these revenues and other funds flow.

The American Indian Trust Fund Management Reform Act of 1994, Pub. L. No. 103-412, 108 Stat. 4239 (1994 Act), requires the Secretary to "account for the daily and annual balance of all funds held in trust by the United States for the benefit of an Indian tribe or an individual Indian which are deposited or invested pursuant to the Act of June 24, 1938." 25 U.S.C. § 4011(a).

Section 4011 of the 1994 Act speaks in the present tense and imposes on Interior duties for the benefit of holders of IIM accounts open at the time of enactment. In its original understanding of the statute, Interior believed that the 1994 Act defined Interior's prospective accounting obligations, but left the reconciliation of any historical inaccuracies to the Secretary's discretion. On December 21, 1999, the Court issued a judgment declaring Interior in violation of applicable legal obligations.[2] The Court concluded that the statutory duty to account for funds applied not only to monies deposited following enactment of the 1994 Act, but extended to all funds held in the IIM Trust Fund.[3]

The Court of Appeals subsequently affirmed most aspects of the Court's ruling.[4] The Court of Appeals declared that "'All funds' [in Section 4011(a)] means *all funds*, irrespective of when they were deposited (or at least so long as they were deposited after the Act of June 24, 1938)."[5] The Court of Appeals questioned "how one can give a *fair* and *accurate* accounting of *all* accounts without first reconciling the accounts, taking into account past deposits, withdrawals, and accruals."[6] In other words, the Court of Appeals could not understand how Interior could give a proper account of existing IIM accounts, as required by the 1994 Act, without doing a historical accounting of those accounts, i.e., without considering account transactions prior to October 25, 1994, that might affect the current balances.

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[2] *Cobell v. Babbitt*, 91 F. Supp. 2d 1 (D.D.C. 1999).

[3] Id. at 40-41.

[4] *Cobell v. Norton*, 240 F.3d 1081, 1086 (D.C. Cir. 2001).

[5] Id. at 1086 (emphasis in original).

[6] Id. at 1102 (emphasis in original).

In light of these rulings, Interior recognizes that it has a duty under Section 4011(a) to account for "all funds held in trust" as of the date of the 1994 Act (and thereafter), including a duty to account for the pre-October 25, 1994 "history" of those funds.[7] Accounting for this pre-October 25, 1994 "history" is what is meant by the term "historical accounting."[8] Interior also recognizes, as the Court of Appeals stated, that the duty to account for funds in accounts open as of 1994 may extend as far backwards as 1938, the date referenced by the 1994 Act, which provides that Interior "shall account for the daily and annual balance of all funds held in trust . . . which are deposited or invested pursuant to the Act of June 24, 1938."[9]

On September 17, 2002, the Court ordered Interior to "file with the Court and serve upon plaintiffs a plan for conducting a historical accounting of the IIM trust accounts."[10] Interior believes this Plan is the best means of fulfilling Interior's statutory duties within a reasonable period. The Plan builds upon progress already made, including the ongoing work in performing historical accountings for IIM accounts and verifying their accuracy.

Ultimately, Interior intends to be in a position to provide eligible IIM account holders an account transaction history—that is a history of all transactions in their accounts back to the inception of their accounts or to the passage of the Act of June 24, 1938, whichever is later. Interior proposes to verify the accuracy of IIM account transaction histories using a combination of (1) transaction-by-transaction reconciliation to underlying documentation and (2) statistical sampling techniques, a course specifically left open by the Court and the Court of Appeals.[11]

This proposed course differs from the approach described in Interior's July 2, 2002, *Report to Congress on Historical Accounting of Individual Indian Money Accounts*

[7] Interior intends to present legal issues that might affect the scope of the historical accounting to the Court by way of summary judgment motions.

[8] The term "historical accounting" does not appear in the 1994 Act.

[9] 25 U.S.C. § 4011(a).

[10] *Cobell v. Norton*, 226 F. Supp. 2d 1, 162 (D.D.C. 2002). As Interior's brief filed in the Court of Appeals in *Cobell v. Norton*, No. 02-5374 (D.C. Cir.) explains, Interior believes that the Court's order should not have issued.

[11] *See Cobell v. Babbitt*, 91 F. Supp. 2d at 40 n.32 (noting that the Court was "not ruling upon what specific form of accounting" might be required by the 1994 Act, including "whether an accounting accomplished through statistical sampling would satisfy defendants' statutory duties"); *Cobell v. Norton*, 226 F. Supp. 2d at 116 ("[T]he Court agrees with the defendants that in the Phase I trial ruling it did not prescribe a specific accounting method for the agency to employ . . . [I]t is important to note that the Court correctly refrained at that time from ordering Interior to use a specific accounting method."); *see also Cobell v. Norton*, 240 F.3d at 1104 ("The district court explicitly left open the choice of how the accounting would be conducted, and whether certain accounting methods, such as statistical sampling or something else, would be appropriate. Such decisions are properly left in the hands of administrative agencies.").

(*Report to Congress*) in its proposed use of statistical sampling as a means of verifying the accuracy of account transaction histories.

Statistical sampling was previously considered by Interior for meeting its 1994 Act obligations. Shortly after taking office in February 2001, Secretary Norton "'opted to follow' former Secretary Babbitt's decision to use the statistical sampling method to perform a historical accounting."[12] However, following this decision, the Court, in contrast to the view stated in its 1999 opinion and reaffirmed in its September 17, 2002, opinion, twice indicated in remarks from the bench that use of statistical sampling would be contemptuous.[13] In light of those remarks, Interior decided not to propose the use of statistical sampling in its *Report to Congress*. Instead, the *Report to Congress* described a transaction-by-transaction reconciliation of all the transactions in every IIM account that ever existed, and concluded that such a review would cost at least $2.4 billion and take ten years or more to complete. The cost estimate indicated by the *Report to Congress* also reflected the cost of doing a historical accounting for all accounts open at any date with regard to monies deposited at any time, even previous to the statutory date of 1938. Such an accounting would exceed that required by Section 4011.

It should be noted that this Plan does not contemplate performing historical accounting work for the closed accounts of deceased predecessors of current IIM account holders. General trust law principles support the assumption of correctness of any property distribution made to a current account holder through the distribution of a probated estate. In other words, in providing a full accounting to a current account holder, a trustee is not also required to provide an accounting of the account from which the property was inherited. The reasons for this are well established. Traditionally, a trustee provides an accounting to current beneficiaries in order to state "what property has been received . . . and what funds have been paid out and for what purpose;"[14] a trustee should not be obligated to prove the validity of each underlying transaction in the account for the previous beneficiary.

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[12] *Cobell v. Norton*, 226 F. Supp. 2d at 42. The use of statistical sampling as described in this Plan is substantially different than the use previously contemplated, which proposed to use sampling as the only means for conducting the historical accounting. This Plan proposes the use of statistical sampling as one of the means of verifying the accuracy of the account transaction histories.

[13] Hearing Tr. of Status Call 29:17-19 (Oct. 30, 2001) (Secretary's decision to use statistical sampling "was so clearly contemptuous" that it did not understand "what it is that we are going to try" in the contempt trial); Trial Tr. 4386:16-21 (Feb. 13, 2002) ("I commented on your having signed that February 2001 memorandum endorsing Secretary Babbitt's statistical sampling approach rather than the historical accounting that I had outlined in my order, and I had said from the bench that I thought your signature on that document was clearly contemptuous.").

[14] *See* George T. Bogert, Trusts § 142 (Practitioner's ed. 1987) (the obligation to provide an accounting is placed on a trustee "in order that the beneficiary may learn by a written, orderly statement what property has been received by the trustee, and what funds have been paid out and for what purposes, and may then object to the account . . ."); William F. Fratcher, Scott on Trusts § 172 (4th ed. 1987) (trustee's accounts "should show what he has received and what he has expended.").

This is particularly the case where the underlying transaction is a probate order. With respect to probate, there are typically procedures for both notice to interested parties and a hearing, and resulting probate orders are presumptively valid. Moreover, once the probate order is issued, there are established rehearing and appeal rights and procedures for seeking to reopen the probate proceeding even after these rights have been exhausted or have expired. For these reasons, it is reasonable for a trustee to rely on the probate order as a correct statement of the property due the beneficiary, and the trustee is not required to conduct an accounting of the decedent's trust account in order to provide a full accounting of the trust account of the current beneficiary. If a current IIM account holder has questions about the correctness of a property distribution, they can be raised in the appropriate proceeding, but not through a request for an accounting of the trust account.

Not all revenues generated from Indian trust lands are collected and managed by Interior. Some revenues are paid directly to the Indian owner of the land by a lessee or other debtor. As part of its historical accounting, Interior does not intend to account historically for funds generated from trust lands that were paid directly to the Indian owner of the land without ever coming into Interior's possession. Such funds were never "held in trust by the United States" and therefore do not fall within the requirement in the 1994 Act that Interior account for "all funds held in trust by the United States."[15]

Finally, Interior notes that the historical accounting period will close on December 31, 2000. As of that date, the relevant Interior offices were fully converted to the Trust Funds Accounting System (TFAS). Account information recorded since December 31, 2000, will be considered current accounting activity.

[15] 25 U.S.C. § 4011(a).

III. ACCOUNTING METHODS

Overview

For purposes of this Plan, historical accounting is the presentation to each IIM account holder of his/her account transaction history—a listing of all transactions in an IIM account—and a statement regarding the accuracy of those transactions. For the post-1985 period, Interior's systems contain electronic ledger data for each IIM account. The account transaction histories for IIM accounts that existed prior to 1985 remain to be compiled from paper ledgers. To verify account transaction histories, Interior intends to reconcile transactions by examining the original financial documents and related records to determine whether the transaction, as recorded, accurately reflects the proper allocation of collection, interest, or disbursement of funds (reconciliation).

Interior intends to conduct a historical accounting of all IIM accounts that were open as of December 31, 2000, and all IIM accounts that were open as of October 25, 1994, or opened thereafter, but closed as of December 31, 2000.

The IIM Trust Fund contains three primary types of accounts:[16]

- Judgment and Per Capita Accounts — Accounts established for individual Indians to receive funds from tribal distributions of litigation settlements and tribal revenues, respectively;

- Land-based Accounts — Accounts for individual Indians to receive revenues derived from interests in allotted land; and

- Special Deposit Accounts — Temporary accounts for the deposit of funds that cannot immediately be credited to the rightful account holders or owners.

Table III–1 below shows the number of accounts and the account balances associated with these accounts. Additional data are available in Appendix B – *IIM Account Data.*

Table III–1 — Accounts Open as of December 31, 2000

Account Type	Number of Accounts	Account Balances (in $ millions)	Percent of IIM Trust Fund
Judgment and Per Capita	42,218	$150.3	36
Land-Based	193,766	198.0	48
Special Deposit	21,415	67.9	16
Totals	257,399	$416.2	100

Source: Office of Trust Funds Management, December 31, 2000, IIM Statistics Report.

[16] There is a fourth kind of account in the IIM Trust Fund. These are known as Other Administrative Accounts and are used for internal operations.

The historical accounting methods will be different and appropriate for each of these account types. Another component of the accounting work assesses the retrospective functioning of the IIM accounting system as a whole. Overall, the Plan for the historical accounting is designed so that the Plan components, in the aggregate, allow Interior to verify that the transaction histories of the IIM accounts are correct. These components are explained in more detail below, with reference to descriptive data, accounting processes, work plan schedule, and cost factors unique to each account type or component.

Interior plans to undertake the historical accounting by initially addressing all Judgment and Per Capita IIM accounts. Concurrently, Interior plans to address land-based IIM accounts in two phases. The first phase will examine transactions in the Electronic Records Era, approximately 1985 through December 31, 2000. The second phase will examine transactions in the Paper Records Era, 1938 through 1984.

In addition, Interior proposes to address two other components related to the historical accounting—SDAs and retrospective system tests. Interior will work to properly disburse funds from inactive SDAs and close those accounts. As discussed further at the end of this section, several system tests will be performed on the IIM Trust Fund at the aggregate level to assess its underlying reliability. Interior also plans to be in a position to provide some summary information to IIM account holders regarding their ownership of land assets, which will be prepared by the BIA Land Title and Records Office (LTRO).

Judgment and Per Capita IIM Accounts

Introduction

When a tribe receives money as part of a legal judgment or negotiated settlement, the tribe may elect or be required to pass along some, or all, of the money to its enrolled members or their descendents. Similarly, other income to the tribe may be distributed as per capita payments to its members. In these instances, funds are distributed to tribal members in accordance with a tribal resolution specifying the amount of the payment and the eligibility of members to receive payment. In most cases, money is distributed directly to tribal members; however, for minors or other tribal members who are not eligible to receive a direct payment, the money is deposited on their behalf into an IIM account.

Groups of Judgment and Per Capita IIM accounts are usually established from a common source and have an identical initial balance making these accounts more readily reconcilable.

Descriptive Data

Table III–2 below shows the number of and balances associated with Judgment and Per Capita IIM accounts.

Table III–2 — Judgment and Per Capita IIM Accounts Open as of December 31, 2000

Account Type	Number of Accounts	Account Balances (in $ millions)	Percent of IIM Trust Fund
Judgment Accounts	33,205	$80.8	19
Per Capita Accounts	9,013	$69.5	17
Totals	42,218	$150.3	36

Source: Office of Trust Funds Management, December 31, 2000, IIM Statistics Report.

The Accounting Process

Accounting Methodology

Interior considered a number of possible approaches that could be used to reconcile IIM accounts. In evaluating these approaches in relation to the various types of IIM accounts, Interior determined that it was most suitable to use transaction-by-transaction reconciliation for Judgment and Per Capita accounts. This is because, for a specific judgment or per capita payment, nearly all of the affected IIM accounts have identical opening balances and balances as of December 31, 2000. This means an accountant can efficiently reconcile a number of transactions. Further, this type of account is not well-suited for statistical sampling, which is used when differences potentially exist from transaction to transaction.

In reconciling the 14,235 Judgment IIM accounts (with balances of approximately $40 million), Interior has employed the following process and intends to continue to apply this process to reconcile the remaining unreconciled accounts:

- Query relevant databases, e.g., Integrated Records Management System (IRMS) and TFAS, to produce account transaction histories;
- Use the document index to identify potential records boxes and their locations;
- Search for and obtain relevant records to support and reconcile transactions;
- Compare account details and identify types of documentation to support the transactions, e.g., judgment award, use and distribution plan, tribal resolution, and certified tribal roll;

- Calculate interest earnings based on interest distribution factors historically established by the Office of the Special Trustee Office of Trust Fund Management (OTFM) and predecessor organizations and compare calculated interest with interest actually posted; and

- Produce Historical Statements of Account outlining transaction details for the period tested.

Quality Assurance

Interior has retained the services of Grant Thornton LLP to provide quality control oversight for IIM account reconciliation efforts. Grant Thornton's role is to review the overall approach used to reconcile IIM accounts and analyze the results of reconciliation efforts (see Appendix C – *Quality Control*). Grant Thornton's review of the reconciled Judgment and Per Capita IIM accounts involves evaluating key documentation used to support the account reconciliation and recalculation of interest from time of deposit of the distribution into the IIM Trust Fund account through December 31, 2000. The quality assurance review will determine whether the accounting practices have complied with the standards in the *Accounting Standards Manual*, and its future revisions, established by the OHTA within the Office of the Secretary.

Work Plan Schedule

Statements for approximately 13,000 reconciled Judgment IIM accounts will soon be completed. Of the Judgment and Per Capita IIM accounts remaining to be reconciled, approximately 13,000 of these are proposed to be completed in FY 2003; approximately 15,000 accounts are anticipated to be completed in FY 2004.

Cost to Complete the Work

Interior estimates that it will cost approximately $2.5 million to reconcile the remaining Judgment and Per Capita IIM accounts.

Land-Based IIM Accounts

Introduction

Land-based IIM accounts are accounts of individual Indians who have ownership interest(s) in allotted lands and who receive revenues through their IIM accounts from activities associated with the lands. Sources of revenue include surface leases from

farming and grazing, sale of timber, subsurface leases (e.g., mining, oil and gas exploration and production), and rights-of-way for roads, power lines, and other utilities. Consequently, the historical accounting for land-based accounts is complex.

The fractionation of allotment ownership further complicates this work. Fractionation is the increasing partition of ownership as allotments are divided among heirs in each generation. As a consequence, revenue receipts may be divided among dozens to more than 1,000 individual owners of a single allotment. Further, many IIM account holders have ownership interests in allotments in several locations, processed by different BIA agencies, the revenue from which must be examined when relevant account transactions are reconciled.

Descriptive Data

As of December 31, 2000, there were 193,766 land-based IIM accounts with an aggregate balance of $198 million, constituting 48 percent of the IIM Trust Fund balance. Figure III–1 illustrates the sources of revenue for land-based IIM accounts. These data are drawn from transactions contained in TFAS. Further data can be found in Appendix B.

IRMS and TFAS include transaction histories for IIM accounts from approximately 1985 to December 31, 2000—the "Electronic Records Era." The availability of electronic records allows Interior to define the accounts and transactions in the historical accounting during this time frame, and provide summary information on the accounts.

Prior to 1985—the "Paper Records Era"—transaction records are in books, on cards, or on other paper documents. The paper transaction records must be located, scanned, coded, and the account information digitized to compile an electronic account transaction history for the IIM accounts included in the historical accounting. Until the electronic transaction histories are compiled, it will not be possible to determine relevant account information, including how far back in time IIM accounts go, and how many transactions occurred in each account included in the historical accounting.

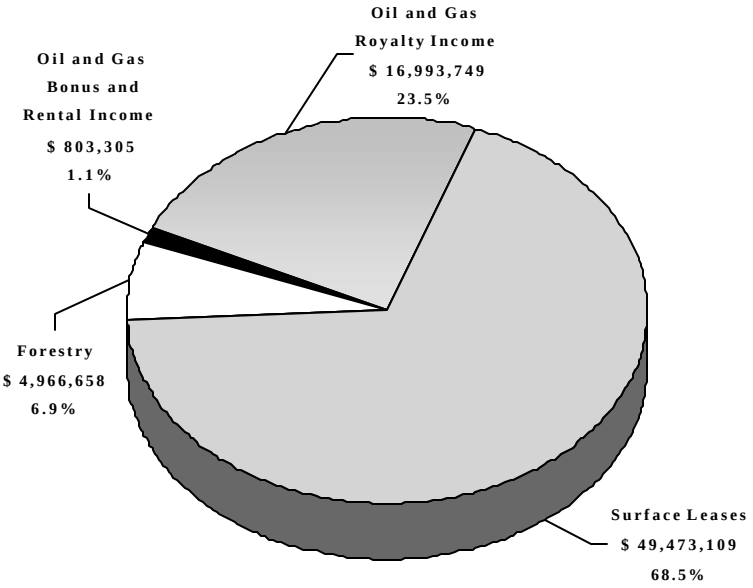
The Accounting Process

Accounting Methods Considered

The historical accounting for land-based IIM accounts consists of the account transaction history and the verification of the transaction history. Accordingly, in seeking to determine the accuracy of the account balances, Interior will undertake a historical accounting that examines how much money was collected, whether the money collected was accurately credited to the proper account, whether any interest earned on the money was accurately credited to the proper account, and whether the recorded disbursements from the account were properly documented.

Interior analyzed various approaches to performing a historical accounting of land-based IIM accounts. This process included consideration of several options ranging from a transaction-by-transaction accounting to various approaches employing statistical techniques.

Figure III – 1 Land-Based IIM Accounts - Receipts by Source for Calendar Year 2000



Receipts -- For Calendar Year 2000 for these revenue type receipts totaled $ 72,236,821from a total of $ 124.4 million.

Surface Leases -- Receipts as a result of all types of real estate agreements, including farm and pasture lease, range lease, sand and gravel sale, land sale, right of way, and business.

Forestry -- Receipts as a result of timber contracts or related timber operations.

Oil and Gas Bonus and Rental Income -- Receipts from lease agreements.

Oil and Gas Royalty Income -- Receipts from income generated from producing wells.

Note that this figure does not include Judgment, Per Capita, Special Deposit, Interest and Miscellaneous receipt data. Miscellaneous receipts ($ 52,139,493 for Calendar Year 2000) are primarily coded as "miscellaneous," "other," or "transfers," but may also include to a lesser extent revenue types that do not fall into the previously defined categories, such as quarterly annuity income, estate income, transfer from another account, transfer of estate income, transfer of funds credit, among others.

Source: Chavarria, Dunne & Lamey LLC using TFAS data.

A transaction-by-transaction accounting for all accounts (as described in the *Report to Congress*) was considered by Interior. To date, members of the Senate Select Committee on Indian Affairs, the House Committee on Resources, and the House Appropriations Subcommittee on Interior and Related Agencies have expressed reservations regarding the more than ten years time to complete and the estimated $2.4 billion cost associated with the historical accounting process described in the July 2, 2002, *Report to Congress*.

For example, on a bipartisan basis, the Chairman and Ranking Member for the House Appropriations Subcommittee on Interior and Related Agencies recently wrote to Secretary Norton that they remain convinced

> such a process [the process described in the *Report to Congress*] would not yield the desired results, **but instead would simply drain resources away from effectively implementing trust reform** (emphasis added).[17]

Similarly, on December 9, 2002, the Chairman of the House Resources Committee expressed concern over both the cost and length of time an accounting, as described in the *Report to Congress*, would take to complete.[18]

Finally, at a July 25, 2002, hearing before the Senate Committee on Indian Affairs regarding the *Report to Congress*, Senator Ben Nighthorse Campbell stated

> [t]here are a lot of Indian people out there that are going to die before (the historical accounting project is complete), waiting for that money, if they have to wait 10 years.[19]

Interior has concluded that relying solely on the transaction-by-transaction accounting approach is not warranted, and is confident that sampling is an effective technique to verify the accuracy and completeness of the land-based IIM account transaction histories. The use of sampling techniques is supported, when conducted scientifically, by powerful mathematical theories that can predict how large a sample will be needed to achieve a desired level of accuracy – and these samples need not be huge. For example, firms use statistical sampling to ensure that their product meets a quality standard. A sample that examines only 500 out of 1,000,000 "widgets" can allow the manufacturer to be about 99 percent confident that fewer than 1 percent of the production line may be defective. Although the IIM historical accounting is a more complex problem, this means that larger samples will be needed and more care must be taken in their selection.

The advantages of a statistical sampling approach are enhanced when combined with other techniques. For this reason, Interior plans to implement the historical accounting by using both transaction-by-transaction and statistical methods. Interior plans to reconcile 100 percent of the large dollar-value transactions and statistically sample the huge number of smaller transactions. As a result, Interior plans to complete the historical accounting of land-based accounts much sooner than a transaction-by-transaction

[17] Letter from the Chairman and Ranking Minority Member of the House Appropriations Committee, Subcommittee on Interior and Related Agencies, dated December 10, 2002.

[18] Letter from the Chairman of the House Resources Committee, James Hansen, dated December 9, 2002.

[19] Transcript of oversight hearing before Senate Select Committee on Indian Affairs, July 25, 2002, page 31.

accounting would permit, while achieving a high degree of confidence in the accuracy of the results.

Interior plans to verify the transactions in land-based IIM accounts by reconciling all transactions greater than or equal to $5,000 on a transaction-by-transaction basis for the Electronic Records Era (a similar method will be employed for the Paper Records Era). Interior will reconcile statistically valid samples of smaller value transactions. These samples will be drawn from two groups of transaction values – transactions from $500 to less than $5,000, and transactions from $0 to less than $500. A discussion of the sample design can be found in Appendix D – *Sample Design Planning Report*.

Assemble Transaction Histories and Other Preparation Activities

To prepare for verifying the land-based IIM account transactions, Interior plans to compile the Electronic Records Era account transaction history from IRMS and TFAS. Account transaction histories from the Paper Records Era will be created in an electronic format. Interior also intends to gather the relevant supporting financial documents and ownership information that will be needed to reconcile the transactions. An ongoing records indexing process (*see* Appendix E – *Indexing*) will facilitate location of needed records, after which the relevant records will be electronically imaged and coded. The coding process will allow the accountants to quickly access the images needed.

To verify revenue collection transactions, Interior will locate, as needed, the relevant leases, contracts, or other instruments that define the allotted lands that are included in the agreement to use Indian owned resources. Automated electronic systems that were used to distribute the collection, such as the ownership module in IRMS or other systems, will be used to verify allocation of funds. Interior will trace land ownership from the land title records in the Land Records Information System (LRIS) or other systems that have been used. Lease and ownership records are maintained by the BIA.

Additionally, as part of the historical accounting, Interior hopes to request information directly from the IIM account holders themselves. Interior intends to seek the Court's permission to send out a mass mailing requesting account holders to review their records about their IIM accounts, and voluntarily respond by identifying any known issues with their accounts and indicate the types and dates of records in their possession. This request for information is intended to supplement – not supplant – Interior's historical accounting efforts. It may alert Interior to problems or issues that the accountings should address.

The Federal Government retains a substantial number of records pertinent to IIM account transaction histories. However, if necessary, Interior plans to seek financial records from third parties such as oil companies and timber companies regarding their transactions on allotted Indian lands. Interior has not yet finalized the policies and procedures to collect missing information although a draft of the Policy and Procedures has been prepared and is undergoing internal review. Interior currently intends to:

- Alert potential third-party custodians of Interior's efforts to locate and secure possible missing trust-related information and request that they retain this information;

- Identify information needed to conduct a complete historical accounting;

- Identify and locate records held by third-party custodians; and
- Obtain third-party records.

Once the reviews of the draft policy are complete, it will be finalized and included in the *Departmental Manual*.

Verifying the Accuracy of the Account Transactions

The verification process for each transaction examined involves reconciling the amount of the recorded transaction to both supporting financial documents and ownership information.[20] Interior intends to trace each collection transaction back to the original source of the revenue, usually a lease or contract. At the point of collection, the revenue is a gross payment that must be allocated to the IIM accounts. To reconcile an individual transaction, the lease or contract would be examined to determine the allotment or allotments related to the payment. The ownership interests in the allotment would then be used as the basis for verifying that the transaction under review was correctly divided and properly allocated to the IIM account.

Interior intends to apply this method to all the transactions that are verified. For example, to verify the proper allocation of a payment for a grazing unit, Interior's accountants will examine:

- The related lease or grazing permit to ascertain which allotments were or are included in the grazing unit; and

- The ownership interest of record for each respective allotment must be considered to verify whether the grazing payment was properly divided according to ownership interest, and the funds allocated to the proper accounts in the correct amounts.

For disbursements, for example, Interior's accountants will review any request for funds from the IIM account holder, a bill from a vendor to whom the account holder had requested payment on behalf of the account holder, the record verifying the issuance of a check, and, where available, information confirming the check was paid.

Figures III–2 and III–3 illustrate these verification processes.

[20] For example, in some cases, income from an allotment can be paid to the holders of life estates, who may not be the beneficial owners of an allotment.

Figure III–2
Verification of Collections for IIM Accounts

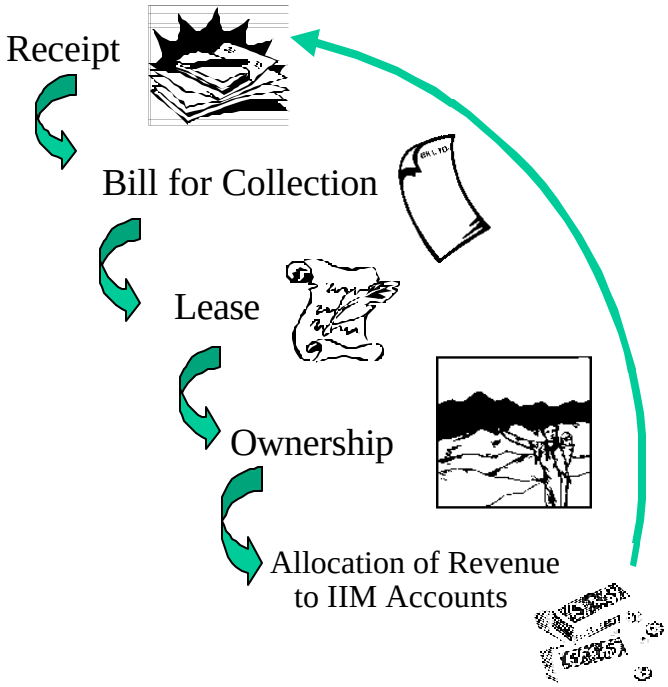
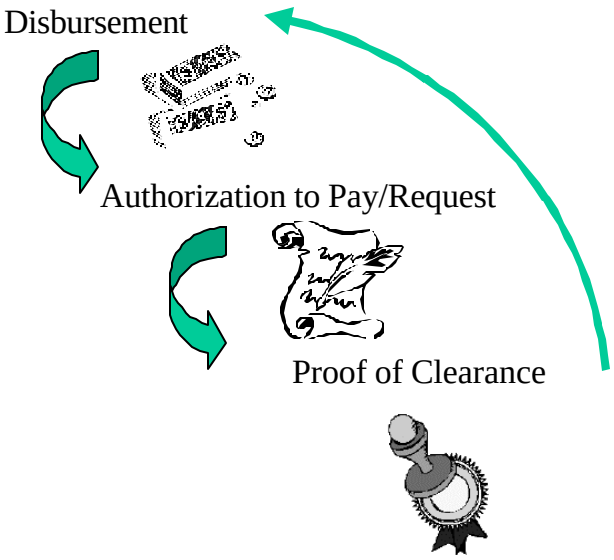


Figure III–3
Verification of Disbursements for IIM Accounts



Accounting Method to be Employed

The accounting method for the land-based IIM accounts begins by stratifying the transactions by dollar value. Table III–3 shows the division into three strata of the transactions and the aggregate amount of money associated with those transactions. All of the transactions greater than or equal to $5,000 (for the Electronic Records Era; a similar value will be selected for the Paper Records Era) will then be reconciled. It is Interior's intention to statistically sample transactions in the other two strata—more than $0 and less than $500, and greater than or equal to $500 and less than $5,000—and each selected transaction in the two samples will be reconciled (see Appendix D – *Sample Design Planning Report*).

Table III–3 — Transaction Data for Land-Based IIM Accounts (1985-2000)

	Number of Transactions by Value Groups			Totals
	>$ 0 to <$500	$500 to <$5,000	$5,000	
Number of Transactions	25,601,824	789,178	73,511	26,464,513
Aggregate Throughput	$828,962,549	$999,599,554	$1,506,033,236	$3,334,595,339
Percent of Throughput	25%	30%	45%	100%

By reconciling all 73,511 transactions of $5,000 or greater, 45 percent of the dollar throughput associated with the land-based IIM accounts in the Electronic Records Era will be completely reconciled. The remaining transactions, more than 26 million, can be accurately verified to a 99 percent confidence level using a statistical sampling approach that will verify approximately 80,000 transactions from each of the two strata, i.e., together a sample of approximately 160,000 transactions.[21]

The sampling strategy will include an analysis of the transactions that comprise each of the two strata. Interior's statistical contractor, National Opinion Research Center (NORC), will construct each sample so that it is representative of geographical locations (BIA regions and agencies), and balanced with regard to types of revenue sources, disbursements, and time periods. Stratification will reduce the variability in the sample and contribute to a high degree of confidence.

Statistical testing begins by identifying the population to be tested and by making assumptions about the values of its "true" underlying attributes. It is this "true" attribute value that the test will either accept or reject. In this case, an assumption must be made about the underlying "true" error rate, i.e., the number of times reconciliation will show a mistake was made if every transaction in the population was reconciled.[22] Based on previous work, e.g., the tribal reconciliation project and the "Paragraph 19" project, Interior's statistical consulting contractor is assuming a "true" error rate of 1 percent or less for sample design and size purposes. If the sample results show that the sample has an error rate greater than 1 percent, it will be concluded that the original assumption was incorrect. A new assumption will be made based on the findings from the initial sample and additional samples may be selected.

[21] The transaction sample sizes of 80,000 were chosen to provide sufficient agency-level information such that, for each stratum, statements about transaction error rates at the national level can be made with high confidence. If the overall error rates are as low as assumed, the sample sizes also afford protection against the possibility that, in some agencies and strata, the error rates may be somewhat higher than expected (see Appendix D – *Sample Design Planning Report* for additional discussion).

[22] Interior plans to employ a set of *de minimis* rules, e.g., a misposting of a transaction (1) by $1.00, (2) 0.5 percent with limit of $5.00, or (3) some other appropriate measure will not be considered an error. Interior is currently developing the *de minimis* rules.

Interior intends to use a 99 percent confidence level in designing its samples. In other words, if the statistical test accepts the assumed value of 1 percent or less for the underlying error rate, the historical accounting will allow Interior to state, for each stratum, that it is 99 percent confident that the Historical Statements of Account are 99 percent accurate. If Interior finds that some kind of systematic error was taking place at a location or for a time period, Interior plans to focus on this cluster of errors in an attempt to completely reconcile the affected transactions and eliminate the cluster from the sample population.

Interior plans to employ the same basic strategy after the Paper Records Era account transaction histories are created and made available electronically. Interior plans again to divide transactions into the three strata. The stratum of transactions equal to or greater than $5,000, or other appropriate value, will be 100 percent reconciled, and for planning purposes is assumed to comprise as many as 100,000 transactions. In addition, Interior plans to sample another set of transactions, perhaps 80,000, from each of the two remaining strata drawn statistically from the rest of the transactions (see further discussion in Appendix D – *Sample Design Planning Report*).

Filling in Missing Information

It is certain that some gaps in the transaction history or in records and documentation will be encountered during the historical accounting. Such gaps may range from a single missing document to missing account transaction histories or to multiple missing supporting documents. Various options, including forensic accounting methods, can be used to address gaps in documentation.

For example, using a comparable transaction approach, accountants can identify similar transactions and project expected transaction amounts. The projected amount could then be cross-checked against actual collections as a second verification. This approach may be especially useful with regard to lease collections on multiple-allotment leases. Secondary documents may be used in place of primary supporting documents that may be missing. For example, even if a bill of collection was missing, other collection or deposit documents could be located to provide information regarding the allocation of payments. It is also possible to reconstruct missing transaction information by working from the financial documents to bridge the gap.

In many instances, a pattern of regularity may exist to explain the transaction. For example, a monthly bill (e.g., mortgage or car payments) may be missing, but the prior and subsequent months' bills document a regular payment for which the account holder had authorized payment. Other methods for addressing gaps in documentation may be employed during the historical accounting project and will depend on the particular circumstances presented.

As stated earlier, non-Federal third parties may have records that could serve as supporting documentation.

The absence of supporting documentation does not imply an error. The transaction may still be correct, it just cannot be completely checked. Interior plans to include this information in the account transaction history, but Interior does not plan to include such occurrences in the calculated national error rates for the two statistical strata. However, wherever the filling of data gaps may increase the uncertainty in the estimates, this uncertainty will have to be measured.

Quality Assurance Activities

Quality assurance is important and a part of every step in the process of verifying the land-based IIM accounts. Overall quality assurance measures are described in Appendix C. Specific to the land-based IIM accounts, the results of the sampling design process and the statements of statistical conclusions from the reconciliation of the sampled transactions will be peer reviewed by qualified independent statisticians. The work of the accounting firms in reconciling transactions will be reviewed internally by the accounting firm performing the work, and then reviewed again by Interior's independent certified public accounting firm, Grant Thornton.

Work Plan Schedule

Verification of the transactions in the land-based IIM accounts will occur in two stages, starting with the transactions from the Electronic Records Era, and proceeding to transactions from the Paper Records Era. Verification of Electronic Records Era is anticipated to begin by mid-FY 2003 and conclude late in FY 2005. Verification of Paper Records Era is projected to begin in mid-FY 2004 and conclude in FY 2006.

Interior plans to start the reconciliation of transactions in the Alaska Region because allotments in Alaska are comparatively recent, have been subject to limited fractionation of ownership, and have revenue derived principally from land sales or leases. This will provide a good testing ground for Interior's records search procedures and the accounting methods. The verification of the account transaction histories for land-based IIM accounts will start in January 2003.

A contractor, under direction of the Office of Trust Records (OTR), has already begun work to index IIM financial and related records at records facilities in Albuquerque, NM, and Lee's Summit, MO. OTR expects the contractor to complete this work by mid-FY 2004.

Cost to Complete the Work

Interior estimates the cost to complete the land-based portion of the IIM accounts to be approximately $200 million. More than two-thirds of the costs are for reconciling the Paper Records Era transactions because this requires creating an electronic transaction

history from the paper records, and assumes that missing records will increase costs for reconciling each transaction. This estimate does not include administrative and other costs that apply to the overall historical accounting. Details on the costing assumptions and calculations are contained in Appendix F – *Cost Assumptions*.

Special Deposit Accounts

Introduction

SDAs were designed to be temporary accounts for the deposit of trust funds that cannot immediately be credited to the rightful account holders. For example, a payment may be received by the BIA for farming and grazing on tribal lands and allotted lands. The payment is deposited in an SDA so that interest can be earned until the funds can be allocated to the proper IIM and tribal accounts. Once the farming and grazing payment funds and associated interest earned have been transferred to the IIM and Tribal accounts, the SDA should have a balance of zero. The account can then be closed or reused to temporarily hold other payments. A common example of SDAs created prior to December 31, 2000, involves the handling of funds from third parties, such as bid deposits or performance bonds. These funds, temporarily placed in an SDA, were intended to be returned to the third parties, such as return of losing bids when a lease is issued or return of a performance bond, as appropriate, but were not. All SDAs must be analyzed to determine their original source of funds and disposition.

Historically, there has been no uniform practice for the use of SDAs within BIA. Funds held in SDAs have not always been distributed in a timely fashion, nor have funds always been distributed with the interest earned while on deposit in the SDA.

In response to the 1994 Act, Interior has identified various projects to address trust administration improvements. The SDA project addresses the following:

- Interior's Inspector General findings that cite the misuse of SDAs for purposes other than temporary suspense accounts. An example of incorrect use of an SDA is to retain bid deposits of respondents to a timber contract while appeals of unsuccessful bidders are unresolved; these deposits should never have been credited to the IIM Trust Fund, but held in an Interior liability account; and

- The number of SDAs that have been opened and remained inactive for over 18 months has grown.

As part of the historical accounting, OHTA will be working with OST and BIA to distribute funds in inactive SDAs that were opened on or before December 31, 2000. OST will address SDAs opened after that date. OHTA's work is different from its IIM historical accounting in that the end result is to properly distribute the funds remaining in the inactive SDAs and close the accounts.

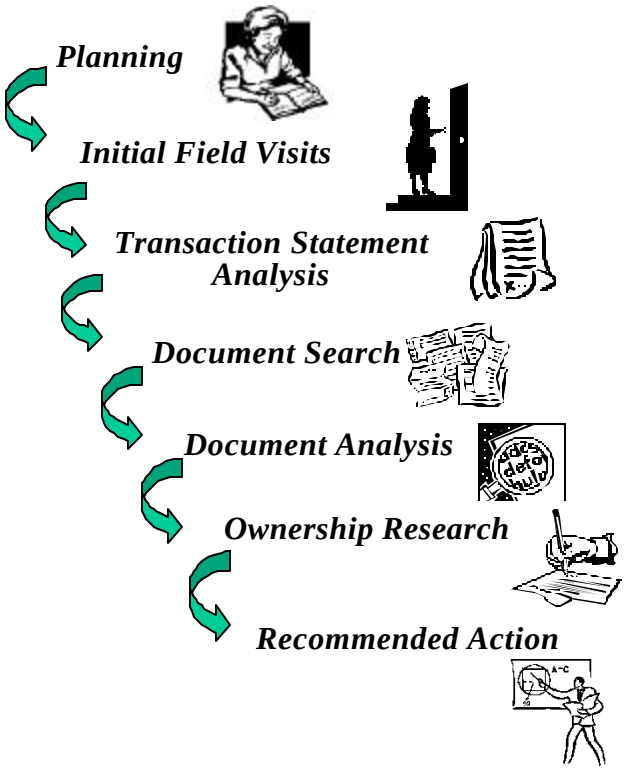
Descriptive Data

As of December 31, 2000, there were approximately 21,500 SDAs that were inactive—no longer being used as suspense accounts—but still contained nearly $68 million. These funds belong to tribes, IIM account holders, or third parties, however, the actual ownership and proper disposition of the funds must be researched before the funds can be distributed. To date, the certified public accounting firm, Chavarria, Dunne & Lamey LLC (CD&L), together with OST and BIA, have identified the proper ownership of about $22 million of the $68 million.

Review and Allocation

The SDA review and allocation process was developed as a result of earlier pilot efforts. The primary objective of the pilot was to define objectives further and to design, test and refine the procedures to analyze undistributed residual balances in SDAs. Certain procedures were modified based on the lessons learned and differences noted among BIA agencies. Figure III-4 summarizes the overall approach of the SDA review and distribution process.

Figure III – 4 Special Deposit Account Review and Allocation Process



To perform this work, accountants look to the history of the SDA, as contained in related financial records and documents. From these records, the accountants ascertain the source and purpose of the original funds, understand what, if any, portion of the funds and interest have already been distributed, determine why funds remain in the SDA, and make a recommendation for allocation of the funds and closure of the SDA. This is the current accounting method being used to resolve the ownership and proper allocation of funds in inactive SDAs.

The final determination of the allocation of funds in SDAs is made jointly by BIA and OST. The transfer of funds is processed by OST, and any transfers to IIM accounts (as well as tribal accounts) would be made as a current deposit to the respective accounts. Account holders would be notified of the transfer in their regular quarterly statements. In the case of third-party funds, the funds would be disbursed directly to the third party. Thus, while the funds would be properly allocated, the transfer of funds would be posted in a year after 2002 and would not appear as part of a Historical Statement of Account.

Work Plan Schedule

OHTA plans to continue the SDA effort in FY 2003. The entire project is scheduled for completion in early FY 2007.

Cost to Complete the Work

The SDA project's estimated cost is $27 million based on the number of accounts, value of accounts, and difficulty of analyzing accounts.

IIM System Tests

Introduction

Interior intends to perform various tests on the IIM Trust Fund at the aggregate level in addition to those tests performed at the individual transaction or account level. These aggregate, high-level system tests will enable Interior to assess the underlying reliability of the IIM Trust Fund system. These aggregate tests are intended to determine whether significant systematic flaws, which might have allowed for gross or repeated error, exist within the historical accounting system.

These tests will examine key points of vulnerability in the historical ledgers that will serve as the basis for the historical accounting by assessing whether:

- Significant data are missing;

- Accounts or balances were lost or inappropriately "dropped" from the system during conversions from paper records into IRMS, or from IRMS into TFAS;
- The calculation of interest was performed accurately;
- The monies collected by Interior were actually deposited into the IIM Trust Fund; and
- The land ownership records are accurate.

Taken together with the Judgment and Per Capita, land-based, and Special Deposit account tests described above, system tests will show whether there was integrity in the overall processes and systems used to administer the IIM Trust Fund for the period at issue.

Completeness of Data Tests

This section addresses the first two possible "points of vulnerability" identified above. These tests are intended to ensure that the data Interior will rely on are complete, which in addition will facilitate many of the other tests to be performed.

Electronic Data Gaps

Before account transaction histories can be produced for land-based IIM accounts, electronic data gaps will have to be identified and "filled" in order to provide complete Historical Statements of Account. Interior will search for other records of the transactions posted to accounts in an attempt to close identified gaps.

A gap in the transaction history can be identified in several ways—(1) an account for which the system balance does not equal the transaction balance (i.e., the previous balance plus the sum of the transactions should equal a subsequent balance), (2) an account for which interest cannot be appropriately recalculated, or (3) a BIA agency for which there are no available transactions for a given month. Interior plans to review information for BIA agencies that have no electronic data for a given month to determine whether the agency processed transactions for the month in question. Additionally, Interior plans to compare historical electronic account balance files and electronic account transaction files to identify gaps. Identified gaps will be researched to determine if the account transaction history is missing historical transactions. The identification and resolution of gaps will provide IIM account holders with assurances that a "loss" of transactions did not occur system-wide.

System Conversions

System conversions—moving from one records system to another—represent the largest potential opportunity for "loss" of transactions or accounts from the IIM accounting systems in the modern era. Two system conversions have taken place in connection with the Electronic Records Era. The first conversion occurred in the late 1970s into the 1980s when the BIA regions and agencies were converting from maintaining IIM accounts on paper ledger cards to maintaining IIM accounts on the IRMS. The second conversion occurred in the late 1990s through early 2000 when the electronic data in IRMS was transferred to the TFAS. Interior has electronic data available for the conversion from IRMS to TFAS, which was contemporaneously reviewed at the time of the conversion. Interior will verify that account balances in IRMS were properly transferred to TFAS and that the balances in the transferred accounts remained the same before and after conversion. This process will determine whether monies were lost or whether accounts were inappropriately "dropped" in the conversion process.

A statistical sample of the transfer of accounts and balances from the paper-based records to IRMS in the mid-1980s is planned to determine whether accounts and balances were correctly converted. If accounts are identified that were not transferred from one system to the subsequent system or any accounts are identified whose balance was incorrectly transferred, the issue will be researched and resolved.

System-Wide Tests

The final three tests further verify the underlying integrity of the data by addressing three remaining "points of vulnerability."

Interest Test

After the centralization of investment activities in the late 1960s and early 1970s, Interior computed interest factors that were utilized to calculate and apply interest earnings to all IIM accounts in the IIM Trust Fund. An analysis of the IIM Trust Fund's rate of return and the calculation of interest factors is planned. These factors will be applied to all accounts according to Interior's policies in effect at the time to recalculate expected interest payments in each account subject to the historical accounting. The recalculated amounts will then be compared to the amounts posted. Recalculating interest is expected to reconcile almost half of the transactions in IRMS and TFAS as well as the majority of the transactions in each IIM account. This process should also facilitate Interior's identification and resolution of data gaps in the electronic records.

Posting Test

The historical accounting process verifies transactions in an IIM account by reconciling the reported transaction with the supporting documentation. This might be called an "upstream" reconciliation, checking that the information and calculations that led to the transaction posting are accurate. However, by checking IIM accounts upstream from the transactions Interior would not learn if transactions are missing, i.e., never posted to the electronic systems or paper ledgers.

Further testing may be performed to confirm that the amounts reported by Interior as documented by collection or disbursement documents were posted to the accounting system. This would be a "downstream" test, tracing the information from the documents to verify that a posting was made to an account. This test would determine whether transaction postings that should be present actually appear in the system or in the ledgers.

Ownership Tests

Interior intends to verify, via a statistical sample of allotments, that land-based receipts were appropriately distributed. This process will involve checking that ownership records at the LTRO agree with the electronic ownership modules, and that surface or subsurface lease revenue is allocated in accordance with these ownership data, regardless of whether the allotment was owned by a single individual or, more likely, multiple individuals. Confirming ownership interests will involve selecting a statistical sample of land parcels to test ownership records. Title information recorded on paper records in a LTRO will be compared to LRIS electronic title records and the IRMS ownership module. Completion of these tests will allow Interior to determine whether its ownership records are accurate and appropriately serve as a basis for the allocation of receipts at the allotment level.

Cost to Complete the Work

Based on certain broad estimates of sample size and the expected number of accounts for which interest postings will need to be manually identified, Interior has estimated that these tests may cost as much as $25 million and be completed by FY 2006.

IV. WORK PLAN, SCHEDULE AND ESTIMATED COST

This section provides Interior's schedule and work plan for completing the Historical Accounting Project (Figure IV-1). It is based on a number of assumptions related to how long it may take to locate needed records, how much accounting work can be accomplished over a given period of time, and the availability of sufficient funding from Congress. It is important to note that there are few precedents to rely on in estimating how long it may take and how much it will cost to complete the historical accounting work described in this Plan. Interior will be constantly learning and will revise its estimates, as appropriate. To the extent that funding does not meet the levels shown in Table IV-1, it will take longer to meet the historical accounting schedule shown in Figure IV-1.

Table IV-1 summarizes Interior's preliminary cost estimates through FY 2007 for the historical accounting proposed in this Plan. OHTA proposes to accomplish the Plan activities with both full-time Interior staff and a group of contractors, as described in Section I – Introduction to the Historical Accounting Plan—in accordance with the schedule illustrated in Figure IV-1.

The scope and complexity of the historical accounting requires an assessment of costs for each of the tasks associated with the accounting work. The objective is to establish the cost of the historical accounting based on significant cost drivers (activities), such as whether transactions are in electronic or paper form, the level of document location, collection, and scanning required, and the number of transactions that must be reconciled. However, there is a high level of uncertainty in the cost estimates for the historical accounting project because many parameters continue to be investigated and could significantly change the estimates developed.

Work Plan and Schedule

Interior plans to have historical accounting work underway in several segments concurrently. Additionally, the workload will provide broad coverage of IIM accounts—by geography, by resource type, and by time period. This will assist Interior's statisticians in analyzing the results of the reconciliation of the land-based IIM account transactions.

Figure IV – 1 Historical Accounting Schedule

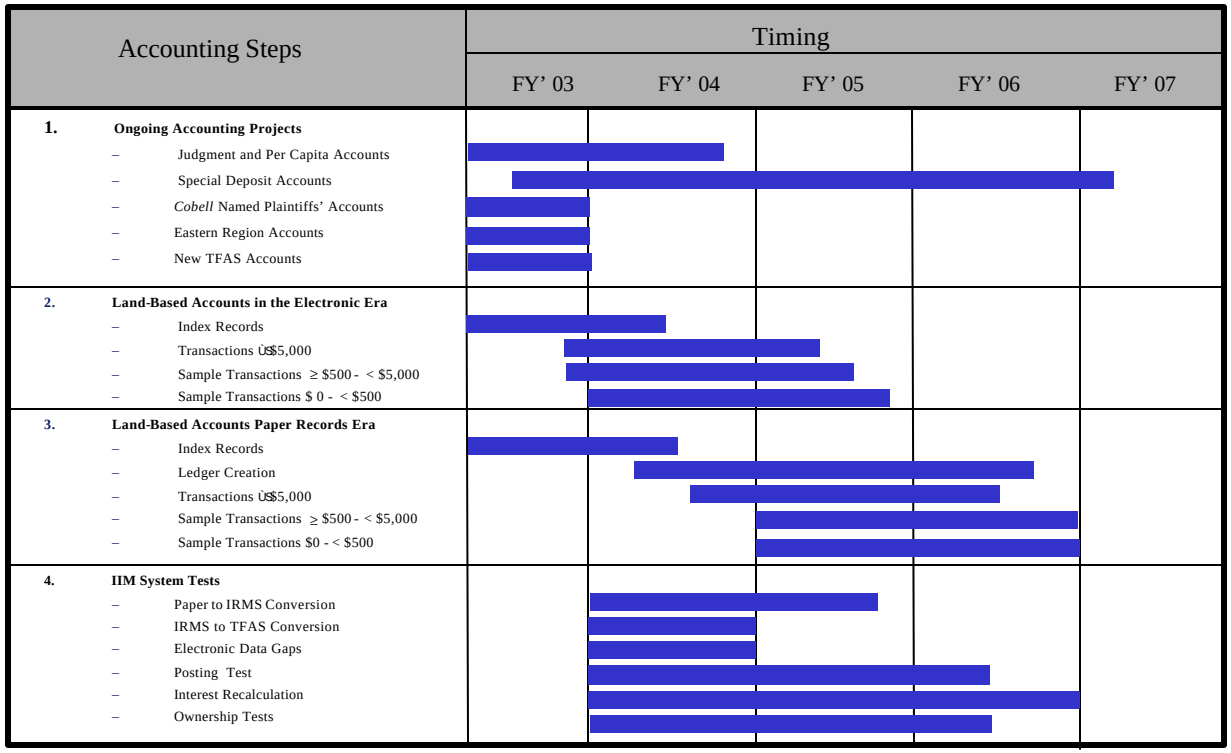


TABLE IV–1 — Preliminary Estimated Costs of the Individual Indian Money Historical Accounting Plan

Accounting Activity Segments	FY 2003			FY 2004			FY 2005			FY 2006			FY 2007	Multi-Year Cost ($000)
	No. of Accounts	No. of Trans.	Cost ($000)	No. of Accounts	No. of Trans.	Cost ($000)	No. of Accounts	No. of Trans.	Cost ($000)	No. of Accounts	No. of Trans	Cost ($000)	Cost ($000)	
1. Ongoing Projects														
Eastern Region	100	1,650	$ 150											$ 150
New TFAS Accounts			150											150
Cobell Plaintiffs			260											260
Judgment and Per Capita Accounts	12,665		1,140	15,318		$ 1,329								2,469
Special Deposit Accounts	1,500		2,000	5,000		7,000	5,000		$ 7,000	5,000		$ 7,000	$ 4,000	27,000
2. Electronic Records Era														
All Transactions $5,000		10,000	3,550		63,511	14,608								18,158
Sample of Transactions >$500 - <$5,000		10,000	3,550		60,000	13,800		10,000	2,300					19,650
Sample of Transactions $0 - <$500					60,000	13,800		20,000	4,600					18,400
3. Paper Records Era														
Reconstruct Ledgers				17,788		17,788	23,275		23,275	18,937		18,937		60,000
All Transactions $5,000					20,000	5,800		30,000	8,700		50,000	14,500		29,000
Sample of Transactions >$500 - <$5,000								35,000	10,150		45,000	13,050		23,200
Sample of Transactions $0 - <$500								35,000	10,150		45,000	13,050		23,200
4. IIM System Tests						5,000			10,000			10,000		25,000
5. Modeling and IT														
Accounting Model			400			250			250			250	250	1,400
Data IT Needs			2,000			15,000			15,000			13,988	5,000	50,988
6. Outreach*														
Agency Visits	50		125			375			375			375	375	1,625
Surveys	4		400			600			600			600	600	2,800
Call Center—Number of Calls	1,000		300											300
Web and Media			300			300			300			300	300	1,500
7. Administrative			1,025			4,350			7,300			7,950	9,200	29,825
Total			**$ 15,350**			**$100,000**			**$100,000**			**$100,000**	**$19,725**	**$335,075**

Limitations: This depiction is indicative of the costs that Interior estimates would be needed to accomplish the Plan. Of course, these estimates are based on assumptions, and, as a consequence, the estimates are likely to change. It must be noted that this is not Interior's budget request, but rather is representative of the levels of effort and funding needed. The President's budget request and subsequent Congressional appropriations will drive how much work can be done, and how quickly.

*To the extent appropriate under Court rulings.

Table IV-1 includes the components of the historical accounting and the projected workload and expected accomplishments by fiscal year. The table is divided into seven segments:

- Ongoing Accounting Projects;
- Land-Based IIM Accounts in the Electronic Era;
- Land-Based IIM Accounts in the Paper Records Era (including digitizing the Paper Records Era ledgers);
- IIM System Tests;
- Modeling and IT Needs;
- Outreach; and
- Administrative.

The work is shown using metrics such as number of accounts and number of transactions, but in some cases, only when the work will be conducted is noted. This schedule does not specifically identify a number of supporting activities, including preliminary work, research into the accounts, searching for documents, imaging and coding of supporting documents, quality control, and addressing new information and appeals. The costs for these activities are subsumed within the overall cost estimates of the categories.

Preliminary and Ongoing Accounting Work

There are a number of preliminary steps to reconciling transactions:

- Indexing the records of BIA and OST;
- Analyzing transaction histories for the IIM accounts in question;
- Defining and drawing of the samples (in the case of the portion of the land-based IIM transaction verification based on samples);
- Searching for records using the new OTR records index/inventory;
- Imaging and coding the supporting documents; and

- Providing the transactions and imaged records in the prescribed accounting tool and data systems.

Work on these preliminary steps has already begun (see Figure IV-1). Work is being assigned so that reconciliation can begin as soon as possible in areas where the preliminary work has been completed. In other words, preliminary work in some areas will overlap with accounting work in others.

The work plan calls for the continued reconciliation of Judgment and Per Capita IIM accounts, with anticipated completion of that work in FY 2004. Some accounting projects—*Cobell* named plaintiffs, Eastern Region, and New TFAS[23] accounts—are expected to be completed in FY 2003. These are all complete reconciliations of all transactions in a small number of IIM accounts.

OHTA is still in the planning process for review and allocation of the SDAs. The SDA project is an integral part of the historical accounting because it will help ensure that IIM funds are allocated to the correct IIM accounts. A pilot project to review and allocate a small number of SDAs indicates that this effort will be challenging. For this reason, FY 2003 is a learning period for the accountants engaged for the SDA project.

Land-based IIM Account Transactions

Verification of the transactions in the land-based IIM accounts will proceed in two stages, starting with transactions from the Electronic Records Era, and then transactions from the Paper Records Era. However, the same approach will be applicable to both stages once the paper ledgers are digitized to create an account transaction history.

Once the relevant accounts and transactions of $5,000 or greater (or the appropriate value for the Paper Records Era) are identified, and the sample transactions are taken for the two other strata of transactions, OHTA will organize to focus the work by BIA region and agency, with the intent of having some accounting work underway in each BIA region. This will facilitate the search for supporting documentation, and build knowledge that will be useful in reconciling transactions from both eras and in addressing SDAs.

OHTA plans to start the reconciliation of transactions in the Alaska Region in FY 2003. With approximately 2,000 transactions of $5,000 or greater to reconcile in Alaska, and a sample of

[23] New TFAS accounts are those IIM accounts opened in 1998 and later.

smaller transactions, OHTA's accountants can quickly achieve results and refine the methods that will be carried forward to other BIA regions.

IIM System Tests

As noted, five system tests will be undertaken. These tests are expected to be completed in FY 2006, at a cost of approximately $25 million. To the extent possible, records used in the reconciliations and information ascertained through the analysis of transactions will be used to accomplish the system tests, thereby minimizing cost and increasing efficiency.

Assigning Work

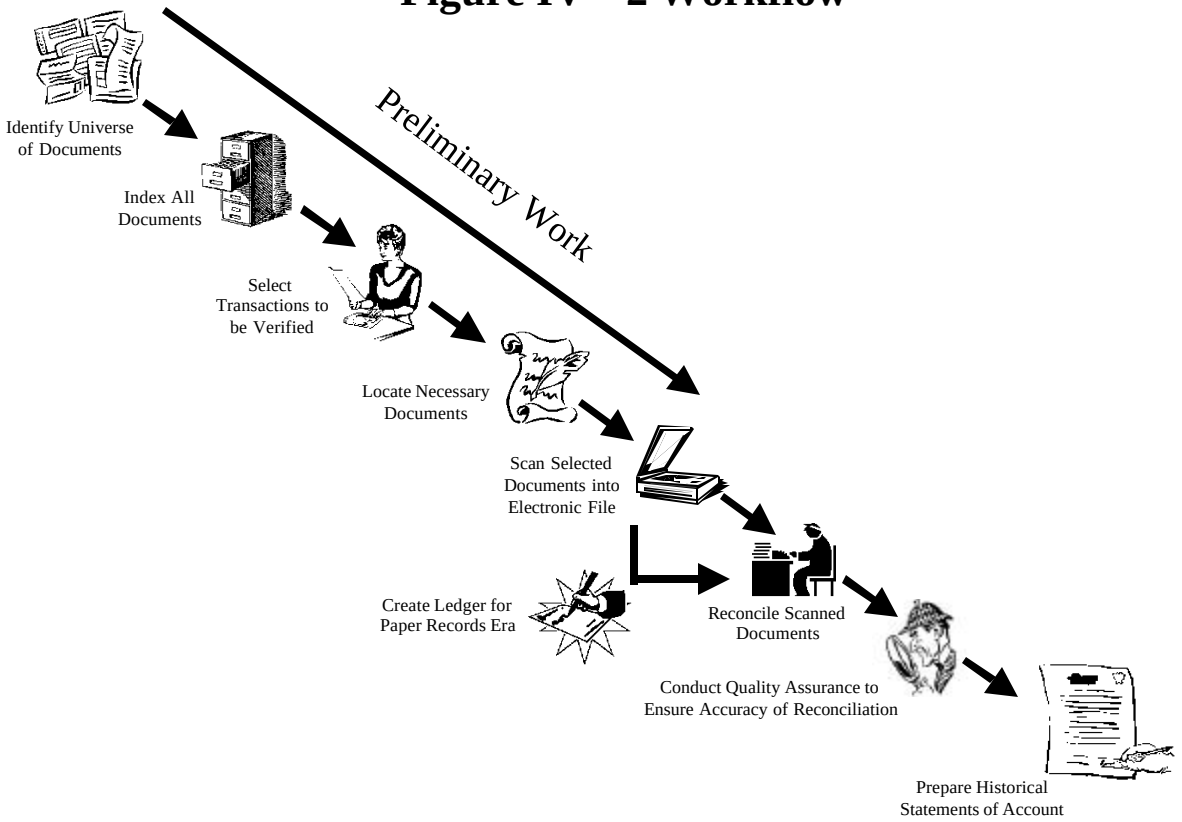
Figure IV-2 presents graphically how Interior intends to progress on multiple projects simultaneously. Figure IV-2 depicts the basic work sequence for document search, imaging and coding, reconciliation of transactions, quality assurance review, and reporting. Interior plans to create a number of teams that will provide a regular flow of document images and data that will be provided to the accountants. Interior plans to assign multiple teams of accountants to work on: (1) land-based account transaction verification in each BIA region, (2) Judgment and Per Capita accounts, and (3) the SDA project.

The initial verification of land-based account transactions will start in the Alaska Region. Interior plans to have the accounting firms presently under contract participate in the Alaska accounting to ensure that all firms are using consistent, appropriate methods, and to develop a cadre of experienced team leaders to expand the accounting capability to multiple teams. The Alaska work will help Interior standardize accounting systems, define standards, and test quality review of accounting results, and will ensure that each team of accountants is using comparable methods and producing accurate results.

Following the Alaska work, accounting teams will be assigned to work on groups of IIM account transactions associated with BIA regions. Interior intends to have multiple accounting teams working by the end of FY 2004, and will continue to add teams commensurate with record production capabilities.

The effort to locate, image, code, and digitize ledgers from the Paper Records Era has already started as part of the records indexing project. Converting the paper ledgers to an electronic record of transactions will begin by FY 2004, and continue to completion. During this time, portions of the transaction records will be made available so that the large transactions in the 100

Figure IV – 2 Workflow



percent stratum can be identified and reconciled. The selection of samples of smaller transactions cannot start until the needed paper ledgers are fully digitized.

Reconciliation of the Judgment and Per Capita account transactions is being performed by a single accounting firm, CD&L, and will continue to completion into FY 2004.

The work on SDAs already in progress as a pilot project started by CD&L will be continued in FY 2003. OHTA will assign other teams of accountants to participate in this effort as well.

Estimated Cost

The overall cost of the historical accounting is estimated to be $335 million. Table IV-1 presents the cost and associated workload segments by fiscal year. This depiction is indicative of the costs that Interior estimates would be needed to accomplish the plan described above. Of course, these estimates are based on assumptions, and, as a consequence, the estimates are likely to change. It must be noted that this is not Interior's budget request, but rather is representative of the levels of effort and funding needed. The President's budget request and subsequent congressional appropriations will drive how much work can be done, and how quickly. Appendix F lays out the assumptions used to develop the estimated cost.

APPENDIX A

EXAMPLES OF QUARTERLY STATEMENTS OF ACCOUNT TO ACCOUNT HOLDERS

APPENDIX A. EXAMPLES OF QUARTERLY STATEMENTS OF ACCOUNT TO ACCOUNT HOLDERS

As the TFAS system replaced the IRMS system, Interior commenced sending Quarterly Statements of Accounts to IIM account holders. The final TFAS conversions, which were principally done on a BIA agency by agency basis, were completed in early calendar 2000. Thus, IIM account holders have been receiving Quarterly Statements for a number of quarters since the respective TFAS conversions were completed.

The Quarterly Statements reflect an opening balance (the closing balance of the prior Quarterly Statement – for the first such Quarterly Statement, the opening balance was the closing balance in the former IRMS system), receipts, disbursements, other changes, and an ending balance. Each Quarterly Statement has a telephone number shown which IIM account holders can call if they have questions on their Quarterly Statement.

Following are sample redacted quarterly statements.

APPENDIX B

IIM ACCOUNT DATA

Table B-1 – Balances as of December 31, 2000, and Dollar Throughput of Land-Based IIM Accounts for 1985 Through 2000

Throughput ® / Balance	Less Than $100	$100 to $999	$1,000 to $9,999	$10,000 to $99,999	$100,000 or More	Total
Less Than $100						
$ Balance	878,018	306,977	(71,788)	(20,404)	623	1,093,426
# of Accounts	70,057	52,000	28,683	3,889	219	154,848
# of Transactions	2,474,934	7,276,837	8,909,869	1,919,173	231,018	20,811,831
$ Throughput	14,056,318	192,077,324	831,149,758	805,415,006	322,418,395	2,165,116,801
$100 to $999						
$ Balance	2,326,571	4,741,907	1,534,775	177,770	6,368	8,787,391
# of Accounts	8,137	12,230	3,540	422	16	24,345
# of Transactions	407,718	1,387,110	1,095,856	155,401	2,306	3,048,391
$ Throughput	2,583,963	36,355,784	111,510,574	86,857,665	22,777,091	260,085,077
$1,000 to $9,999						
$ Balance	3,505,981	14,805,931	15,484,495	2,059,153	87,449	35,943,009
# of Accounts	1,472	5,886	4,280	511	27	12,176
# of Transactions	54,413	500,137	1,053,130	241,411	15,664	1,864,755
$ Throughput	410,875	20,021,408	118,527,900	133,366,427	79,484,091	351,810,701
$10,000 to $99,999						
$ Balance	3,533,206	5,178,956	27,486,793	19,458,476	2,048,607	57,706,038
# of Accounts	153	267	1,119	545	46	2,130
# of Transactions	832	34,403	286,108	229,231	37,666	588,240
$ Throughput	17,794	1,694,884	42,373,700	126,471,119	156,252,991	326,810,488
$100,000 or More						
$ Balance	1,340,990	1,024,084	10,083,398	37,395,176	44,601,914	94,445,562
# of Accounts	7	6	57	136	61	267
# of Transactions	34	105	11,249	94,502	45,406	151,296
$ Throughput	111	16,427	3,670,970	61,341,603	165,743,160	230,772,271
Total $ Balance	11,584,766	26,057,855	54,517,673	59,070,171	46,744,961	197,975,424
Total # of Accounts	79,826	70,389	37,679	5,503	369	193,766
Total # of Transactions	2,937,931	9,198,592	11,356,212	2,639,718	332,060	26,464,513
Total $ Throughput	17,069,061	250,165,827	1,107,232,902	1,213,451,820	746,675,728	3,334,595,339

Source: CD&L based on data from OST/OTFM.

Table B-2 –Summary of IIM Accounts at December 31, 2000[a]

	Number of Accounts	$ Balance (in millions)
Land-based Accounts	193,766	$ 198.0
Judgment Accounts	33,205	80.8
Per Capita Accounts	9,013	69.5
Total IIM Accounts	**235,984**	**$ 348.3**
Special Deposit Accounts	21,415	67.9
Total Current Accounts	**257,399**	**$ 416.2**
House, Foreign, to be investigated and other accounts	4,071	
Total Open Accounts	**261,470**	
Inactive Accounts[b]	17,840	
Total IIM Accounts[c]	**279,310**	

[a] Source: Office of Trust Funds Management December 31, 2000, IIM Statistics Report.

[b] These accounts have no recent activity, but are expected to have future activity.

[c] Whereabouts unknown accounts number 61,673 and represent $65.4 million. These accounts are included in the total 279,310 accounts. They represent account holders whose addresses are unknown. These account holders do not presently receive Quarterly Statements of Account or periodic disbursements.

APPENDIX C

QUALITY CONTROL

APPENDIX C. QUALITY CONTROL

As noted in its July 2, 2002, *Report to Congress*, OHTA is implementing quality control (QC) checks to achieve best practices at each phase of the historical accounting process, including data inputs, systems and infrastructures, processing, and outputs. This Appendix describes details in five areas of OHTA's quality control plan.

- Basic approach to quality
- Overall quality check process
- Record collection/record imaging
- Accounting results
- Information systems

Quality performance has two basic premises—planning and supervision, and sufficient relevant data in working papers. These premises are included in each of the foregoing areas.

BASIC APPROACH TO QUALITY

High standards intended to result in high quality results are central to conducting an adequate historical accounting. Another key factor is appropriately focusing quality efforts. The overall quality focus is risk-based, i.e., determining what major risks significantly impact the quality of results and what strategies can minimize these risks.

One risk is inconsistent results. OHTA is striving for consistency through standardization on common systems, procedures, and processes across the various organizations involved. For example, OHTA is centrally developing a historical accounting support system, which will be used by the accounting firms to produce accounting results. Another example is OHTA's issuance of guidance, such as demonstrated by OHTA's *Accounting Standards Manual* (*Manual*). OHTA conducts training programs to obtain common understandings and has implemented centralized issue tracking to resolve issues timely and appropriately.

Besides establishing a common infrastructure for the various firms involved, OHTA is conducting QC checks and tracking results. Trends will be analyzed to determine whether additional guidance, training or other action is necessary to achieve quality objectives. OHTA senior management receives statistical information regarding the quality of work packages along with other key performance data, such as transactions and accounts reconciled. Performance data gathered will be used to refocus QC testing strategies. For example, the data may indicate increased or decreased QC testing is desirable in selected activities.

Quality objectives are being achieved through both internal and external quality checks. Each team involved with producing inputs or outputs of the historical accounting bears primary responsibility for the quality plan for its products, such as responsibility to maintain internal quality processes, staff the project with appropriately skilled personnel, conduct staff training, and perform supervisory review. Additionally, certain subject-matter expert consultants are conducting independent quality checks on their performance.

OVERALL QUALITY CHECK PROCESS

An OHTA external QC check typically involves six steps.

1. *Plan* –Begins with identifying the area that will undergo a QC check and determining the objective, scope and timing of the QC check. A QC program is developed and documented in a QC checklist to maintain a consistent process. The plan takes into account previous QC results to develop adaptive strategies, such as the need to further test additional activity in populations.

2. *Conduct Analysis* – Consists mainly of activities related to conducting interviews with performing consultants or OHTA staff, and inspecting documentation. The analysis step also involves identification and discussion of preliminary observations with the team that performed the work undergoing a QC check.

3. *Draft Report* – The QC firm documents the results of analysis in a draft report. The report is then provided to OHTA senior management, OHTA's contracting officer representatives, and to the contractor whose work underwent the QC check. The draft report contains a description of QC results, key observations and suggestions for improvement.

4. *Resolve Findings* – The contractor whose work underwent the QC check has an opportunity to respond formally to the QC draft report. Should differences of opinion exist between the QC firm and the contractors as to the proper resolution of a comment, both parties present their rationale to OHTA senior management for its input.

5. *Issue Final Report* – After comments are discussed, the QC firm will revise its report as necessary and distribute the report.

6. *Conduct Follow-up, as Necessary* – In some cases, the contractor may have 'action items' needed to complete the work product that underwent the QC check. The QC firm tracks these 'action items' and conducts a follow up QC check to verify the action item is completed successfully. Additionally, as a result of the QC check, issues may arise that are communicated to the parties involved in performing the historical accounting, such as sharing of 'best practices', or updating of the *Manual* or other guidance used to conduct the historical accounting.

Record Collection/Record Imaging

Interior plans to implement QC checks at each phase of the records collection and imaging process. This includes checks on the design of processes, procedures, and systems to conduct the collection and imaging. For example, a QC check will be performed on the document imaging and coding structure. Once implemented, periodic QC checks will be conducted to verify the design is being implemented as per management's intent. QC checks are anticipated to cover the following areas:

- Imaging and coding structure;
- Completeness of documents collected, imaged, and returned to storage;
- Legibility of images;
- Accuracy of coding;
- Record/box inventory;
- Security; and
- Document preparation and re-assembly (pre-and post imaging).

Accounting Results

The accounting results produced by the accounting firms undergo QC checks by another accounting firm. The QC firm samples results for consistency with the *Manual*. The *Manual* provides guidance, such as documentation standards. For transactions sampled, the QC firm assesses the judgment made by the accounting firm as to adequacy of supporting documentation, classification of the reconciliation results, and calculation of errors (if any). Additionally, the QC firm assesses historical accounting results in light of professional standards established by the American Institute of Certified Public Accountants. These standards include professional competence, due professional care, planning and supervision, and sufficient relevant data.

Information Systems

The support system under development for the historical accounting is focused on meeting OHTA and its stakeholder requirements for account reconciliation. This will be accomplished by following a structured development life cycle approach. This approach encompasses trust requirements that are clearly defined and traced throughout the life cycle of the historical accounting project. At each life cycle milestone, products are tested against requirements and communicated with the users for their information and feedback. To further assure that OHTA has an information system that answers its needs, a contractor has been engaged to provide independent verification and validation that deliverables meet the needs of the users.

Key system life cycle deliverables include:

- Requirements documentation – What the system is to provide;
- Design documentation – How the system works;
- Implementation – Installation of the system;
- Test plans/results – Periodic verification of system reliability;
- Data conversion – Processes used for conversion of data from other information systems; and
- Training – Ensure that system users understand this tool.

Additionally, once systems are in operation, periodic post-implementation reviews will be conducted to verify they are meeting management objectives, such as data security.

APPENDIX D

SAMPLE DESIGN PLANNING REPORT

APPENDIX D. SAMPLE DESIGN PLANNING REPORT PREPARED BY NORC[1]

1. Main Goal

In the historical accounting of the Individual Indian Money (IIM) Accounts, various problems arise which are to be addressed by statistical sampling methods.[2] This Appendix discusses one particular application of sampling, that of audit sampling,[3] in the historical accounting: The use of sampling to test the accuracy and completeness of the land-based IIM account statements. An important goal of the historical accounting effort is to provide each IIM account holder with a Statement of all transactions in the account. Accompanying this Statement is a description of its completeness and accuracy, and an estimate of the needed adjustment (if any) for each account. For large transactions something like the following may be said.

> *"Enclosed is a copy of your Historical Statement of Account. All transactions with a value of $5,000 or more have been checked against the supporting documents; any discrepancies that were found are shown."*

For smaller transactions, where sampling occurs, the resulting statement and conclusions depend on what is learned. However, if the results are good, then something like the following might be said.

> *"For transactions under $5,000, statistical sampling procedures were used to verify the accuracy of the process. With 99 percent confidence, we can say that more than 99 percent of the transactions are 9accurate."*

Many errors may be clerical in nature, for example data entry errors or errors caused by two pages in a document sticking together. After a modest amount of checking, such errors may be treated as random and not systematic. This error rate should be small, but it may vary by BIA agency or location, type of transaction, and time period. The sample is designed to capture these errors when they exist and to quantify their importance with high accuracy.

The sample must also be designed to do more. Not all errors are random and independent. There could be "pockets" of errors that are systematic, that are due to a procedure that was not well explained, or an algorithm that was incorrectly programmed, or an ownership interest that was misapplied. These errors can cluster together within an IIM account, among owners of the same tract of land, in the same BIA agency or during a particular time period.

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[1] This Sample Design Planning Report represents NORC's recommendations. Therefore, in places, for example, there may be minor timing differences between this Report and the Plan.

[2] Sampling is to be used in assessing and controlling the quality of the searching for records and even, as Appendix C states, in the accountings themselves (For a general view, see Deming, W.E. 1986).

[3] Statistical sampling is routinely used in audit practice, as described in texts such as Guy (1994) and Wilburn (1984). See also AICPA (2001).

By using an *adaptive* approach (Thompson 1996), the sample procedures are designed to deal with unexpected or systematic patterns or "pockets," if these are detected. When an error is found on a randomly selected transaction, and it is *not* just clerical (e.g., a transposition of digits), then additional work is performed "around" this error. These additional sample tests are chosen with the specific purpose of pursuing and correcting systematic mistakes.
The adaptive aspect of the sample design is quite challenging technically because it combines forensic accounting ideas with rigorous probability sampling (e.g., Thompson, 1996). Section 7 below sketches the issues briefly. It may be enough to say here that we expect this two-step sampling process to be frugal in its use of resources, while still providing great benefit to account holders.

2. Specific Scope

The transaction population of IIM land-based accounts has a natural division in terms of the information that is currently available. For the recent transactions, from the mid-1980's forward, information on the transactions is available electronically - via a database with transaction information.[4] These transactions are referred to as being in the "Electronic Records Era." Transactions prior to the mid-1980's are referred to as being in the "Paper Records Era," because paper ledgers need to be found and an electronic ledger created.

The sampling of Electronic Records Era transactions occurs first, and the design of that process is described in this Appendix. The design process for the Paper Records Era is also discussed, but only briefly (see Section 8 below). Details on sampling in the Paper Records Era are to be covered in a subsequent design report, when the data are available.

Land-based IIM accounts are those that derive income from allotted tracts of land. The transactions for IIM land-based accounts can be classified into three general types: collections, disbursements, and interest accruals.[5]

It is our understanding that interest accruals are being recalculated and compared with the actual interest amounts that are posted; hence, interest verification is not in scope for sampling. Judgment and Per Capita IIM accounts are also out of scope here, because sampling is not required. Typically the same amount is provided to each authorized individual in setting up a Judgment or Per Capita account. Because the record searching and verification efforts are

[4] The conversion of the IIM to the Electronic Record Era was done over several years, at different points in time in different places. Gaps exist too. For these, electronic records must be recreated by retrieving original paper records or still available computer printouts from files that are no longer electronic. See Zhang and Scheuren (2002) for dates and locations when the Electronic Record Era started. Also found there is a summary of the gaps.

[5] Transfers from one account to another within the IIM are a fourth transaction type that needs to be verified by sampling. Transfers can be either a disbursement or a collection. It is hard to make any generalizations about them for this reason and because their treatment varied over time in different locations, including during the software changeover from IRMS to TFAS. The best way to treat them remains to be determined. Almost certainly they will be put into separate strata.

minimal in these cases, they are being reconciled on a 100-percent basis, without utilizing sampling. Special Deposit Accounts are also out of scope for sampling, as described in the Plan. While the final sample design cannot be determined until further data analysis has been performed, this Appendix describes the process in broad outline. In order to make the process concrete, a specific example is provided of a sample design for the Anadarko Agency, given hypothetical numbers.

3. Major Types of Samples

Four main approaches to drawing samples from the IIM Trust Fund activities involving IIM land-based accounts[6] are considered in detail in this Appendix. These are –

- Selecting Individual Transactions
- Selecting Unique Receipts
- Drawing Supporting Documents
- Taking Entire Accounts.

The different sampling options grow out of the complexity of the transaction population and the different ways that one can approach verification. Each has advantages and disadvantages – all of which are take into consideration in the design of the final samples.

A. Statistical Sampling of IIM Transactions

Description: Statistical sampling of transactions begins by randomly selecting transactions posted on an electronic IIM database (for gaps in the Electronic Records Era after 1985 and for periods prior to the Electronic Records Era but after June 24, 1938, such a database would be created from paper ledgers prior to sampling).

Goal: To determine, with an acceptable level of confidence, that the error rate among the transactions posted to an IIM account is below an acceptable maximum. Several ways are under consideration that would lead to an *estimated maximum dollar error* for each land-based IIM account. Several techniques in the statistical literature are to be examined. What we will recommend, however, depends on what is learned from the data. Some of the statistical references being studied are cited in Section 9.

Process: The sampling process involves first stratifying the transactions by dollar size, location, and era. For each randomly selected transaction within the established stratum, an attempt is made to obtain supporting document(s). The document(s) found are then checked by accountants to determine whether the posted amount is accurate as to dollar amount, IIM account number, and in accord with the supporting documentation (e.g., leases, journal vouchers).

[6] The accounts being considered for sampling in this Appendix are the accounts in 11 regions (the Eastern Region is excluded) that derive income from allotted land. Eastern Region accounts are being fully reconciled on a transaction-by-transaction basis, because they are so few in number.

Strength: The method is conceptually simple and easy to communicate. It allows a scientifically defensible statement about the transaction error rate, including the dollar error rate. If there are known sources of accounting errors (e.g., in certain types of transactions or transactions at a specific location) the approach can be adapted accordingly (e.g., by selecting 100 % of these transactions, i.e., taking them all with certainty).

Weakness: The approach is unable to detect erroneous omissions on the IIM account (receipts that have never been posted to the proper IIM account). It can also be difficult to find all supporting documentation (leases, vouchers) or "supports" for a given selected transaction. Methods are available to address this concern. The approach to finding supporting documentation is similar to that used earlier in the "Paragraph 19" document search in ***Cobell*.** It is anticipated from this earlier work, therefore, that it may be quite expensive to locate all the supports.

Recommendation: We recommend that this approach be used for statistically sampling disbursements. It can also be used, as adapted elsewhere, for other types of transactions, except receipts testing, which is described next.

B. Statistical Sampling of Unique IIM Receipts

Description: Transactions for land-based revenue can be grouped by the type of transaction (e.g., collection) and the type of revenue (e.g., timber sale) using the reference code of the transaction. In this way, income from one source (e.g., a bill for collection) that is distributed to several IIM accounts can be related back together as a unit, based on the IIM transaction coding information. Such a grouping of individual revenue transactions is called a unique receipt.[7] The statistical sampling under this test begins by randomly selecting unique receipts and then verifies one or more individual IIM transactions.

Goal: As stated above, to determine, with an acceptable level of confidence, that the error rate among the transactions posted to an IIM account is below an acceptable maximum. Such a result, when used in combination with other statistical testing described herein, might permit the computation of an *estimated maximum dollar error* for each land-based IIM account (see Section 9 below).

Process: Unique receipts can be stratified by the total dollar value and by the number of individual account distributions within each transaction. For a randomly selected unique receipt, the accountants verify that the amount of the receipt was credited appropriately to the proper IIM accounts. Another option, when there are multiple contracts or leases involved with the same

[7] Not all "unique receipts" pertain to a single contract or lease. This is especially true in TFAS where what appear to be unique receipts may actually involve many different contracts on different properties. For cases when only a single contract exists, only one IIM transaction needs to be tested, when testing one is testing all. When there are multiple leases more than one transaction has to be given a chance for testing. This subsampling is done once the documents have been located and separate contracts identified.

unique receipt, is to verify a random subsample of the IIM transactions on the selected unique receipt.

Strength: For land-based receipts, this approach can be cost-effective because a single unique receipt affects a number of land-based IIM accounts. This method can more efficiently test large-dollar amounts coming into the IIM Trust Fund that are subdivided into many accounts so that, at the IIM transaction level, the amounts are small. Strata based on dollar amounts of the unique receipts can be separately tested.

Weakness: This approach applies only to certain types of receipts, and does not include any disbursements. In addition, it does not target the largest individual transaction amount. Furthermore, as with the direct sampling of individual IIM transactions, this approach is unable to detect erroneous omissions.

Recommendation: We recommend that unique receipts be the sampling unit for land-based IIM receipts. The stratification of unique receipts is, however, to be by the size of the largest individual transaction they contain (see Section 7 below for an example).

C. Statistical Sampling Of Supporting Interior Documents

Description: In all the samples being drawn, accountants use supporting documentation to verify the accuracy of a transaction.[8] Documents may be in active use in file drawers at an agency office. Documents, not in active use, are in boxes stored at various locations around the country. As part of this third approach, these paper files are going to be directly subjected to sampling. The statistical sampling begins by selecting a random sample of storage units (file drawers, boxes) containing supporting transaction documents. The contents found in each storage unit are then subsampled. In this case, randomly selected subsamples of support documents are matched to appropriate postings on related IIM account(s); that is, the matching goes in the opposite direction, from supporting documents to IIM electronic records, rather than the reverse.

Goal: As with the direct sampling of transactions, sampling support documents determines, with an acceptable level of confidence that the error rate among the transactions posted to an IIM account is below an acceptable maximum. Such a result, when used in combination with other statistical testing described herein, might permit the computation of an *estimated maximum dollar error* for each account.

Process: The sampling process involves first stratifying the storage units by agency/area location and time period. Every selected storage unit or box of records is triaged and all required land-based supporting records found are imaged and coded so they can be selected for matching to a transaction posted in the related IIM account. An attempt is then made to verify that activities documented in the land based supporting documents are consistent with and support related IIM transactions.

[8] Some examples of supporting documents include negotiated checks, leases, rights-of-way, journal vouchers and so forth.

Strength: This is the only approach that is able to detect omitted transactions on IIM ledgers (i.e., receipts or disbursements that have never been posted). A sampling approach that incorporates some document sampling is, therefore, much more robust and easier to defend than a pure account/transaction-based method which is incapable of detecting a missing posting (a major concern expressed by IIM account holders). Directly sampling documents is expected to be cost-efficient because it is much easier to match a document to its related IIM account posting than it is to take an IIM transaction and find the pertinent supporting documentation.

Weakness: If there are agencies/time periods/income types for which supporting documentation is particularly incomplete or poorly maintained, the corresponding transactions are less likely to be included in the sample. Also, if used alone, accounts with few transactions are less likely to be included within the sampling process. Finally, while it is straightforward to determine the probability of selecting a particular document, determining the selection probability of a transaction is challenging since an unknown number of copies of the same document may exist in the files. The ***Cobell*** record collection is to be examined to assess how to handle this.

Recommendation: We recommend that this approach be relied on heavily for sampling small transactions. It should be supplemented by methods that permit stratification by transaction size and, hence, is combined with the first two methods explained above. The search costs should be less for this approach because the search starts with one of the supporting documents already on hand, making the overall "find" rate for documents higher.

D. Statistical Sampling Of IIM Accounts

Description: The sampled population consists of the land-based IIM accounts (using the population definition of accounts open on or after October 24, 1994). The sampling begins by randomly selecting IIM accounts.

Goal: To estimate, with a certain level of confidence, that the *account error rate*, in terms of *dollars or percentage of dollars*, is below an acceptable maximum.

Process: A stratified sample of accounts is selected (stratified possibly by location, throughput, number of transactions, ending balance, etc.). For the selected IIM accounts, supporting documents are found for all transactions and the accuracy of the Historical Statement of Account is verified. The dollars in error are then measured directly.
Strength: Account sampling provides complete accounting for the selected IIM accounts and the sample verifications for these accounts can be used directly. It is also easy to explain.

Weakness: Account sampling is the most expensive sampling method in terms of time, cost, and required work force. Furthermore, the total cost cannot be readily determined with precision. The variability in cost is high, depending on the number and complexity of transactions in the selected land-based IIM accounts. Costs depend not only on the number and type of transactions in the sampled IIM account, but also on how diverse the account is (some accounts cover many allotments, over several agencies, even agencies in different regions). Finally, it is difficult to

predict the sample size necessary for estimating the dollars in error with specified precision. At this point, there is minimal information available to allow reasonable predictions.

Recommendation: We recommend that this approach be used sparingly because it is not cost effective. As already noted, it is very difficult to estimate the (transaction) sample sizes necessary for specified (account-based) confidence levels without prior information regarding the properties of the errors – information that only becomes available after the project is completed.

4. Supplementary Checking

A large number of transactions are fully reconciled directly through sampling. Ideally, all sampled cases are completely resolved, with no room for controversy or disagreement. However, this rarely happens in practical situations; hence we are developing plans for handling those cases for which incomplete or contradictory supporting evidence may be all that can be found in Interior files.

In particular, we concur with the policy that asks third parties to notify the Department of the Interior before destroying potentially relevant records - notably, small local banks in Indian Country that may have kept canceled checks for longer than the now standard seven years. There are other tests, too, that must be made of certain processes or databases. For example, in order to check that the income from land is correctly allocated, the distribution of receipts by degree of allotment ownership must be verified. This step is part of the sample verification process within IRMS but the IRMS recorded ownership is carried back to still other sources, such as the Land Record Information System (LRIS).

5. Basic Activities

The samples of transactions, unique receipts, and supporting documents that were described earlier in Section 3 are integrated in stages to determine the overall sample design. In this section we describe the process for determining the final sample design.

The more information that is available about the population, obviously the better one is able to design an effective and efficient sample. The first step, therefore, is the analysis of the electronically available data (e.g., as in Zhang and Scheuren 2002). Analysis is important for determining that the proper population definitions and data are being used, and for learning as much as possible about the population, so that the sample can be stratified and balanced effectively.

The following provides an outline of the procedure for developing the specific sample design and the considerations that need to be analyzed or researched. Transactions are treated differently, depending on their type: disbursements versus receipts, the different income sources for receipts, the year of the transaction, whether the individual transaction was part of a unique receipt, where

the income was earned, the type of account (e.g., administrative versus individual), and any other information that might reveal special problems or characteristics.

Because individuals often own interests in more than one allotment, the income to an account may be generated from many different agencies and even from different regions. Therefore, the geography of the accounts and the geography of the transactions need to be considered. For each agency, we expect to use the following definition of the population of transactions:

- All disbursement transactions for accounts in the agency
- All TFAS collection transactions for accounts in the agency
- All IRMS collection transactions that originated in the agency (i.e., transactions where the source of the income was in the agency of interest).

Once the population is defined by agency, the distribution of the transactions by value can be examined.

For a receipt or disbursement, more than one supporting document is usually needed. For income based on the land, the source for at least one of the supporting documents is the agency/area where the land is located.

Every individual transaction valued at $5,000 or more is to be reconciled to its related supporting documentation. This means that, based on accounts open through December 31, 2000, about 73,500 large IIM transactions are to be reconciled in that one stratum alone. For transactions of less than $5,000, two additional strata based on the transaction value are used – transactions under $500 and transactions $500 to $5,000. Each of these has a sample size provisionally set at 80,000 (see table 1). These transaction sample sizes are chosen to provide agency-by-agency information such that for each stratum, statements about transaction error rates can be made with high confidence (if the error rates are as low as the 1 percent designed for).

TABLE 1. STRATIFICATION BY SIZE, BASED ON ACCOUNTS OPEN ON DECEMBER 31, 2000

Size of Transactions	Percentage of Total Dollars	Approximate Number of Transactions in the Population	Number of Transactions to be Sampled
Under $500	25	25,592,000	80,000
$500 to $5,000	30	800,000	80,000
$5,000 or more	45	73,500	73,500
Total	100	26,465,500	233,500

Note: The final population subject to sampling should be similar in terms of the distribution by size to the population shown above, which is based on accounts that were open on December 31, 2000.

Sample sizes of about 400 per agency, per stratum, would suffice for this purpose if no errors are found. These sample sizes are then doubled to afford protection against the possibility that, in some agencies and strata, the observed error rates might be somewhat higher. At a sample size of

about 800 per stratum out of a total population of, say, 25,000, it is possible to make a 99 percent assurance statement that the error rate is less than about 1 percent if up to 2 errors are found. The estimated total sample size per stratum is calculated by allowing for the fact that there are about 100 agencies or agency-like organizational units that are to be sampled separately.
Other sample sizes were examined, both smaller and larger, ranging from 10,000 to 320,000 nationally (or from 100 to 3,200 by agency). These are shown in Table 2. Gains in higher levels of assurance from samples above 160,000 are very modest under the assumptions being made here. For samples below 160,000, on the other hand, assurance levels drop to what we consider unacceptable levels, particularly so with samples under 80,000. One final comment, the design being recommended here has the advantage of balancing assurance levels and accuracy levels at the same high level of 99%.

TABLE 2. ASSURANCE LEVEL THAT THE ERROR RATE IS LESS THAN 1%, IF NO ERRORS ARE FOUND

Total Sample Size	Agency/Area Sample Size	Stratum Sample Size	Assurance Level* (Percent)
10,000	100	50	40
20,000	200	100	64
40,000	400	200	87
80,000	800	400	98
160,000	1,600	800	99+
320,000	3,200	1,600	99+

*Source: Table 3.8, *Audit Sampling* by D. Guy et al, 1994.

For disbursement transactions of less than $5,000, after further analysis (to explore other possibly important strata characteristics), strata sample sizes are determined and the sample balanced at least across time and so that transactions are drawn from as many different accounts as possible.

For receipts of less than $5,000, a more complex structure is needed. Rather than using the transaction as the sampling unit, unique receipts are used, as described in Section 3. First, unique receipts are stratified by the largest individual receipt they contain. Then, unique receipts are subsequently stratified or balanced, as much as possible, based on the type of income (oil and gas, surface lease, etc.) and time, within each agency. An additional complexity arises, as already mentioned, when, a bill of collection or unique receipt includes, for example, multiple grazing permits or farming leases. For cases when only a single contract exists, only one IIM transaction may need to be tested, when testing one is testing all. When there are multiple leases more than one IIM transaction has to be given a chance for testing. This subsampling is done once the documents have been located and the existence of multiple contracts identified.
Finally a separate sample is to be selected using the supporting documents as the sampling unit. In Section 7 below we provide a complete illustration for Anadarko.

6. Implementation Structure

For every BIA agency/area, all large transactions (with a value of $5,000 or more) are tested. By agency separately stratified random samples are selected from all transactions with values less than $5,000. All the cases for each BIA agency are then randomly divided into batches that are balanced across the three strata. Once the supporting documents are found for the selected transactions, accountants determine the accuracy of the respective land-based IIM account postings, beginning by looking at the first random batch.
If the transactions are reviewed in *random* batches in this way, then after each batch of transactions is completed in an agency, an estimated error rate and confidence interval can be calculated. This approach can provide progressively better estimates of accounting costs and error yields, as the work proceeds. Moreover, if the errors are few, it might make sense to stop the sample verifications before the entire sample is completed, in order to provide the account holders with information more quickly. All of the transactions with an absolute value of $5,000 or more are still completed, in any case, because these are not being sampled but are to be reconciled on a 100 percent basis.

Perhaps the most important feature of the design is that the results from batches completed early can be used to change the stratification for later batches. This adaptive approach can make it possible to increase the efficiency of the design as time goes on.
The sample sizes described earlier in Section 5 allow for the pursuit of systematic errors and adaptive approaches, and are therefore upper limits, developed to make it possible to budget for the effort. It is expected that a frugal use of these resources can make the undertaking less expensive than the upper limit, unless the error rate in the underlying data is very high, or there are other unexpected results.

7. Approach to Anadarko Pilot Sampling

This Section describes how the sampling plan described in the preceding sections is performed. The Anadarko Agency is selected to use as an example because it contains a variety of income sources, covering most types except income from forestry**.** In what follows concerning Anadarko, we rely heavily on an analysis of Anadarko Agency files using transactions on the 7,206 accounts open as of December 31, 2000 (even though the final accounts to be sampled in the Electronic Records Era are those open on or after October 25, 1994).[9]

Before the final sample can be selected, the electronic data will be reanalyzed so that the "geography" of the IRMS collections is defined by the source of the income, rather than the location of the land-based IIM account.[10] The process defined here will remain about the same, but the population numbers will change.

[9] The detailed analysis conducted of the Anadarko transaction file is found in the report entitled, *NORC Sample Design Planning Report Part II -- Anadarko Agency IIM Transactions Described* (available separately).

[10] As noted earlier, for disbursements the account and transaction geography should be identical but not for receipts, where income may come from widely separated locations, far from the home agency of the account holder. For example, by marriage or migration, an individual undivided interest in a tract may be held by someone who no longer lives near the land she or he partly owns. In IRMS, which covers most of the Electronic Era (until mid-1998 or even as late as early 2000), the paper documents supporting a transaction are filed based on the agency or area

For the Anadarko Agency, Electronic Records Era data generated from IRMS and TFAS show there are 457,195 recorded disbursement transactions and 684,992 recorded receipt transactions. The data used here are for illustrative purposes only; certain complexities in the database are not addressed at this time.

Most disbursements (417,023) are under $500 (91%). Of the remainder (40,172), most are between $500 and $5,000, but there were 2,495 in amounts of $5,000 or more. The distribution of IIM receipts is similarly skewed with many small transactions and few very large ones. Most receipts (668,566) are under $500 (98%). Of the remainder (16,426**)**, most are between $500 and $5,000. Again, as with disbursements, a much smaller number (728) had dollar amounts of $5,000 or more.

For sampling purposes, the disbursements can be selected directly, within the three strata, balancing, as already noted, on type of account and transaction date, including a separate treatment of disbursements before and after the date Treasury records[11] are likely to be complete and before and after the start of TFAS (in April 2000 for Anardako).

Before sampling the 684,992 individual receipt transactions, we group them by type, code, reference, and date into 81,646 unique or combined receipts, as discussed earlier.

A. IIM Disbursement Certainty Stratum

In the sample described here, all individual disbursements of $5,000 or more are included with certainty and the rest are sampled. This means that within the certainty stratum under this design there is a complete accounting for 2,495 transactions involving $32.4 million in recorded disbursements. Thus, about 25.8 percent of the $125.6 million disbursed in the Electronic Records Era by the Anadarko Agency are tested directly by this means.

B. IIM Disbursement Noncertainty Strata

An initial sample of 200 is taken of the remaining IIM disbursements, stratified by size of disbursement (under $500 versus $500 to $5,000). The selections are balanced by the year of the transaction (for each year 1985 to 2000) and spread as widely as possible across IIM account

where the income was earned, so the work must be organized on that basis. In particular, the IRMS portion of the electronic record transaction database is first sorted by transaction geography to facilitate the accounting work. For TFAS, which begins in 1998 or later, transactions are filed in Albuquerque no matter where the income was generated. To find the supporting documentation for a transaction in, say, late 2000, the paper files in Albuquerque have to be searched by date and, then, once located the source of the income can be obtained. Some of the supports are present with the back-up materials in Albuquerque but the leases and contracts are going to have to be obtained from the agency where the income is located.

[11] The Department of the Treasury now retains records of all Treasury checks cashed. This source is believed to be complete over at least the last seven years but is still expected to be useful in earlier years.

holders. The remaining 200 initial disbursement sample cases are drawn from the sample of supporting documents described below.[12]

C. IIM Individual Receipt Certainty Stratum

For Anadarko IIM receipts we also propose to include all unique receipt transactions that have one or more individual transactions of $5,000 or more for the Electronic Records Era. In Anadarko there are 728 such individual transactions of $5,000 or more, as indicated earlier. Since some of these occurred as part of the same unique receipt, there are fewer unique receipts (only 487) involved. It is our understanding that, because of the nature of the testing being done, in the process of confirming one of the individual receipts in a unique transaction, other of the individual receipts may be considered tested. In that case, it turns out that even though receipts for individual transactions of $5,000 or more amounted to $7.6 million, we may be able to test with certainty up to $8.8 million in unique receipts (on 2,496 individual transactions) or 18.1 percent of all Anadarko receipts available electronically (see figure 1 on the following page).

D. IIM Individual Receipt Noncertainty Strata

A sample of 200 unique receipts is taken of the remaining IIM unique receipts, stratified by size of the largest individual receipt (under $500 versus $500 to $5,000). The selections are then balanced by year of the transaction (for each year 1985 to 2000), unique receipt class, and type of income. Again, as with the disbursement selections, the sample is again balanced to be sure that the receipt transactions examined are spread as widely across IIM account holders as possible. The remaining 200 initial receipt sample cases are drawn from the sample of supporting documents described next.

E. Direct Support Sampling

A second sample is drawn directly from the supporting documentation underlying the Anadarko transactions that are supposed to be recorded on the account ledger. This sample begins by selecting a stratified sample of 150 storage units from the Southern Plains Region. The selections are made at the Anadarko Agency, the FRC at Lee's Summit, Missouri, and various Interior record storage locations in Albuquerque, New Mexico. Because of concerns about records being misfiled, the sample is drawn regionally in Albuquerque and at Lee's Summit. (This same sample can later be used in part for other Southern Plains Agencies, of course. That is why it is so large.)

Using the inventory of the storage units or the related BIA paperwork for information on the contents, the boxes or storage units are stratified to oversample those with a high likelihood of

[12] The ability to stratify the support sample before use is almost certainly going to be imperfect, hence the fraction of the total sample drawn from the two sources may be uneven. The goal of achieving combined initial samples of 400 transactions from each stratum can still be met, of course, but more of the cases in the $500 under $5,000 class may be coming from the IIM frame and less from the support sample.

containing land-based collection documents or disbursement documents (e.g., negotiated checks). Each selected box or storage unit is then triaged to prepare the contents for imaging, if appropriate. After scanning (onsite) the images are coded for matching to any applicable IIM transactions. The intent, at this point, is only to match the main collection and disbursement supports, although this could change as we learn more.

A collection document is matched to an IIM transaction to ensure that all money entering the Trust actually ended up as an IIM receipt transaction or that there was a good reason why not. Disbursement supporting documents are obtained directly, so as to supplement the IIM disbursement samples. There is some considerable concern that not all the supports needed for the IIM disbursement transaction sample are found and this second sample provides a chance to examine whether failing to find all supports might make a difference in the accountants' overall assessment of the soundness of the Anadarko books and records.

Priority for leases and collection documents is given to agency files as far back as these extend, then to documents at Lee's Summit and Albuquerque. We expect to have to image and code a fairly large sample of these records before selecting the cases to be matched. For disbursements the support sampling concentrates primarily on the period before the Treasury retained all copies of canceled checks. The samples for receipt and disbursement documents are both planned initially to be approximately 200 per agency or 400 in total. Again, as with the sampling from the IIM, additional cases may be included using rigorous probability selection methods, if a systematic error pattern is detected.

8. Paper Records Era Sampling

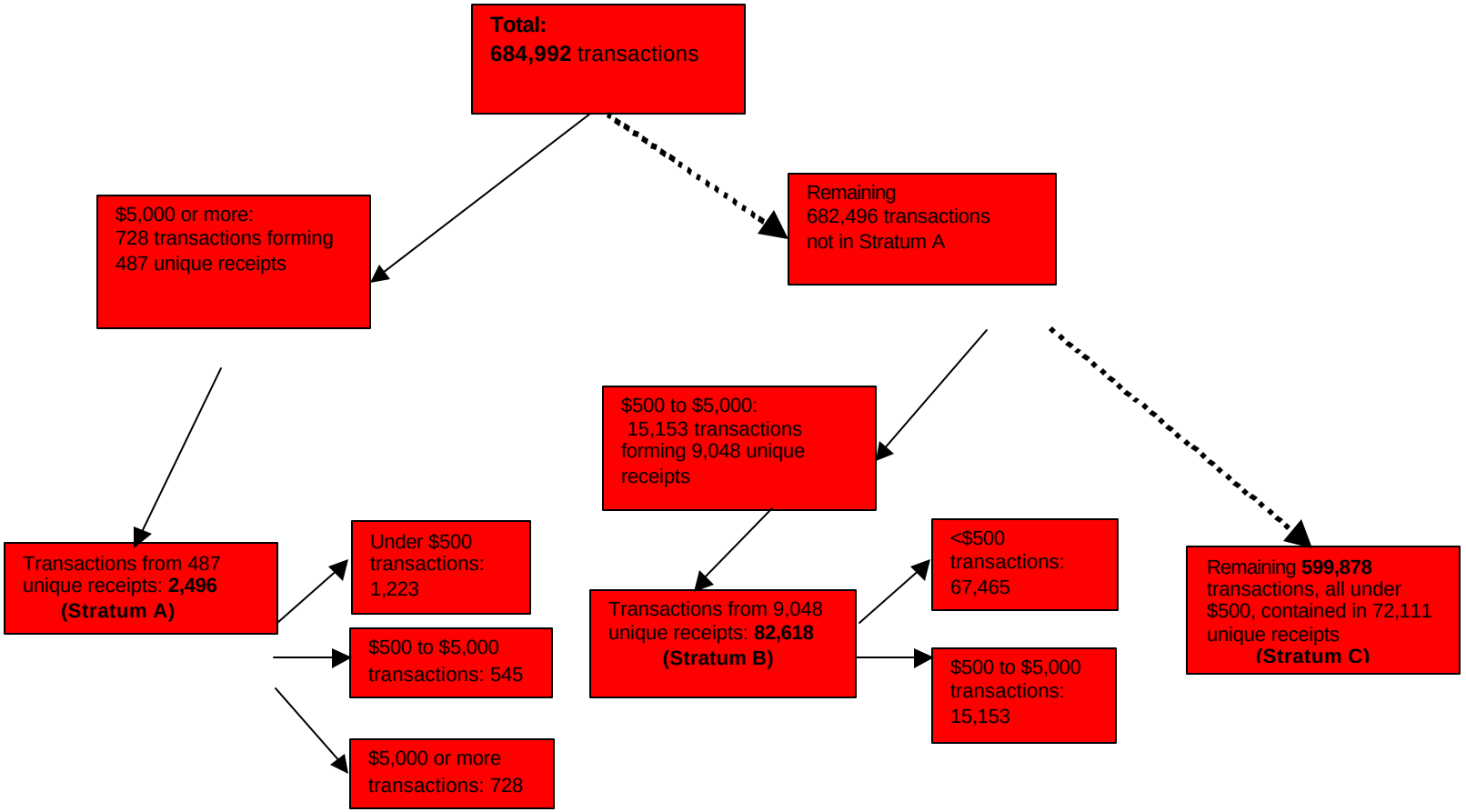
In this brief sample design Appendix, we have yet to specifically consider how the transactions not currently available electronically are to be selected for sampling. Analysis efforts have not progressed very far yet on these samples. Broadly, though, we expect the approach to be similar to what has just been described. Anticipating that a full discussion will be needed, a separate sample design report is planned, when we know more.

Obviously, before a transaction sample can be selected, and before a sample of supporting documents can be matched to an IIM transaction, the IIM transactions must be located from the paper ledgers and entered into an analyzable electronic database. It is anticipated that this process will begin early in 2003 and will be ongoing as the work on the Electronic Records Era transactions is proceeding.

9. Error Adjustment Approaches

There are many possible ways of calculating an *estimated maximum dollar error* for an account (e.g., Guy 1994; Wilburn 1984). The maximum dollar error can be expressed as a percent of the transactions or in dollar terms. Obviously, in the present application, accounts with more transactions have more exposure, *ceteris paribus*, to the chance for error and this must be taken into consideration. It is premature to make specific error adjustment recommendations at this time. The comparison and evaluation of appropriate estimation procedures will be included in the final analysis.

Figure 1: Distribution of Individual Transactions and Unique Receipt Groupings in Anadarko Agency



Notes:

1. The initial design for Anadarko would call for the selection to be divided into six batches of approximately 215 unique receipts. Approximately 80 from Stratum A, 67 from Stratum B, and 68 from Stratum C will be balanced by individual receipt mix, transaction date, and type of income.
2. As displayed above, the population of individual receipt transactions is first divided into those of $5,000 or more (of which there are 728) and the remainder under $5,000. The 728 individual receipts are included in 487 unique receipt groups with 2,496 individual transactions. All other transactions except for 2,496 are divided into those between $500 and $5,000 (15,153) and under $500 (667,343). The 15,153 individual receipts are included in 9,048 unique receipts, with 82,618 individual transactions. The remaining individual receipts (all under $500) are included in 72,111 unique receipts and total 599,878.

References

American Institute of Certified Public Accountants (2001). ***Audit Sampling***, AICPA, New Jersey.

Deming, W.E. (1986). ***Out of the Crisis***, MIT Press. Cambridge.

Guy, D.M. (1994). ***Audit Sampling – An Introduction***, John Wiley and Sons, New York.

Scheuren, F.J. (2001). ***NORC Statistical and Economic Series Report: Pre-Design Report.***

Thompson, S. et al. (1996). ***Adaptive Sampling***, John Wiley & Sons.

Wilburn, A.J. (1984). ***Practical Statistical Sampling for Auditors***, Marcel Dekker, New York.

Zhang, H. and Scheuren, F. (2002). ***NORC Sample Design Planning Report Part II – Anadarko Agency IIM Transactions Described***.

APPENDIX E

INDEXING

APPENDIX E. INDEXING

OTR in Albuquerque, New Mexico, estimates that there are approximately 195,000 boxes or containers of Indian trust records, an estimated 300-500 million pages, held by the United States Government. These records are part of the history of American Indians, and, in part, contain the records of the management of the IIM Trust Fund. These records vital to conducting a historical accounting directed by the Court in the *Cobell v. Norton* litigation.

Indian trust records are stored in a number of different locations. Working and active records are stored at BIA regional and agency offices around the United States. OTR has several local facilities in Albuquerque that store approximately 51,000 boxes of records. The National Archives and Records Administration operates the Federal Records Center at Lee's Summit, Missouri, which stores approximately 42,000 boxes of Indian trust records, and also has 64,000 containers of records stored at National Archives. The Trust Accounting Division of the General Services Administration has approximately 20,000 boxes of records at its facility in Lanham, Maryland. In addition, the Department of the Treasury and the General Accounting Office have approximately 18,000 boxes of records at storage facilities.

Interior must rely on these records to perform the historical accounting. However, the inventories and indexes of these records, essential to locating needed records effectively and efficiently, are not consistently detailed and accurate for this purpose.

OTR's approach is to create an electronic database for the records, much like transforming a traditional library catalog card index for books into an electronic reference database. This database will be created by entering data on the contents of each box in the collection onto a data-entry screen that will be integrated into a database for access by the users. Information in the database can then be sorted and indexed for easy access by document types, dates, collections, agency, etc.

OTR has engaged the firm Labat–Anderson, Incorporated to index all of the trust-related records that are currently stored in its facilities in Albuquerque and at Lee's Summit. This endeavor will require the contractor to examine every file contained within a box or container of records, and accurately enter key information about the records into a database.

The indexing is working at a "file level," meaning that every file title will be entered, verbatim, into the database. Where there are no file folders for the contents in a box, the entire box will be considered the folder and the contractor will indicate such as an "implied folder" in the database.

In addition, the contractor will include the following information in the index:

- *Data Appearing on the Exterior of a Box* — This will allow searchers to identify the physical location of the boxes based on earlier inventory records. Also, where tribal names are identified on the exterior of boxes, that information will be captured in the database

- *Source Agency* — This will denote the agency or regional office to which the records belong and the originators of the records.

- *Document Type and Date Range* — This information will enable users who are searching for a specific document with a known or approximate date to identify the appropriate box containing the document without having to request an unnecessarily large number of boxes.

OTR's contractor, Labat-Anderson, has started the indexing project and is training two teams to work on the records simultaneously in Albuquerque and at Lee's Summit. OTR and OHTA are coordinating on document needs for the historical accounting, and OTR is prioritizing which groups of records to index first by BIA agency and by tribe. This will ensure that the database index will be populated and available to search for the first records needed for the historical accounting.

The indexing project is expected to be completed in FY 2004.

APPENDIX F

COST ASSUMPTIONS

APPENDIX F. COST ASSUMPTIONS

The scope and complexity of the historical accounting require an assessment of costs for each of the tasks associated with the accounting work. The objective is to establish the cost of the historical accounting based on significant cost drivers (activities), such as whether transactions are in electronic or paper form, the level of document location, collection, and scanning required, and the number of transactions that must be reconciled. However, there is a high level of uncertainty in the cost estimates for the historical accounting project because many parameters continue to be investigated and could significantly change the estimates developed.

Preliminary Estimate of Accounting Costs

The total preliminary estimated cost for conducting the historical accounting is $335 million, of which 89 percent of the estimated cost is the accounting work. The following cost estimating assumptions were made to construct the cost for the historical accounting project.

Cost Per Transaction

Electronic Records Era	Paper Records Era	
$ 80	$ 80	– to locate 4 documents (on average) to support the transaction
25	25	– to prepare, image and digitize (scan) the documents (6 pages per document, on average)
125	185	– for accounting about 1 hour per transaction on average
$ 230	$290	– total estimated cost per transaction

Digitized Ledger

$1,000 – to create a digitized ledger from paper ledgers cost including locating documents to support transactions, preparing, imaging, and digitizing the documents (Note: approximately 30 percent of the land-based IIM account holders have Paper Records Era portions of their accounts or approximately 60,000 ledgers)

APPENDIX G

ACRONYMS

APPENDIX G. ACRONYMS

ACRONYMS

BIA	Interior's Bureau of Indian Affairs
BLM	Interior's Bureau of Land Management
CD&L	Chavarria, Dunne & Lamey LLC
IIM	Individual Indian Money
IRMS	Integrated Records Management System
LRIS	Land Records Information System
LTRO	BIA Land Title and Records Office
MMS	Interior's Minerals Management Service
NORC	National Opinion Research Center of the University of Chicago
OHTA	Interior's Office of Historical Trust Accounting
OST	Interior's Office of the Special Trustee for American Indians
OTFM	Office of the Special Trustee Office of Trust Funds Management
OTR	Interior's Office of Trust Records
QC	Quality Control
SDA	Special Deposit Account
TFAS	Trust Funds Accounting System