IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

ELOUISE PEPION COBELL, et al.,	)	
	)	
Plaintiffs,	)	
v.	)	No. 1:96CV01285 (TFH)
	)	
KENNETH SALAZAR, Secretary of the	)	
Interior, et al.,	)	
Defendants.	)	

DECLARATION OF MICHELLE D. HERMAN

I, Michelle D. Herman, hereby declare as follows:

1. I am a Senior Managing Director in the Financial and Enterprise Data Analytics division of the Forensic and Litigation Consulting (FLC) practice for FTI Consulting, Inc. (FTI), a global professional services organization. My business address is 633 West Fifth Street, Suite 1600, Los Angeles, CA 90071.

2. I submit this declaration in connection with the implementation of the settlement distribution formula in the *Cobell v. Salazar* settlement pending in the United States District Court for the District of Columbia. This declaration outlines the data available for and the implementation of the Settlement Distribution Calculation Program (Program).

3. This declaration is based on my personal knowledge and experience, as well as knowledge from data and records my team and I have analyzed to date on this case over the course of almost 15 years. I have devoted most of my professional career to the examination and study of Indian trust records and the Department of the Interior's (Interior's) historical bookkeeping practices.

4. I have presented testimony three times in this case covering the available hard copy and

electronic accounting records, the completeness and adequacy of the available electronic accounting records, and an estimate of the throughput of funds coming into and flowing out of the Individual Indian Money (IIM) System between 1909 and 2005. *Cobell v. Kempthorne*, 569 F. Supp. 2d 223 (D.D.C. 2008) (Cobell XXI); *Cobell v. Kempthorne*, 532 F. Supp. 2d 37 (D.D.C. 2008) (Cobell XX); *Cobell v. Norton*, 283 F. Supp. 2d 66 (D.D.C. 2003).

5.   Upon consideration of my testimony regarding receipts into the IIM System, Judge James Robertson found it credible and my treatment of the data "demonstrably even-handed." Cobell XXI, 569 F. Supp. 2d at 232.

6.   My major projects with Interior have included:

a.   gathering data from Interior's Integrated Records Management System (IRMS) and working on the restoration of missing Electronic Ledger Era (currently available electronic data in systems of the Interior dating from approximately 1985 to the present) data from back-up tapes and paper records;

b.   locating records relating to the five named Plaintiffs and a stipulated list of their ancestors as part of what has become known as the Paragraph 19 document collection effort;

c.   assisting the Office of Historical Trust Accounting (OHTA) within Interior with the development of its historical accounting plan;

d.   developing and designing the Accounting Reconciliation Tool (ART) which was utilized by Interior and its contractors to reconcile a sample of IIM transactions from 1985 through 2000;

e.   reconciling 6,000 transactions as part of OHTA's Litigation Support Accounting analysis;

f.   overseeing the testing of 131.1 million IIM transactions (through September 30, 2009)

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      from the Electronic Ledger Era as part of the Data Completeness Validation (DCV)

      project;

g.   participating in the pilot project for the Land-to-Dollars analysis;

h.   assisting Interior with the distribution of aged balances in Special Deposit Accounts; and

i.   examining the overall throughput of dollars flowing into and out of the IIM System, as

      part of this litigation.

Available IIM Accounting Data

7.   Interior's Office of the Special Trustee for American Indians (OST) provided OHTA with electronic data from the trust accounting systems relevant to the IIM System. This dataset was the foundation for the analyses my team and I performed as well as the source of data utilized for the payment calculations described below. In conjunction, IRMS and the Trust Funds Accounting System (TFAS) represent the most complete, accessible source of individual Indian account and transaction data from early 1985 through present.

IRMS System Overview

8.   IRMS came online at Interior gradually, beginning in the Billings regional office (now the Rocky Mountain region) in the late 1970s. The IRMS system was designed with several subsystems, or platforms, to keep track of lease information, ownership information, and personal account information. The IRMS system included an IIM subsystem which had accounting information for IIM transactions, including account numbers and names. One of my first projects with Interior was to assist in aggregating all of the data relating to the IIM subsystem of the IRMS into a single database.

9.   Electronic IRMS IIM data are available for the period February 1985 through March 2000, at

which point the IIM subsystem was fully converted to TFAS, the current trust funds

accounting system. The IIM subsystem of IRMS contained one database consisting of two

major parts: *Master* and *Trans*. The *Master* portion of the IRMS IIM database contained

account level information such as the account holder's name, address, date of birth and death

and the account's management code(s), current balance, and six months of previous account

balances. This information was archived electronically at various points-in-time in what are

referred to as *Master* files. The Trans portion of the IRMS IIM database contained

information about each transaction, such as the account number in which the transaction

occurred, transaction number, transaction type, and transaction amount, as well as other data

such as location, name, and reference information. For disbursements, the Trans data also

contains a check number.

TFAS Overview

10. TFAS is the current trust fund accounting system. The conversion from IRMS to TFAS was

    performed on a regional basis, in phases over the period from August 1998 through March

    2000, as part of Interior's trust reform efforts. As account numbers are unique in the TFAS

    system, some accounts were merged during conversion and some account numbers were

    changed. All open accounts with a non-zero balance were converted from IRMS to the

    TFAS. As a component of the DCV tests, my team and I compared the ending IRMS balance

    and the beginning TFAS balance to validate that each account balance was appropriately

    converted. FTI confirmed that over 265,000 accounts were appropriately converted from

    IRMS to TFAS (*i.e.*, the ending IRMS balance corresponded with the opening TFAS

    balance).

11. TFAS contains transactional data (*Financial_Tran* and *Tran_Explanation*) and account

(*Account*) and account balance (*Account_Balance*) information. The *Financial_Tran* table

contains detailed transactional information analogous to that which is stored in the IRMS

Tran files. The *Account* and *Account_Balance* tables contain point-in-time, account-level

information analogous to that which is stored in the IRMS *Master* files.

Combined Dataset

12. In order to facilitate testing and reporting, the IRMS and TFAS datasets were aggregated into

a combined dataset. Account and account holder data from the two systems were mapped

together to create a single account-level dataset containing information such as the account

name and Social Security Number (SSN). The transaction-level data were combined, with

each transaction receiving a unique record identifier, to create a single transaction-level

dataset containing all electronic transactions.

13. Including transactions restored as of the date of this report, the combined Electronic IRMS

and TFAS transaction data through September 30, 2009 contain 131.4 million transactions.

Approximately 828,700 unique accounts (Native American Account Numbers or NAANs

which are discussed further in the Account-Level Validations and Analyses section) are

represented in the combined IRMS, and TFAS data through September 2009. This NAAN

total includes all individual accounts, tribal accounts, and administrative accounts available in

the electronic Interior records.

DCV Tests

14. My team and I were engaged by OHTA to design and implement a battery of high-level

system tests that would enable Interior to assess the underlying reliability of the data from the

IIM accounting systems. These analyses included: (1) reconciling the available data back to

historically generated business records; (2) assessing the integrity of the underlying electronic data; (3) identifying and resolving gaps in the electronic data; (4) verifying the transfers of accounts and balances through the system conversion from IRMS to TFAS; (5) analyzing the use and reuse of account numbers and the association of account numbers to individuals; and (6) assessing whether each account's available balance information, when combined with available transactions, rolled forward from one period to another to reconcile with a recorded subsequent balance.

15. Judge Robertson recognized this DCV testing as "a massive undertaking" 532 F. Supp. 2d at 67.

16. The DCV tests revealed some general characteristics about the IIM data set for the Electronic Ledger Era. Most transactions in the IIM system are for small dollar amounts, while very few transactions comprise the majority of the dollar value that has flowed through the IIM system. Over 76% of the credit transactions recorded in individual accounts were $10 or less but only accounted for less than 2% of the total credit dollars recorded. Only 0.75% of the transactions recorded in individual accounts were $1,000 or more but accounted for almost 66% of the total credit dollars. Much of this is due to the fractionation of land ownership, which is the result of inheritances over generations that have resulted in multiple owners each holding very small interests in a tract of land.

Monthly Transaction Activity Analysis

17. The first test performed to identify potentially missing transactional data consisted of reviewing the amount of transaction data available by agency (offices within the Bureau of Indian Affairs that administer accounts), month, and year, to identify those agency / months with no transactional data. Each of these data gaps were evaluated to determine if

transactions were processed historically and needed to be restored to the current electronic

dataset (Missing Data) or if there were no transactions posted in that agency during that

particular month. For those months in which data were identified as missing, hard copy

ledgers for the identified agency / month were located, and the transactions reflected on the

ledgers were restored to the electronic dataset. The data-entry of these transactions was

reviewed for quality control purposes, and after integration with the overall electronic dataset,

these restored transactions became subject to all DCV tests as if they had been present in the

original data provided by OST.

18. As a result of performing all of the system tests, as of the date of this declaration, over

570,300 transactions have been data entered from hard copy paper records and added to the

electronic record set. This total includes both IRMS Paper Ledger Era (prior to the mid-

1980s) and Electronic Ledger Era transactions.

Account Balance Roll-Forward Analysis

19. As another test to identify gaps in the transactional dataset, FTI aggregated all electronically

available IRMS *Master* file and TFAS *Account_Balance* file balances for each account. By

taking the account balances recorded at a point in time, adding the transactions posted over

the designated period, and comparing the result to the account balances recorded at the end of

that period, this roll-forward test supports the reliability of the historical balance information

available and the completeness of the transactional detail for that period.

Account-Level Validations and Analyses

20. FTI performed several analyses in order to accurately define, identify, and group the various

accounts represented in the electronic data. These analyses enabled FTI to define more

precisely which groups of transactions should be associated with an individual account and to identify the one or more accounts which are attributable to each individual beneficiary. These numbering schemes allow Interior to identify specific accounts and individuals, regardless of whether account numbers had been reused over time.

21. Accounts were initially categorized into groups (*e.g.*, individual land account, individual judgment account, administrative account) based upon the fourth character code of the account number and, if applicable, the TFAS *Minor_Account_Tp* field. Several exceptions were noted to these initial assignments. As such, a qualitative and quantitative review was performed to identify those accounts that had been "miscoded" based on the fourth letter code and minor account type in order to assign them to the appropriate account type. All accounts classified as individual accounts through this process underwent the account and account holder reviews discussed below.

22. Through a detailed review of account and transactional data, FTI determined that the account number of some accounts changed in the past without the processing of a balance transfer between the original and new account. Because of this, the account number as used historically cannot be relied upon alone to uniquely identify an account. Accordingly, FTI created a unique number, the Native American Account Number (NAAN) to serve as a proxy for the original account number. Through the course of this review, FTI identified nearly 35,000 NAANs that contained more than one account number.

23. As a component of this analysis, FTI performed electronic and manual reviews of the names associated with the accounts to identify accounts that appeared to have different names. When the names on the account appeared to be different, the account passed through a series of supplemental review steps in order to determine if the account belonged to a single individual. These reviews included an analysis of multiple resources including the IRMS and

TFAS account and transaction data, IIM jacket files, IRMS hard copy *Master* file reports,

IM600 reports, and Trust Asset Accounting Management System (TAAMS) account holder

data. These resources contained account holder information such as date of birth, date of

death, and Social Security Number, in addition to certified documentation such as marriage or

adoption certificates that indicate name changes. If, as a result of one of these reviews, FTI

determined that the account was owned by multiple individuals, a new NAAN was created, to

capture the transactions of the newly identified individual. This process allowed Interior to

identify transactions for each unique account holder regardless of the account number. Of the

nearly 748,900 accounts reviewed, fewer than 1,900 of the accounts were reused or

commingled.

24. In order to create a link among accounts attributable to a particular individual, FTI created a

    Native American Beneficiary Number (NABN), a unique 7-digit number, to represent each

    individual account holder in the electronic data. All NAANs determined to be individual

    accounts through the account type analysis were assigned to an NABN. NAANs for the other

    account types (*e.g.*, administrative accounts) are not associated with a NABN.

Transaction-Level Validations and Analyses

25. In addition to the account-level tests described above, further analyses and validations were

    performed on transactional data. These transaction-level analyses include the mapping of

    transfer and reversal transactions, the mapping of disbursement related transactions to

    corresponding U.S. Department of the Treasury (Treasury) data, and the analysis of spikes in

    transactional activity within regions or agencies.

26. The transaction mapping analysis was designed to assess data completeness, identify

    potentially related accounts, and augment the transactional data for reporting purposes. In

this analysis, reversal, transfer, and cancelled disbursement transactions in the IRMS and

TFAS data were analyzed and related sets of transactions were "mapped" to one another.

The transaction mapping compares offsetting debit and credit transactions in the system and

then investigates those that do not sum to zero (that is, transactions that do not completely

offset one another). FTI then studied the bookkeeping entries for the mismatched

transactions, considered other data in the IIM systems that might explain the mismatch, and,

if necessary, requested documentation to resolve or explain the transactions. In some

instances, this analysis revealed the need to restore missing transactions to the dataset. In a

very limited number of instances, this review resulted in the identification of a transaction

posting error. Through the course of this analysis, FTI mapped over 107.4 million

transactions in the IIM system through September 30, 2009.

27. FTI also matched disbursement records to available Treasury data provided by the Financial

Management Service (FMS) including the Check Payment and Reconciliation System

(CP&R), the Treasury Check Information System (TCIS), and the Payment Accounting

Claims Enhanced Reconciliation System (PACER). The data in these files indicate the

ultimate disposition of each item (*e.g.*, negotiated, cancelled). Mapping to this information

allows for the linking of outbound check transactions to the corresponding record in the

Treasury data showing the status of those disbursements. To the extent an item mapped to

one of these files indicated that the disbursement was cancelled, FTI confirmed that the funds

were subsequently re-credited back to an account belonging to the same payee. As part of the

check mapping, FTI looked for checks that had not been negotiated and then looked at the

account history to see whether the check amount had been credited back to the appropriate

IIM account. FTI compared check numbers, amounts, and dates to compare the Treasury

records with the IIM data set.

28. Through the course of this analysis, FTI was able to link over 99.7% of the approximately 8 million non-voided records in the CP&R file to a posting in IRMS or TFAS, 100% of the over 558,000 PACER records to a posting in IRMS or TFAS. FTI did not complete its analysis of the TCIS records; however, in the time available, FTI was able to link over 98.1% of the approximately 1.6 million transactions analyzed.

Class Payment Calculations

29. For purposes of this pending settlement, FTI determines the Historical Accounting and Trust Administration payments on a per person (individual) basis utilizing the results of the NAAN and NABN analyses discussed above. Calculations are initially performed at a NAAN level and subsequently aggregated at a NABN level.

30. The settlement agreement entered into by parties to the suit defines the Historical Accounting Class as, "… those individual Indian beneficiaries … alive on the Record Date and who had an IIM Account open during any period between October 25, 1994 and the Record Date, which IIM Account had at least one cash transaction credited to it at any time as long as such credits were not later reversed. Beneficiaries deceased as of the Record Date are included in the Historical Accounting Class only if they had an IIM Account that was open as of the Record Date. The estate of any Historical Accounting Class Member who dies after the Record Date but before distribution is in the Historical Accounting Class." (Settlement Agreement at 16) Each individual with one or more accounts meeting the criteria above is assigned a $1,000 payment.

31. Similarly, the Trust Administration Class is defined as, "… those individual Indian beneficiaries … alive as of the Record Date and who have or had IIM Accounts in the "Electronic Ledger Era" … as well as individual Indians who, as of the Record Date, had a

recorded or other demonstrable ownership interest in land held in trust or restricted status,

regardless of the existence of an IIM Account and regardless of the proceeds, if any,

generated from the Land. The Trust Administration Class does not include beneficiaries

deceased as of the Record Date, but does include the estate of any deceased beneficiary

whose IIM Accounts or other trust assets had been open in probate as of the Record Date.

The estate of any Trust Administration Class Member who dies after the Record Date but

before distribution is included in the Trust Administration Class." Each individual meeting

the criteria above is assigned an initial base payment of $500. (Settlement Agreement at 35)

32. In order to determine the amount of money available for further distribution to the Trust

Administration Class, FTI must first reduce the total settlement amount by (1) attorneys fees

and expenses awarded by the Court, (2) incentive awards for Class Representatives awarded

by the Court, (3) class notice fees, (4) class administration expenses, (5) special master fees

and expenses, if any, (6) monies set aside for the reserve fund, (7) the total amount of the

Historical Accounting class per capita payment, and (8) the total amount of the Trust

Administration Class baseline payment. To date, FTI has used an estimate of $162 million

for items one through six above. The Historical Accounting Class payment is determined by

multiplying the number of members of the Historical Accounting Class by $1,000. Similarly,

the Trust Administration Class baseline payment is determined by multiplying the number of

members of the Trust Administration Class by $500.

33. Under the Settlement Agreement, the prorated Trust Administration Payment is

> calculated based upon an Assigned Value. The Assigned Value will be the average of
> the ten (10) highest revenue generating years in each individual Indian's IIM
> Account, from October 1, 1985 until the Record Date (September 30, 2009). If an
> account is open fewer than ten (10) years or otherwise reflects fewer than ten (10)
> years of revenue, the computation of the Assigned Value will utilize a zero dollar
> amount in each year that no revenue is reflected. For beneficiaries with more than
> one account during that period, the Assigned Value is calculated on an account by
> account basis for that Class Member, with each of the resulting calculations added

together. Reversed transactions and inter-account transfers between an individual's accounts will not be considered in the calculation. A [Trust Administration] Class Member's pro rata percentage in the Stage 2 distribution shall be calculated based upon his or her Assigned Value divided by the sum of all Assigned Values for all Trust Administration Class Members. This percentage shall then be applied to the funds available for prorating to determine the Class Member's pro rata payment.

(Settlement Agreement at 4. b. (3))

34. The Assigned Value and Pro-Rata share calculations will rely upon the results of the DCV tests described above. These calculations will use all data restored to the electronic dataset through the course of these tests. For purposes of calculation, an account is defined as a NAAN, an individual Indian beneficiary as a NABN, a reversed transaction as two or more transactions within the same NAAN with the same Source identifier that sum to zero, and an inter-account transfer as two or more transactions within the same NABN but different NAANs with the same Source identifier that sum to zero.

Individual's Assigned Value and Pro Rata Share Calculation

35. The initial step in the Assigned Value calculation is to identify individual Indian accounts with cash (balance-affecting) transactions recorded in the IRMS and TFAS accounting systems between October 1, 1985 and September 30, 2009. As required under the terms of the settlement, reversal transactions and transfers between an individual's accounts are flagged for exclusion from the ratio calculation as they artificially inflate the value of an account.

36. The total credit amount, less excluded transactions, is calculated from the transactional dataset by government fiscal year for each year between 1986 and 2009 for each NAAN. The ten fiscal years with the highest credit throughput between 1986 and 2009 are identified and summarized on an NAAN basis. If a NAAN did not have 10 years of activity, a 0 is assigned to each year without activity. The Assigned Value is then calculated as the sum of the

NAAN's 10 highest years divided by 10. For beneficiaries in the Trust Administration Class with more than one NAAN, the Assigned Value is calculated on an NAAN by NAAN basis, with each of the resulting calculations added together.

37. Once the Assigned Value has been calculated for each Trust Administration Class member, the class member's Total Assigned Value is divided by the sum of all individuals assigned values, resulting in the individual's pro rata percentage. This percentage will be applied to the remaining settlement pool to determine this share of the Trust Administration Payment.

Calculating the Trust Administration Adjustment Fund Payment

38. For Trust Administration Class members receiving the lowest Trust Administration payments as described above, the Claims Resolution Act of 2010 allocates $100,000,000 to increase their total Trust Administration payment (the "Trust Administration Adjustment Fund"). A "floor" value is identified by determining a minimum trust administration payment for class members. This value is calculated by distributing the $100,000,000 to those with the smallest class payments whose payments were previously lower than the "floor". This additional value is not a per capita payment – rather it is an additional adjustment to augment those whose payments are below the "floor" amount. As of the date of this declaration, the value of the Trust Administration Adjustment Fund payment is estimated to be approximately $350.

Final Payment

39. The final payment for each individual is the sum of the Historical Accounting per capita payment ($1,000) if applicable, Trust Administration baseline payment ($500), additional Trust Administration payment derived from pro rata share calculation, and the Trust Administration Adjustment Fund payment (if applicable).

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Conclusion

40. The IRMS and TFAS datasets are the most complete, readily available sources for data for use in the distribution of settlement funds. The extensive work performed which my team and I performed as part of the DCV project has allowed the parties to identify account holders, unique accounts, and more precise measures of account activity.

41. Using the most complete data available, FTI is prepared to calculate the class payments in compliance with the terms of the Settlement Agreement.

42. I declare under penalty of perjury that the foregoing is true and correct. If called as a witness, I could and would competently testify thereto.

_____   ___May 16, 2011___
Michelle D. Herman   Date