

Market Conduct Examination Report

National Council on Compensation Insurance, Inc.

As of September 23, 2005



**State of New Hampshire
Insurance Department**

Roger A. Sevigny, Commissioner

FOREWORD.....	3
SCOPE.....	3
COMPANY PROFILE.....	4
EXECUTIVE SUMMARY	6
EXAMINATION BACKGROUND	24
PERTINENT FACTS OF THE CURRENT EXAMINATION.....	40
EXAMINATION SUMMARY	71
CLOSING	79
APPENDIX A.....	81



**THE STATE OF NEW HAMPSHIRE
INSURANCE DEPARTMENT**

21 SOUTH FRUIT STREET SUITE 14
CONCORD, NEW HAMPSHIRE 03301

Roger A. Sevigny
Commissioner

Alexander K. Feldvebel
Deputy Commissioner

December 7, 2005

The Honorable Roger A. Sevigny
Commissioner of Insurance
State of New Hampshire Insurance Department
21 South Fruit Street
Concord, New Hampshire 03301-5151

Dear Commissioner,

Pursuant to your instructions and in accordance with New Hampshire RSA 400-A: 37 and RSA 412:38 I, a targeted market conduct examination has been completed of:

National Council on Compensation Insurance, Inc. ("NCCI")

This examination was limited to interviews, inquiry and investigative procedures concerning certain class ratemaking and experience rating database systems and data handling process concerns identified by the Department as well as disclosed during the course of the examination. The examination was conducted at NCCI's offices in Boca Raton, FL. The examination was conducted under my general direction and performed by a market conduct and information systems (IS) team from RSM McGladrey (formerly American Express Tax & Business Services) led by Managing Director Margaret Spencer in the capacity of Examiner-in-Charge and consisting of team members Richard Nelson, Bryan Fischer, David Fusco, Jenny Jeffers and Jeffery Plump. Roderick D. Twiss, Senior Examiner with the New Hampshire Insurance Department also assisted with the examination.

The assistance rendered by the employees of NCCI during this examination is acknowledged and appreciated.

Very truly yours,

A handwritten signature in cursive script, appearing to read "G. Kent Dover Jr.", written in black ink.

G. Kent Dover Jr., CPCU, CIE
Chief Market Oversight Examiner

Foreword

This report is a report by exception therefore additional practices, procedures and files subject to review during the examination were omitted from the report if no findings were noted. Overall, the State of New Hampshire was the sole participating jurisdiction; however, some aspects of the examination were conducted in close association and cooperation with the States of Vermont and Maine who granted access to certain state specific information. Certain RSM McGladrey personnel, formerly American Express Tax & Business Services, Inc. personnel*, participated in this examination in their capacity as market conduct examiners. RSM McGladrey provides no representations regarding questions of legal interpretation or opinion. Determination of findings constituting violations or potential violations is the sole responsibility of the New Hampshire Insurance Department. All statutory citations, case law or any other legal opinions or interpretation included herein are provided by the Department for inclusion in this report.

Scope

The purpose of the examination was to determine NCCI's compliance with New Hampshire insurance laws and regulations and to determine if the Company's class ratemaking data extraction and data handling procedures and related business practices were consistent with public interest. The examination was called shortly after the Department identified issues relative to annual rate filings, effective January 1, 2003, January 1, 2004 and January 1, 2005, which contained incorrect class loss costs. The period covered by the examination was April 2001 through September 23, 2005. The areas covered by this examination were certain targeted standards within operations and management, statistical plans, data collection and handling,

* RSM McGladrey acquired American Express Tax and Business Services, Inc. during the course of the examination on October 1, 2005.

communications with companies and regulators, and reports, report systems and other data requests. No error tolerance factor was established, as all errors are included in the report.

This targeted examination was conducted by the authority granted pursuant to RSA 400-A: 37 and RSA 412:38 I. It was performed in accordance with market conduct standards developed by the New Hampshire Insurance Department and standards and procedures established by the National Association of Insurance Commissioners (NAIC) with respect to statistical agents.

"RSA" as used herein refers to the New Hampshire Revised Statutes Annotated. "Ins" as used herein refers to the New Hampshire Code of Administrative Rules. "Department" as used herein refers to the New Hampshire Insurance Department. The word "Company" refers to NCCI. The terms "multiple exposures", "multiple lines" and "excluded exposures" are used interchangeably and generally refer to the existence of more than one line of valid exposure data (or in some limited instances, loss data) for the same classification on a single unit report or in the IDB database where all such lines were not extracted properly for the purpose of class ratemaking.

Company Profile

The NCCI, based in Boca Raton, FL, manages the nation's largest database of workers compensation insurance information. NCCI collects data, analyzes industry trends, prepares workers compensation insurance rate recommendations, determines the cost of proposed legislation, and provides a variety of data products to maintain a workers compensation system and reduce the frequency of employee injuries. Insurance providers who conduct workers compensation insurance business in New Hampshire rely upon NCCI to provide data upon which their premium rates are based.

NCCI's primary functions as a workers compensation statistical agent include the following:

- Provide information and analytical services
- File and gain approval for loss costs and rates;
- Evaluate workers compensation system reform and technically support the valuation process;
- Achieve and sustain self-funded residual markets and manage workers compensation pools and plans;
- Identify emerging trends and issues through research and analysis;
- Continuously endeavor to improve data quality and timeliness while ensuring its relevance to changing business requirements;
- Ensure that the workers compensation infrastructure of plans, rules, forms and classifications is relevant and responsive.

NCCI was established in 1922 to coordinate the interests of insurers with those of regulators and other public policy makers. NCCI is guided by the regulatory agencies in the 36 jurisdictions, including New Hampshire, where it is licensed or designated as a statistical agent or an advisory organization. NCCI operates as a not-for-profit corporation whose Board of Directors consists largely of representatives of insurance companies that write workers compensation business. NCCI collects workers compensation data from insurers about their policies, claims and financial results and assembles that data into a data repository. NCCI's stakeholders include public policy makers, employers, employees, independent bureaus, insurers, regulators, legislators, agents/ brokers, trade associations and communities.

Executive Summary

Introduction

This report presents the approach, findings and recommendations of the targeted examination of NCCI. The examination was prompted by the discovery by the State of New Hampshire regulators that incorrect data had been submitted by NCCI in support of its New Hampshire 2005 loss costs filing. Upon inquiry of NCCI, New Hampshire learned that not all unit report data was captured when class ratemaking extracts were generated by NCCI and consequently class loss costs were not developed correctly in all instances. This Executive Summary provides an overview of the examination and summarizes the key findings and recommendations from the examination.

Content and Structure of Report

The report of examination is structured as a report of findings (exceptions) and is organized in one document, which includes this Executive Summary and the following sections: Foreword, Scope, Company Profile, Examination Background, Pertinent Facts of the Examination, Examination Summary, Closing and Appendix. The "Pertinent Facts of the Examination" section contains all findings and associated recommendations. It is recommended that NCCI address all recommendations in its response to the examination report. It is also recommended that NCCI evaluate all findings for applicability in other jurisdictions. When applicable, corrective action should be taken for all jurisdictions and a report of any such corrective action should be provided to the New Hampshire Insurance Commissioner as it applies to New Hampshire and to the appropriate National Association of Insurance Commissioners (NAIC) committee as it applies to all jurisdictions.

The examination was performed jointly by the Department and a team of market conduct and Information Systems (IS) examiners from the firm of RSM

McGladrey, Inc., formerly American Express Tax & Business Services Inc. The State of New Hampshire was the sole participating jurisdiction; however, some aspects of the examination were conducted in close association and cooperation with the States of Vermont and Maine who granted access to the examination team of their state specific information.

Examination Objectives

The overall purpose of this examination and the primary objectives were established by the Department as the following:

Phase 1

1. Identify and list causes of failure by NCCI to capture appropriate exposure data for use in ratemaking for the three annual filings in New Hampshire. Comment on NCCI's level of awareness for each cause.

2. Attempt to identify and document all other states where exposures were excluded in ratemaking during and after the 2001 system conversion to the extent that NCCI has that knowledge or should have that knowledge.

3. Establish when NCCI first knew or should have known that incorrect exposure unit data was used in ratemaking during and after the 2001 systems conversion. Establish the reasons why NCCI failed to recognize the problems in (1) above at the time they first occurred.

4. Furnish a conclusion on whether NCCI's response to knowledge of the issues was timely and appropriate.

5. Furnish a conclusion on whether NCCI's approach to identifying and assessing the scope and impact of the excluded exposures issues in all jurisdictions is prudent and reasonable.

6. Furnish a preliminary conclusion on whether the issue of excluded exposure units is likely to affect jurisdictions other than Maine, New Hampshire and Vermont or all jurisdictions served by NCCI.

Phase 2

1. Establish the reasons for the failure of NCCI's system conversion and ratemaking processes and procedures to capture all appropriate exposure units for ratemaking during the years 2001 - 2004.

2. Furnish a conclusion whether the proposed audits and quality assurance measures implemented by NCCI to address the issue of excluded exposure unit data are reasonably likely to be effective.

3. Make recommendations to address any areas where, in the opinion of the examiners, the quality assurance measures instituted by NCCI to assure all reported exposure unit data are captured and used for ratemaking are not likely to be reasonably effective.

Examination Scope and Approach

The scope of the examination was targeted and included interviews, inquiries, interrogatories, data requests and a review of certain documentation such as class ratemaking procedures and quality assurance manuals, internal audit reports, systems development and systems conversion related documentation, among other documentation. No detail testing or sampling procedures were within the scope of these two phases of the examination.

Overview of NCCI

The National Council on Compensation Insurance, Inc. is a national source of workers compensation statistical information in approximately 36 jurisdictions. Originally created by the NAIC as an association of members in 1922, NCCI was incorporated in 1993 as a not-for-profit corporation. NCCI serves the insurance industry by compiling data on workers compensation insurance policies. NCCI receives detailed payroll and loss data, payroll, and class data on unit statistical reports from data providers in accordance with the Workers Compensation Statistical Plan (WCSP). The WCSP is the reporting method by which the NCCI compiles payroll, premium and loss information through unit report summarization. Each report represents a workers compensation policy written by an insurance carrier. Carriers are required to report annually for five years on each workers compensation policy. Data is validated in a series of automated processes that check the timeliness, accuracy and completeness of the data.

The Class Ratemaking area of NCCI uses overall rate level change indications from the Overall Rate Level area and summarized payroll and loss data from unit reports to produce workers compensation loss costs by payroll classification code for each state. The Overall Rate Level is determined by Financial Calls, which are required to be submitted by carriers, consisting of premium and loss data. Class Ratemaking also produces Expected Loss Rate Factors (ELR Factors) and D-Ratios (discount ratios) used by Experience Rating to produce Experience Modification Factors (experience mods). ELRs indicate the expected losses for a classification per unit of exposure and D-ratios, or discount ratios, indicate the portion of those losses that are expected to be below a specified dollar amount.

Experience Rating develops factors that enable carriers to adjust an individual insured's premium. These factors reflect an insured's actual loss history relative to

expected losses of insureds in the same rate classifications. Experience Rating uses WCSP data, but at a detailed, insured level.

Other types of data collected by NCCI contribute to their mission of providing information and services to support adequate rates and the long-term viability of workers compensation insurance. Policy data is used to assist in controlling the receipt of WCSP data and in combining WCSP data for experience rating. Detailed claim information is used to analyze the underlying factors that cause workers compensation results to change over time, and is used in proposing system reforms to control rising insurance costs.

Issues Overview

The issues identified based on the examination performed are as follows:

- NCCI failed to use all appropriate reported exposure units in the class ratemaking process. Exposure data used in class ratemaking is incomplete (data omitted due to "multiple lines of exposure" data extraction issue) or inaccurate (wrong data used) in some instances commencing in 2001 following a systems conversion.
- Loss data used in class ratemaking is incomplete or inaccurate in some instances following the systems conversion due to sequencing sort order errors.
- The most current data (i.e., latest values) submitted by carriers was not always used in ratemaking.
- The Experience Rating process was impacted in two ways: 1) The Class Ratemaking process produces D-Ratios and Expected Loss Rate Factors (ELRs) used by Experience Rating to produce experience modification factors (experience mods). These factors are affected by incomplete and inaccurate data and accordingly, experience mods are impacted, and 2) Based on

discussions with NCCI, while data for experience rating is currently extracted differently than for class ratemaking, for an eleven week time period in 2001 subsequent to the systems conversion, the extract for Experience Rating was based on the same logic used in Class Ratemaking. Consequently, the multiple exposures issue described later in this report also existed with the extracts used by Experience Rating resulting in some incorrect experience mods.

Overriding Causation

The cause of the errors in class ratemaking and experience rating emanates from the systems conversion in 2001 from a legacy database to an integrated database referred to as the IDB. The examiner's conclusions point to the following macro level causes:

- Issues with NCCI'S systems design and development methodology for the IDB database, including programming shortcomings related to the sequencing and processing order of data and the ratemaking extract logic, and lack of independent internal control oversight and review of design, design of testing and lack of subsequent independent Information Technology (IT) testing to ensure the system was operating as intended.
- Inadequate design and documentation of system testing prior to going into "production".
- The nature of the data and the limitations of converted and new online systems do not appear to have been fully understood; NCCI was not aware that data could be accepted by its web-based carrier edit system known as DCA (DataCompanion Access or DCA Access Online), NCCI's browser-based web tool for viewing and editing data

on the IDB, and IDB when data was entered or processed out of sequence.

- Sequence is important in the IDB system, however a re-sort of data routine was not established as an ongoing operation to ensure data was in the correct order.
- Updated unit reports in the system were not properly identified so as to determine which submission was the most current data.
- Other contributing causes:
 - Overlooking trends and red flags.
 - Insufficient detection triggers.
 - Certain quality assurance (QA) edit tools were not in place that may have detected the issue.
 - Data validation thresholds were too high to detect issues in certain circumstances.

The Information Technology aspects of the above issues are discussed in the Examination Background section of this report in detail.

The impact of the above issues in New Hampshire was the following:

- Three annual rate filings effective January 1, 2003, January 1, 2004 and January 1, 2005 contained incorrect class loss costs. The January 1, 2005 filing was later changed because of the Department's inquiry.
- A total of 103 class loss costs were developed using incomplete exposure unit data in 2003.
- 93 class loss costs were developed using incomplete exposure unit data in 2004.
- In 2004, 33 carriers issued approximately 14,000 policies whose premiums were based upon incomplete data.

- In 2003, 33 carriers issued over 20,000 policies whose premiums were based upon incomplete data.

Major Findings

The major findings of this targeted examination of NCCI are listed below:

Macro Level Findings

- Omission of multiple lines of data (i.e., multiple exposures issue) per class code--NCCI did not know that the IDB database contained valid multiple exposure data and other records for the same class code on unit reports for individual carriers that were input into the IDB in the pre-May 2001 upload. Accordingly, the new Class Ratemaking extract only recognized one exposure record (purportedly the latest record for each class code from submitted unit reports; however, see sequencing/re-sort issues below when there were multiple valid exposure records on the database. The exposures needed to be aggregated to be processed correctly and that was not done.
- Out of sequence data - System program logic for the determination of the latest exposure or data record in the IDB database did not account for data processed out of sequence. The system was missing a routine "re-sort" command to address this issue. Additionally, data could be uploaded out of sequence and not be detected or flagged. Certain data uploads were outside the normal process thereby bypassing the edits that may have detected and prevented the issue.
- Sort order problem and lack of a re-sort process, as well as insufficient ratemaking extract program logic – the IDB system sort logic did not account for all sequencing permutations. System identifiers were not in

place to differentiate the most current data (i.e., adds, deletes and changes were not differentiated). As a result, the system could not differentiate which line of data was the most current. Accordingly, when class ratemaking extracts were generated, the latest values may not have been extracted for exposure and loss data among other data.

- Program logic for extracting the most current data was deficient, thus the most current record was not always used.
- Through the date this examination concluded, there have been no reviews or testing by IT Internal Audit or other independent IT audit resources of the IDB, Class Ratemaking and Experience Rating programming logic since the systems conversion to ensure the programs are performing as expected.
- Data validation thresholds are based on a single validation threshold, which is not effective, and appear to be too high to identify issues in small states or small volume class codes. Monitoring and trending of data quality issues raised by the insurers is not tracked and trended.
- NCCI lacks accountability to states for reporting and communicating errors in data used in the ratemaking process. No communication was provided to regulators when NCCI became aware of the multiple line issue and corrective action has not been prompt. NCCI also lacks performance standards and other measurements of accountability. There is no process in place to perform periodic examinations of NCCI. The governance structure provides for no representation by incumbent regulators.

- The Experience Rating area produced inaccurate experience modifiers due to reliance on the same database extract as discussed above for class ratemaking.
- Audit trails and record retention processes are weak and/or deficient.

Micro Level Findings

- Data uploaded from the legacy system to the IDB system during conversion did not pass through the IDB multiple line edit process or have a re-sort process applied.
- Exposure data was processed out of sequence because of NCCI completing carrier requests to purge and re-load unit reports. Partial purges also occurred in error (not all data purged as requested by carrier). The re-load was not re-sorted as part of the process.
- In New Hampshire, rate filings and policy years were affected by the error concerning multiple lines and sequencing as follows:
 - 1/1/02 Filing was not affected.
 - Policies using 2003, 2004 and 2005 loss costs require adjustment for specified classes.
 - Experience data must be corrected for future filings.
 - Affected policy years in other jurisdictions may vary, depending upon the timing of the annual rate filing cycle in that jurisdiction.
 - Approximately 100 New Hampshire classes reported with discrepancies in reported vs. extracted exposure units in 2003 and 2004.
 - Overall Aggregate Rate impacted by errors in class rate determinations, creating a rate imbalance.

- 33 different insurance carriers issued policies with premiums based upon faulty or incomplete data.
- 28 different insurance carriers reported multiple lines of exposure.
- Exposures were omitted from the five policy years of data due to multiple line and sequencing/re-sort issues.

Examination Recommendations

1. NCCI estimated that approximately 25% of the carriers with multiple exposure issues had not been contacted at the time of the examination; the 11 largest representing approx. 75% of the total volume of omitted multiple exposures had been contacted in May-August 2002 although one New Hampshire carrier, Legion, was not contacted until November 2003. Per NCCI, corrections to the data were made in the first six months of 2004, with the delay in doing so attributable to several reasons, with carrier contracting issues being one of them. While NCCI knew of data quality issues related to the IDB conversion since at least late 2001 and identified the pervasiveness of it in May 2002, states were not made aware of the issue until October 2004 when New Hampshire raised questions about unusual variations in their data. In the future, NCCI should apprise states of data quality issues as soon as they become known to NCCI. We understand that all NCCI states have now been contacted. However, if that is not the case, the carriers and states who have not been contacted about the data quality issues raised in this examination should be contacted to arrange similar fixes or at least be notified of the issue. See further comments in Finding No. 12.
2. NCCI has indicated that no detailed quantitative impact analysis was performed by state in 2002. NCCI should have completed this analysis at the time the problems were identified. In the future, NCCI should ensure that a

more thorough and robust analysis process be applied when pervasive data quality issues are identified.

3. NCCI has indicated that no detailed quantitative impact analysis was performed by policyholder in 2002 until recently completed at the Department's request. NCCI should have performed a more formal and thorough review of the impact on class loss costs and policyholders in 2002. In the future, NCCI should ensure that a more thorough and robust analysis process be applied when pervasive data quality issues are identified.
4. Additional edits and diagnostics should be added to the class ratemaking systems and process in order to identify and prevent multiple exposure issues from recurring. Appropriate supervisory signoff of the completeness of the process should be obtained. Such controls as reconciling unit data per the IDB to the unit data extracted should be a standard control. This procedure was not done in New Hampshire's 2005 ratemaking extract and it was not detected that certain carrier's exposure data was excluded from the extract.
5. An independent review should be conducted of the "Curr" table (Current View Table) coding upon the completion of program corrections.
6. Independent testing should be performed to validate that no multiple lines or duplicates are included in the IDB database for data entered subsequent to April 30, 2001. The IDB system is reported to preclude this from occurring.
7. Independent testing should be performed of a sample of corrected "A" sheets to ensure correct data is used and all errors have been corrected.
8. A sample of original source Unit Reports should be independently tested (both pre- and post-conversion submissions) to validate proper inclusion in the database.

9. The NCCI Impact Analysis upon which states are relying for making decisions as to whether a class should be re-filed should be independently reviewed and tested to validate completeness and accuracy.
10. Programming should be independently reviewed and tested where appropriate in each of the following areas to validate the recent systems corrections made by NCCI:
 - Net Fix Program – implemented in 2002 to correct the self-insured problem noted.
 - Duplicate record program (automatic duplicate check process)
 - Old “Curr” Table – validate logic used to create the table
 - New “Curr” Table – validate logic used to create the table and corrections implemented
 - “Curr” Audit Program – validate audit program currently being used by NCCI to validate the accuracy of data.
11. NCCI should further assess the impact on filings. An initial program was developed to identify all impacted lines of data for review to finalize ratemaking data sets (10/2004).
12. NCCI should re-evaluate the thresholds for Payroll Stability validation tests. The thresholds are not state specific and the triggering thresholds should be decreased.
13. NCCI should develop a system to record/log, monitor and fully address written and verbal concerns submitted by carriers or other users of the data to ensure that all complaints, concerns or requests are fully considered, trended and analyzed. In addition, the monitoring process should include an escalation process within NCCI management to ensure that all items in the log are adequately resolved with senior management’s involvement and oversight.

14. Should the situation arise in the future when data is back loaded into IDB, NCCI should apply all new or applicable edits to the back loaded data.
15. NCCI should develop specific written procedures and protocol to backload information, which would include running the full library of edits, and ensuring the data is re-sorted upon completion of the upload to ensure it was not uploaded out of sequence.
16. When unit report data purges are performed, all data associated with the purged submission should be deleted. Written verification procedures should be developed and implemented to ensure the purge was complete.
17. NCCI should develop specific written procedures and protocols for purge and re-load procedures, which would include running the full library of edits, checking for proper sequence and obtaining appropriate supervisory signoffs on the completeness of the process.
18. NCCI should consider requiring the carrier to re-load data as opposed to NCCI when circumstances dictate it.
19. Purges of data at carrier request should be rare and performed only on an exception basis with senior management approval.
20. In connection with transaction sort order exposure data issues, perform testing of data as noted above to identify any further anomalies.
21. With respect to transaction sort order exposure data issues, validate "Curr" (Current View) audit program to verify accuracy and completeness.

22. In connection with transaction sort order loss data issues, perform testing of data as noted above to identify any further anomalies.
23. With respect to transaction sort order loss data issues, validate "Curr" (Current View) audit program to verify accuracy and completeness.
24. Old and new "Current View" table programming should be reviewed for logic errors. Testing should be performed to ensure logic is complete and accurate.
25. The Class Ratemaking extract program should be coded to allow for a secondary sort order and even a third sort if feasible to ensure that the most current data is properly extracted.
26. NCCI should perform a formal "post-mortem" on its systems development and testing methodology for the IDB system and implement revisions and needed improvements.
27. Systems development and installation acceptance plans should be prepared in a formal, well-documented, complete and thorough manner in order to address and document issues such as those identified in this report. In each case, it appears that the scenarios that led to the data errors could have been detected with the appropriate level and depth of testing. The disposition of test cases that fail should be clearly and adequately documented.
28. A better understanding of the data and relationships should be developed and documented to ensure no further anomalies exist.
29. Internal Audit should be formally involved in the systems development and implementation process, including review of the construction and validation of test plans and review of successful test results.

30. Validation thresholds should be re-examined and lowered in order to be sufficiently sensitive to identify potential errors in the ratemaking process for small states/classes.
31. The types of validation checks should be increased/enhanced to include, as examples, the following:
- Most recent date processed (last one based on Unit Report No.)
 - Report and/or Admin No.
 - Secondary (planned) and third sort programs
 - Change thresholds to profile by state and class code
 - Class codes have swing limits but they are not state specific and should be
 - Looks at industry group change parameters which appear to be high at +/- 10%
32. The IDB Database should be independently tested and evaluated for completeness and accuracy of pre-and post-May 1, 2001 unit report submissions by IT auditors/consultants. After correction of system programs, the IDB programs and Class Ratemaking extract programs source code should be reviewed and tested to ensure the programs are performing as revised and expected.
33. Consideration should be given to requiring an annual SAS 70 report on internal controls relating to these systems.
34. NCCI should quantify the impact of the shortfall in the balancing of the overall aggregate rate for the years in question. Discussions should be held by states and the NCCI to determine whether an equitable solution to all parties

involved can be developed if feasible, and how such situations should be handled in the future.

35. NCCI should implement a process whereby a carrier seeking to modify their data must indicate the nature or reason using a series of reason codes. Such codes could then be produced into a management reporting tool and investigated fully at a sufficiently high level of management to ensure that problems, such as the data quality issues identified during the examination, are not going unnoticed and unaddressed.
36. Discussions should be held among states to determine reporting requirements, performance standards and other measurements of accountability between NCCI and the constituents/stakeholders that rely upon its services. When data quality issues become known, there should be reporting criteria and guidelines established for prompt reporting to the states. Additionally, the root cause of the data quality issue should be promptly established. We recommend that the states consider an examination cost allocation program such that if internal NCCI operations or processes are the root cause, some or all of the examination costs are borne (and retained) by NCCI. If all exam costs are allocated to carriers, such costs should be prohibited from being passed on to policyholders.
37. NCCI should be subject to routine and periodic collaborative examination by the states that rely upon its services. States should consider an appropriate cost sharing program to be used for such examinations
38. We recommend that the governance structure of NCCI be reviewed and consideration be given to the inclusion of at least two regulators (even if nonvoting members) on NCCI's Board of Directors as well as consideration

as to whether the not-for-profit structure is the best corporate structure for NCCI.

39. NCCI should conduct a study of the impact of the data quality issues discussed above on the D-Ratios and ELRs that were produced subsequent to the 2001 conversion, and report their findings to the states. An independent review of the study's findings and supporting documentation should be conducted.
40. An independent review should be conducted to validate whether the Experience Rating data extracts created during the period subsequent to the 2001 IDB systems conversion were complete and accurate.
41. NCCI states should evaluate whether uncorrected experience ratings should be corrected given the root cause (NCCI error) of the issue. The states should review the application of the rules in the Experience Rating Plan Manual referred to by NCCI in determining the proper application of the rules and if proper, consider whether a waiver or exception should be granted.
42. Statute RSA 400—B: 3.I., effective 9/3/2005, requires that records be maintained for market conduct examination purposes. NCCI should develop record retention and audit trail policies and procedures which require the documentation and retention of data quality related information, support, correspondence, systems development documentation and testing as well as other data which may be pertinent in a regulatory examination of NCCI. The guidance should specify what types of data should be retained, the period of retention and manner and place in which it should be archived.

Examination Background

The State of New Hampshire licenses NCCI as an advisory organization for the development of class loss costs. NCCI's Class Ratemaking system was first developed in the early 1990's. It was reprogrammed in 2003 in Oracle 9i and a Web-based software writing system established. At that time, data was converted from "flat files" or "spreadsheets", to a contemporary data warehouse structure.

The Class Ratemaking area of NCCI uses overall rate level change indications from the Overall Rate Level area and summarized payroll and loss data from unit reports to produce workers compensation loss costs by payroll classification code for each state. The Overall Rate Level is determined by Financial Calls, which are required to be submitted by carriers, consisting of premium and loss data. Class Ratemaking also produces Expected Loss Rate Factors (ELR Factors) and D-Ratios (discount ratios) used by Experience Rating to produce Experience Modification Factors (experience mods). ELRs indicate the expected losses for a classification per unit of exposure and D-ratios, or discount ratios, indicate the portion of those losses that are expected to be below a specified dollar amount.

Data used in class ratemaking is as follows:

- Class Code.
- Exposure (estimated payroll/audited payroll).
- Developed losses (loss data per unit report, developed to ultimate losses by NCCI actuaries).
- Indicated pure premium, which is the loss cost per \$100 of exposure, and equal to the ratio of adjusted losses to exposure units (developed losses/exposure).

In October 2004, the State of New Hampshire Department of Insurance identified aberrations with class loss costs for a certain class code (#2704—Loggers, et al) during its review of the January 1, 2005 filing provided by NCCI. Inquiries were made of NCCI to explain the aberrations. As a result of the Department's inquiries, several issues were identified as follows:

- Exposure data used in class ratemaking is incomplete due to omitted data or inaccurate due to the wrong data being used in some instances. The issue arose subsequent to an April 2001 systems conversion. NCCI failed to use all appropriate reported exposure units.
- Loss data used in class ratemaking is incomplete or inaccurate in some instances when online carrier corrections capability commenced in June 2001.
- The most current data (i.e., latest values) was not always used in ratemaking.
- Class Ratemaking produces D-Ratios and Expected Loss Rate Factors (ELRs) used by Experience Rating to produce experience modification factors (experience mods). These data elements are impacted by incomplete/inaccurate data and accordingly, experience mods are impacted.
- Experience Rating uses the same integrated database as class ratemaking. However, based on discussions with NCCI, data for experience rating is extracted differently than for class ratemaking and therefore NCCI believed there was no multiple exposure or loss issue with the extracts used by Experience Rating. Later during the examination, it was disclosed by NCCI that this was not the case for a period of eleven weeks from July 26, 2001 to October 5, 2001. NCCI has not informed the examiners as to the impact, if any, of the out-of-sequence and re-sort issues on experience rating.

The impact of the above issues included the following:

- In New Hampshire, three annual rate filings, effective January 1, 2003, January 1, 2004 and January 1, 2005, contained incorrect class loss costs. The January 1, 2005 filing was later changed as a result of the Department's inquiry.
- 103 class loss costs were developed using incomplete exposure unit data in 2003.
- 93 class loss costs were developed using incomplete exposure unit data in 2004.
- In 2004, 33 carriers issued approximately 14,000 policies whose premiums were based upon incomplete data.
- In 2003, 33 carriers issued over 20,000 policies whose premiums were based upon incomplete data.

As a result of the above findings, the Department called an examination to be performed in two phases, the objectives of which were as follows:

Overall Examination Objectives

- Identify the issues and their root causes.
- Identify actions taken to date and planned to correct the issues.
- Identify the impact on individual class loss costs.
- Identify the impact on stakeholders—policyholders, carriers, states, NCCI.
- Identify the impact on other ratemaking processes performed by NCCI.

Specific Examination Objectives

- Identify all distinct and separate causes of systematic failure to include reported and appropriate exposure units in NCCI's class relativity ratemaking process. For each cause, gain a complete understanding of the problem.
- Establish when each of the problems was discovered and how NCCI addressed each.
- Establish whether the causes are limited to the 2001 systems conversion.
- Determine whether all of the causes are known and understood by NCCI.
- Determine the reasons why NCCI failed to recognize the problems and whether their procedures were followed or inadequate.
- Determine whether adequate corrective actions have been applied and that NCCI has fixed the problems.
- Identify all affected classes in all jurisdictions and quantify or review/test NCCI's quantification of the impact for each class. Determine whether all regulators in affected jurisdictions have been notified.
- Determine whether all affected companies have been identified and the impact on all affected policyholders has been established.
- Assess whether all the effects of the excluded or incorrect exposure units have been considered with all adverse effects on policyholders measured and corrected.
- To the extent that any problems were caused by statistical reporting of exposure units for segmented class codes or sub-codes, establish whether procedures for reporting such data were followed by the reporting companies and NCCI.

- Determine whether NCCI performs a check to assure that any sub-codes or segmented class codes used by companies are properly filed and approved for use by state regulators.

The above objectives were addressed during the examination and the findings are presented in the Pertinent Facts of the Current Examination section of this report.

NCCI System Background

The Integrated Database, known as the "IDB," was established in 1999 and was part of the Unit Report Enhancement Project. It became the central repository for housing data used for class ratemaking and experience rating.

Prior to the implementation of the IDB Database, NCCI used the following systems to house the data:

- PICS Carrier Master (PCM)—stored carrier data
- Policy Issue Capture System (PICS)—stored electronic and hard copy policy and proof-of-coverage notices
- Unit Report Expansion Access (URE)---Unit report data (250 byte record length)
- Unit Report System (URS)---Unit report data prior to the implementation of the URE system (120 byte record length)

The Unit Report Replatform Project was initiated as a result of a corporate directive to move NCCI's data storage systems from the mainframe to UNIX and into the already created IDB. System conversions supporting this initiative consisted of the following five projects:

- Units Collection Replatform Project: April 2001

- First Report via DCA Access Online Project: June 2001
- Class Validation Replatform Project: October 2001
- Sub-Reports via DCA Access Online Project: July 2003
- Class Validation Exclusions Project: January 2005

NCCI System Conversion

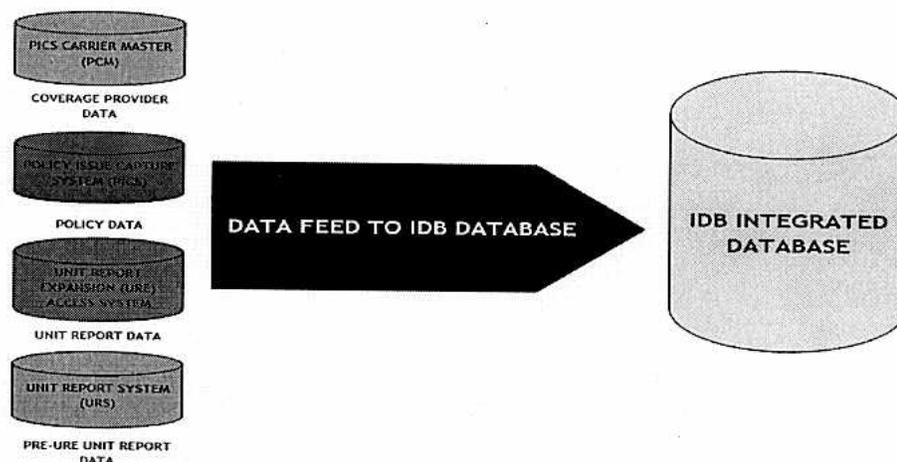
The steps in NCCI's system conversion to the IDB system are summarized below along with an identification of issues associated with the steps in the conversion that resulted in errors in class loss costs developed by NCCI.

Migration of Data to the IDB

Step 1: Once the IDB database was modeled and ready for production, NCCI migrated all data from the previous systems into the database. See the diagram below.

Issue: Uploaded data was not run against new system edits or resorted.

Step 2: Once the migration was complete, new policy and unit report data was redirected to feed directly into the IDB database.



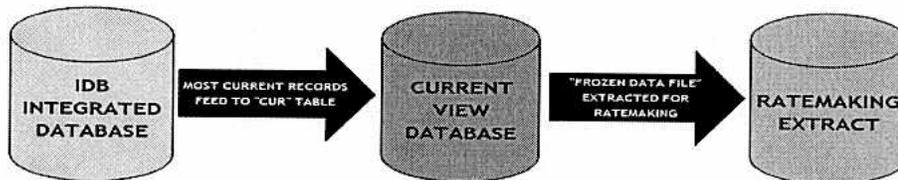
Extracting Data for Class Ratemaking Process

Step 1: Data collected is processed in the IDB database and the most current records are fed to the Current View Database via a program.

Issue: Data in IDB is out of sequence; the most current record is not identifiable.

Step 2: Data from the Current View database is extracted and used for class ratemaking. See the diagram below.

Issue: Program logic for extracting most current data was deficient, thus the most current record was not always used.



System Conversion Issues

Several issues evolved from the systems conversion which can be summarized into three overriding problems—the existence of multiple lines of exposure and other data in the IDB, sequencing problems related to the order of data in the IDB and “sort order” problems relating to the processing order of transactions and updates made to the IDB database.

Multiple Lines of Exposure Problems

The new Class Ratemaking extract only recognized one exposure record (purportedly the latest record, however, see sequencing/resort issues to follow) when there were multiple exposures on the database. The exposures needed to be aggregated to be processed correctly and were not. See an example of the problem in the table below.

Report No.	Correction No.	Class	Payroll	Update Type	Status
1	0	2702	\$35,000	Original (R)	Omitted
1	0	2702	\$27,000	Revised (R)	Extracted
Sum			\$62,000		Correct Exposure

The reasons for multiple lines of exposure in the IDB are as follows:

- NCCI did not know that the new IDB contained multiple exposure records for the same class code on unit reports for individual carriers, which were input into IDB in the pre-May 2001 upload of data during the system conversion.
- The legacy database contained multiple exposures for individual carriers due to record length limitations, which was accepted by NCCI.
- Uploaded data from conversion did not pass through the new multiple line edit process.
- Additional investigation by NCCI also found that in the legacy database:
 - Multiple lines were used by carriers for convenience
 - Multiple lines were used by carriers to report class sub-codes
 - Multiple lines were used to accommodate insured's multiple locations

Sequencing Problems

In the processing phase, records are put through pre-processor modules. The data is then loaded to the IDB, wherein each unique unit report is assigned a

system-generated key (aud_rpt_id) and each unique exposure record is assigned a sequential key. The sequencing problem resulted when the program logic for the determination of the latest exposure record did not account for data processed out of sequence. The process was missing a routine re-sort command to address the issue.

There were several different types of sequencing problems that occurred with the IDB as follows:

- Data Backload (or “upload”) Sequencing Problem
 - Trigger: Historical data upload from legacy system to the IDB
 - Result: Exposure data processed out of sequence when loading the IDB database; as a result, the ratemaking extract did not contain the most current exposure data. No re-sort was performed after upload.

- Purge and Re-load Sequencing Problem
 - Trigger: An exception process of removing and re-loading data to the IDB (on contractual request from carrier) to correct large amounts of invalid data submitted by a carrier.
 - Result: Exposure data was processed out of sequence (e.g., exposure data from 1st reports was processed after correction reports had already been received). Exposure data was processed out of sequence as a result of NCCI completing carrier requests to purge and re-load unit reports. Partial purges also occurred in error (e.g., not all data was purged as requested by the carrier). Re-load of data was not sorted upon completion.

Sort Order Problems

The sort order problem relates to the data sort logic, which did not account for all sequencing permutations. System identifiers were not in place to differentiate

current data (i.e., adds, deletes and changes were not differentiated). For example, the system viewed an “add” transaction in the same manner as a “delete” transaction when there should be a processing order (e.g., “delete” transactions should be processed before “add” transactions). An example of this issue is depicted below in the following table:

Legend: Re <u>URS System</u> P=Previous R=Revised	Col A & B <u>IDB/URE</u> <u>System</u> C=Change D=Delete A=Add			Note: This column is not used in the sort process but should be.	Sorting <u>Column</u> Previous/ Revised	
Report No.	Correction No.	Class	Payroll	Col A Update Record	Col B Type Code	Explanation
1	0	2702	\$10,000	R	R	URS--Original payroll exposure reported
1	1	2702	\$10,000	P	P	URS—Correction 1-1— shows \$10K as previous record and shows \$12K as the revised record below
1	1	2702	\$12,000	R	R	See above
1	2	8010	\$15,000	A	R	IDB—Correction 1-2— intended to correct class code and change payroll to \$15K; instead, most current record remains class 2702 and \$12K
1	2	2702	\$12,000	D	R	See above

When the records came into the IDB out of sequence, since there was sorting only on the translated column (Column B above) and no sort using the updated column (Column A above), the wrong exposure/data would be extracted. In the last row of the table above, the data is out of sequence, as the “delete” transaction should be processed before the “add” transaction, thus the records are sequenced out of order. As a result, exposure and loss data could be processed out of sequence because of an error in the translation of the update type code as an add,

change or delete record. There was no unique identifier for adds, changes and deletes so that to the system, they all appeared to be the same type of update. As a result, the ratemaking extract did not contain the most current exposure or loss data in all cases. Other current changes also may not have been captured such as class code corrections.

Impact in New Hampshire Market

In New Hampshire, Rate Filings and Policy Years were affected by the error concerning multiple lines. The following table illustrates the impact (bold underlined font represents policy years with omitted data):

Filing Effective Date	1st Report Policy Period	2nd Report Policy Period	3rd Report Policy Period	4th Report Policy Period	5th Report Policy Period	Impact
1/1/2008	4/1/2004-3/31/2005	4/1/2003-3/31/2004	4/1/2002-3/31/2003	4/1/2001-3/31/2002	4/1/2000-3/31/2001	No Corrections Required
1/1/2007	4/1/2003-3/1/2004	4/1/2002-3/31/2003	4/1/2001-3/31/2002	4/1/2000-3/31/2001	<u>4/1/1999-3/31/2000</u>	Corrections Required
1/1/2006	4/1/2002-3/31/2003	4/1/2001-3/31/2002	4/1/2000-3/31/2001	<u>4/1/1999-3/31/2000</u>	<u>4/1/1998-3/31/1999</u>	Corrections Required
1/1/2005	4/1/2001-3/31/2002	4/1/2000-3/31/2001	<u>4/1/1999-3/31/2000</u>	<u>4/1/1998-3/31/1999</u>	<u>4/1/1997-3/31/1998</u>	Premium Adjustments Required
1/1/2004	4/1/2000-3/31/2001	<u>4/1/1999-3/31/2000</u>	<u>4/1/1998-3/31/1999</u>	<u>4/1/1997-3/31/1998</u>	<u>4/1/1996-3/31/1997</u>	Premium Adjustments Required
1/1/2003	<u>4/1/1999-3/31/2000</u>	<u>4/1/1998-3/31/1999</u>	<u>4/1/1997-3/31/1998</u>	<u>4/1/1996-3/31/1997</u>	<u>4/1/1995-3/31/1996</u>	Premium Adjustments Required

Assuming 20 months from policy inception as the deadline for reporting unit statistical exposure data, statistical data for policies incepting November 1999 and later should not be affected by the issue, since statistical data for these policies

would have been first reported on or after May 2001. Edits were indicated by NCCI to be in place at that point that would have precluded multiple entry lines of exposures data for the same class. Any rate filing that relied upon statistical experience data sets containing data for policies incepting prior to November 1999, would be affected by the problem.

The market impact of the multiple lines error to New Hampshire is as follows:

- 1/1/02 Filing not affected.
- Policies using 2003, 2004 and 2005 loss costs require adjustment for specified classes.
- Experience data must be corrected for future filings.
- Affected policy years in other jurisdictions may vary, depending upon the timing of the annual rate filing cycle in that jurisdiction.
- Approximately 100 New Hampshire classes reported with discrepancies in reported versus extracted exposure units in 2003 and 2004.
- 33 different insurance carriers issued policies with premiums based upon faulty or incomplete data.
- 28 different insurance carriers reported multiple lines of exposure.

- Exposures omitted from the five policy years of data due to multiple line and sequencing/re-sort issues were as follows:

NCCI Omitted Exposure Analysis	2003 Filing	2004 Filing
New Hampshire	\$59,623,752	\$46,987,338
Maine	\$51,910,089	-\$1,295,290
Vermont	\$22,826,431	\$28,095,066

The pure premium impact for the top seven affected class codes in the 2004 New Hampshire filing were as follows:

Class Code	Root Cause	% Change in Loss Cost	2004 Filing-- Estimated Pure Premium Impact per NCCI
2702--Logging or lumbering & drivers	Sequencing Multiple lines	-18.6%	-\$254,177
5022--Masonry NOC	Sequencing Multiple lines	-2.3%	-\$47,406
8017--Store: Retail NOC	Multiple lines	-.5%	-\$38,467
9101--College: All other employees	Multiple lines	-1.1%	-\$27,468
5213--Concrete construction NOC	Multiple lines	-1.4%	-\$15,395
6217--Excavation & Drillers	Multiple lines	-.3%	-\$14,901
5190--Electrical wiring within buildings	Multiple lines	-.5%	-\$14,150

The 2004 estimated policy premium impact for the top 10 class codes affected in New Hampshire were as follows:

Class Code	Payroll Change	2004 Estimated Pure Premium Impact	2004 Estimated Policy Premium Impact	2004 Estimated Policy Volume
2702 LOGGING OR LUMBERING & DRIVERS	28.34%	-\$254,177	Not Available**	283
5022 MASONRY NOC	2.64%	-47,406	-\$69,311	372
8017 STORE: RETAIL NOC	0.04%	-38,467	-59,413	2,208
9101 COLLEGE: ALL OTHER EMPLOYEES	1.17%	-27,468	-49,258	485
5213 CONCRETE CONSTRUCTION NOC	1.58%	-15,395	-18,108	230
6217 EXCAVATION and DRIVERS	0.35%	-14,901	-27,507	1,020
5190 ELECTRICAL WIRING-WITHIN BUILDINGS and DRIVERS	0.08%	-14,150	-10,146	930
8008 STORE: CLOTHING, WEARING APPAREL or DRY GOODS-RETAIL	0.42%	-9,012	-5,746	442
7228 TRUCKING: LOCAL HAULING ONLY-ALL EMPLOYEES AND DRIVERS	0.06%	-6,904	-5,784	406
8232 LUMBERYARD NEW MATERIALS ONLY: ALL OTHER EMPLOYEES and YARD, WAREHOUSE, DRIVERS	0.19%	-6,733	-10,429	272

** Policy premium impact was requested by the Department as part of its evaluation of how to respond to the overall issue of excluded exposures. Since the issue was first manifested in class 2702, related policy corrections for the class were initiated by the Department and under way prior to the advent of this examination.

In addition to the classes noted above, the affect on other classes (excluding class code 2702) was estimated to be as follows:

- Range of % change in loss cost:
 - -0.9% to -.01%
- Range of \$ change in estimated pure premium impact:
 - -\$9,012 to -\$37
- Range of policy premium impact by class (excluding 2702):
 - -\$69,311 to -\$14
- NCCI states there are no excluded exposures for 4/1/2000 – 3/31/2001 effective policies – implication is no omitted exposures from multiple reported lines since front end system edits in the IDB rejected multiple line submissions

The impact by policyholder was not quantified by NCCI except where the Department specifically requested the impacted class code to be revised. A sampling of the number of policyholders impacted by the class ratemaking errors follows:

- Class code 8742—Salespersons, collectors, messengers—outside
 - 2003 filing
 - 9,332 policyholders affected
- Class code 8017—Store: Retail NOC
 - 2004 filing
 - 2,208 policyholders affected
- Class code 5022—Masonry NOC
 - 2003 filing
 - 410 policyholders affected
 - 2004 filing
 - 372 policyholders affected

Pertinent Facts of the Current Examination

The following findings were noted during the targeted examination of NCCI. For each finding, the relevant Standard is identified. In many instances, more than one Standard was applicable. In such cases, all applicable Standards are provided along with recommendations.

FINDING NO. 1-- Omission of Multiple Lines of Data

Applicable Standards

Data Collection and Handling

Standard 3

Determine that all databases are updated as needed with all accepted company data.

Standard 5

Determine that all calculations associated with the database have been accurately applied.

Communications with Companies and Regulators

Standard 2

The statistical agent has established procedures for notifying companies (and regulators as requested or required) of errors and for correcting errors.

Statistical Plans

Standard 3

The statistical agent verifies that companies submit data in accordance with the appropriate statistical plan.

Reports, Report Systems and Other Data Requests

Standard 3

The statistical agent has accurately extracted the appropriate information from the statistical database.

Findings

Unit Report submission edits prior to the April 30, 2001 systems conversion and the legacy systems accepted multiple lines of data for the same class code on the unit report. In the legacy system, this was accepted due to record length limitations. The National Council on Compensation Insurance (NCCI) subsequently discovered that class sub-codes used by carriers, and multiple insured locations, among other reasons were also reported on multiple lines. The prior ratemaking system summed the multiple lines of data for ratemaking purposes. The new system was not designed to permit multiple lines of data per class code as NCCI indicated that such was not in accordance with the Statistical Plan. The new database system is a sequential relational database wherein the last item entered into the database is supposed to be the most current data. For the class ratemaking data extract, the new Integrated Database system (IDB) pulled only the latest exposure line and not each multiple line. In addition, in the new system, a front-end edit existed to reject the submission of multiple lines of data per class code. Data uploaded from the old systems into the IDB was not subjected to the new edits.

The issue of multiple lines was first noted in April 2001 in connection with the Michigan and Texas Bureaus when it was noted that they allow multiple line reporting. While corrected for these bureaus, the issue was not further addressed by NCCI as these states are not NCCI states and the issue was deemed to be unique to them and therefore not given high priority status.

An internal audit report of Experience Rating/Data Operations as of September 30, 2001 also disclosed that errors were noted in experience ratings due to the incorrect transfer of unit data between the Unit Report System (URS) and IDB. The report stated that the data reflected on URS was correct but that the data on IDB was incorrect. Management's response to the finding also confirmed that they had been investigating individual unit differences involving the historical data load from URS to IDB and that they were working with Data Operations to correct the differences. Management stated that Data Operations was the sponsor of a Units System Enhancement Project that was commencing March 25, 2002 to address units collection, edit and loading issues that were identified since the IDB became the system of record for data collection in May 2001. The project included the identification of existing "out of sync" situations between URS and IDB and the correction of situations where data discrepancies occurred.

Related IDB data quality issues were also discussed at the July 2002 Audit Committee and Board of Director meetings, specifically referencing the Experience Rating internal audit report and three findings of importance relating to the migration of data to the new IDB database, out of sync data between the two systems and a third issue with assigned risk data. Please refer to Finding No. 13 for more information on the above matter and an identified issue affecting Experience Rating related to excluded exposures as well as sequencing issues, which are discussed in detail in Findings No. 2 through 6 below.

An Iowa Self-insured Fund also reported multiple exposures for the same class on unit reports that were omitted for class ratemaking. (Note: the data was included prior to filing.). The Iowa issue was identified by NCCI in April 2002 by a payroll stability validation test flag.

The Iowa issue was that the Self-insured Fund reported multiple exposures for the same class, which per NCCI was inconsistent with the Statistical Plan.

The new Class Ratemaking extract only recognized what was expected to be the latest exposure record when in fact there were multiple exposures on the database that should have been recognized.

Individual carriers reported some multiple exposures for the same class on unit reports prior to new edits that became effective in April 2001, which were not extracted for class ratemaking. The issue was again noted in May 2002 when NCCI initiated a follow-up review after the self-insured class validation issue noted above was disclosed.

Based on discussions with NCCI management, one of the causes of the issue was that some carriers reported multiple exposures for the same class on a unit report, which per NCCI was inconsistent with the Statistical Plan and the design of the IDB system. Additionally, individual carriers reported sub-classes and other multiple exposures for the same class on unit reports, which were not extracted for class ratemaking.

The sub-coding issue (largely by one carrier) was one of the reasons for multiple lines of data being in the database. Other reasons included:

- Multiple lines were used for convenience;
- Multiple lines were needed to accommodate total exposure due to a numeric limitation based on the field length for exposure being too short prior to the implementation of the Unit Report Expansion (URE) Statistical Plan; and

- Multiple lines were used to accommodate multiple locations of insureds.

Each of the issues noted above led to the ratemaking system not always extracting the correct amount because, as stated above, only the last record was being pulled and used.

The previous Unit Statistical Plan required data providers to submit changes to records with an offsetting row. The class ratemaking system summed the records, treating offset rows as negative amounts. The new URE Statistical Plan allowed data providers to submit changes without an offsetting row. As a result, NCCI could no longer use the summation method. The new IDB system (April 2001 conversion) picks up the last record (designed to be the latest or most current record) for each unique exposure, loss, etc. However, taking the latest record approach did not always provide an accurate answer given the multiple lines of exposure and other data.

NCCI analyzed the IDB for multiple exposures and quantified the total volume in May 2002. They identified the top eleven carriers representing approximately 75% of the total volume of excluded data and proposed to fix the data for those eleven carriers. Also at that time, NCCI implemented a plan to fix any other carriers/classes in the extracted ratemaking data when the payroll stability report flagged the issue.

“Fixes” or corrections to carrier data similar to that noted above appear to have been occurring almost from the time the IDB system became the system of record in May 2001 to the development of the “Net Fix” program and the continuing use of it. The eleven carriers’ data fixes involved creating correction units to combine the multiple exposure lines. As NCCI has indicated that it was not aware of the sequencing and sort-order issues discussed in Findings No. 2 through 6, it is unclear whether the “fixes” for multiple lines exposures were completely effective.