By May 2002, NCCI understood the volume, magnitude and pervasiveness of the issue and knew the number of exposure records with duplicates was 238,263 on a countrywide basis. They did not quantify the number or dollar volume of excluded exposures or loss cost impact. NCCI has since indicated that the countrywide excluded exposure amount over the 5-year period is approximately $3.2 billion.

NCCI did not notify the states or otherwise bring it to the attention of the state regulators for whom they develop loss costs. NCCI indicated that their actuaries did not believe the issue would materially affect loss costs if the payroll stability test was not triggered. The errors were made known to three states after New Hampshire insurance regulators noted that incorrect data had been submitted by NCCI in support of its New Hampshire 2005 loss costs filing. This was identified in October 2004 as part of a response to New Hampshire’s interrogatory related to its 2005 filing for class code 2702, Logging or Lumbering and Drivers.

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 approximately 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.

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 re-occurring. 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 wherein 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 in fact included in the IDB database for data entered in subsequent to April 30, 2001. The IDB system is reported to prohibit this from happening.
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 in each of the following areas to validate the systems corrections made:
    - 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.

**FINDING NO. 2—Sequencing of Data Uploads**

**Applicable Standards**

**Data Collection and Handling**

<table>
<thead>
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<th>Standard 2</th>
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<td>All data that is collected is run through the editing process.</td>
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<th>Standard 3</th>
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<tr>
<td>Determine that all databases are updated as needed with all accepted company data.</td>
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Findings

Some historical data uploads from the legacy systems to the IDB were faulty in that data was uploaded out of sequence. The IDB was not re-sorted after the upload, as it was not known that it was out of sequence.

This exception condition was identified in January 2005 by NCCI while reconciling New Hampshire class code 2702 data (approximately 600 items). NCCI found one line of data that did not reflect corrections submitted relating to the original unit report. At some point, some unit reports were processed out of sequence (i.e., the correction was not the last row or an Add record was made before a Deletion record). During the period of parallel processing, some records were also deleted and re-loaded out of order. Since correct sequence logic was relied upon to extract the information to perform the ratemaking, the wrong records were selected in these situations.

When data was back-loaded, new system edits were not applied to the back-loaded data from the URS and the URE systems that may have detected the multiple lines issue.

Recommendations

14. Should the need arise, when data is back-loaded in the future, NCCI should apply all new or applicable edits to the back loaded data from the system.

15. NCCI should develop specific written procedures and protocol to backload information that would include running the full library of edits and ensuring the data is re-sorted upon completion of the upload, should it be uploaded out of sequence.
FINDING NO. 3—Sequencing of “Purge and Re-load” Data at Carrier Request

Applicable Standards
Data Collection and Handling

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<th>Standard 3</th>
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<td>Determine that all databases are updated as needed with all accepted company data.</td>
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Findings

This finding relates to the exception process of removing and re-loading data to the IDB based on a contractual request from the carrier. NCCI periodically performs a purge when requested by carriers who have made significant errors in their reported data. In the past, NCCI would remove and re-load data at the direction of the carrier. According to NCCI, approximately 31 Unit Reports were loaded out of sequence in this process. Current edits may have prohibited this if the normal loading process was used, but this was outside the normal process. No resort of the IDB was performed when these actions were performed.

Some of the purge and re-load procedures were only partially completed. In other words, the parent or original unit report was deleted, but not the affiliated unit reports (e.g., subsequent corrections, additions, and deletions). As a result, some of the data associated with the original filing was inadvertently left in the system. The system was unable to draw the correct logical relationships to this data and this condition, in some instances, would have resulted in errant calculations.

Consistent with the issue noted above, this resulted in the wrong records being selected for ratemaking.
The exception condition was identified in January 2005 by NCCI while reconciling New Hampshire’s class code 2702 data.

Recommendations

16. When 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. Additionally, NCCI should consider requiring the carrier to re-load the data as opposed to NCCI.

19. Purges of data at carrier request should be rare and done only on an exception basis with senior management approval.

FINDING NO. 4—Transaction Sort Order of Exposure and Other Data

Applicable Standards

Data Collection and Handling

Standard 2
All data that is collected is run through the editing process.
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.

Findings

This finding relates to the processing order of updates to a unit report. Carrier-submitted exposure and related data (e.g., class codes) were processed out of sequence within a unit report resulting in the latest values not being used for class ratemaking.

Due to the method used to store the record in the database as either a previous record or revised record, the sequence of some records was not prevented from being in the wrong order, resulting in the latest values/data not being used for ratemaking.

The exception condition was identified in January 2005 by NCCI while reconciling New Hampshire class code 2702 data.

Recommendations

20. Perform testing of data as noted in Finding No. 1 above to identify any further anomalies.

21. Validate “Curr” (Current View) audit program to verify accuracy and completeness as recommended in Finding No. 1 above.
FINDING NO. 5—Transaction Sort Order of Loss Data

Applicable Standards

Data Collection and Handling

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<tr>
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</table>

Findings

This finding relates to the processing order of updates to a unit report. Carrier-submitted loss data was processed out of sequence within unit report submissions resulting in the latest values/data not being used for class ratemaking.

The exception condition was identified by NCCI in January of 2005 while researching the exposure sort order issue discussed in Finding No. 4 above.

Recommendations

22. Perform testing of data as noted in Finding No. 1 above to identify any further anomalies.

23. Validate “Curr” (Current View) audit program to verify accuracy and completeness as recommended in Finding No. 1 above.
FINDING NO. 6—Sequencing and Sort Order Program Logic

Applicable Standards

Data Collection and Handling

Standard 5
Determine that all calculations associated with the database have been accurately applied.

Reports, Report Systems and Other Data Requests

Standard 3
The statistical agent has accurately extracted the appropriate information from the statistical database.

Findings

The programming logic that developed the “Current View” table did not include a secondary sort to ensure that the data selected was the latest/most current data. As noted in Finding No. 1 above and Finding No. 7 below, the systems conversion and change to a “Current View” table logic does not appear to have been completely or sufficiently developed or tested, resulting in errors in the IDB database.
Recommendations

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 extract program should be coded to allow for a secondary sort order and even a third sort if feasible to ensure the most current data is extracted.

FINDING NO. 7—Systems Development Methodology

Applicable Standards

Company Operations and Management

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<tr>
<td>The statistical agent has adequate controls, safeguards, and procedures for protecting the integrity of statistical and computer information.</td>
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</table>

Findings

Based on a review of NCCI's systems development documentation and the findings noted above, NCCI's application of their systems development quality assurance process during the design of the system or in the normal QA review process did not identify or resolve programming logic that resulted in recording and using data incorrectly.
During the systems conversion process, it appears that there was a lack of adequate testing designed to detect the issues subsequently noted. It appears from review of the systems conversion documentation that having designed tests to thoroughly address data integrity would have identified some of the issues referenced above. In addition, we noted that some test cases failed. However, NCCI's documentation standards do not require an audit trail of the resolution of failed test cases. NCCI informed us that as part of NCCI's systems development life cycle, a Master Test Strategy, Test Plans and detailed Test Cases are developed. The process is then to perform the tests and track the exceptions that fail the testing criteria. During the course of testing, the team works to resolve open issues and exceptions prior to implementation. The process does not require that each individual test case be updated and the resolution documented. The business unit sign-off is used as validation that all test cases have been satisfactorily executed and passed prior to a system being migrated to production. The business unit's sign-off is documented on the "migration request form."

**Recommendations**

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 above. 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.

FINDING NO. 8—Data Validation Thresholds

Applicable Standards

Data Collection and Handling

Standard 2
All data that is collected is run through the editing process.

Standard 5
Determine that all calculations associated with the database have been accurately applied.

Communications with Companies and Regulators

Standard 4
Review any additional data quality programs maintained by the statistical agent.
Reports, Report Systems and Other Data Requests

Standard 2
All calculations used to develop the database have been performed accurately.

Standard 3
The statistical agent has accurately extracted the appropriate information from the statistical database.

Standard 5
All data collected, in addition to that collected under the statistical plan, was adequately reviewed for quality and correctly compiled.

Findings

NCCI validation testing uses a single validation threshold based on total exposure by class, which has now been proven to be not the most effective indicator of a data problem. The threshold appears to be too high to identify issues in either small states or small volume class codes. Additionally, when comparing current year data to prior year data, if the prior year data also has missing or incorrect data, the comparison may incorrectly indicate a favorable comparison and/or it may yield an invalid result.

Recommendations

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 per 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%

**FINDING NO. 9—Independent Systems Review and Testing**

**Applicable Standards**

**Company Operations and Management**

**Standard 1**

The statistical agent has an on-going, valid, internal audit program that applies to the statistical agent function.

**Findings**

While Internal Audit has previously assessed NCCI’s Systems Development Life Cycle methodology and been involved with projects from a high level project management perspective, we found the IDB, Class Ratemaking and Experience Rating programming logic has not been evaluated by IT Internal Audit or other independent IT audit resources since the systems conversion implementation in 2001 to ensure it appropriately translated the business requirements. An independent assessment ensuring that the technical programming and
implementation addresses all business processing scenarios and data handling requirements should be conducted periodically.

**Recommendations**

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.

**FINDING NO. 10—Overall Aggregate Rate Impact**

**Applicable Standards**

*Reports, Report Systems and Other Data Requests*

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**Finding**

NCCI balances the individual class rate changes to the overall aggregate rate for each state in which it has class ratemaking responsibilities. An imbalance may result when overcharged policyholders are granted refunds but undercharged policyholders are not billed additional premium. This results in carriers, and potentially and ultimately policyholders, absorbing the imbalance.
Recommendation

34. NCCI should quantify the impact of the shortfall. Discussions should be held by states and the NCCI to determine whether an equitable solution to all parties involved can be developed.

FINDING NO. 11—Monitoring and Trending of Data

Applicable Standards

Data Collection and Handling

Standard 3
Determine that all databases are updated as needed with all accepted company data.

Communications with Companies and Regulators

Standard 3
The statistical agent maintains a follow-up procedure with companies that have reporting errors or questions.

Findings

NCCI does not have a process in place to capture, monitor and trend information relating to the nature of or reasons carriers make corrections/edits to their data in the IDB, which could be beneficial in identifying systemic issues.

Carriers can view their data as it resides in NCCI's database via the DCA online program's Current (Net) View feature. If the carrier desires, they are allowed to change their data. The examiners were informed that carriers have inquired as to
why NCCI did not have the most current data they had submitted. For example, carriers noted that their data was not the most current submission, symptomatic of some of the above conditions. Carriers were again submitting edits to correct the data; however, NCCI did not identify or have a mechanism in place to identify the reason for the correction. If correction/edit reason codes were provided to and used by carriers, issues may have been identified or trends noted that could have been investigated further.

Recommendation

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 which then could 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.

Finding No. 12: NCCI Accountability to States/Periodic Examination

Applicable Standards

Company Operations and Management

Standard 2

The statistical agent has adequate controls, safeguards, and procedures for protecting the integrity of statistical and computer information.

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.

Standard 4
Review any additional data quality programs maintained by the statistical agent.

Reports, Report Systems and Other Data Requests

Standard 2
All calculations used to develop the database have been performed accurately.

Standard 3
The statistical agent has accurately extracted the appropriate information from the statistical database.

Standard 5
All data collected, in addition to that collected under the statistical plan, was adequately reviewed for quality and correctly compiled.

Findings

Reporting requirements, performance standards and other measurements of accountability between states and NCCI for the services provided need enhancement, particularly in relation to instances when data quality issues arise, such as those noted in the above findings. In some cases, a state's statutes may require reporting of issues that impact loss costs, however, there are no established criteria or guidelines for when such issues should be reported to the states.
In addition, the cost of state investigations or examinations to examine data quality issues which arise of this nature are ultimately allocated to the carriers in the particular state(s) which performs the examination rather than being ultimately borne by NCCI. The concern and risk exists that examination costs allocated to carriers may ultimately be passed on to policyholders. As noted previously, NCCI is organized as a not-for-profit entity which is funded primarily by the carriers, which are its members. As such, all of its costs are effectively allocated back to the carriers. However, as it relates to examination costs, the allocation of such costs to the carriers in the state that performs an examination serves as a disincentive to states to examine NCCI, particularly if it is a small state with few workers compensation carriers. For instance, the issues disclosed by this examination, which was called by New Hampshire, are countrywide issues, however, under the examination cost allocation methodology used by NCCI, this examination’s cost will be billed by NCCI only to the carriers in New Hampshire.

NCCI’s governance structure does not provide for representation by states to which they provide services. While the Board has positions for several public members and two former regulators, there is no assurance that the interests and concerns of state regulators will be represented.

Recommendations

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.

Findings No. 13: Experience Rating Impact

Applicable Standards

Data Collection and Handling

<table>
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Reports, Report Systems and Other Data Requests

Standard 2
All calculations used to develop the database have been performed accurately.

Standard 3
The statistical agent has accurately extracted the appropriate information from the statistical database.

Standard 5
All data collected, in addition to that collected under the statistical plan, was adequately reviewed for quality and correctly compiled.

Findings

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 data elements are affected by incomplete/inaccurate unit report data discussed in the above findings and accordingly, experience mods are impacted. The impact has not been quantified or communicated to the examiners at this time; however, it is understood that the impact results in errors in the determination of experience mods. Additionally, the Internal Audit report referred to in Finding No. 1 also refers to errors detected in experience ratings due to inaccurate unit report data being used from the IDB, the same integrated database used for class ratemaking. NCCI had represented that data for experience rating is extracted differently than for class ratemaking and therefore NCCI did not believe there was any multiple exposure or loss issue with the extracts used by Experience Rating. However, based on the recent finding by
NCCI, as discussed below, as well as the September 30, 2001 internal audit report, that does not appear to be the case.

In July 2005, while preparing to explain to the examiners the September 2001 internal audit issues, and after having previously represented to examiners that experience ratings were not impacted, NCCI began a review of ratings that could have been impacted by multiple exposures and/or sequencing issues. During this review (on Friday, 7/22/05), NCCI found a single experience rating that appeared to be impacted.

NCCI has provided an explanation of the general nature of the problem as follows:

- Experience Rating began the transition from URS to the IDB on 7/26/2001. This transition was done in four steps to transition five processes (two were implemented simultaneously) and was completed on 8/17/2001.

- Until the finding on 7/22/05, NCCI believed that Experience Rating was using the experience rating view currently in use to access data from the IDB since the beginning of the transition.

- NCCI found that Experience Rating actually used the same “Net View” used by Class Ratemaking to access the data for the first 10-11 weeks of the transition. The Class Ratemaking Net View results in an entire unit report level being bypassed if a correction report is received and found to have a priority error. Once another correction report fixes the error, the entire report level is released for use again. This approach could lead to data coming off a rating while the correction report was waiting to be fixed. Experience Rating continues to use the data as reported prior to the correction report filed in
error. Once another correction report fixes the error, the final correction is applied to the experience rating.

- This difference in approach was resolved by creating the experience rating view, which was implemented on 10/5/2001.

NCCI has reviewed the ratings impacted by excluded exposures and sequencing issues, which are discussed in detail in Findings No. 2-6 above. Accordingly, some experience ratings prepared during this time period were not prepared in accordance with NCCI’s policies and procedures as it relates to the inclusion of unit report data. Additionally, the ratings may have additional errors due to issues with the Class Ratemaking view as it relates to excluded exposures and sequencing issues.

NCCI performed a review of ratings potentially impacted by excluded exposure and sequencing issues and found the following:

- Overall, NCCI found that 576 ratings nationwide were impacted by the excluded exposure and sequencing issues during the 11 week period from 7/26/2001 to 10/5/2001.
- Of the 576 ratings, 314 of those ratings remain impacted and uncorrected. Decreases in experience mods would result in 280 of the uncorrected ratings. The impacted ratings are for the rating effective dates from 12/31/1998 to 3/1/2002.
- New Hampshire had 29 unit reports that impacted Experience Rating factors. Of these 29, 11 were subsequently corrected, leaving 18 uncorrected.

NCCI has indicated that these issues should be further reviewed by the impacted NCCI states.
Recommendations

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. The NCCI jurisdictions should evaluate whether uncorrected ratings should be corrected at this time 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.

Findings No. 14: Audit Trails and Record Retention

Applicable Standards

Company Operations and Management

Standard 2
The statistical agent has adequate controls, safeguards, and procedures for protecting the integrity of statistical and computer information.
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.

Standard 4
Review any additional data quality programs maintained by the statistical agent.

Findings

In the course of NCCI responding to data requests and interrogatories, it was represented by NCCI in a number of instances that certain correspondence, email and other communications, audit trails or other records were not maintained, not available, no longer available or were not created. Certain documentation reviewed by the examiners was noted to be incomplete; for example, documentation relating to the testing of the IDB systems project was noted to be incomplete as referenced in Finding No. 7. Communication trails with the eleven carriers involved in the data fixes were incomplete or not memorialized in writing.

Additionally, although communications were held with the Audit Committee and the Board on related data quality issues associated with the IDB conversion, NCCI has indicated that no memorandums relating to the issues were prepared and no actuarial analyses were conducted. In addition, no quantification was prepared of the dollar magnitude of omitted multiple exposure data or of the impact on policyholders by class, by state, etc.
Recommendation

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 Summary

Summary of Findings by Standard

A summary of all findings generated during the examination by Standard is presented below:

Company Operations and Management

Standard 1

The statistical agent has an on-going, valid, internal audit program that applies to the statistical agent function.

Finding No. 7—Systems Development Methodology—Deficiencies were noted in the methodology and the quality assurance process during the design of the system. There was a lack of formal oversight or monitoring by the Internal Audit Department in the design and testing of the subject systems in development.

Finding No. 9—Independent Systems Review and Testing—The IDB, Class Ratemaking and Experience Rating programming logic has not been evaluated by IT Internal Audit or other independent IT audit resources since the systems conversion in 2001.
Standard 2

The statistical agent has adequate controls, safeguards, and procedures for protecting the integrity of statistical and computer information.

Finding No. 7—Systems Development Methodology—Deficiencies were noted in the methodology and the quality assurance process during the design of the system as well as the design of adequate testing and documentation thereof.

Finding No. 12—NCCI Accountability to States and Periodic Examination—There is no required periodic examination requirement or process in place; there are no established criteria for reporting, performance standards and other measurements of accountability; and NCCI’s governance structure does not provide for representation by regulators.

Finding No. 14—Audit Trails and Record Retention—certain correspondence, email and other communications, audit trails or other records were not maintained, not available, no longer available or were not created. Certain documentation reviewed by the examiners was noted to be incomplete; Communication trails with the eleven carriers involved in the data fixes were incomplete or not in writing. No internal memorandums were available or created addressing, documenting or analyzing the identified data quality issues.

Statistical Plans

Standard 3

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

Finding No. 1—Omission of Multiple Lines of Data—NCCI indicated that companies did not submit data in accordance with the Statistical Plan under the legacy system which, while accepted by NCCI, created the existence of multiple lines of lines which were carried over into the IDB system upon system conversion. Multiple lines of data were not permitted in the IDB system but existed due to the upload of such data during conversion.

Data Collection and Handling
Standard 2

All data that is collected is run through the editing process.

Finding No. 2—Sequencing of Data Uploads—Some historical data uploads from the legacy systems to the IDB were faulty in that data was uploaded out of sequence. The IDB was not re-sorted after the upload, as it was not known that it was out of sequence. When data was back loaded, new system edits were not applied to the back loaded data from the URS and the URE systems that may have detected the multiple lines issue.

Finding No. 4—Transaction Sort Order of Exposure and Other Data—Carrier-submitted exposure and related data (e.g., class codes) were processed out of sequence within a unit report resulting in the latest values not being used for class ratemaking. Due to the method used to store the record in the database as either a previous record or revised record, the sequence of some records was not prevented from being in the wrong order, resulting in the latest values/data not being used for ratemaking.

Finding No. 5—Sequencing/Transaction Sort Order for Exposure and Other Data—Same as Finding No. 4 with respect to loss data.

Finding No. 8—Data Validation Thresholds—NCCI validation testing used only a single threshold bases on total exposure by class and appears to be too high to identify issues in either small states or small volume class codes.

Standard 3

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

Finding No. 1—Omission of Multiple Lines of Data—Exposure, loss and other data was omitted from data extracts used to create class loss costs.

Finding No. 2—Sequencing Backload Issue—Data uploaded during the systems conversion was loaded out of sequence and not detected, leading to the omission or incorrect use of data in class ratemaking.

Finding No. 3—Sequencing of “Purge and Re-load” Data at Carrier Request—data purged from the database and re-loaded were done so out of sequence or incompletely resulting in the omission or incorrect use of data in class ratemaking.
Finding No. 4—Transaction Sort Order of Exposure and Other Data—Carrier-submitted exposure and related data (e.g., class codes) were processed out of sequence within a unit report resulting in the latest values not being used for class ratemaking. Due to the method used to store the record in the database as either a previous record or revised record, the sequence of some records was not prevented from being in the wrong order, resulting in the latest values/data not being used for ratemaking.

Finding No. 5—Transaction Sort Order of Loss Data—same as Finding No. 4 with respect to loss data.

Finding No. 11—Monitoring and Trending of Data—NCCI does not have a process in place to capture, monitor and trend information relating to the nature of or reasons carriers make corrections/edits to their data in the IDB, which could be beneficial in identifying systemic issues. Carriers were re-submitting current or updated data when it was noted to not be reflected in NCCI’s database due to sequencing and multiple line data issues.

**Standard 5**

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

Finding No. 1—Omission of Multiple Lines of Data—Exposure, loss and other data was omitted from data extracts used to create class loss costs.

Finding No. 4—Transaction Sort Order of Exposure and Other Data—Carrier-submitted exposure and related data (e.g., class codes) were processed out of sequence within a unit report resulting in the latest values not being used for class ratemaking. Due to the method used to store the record in the database as either a previous record or revised record, the sequence of some records was not prevented from being in the wrong order, resulting in the latest values/data not being used for ratemaking.

Finding No. 5—Transaction Sort Order of Loss Data—same as Finding No. 4 with respect to loss data.

Finding No. 6—Sequencing and Sort Order Program Logic—The programming logic, which generated the extract for class ratemaking, did not include a secondary sort to ensure the data selected for extraction was the latest/most current data. The table logic does not appear to have been completely or
sufficiently developed or tested resulting in errors in the IDB database.

Finding No. 8—Data Validation Thresholds—NCCI validation testing used only a single threshold based on total exposure by class and appears to be too high to identify issues in either small states or small volume class codes.

Finding No. 13—Experience Rating Impact—Incomplete or inaccurate data unit report data elements in the Class Ratemaking process impacted the creation of D-Ratios and Expected Loss Rate Factors used by the Experience Rating process resulting in some incorrect experience modifications.

**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.

Finding No. 1—Omission of Multiple Lines of Data—Exposure, loss and other data was omitted from data extracts used to create class loss costs and was not corrected or reported to all companies or regulators on a timely basis.

Finding No. 12—NCCI Accountability to States and Periodic Examination—There is no required periodic examination requirement or process in place; there are no established criteria for reporting, performance standards and other measurements of accountability; and NCCI’s governance structure does not provide for representation by regulators.

Finding No. 14—Audit Trails and Record Retention—certain correspondence, email and other communications, audit trails or other records were not maintained, not available, no longer available or were not created. Certain documentation reviewed by the examiners was noted to be incomplete; Communication trails with the eleven carriers involved in the data fixes were incomplete or not in writing. No internal memorandums were available or created addressing, documenting or analyzing the identified data quality issues.

**Standard 3**

The statistical agent maintains a follow-up procedure with companies that have reporting errors or questions.
Finding No. 11—Monitoring and Trending of Data—NCCI does not have a process in place to capture, monitor and trend information relating to the nature of or reasons carriers make corrections/edits to their data in the IDB, which could be beneficial in identifying systemic issues. Carriers were re-submitting current or updated data when it was noted to not be reflected in NCCI’s database due to sequencing and multiple line data issues. Carriers also made inquiries as to why NCCI’s database did not reflect the most current data they had submitted.

Standard 4

Review any additional data quality programs maintained by the statistical agent.

Finding No. 8—Data Validation Thresholds—NCCI validation testing used only a single threshold based on total exposure by class and appears to be too high to identify issues in either small states or small volume class codes.

Finding No. 12—NCCI Accountability to States and Periodic Examination—There is no required periodic examination requirement or process in place; there are no established criteria for reporting, performance standards and other measurements of accountability; and NCCI’s governance structure does not provide for representation by regulators.

Finding No. 14—Audit Trails and Record Retention—certain correspondence, email and other communications, audit trails or other records were not maintained, not available, no longer available or were not created. Certain documentation reviewed by the examiners was noted to be incomplete; Communication trails with the eleven carriers involved in the data fixes were incomplete or not in writing. No internal memorandums were available or created addressing, documenting or analyzing the identified data quality issues.
Standard 2

All calculations used to develop the database have been performed accurately.

Finding No. 1—Omission of Multiple Lines of Data—Exposure, loss and other data was omitted from data extracts used to create class loss costs.

Finding No. 8—Data Validation Thresholds—NCCI validation testing used only a single threshold based on total exposure by class and appears to be too high to identify issues in either small states or small volume class codes.

Finding No. 10—Overall Aggregate Rate—NCCI balances the individual class rate changes to the overall aggregate rate for each state in which it has class ratemaking responsibilities. An imbalance results when overcharged policyholders are granted refunds and undercharged policyholders cannot or are not billed additional premium. This results in carriers, and potentially and ultimately policyholders, absorbing the imbalance.

Finding No. 12—NCCI Accountability to States and Periodic Examination—There is no required periodic examination requirement or process in place; there are no established criteria for reporting, performance standards and other measurements of accountability; and NCCI's governance structure does not provide for representation by regulators.

Finding No. 13—Experience Rating Impact—Incomplete or inaccurate data unit report data elements in the Class Ratemaking process impacted the creation of D-Ratios and Expected Loss Rate Factors used by the Experience Rating process resulting in incorrect experience modifications.

Standard 3

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

Finding No. 1—Omission of Multiple Lines of Data—Exposure, loss and other data was omitted from data extracts used to create class loss costs.

Finding No. 6—Sequencing and Sort Order Program Logic—The programming
logic, which generated the extract for class ratemaking, did not include a secondary sort to ensure the data selected for extraction was the latest/most current data. The table logic does not appear to have been completely or sufficiently developed or tested resulting in errors in the IDB database.

Finding No. 8—Data Validation Thresholds—NCCI validation testing used only a single threshold based on total exposure by class and appears to be too high to identify issues in either small states or small volume class codes.

Finding No. 12—NCCI Accountability to States and Periodic Examination—There is no required periodic examination requirement or process in place; there are no established criteria for reporting, performance standards and other measurements of accountability; and NCCI’s governance structure does not provide for representation by regulators.

Finding No. 13—Experience Rating Impact—Incomplete or inaccurate data unit report data elements in the Class Ratemaking process impacted the creation of D-Ratios and Expected Loss Rate Factors used by the Experience Rating process resulting in incorrect experience modifications.

Standard 5

All data collected, in addition to that collected under the statistical plan, was adequately reviewed for quality and correctly compiled.

Finding No. 1—Omission of Multiple Lines of Data—Exposure, loss and other data was omitted from data extracts used to create class loss costs. No independent testing or IT Internal Audit reviews were performed of the IDB, Class Ratemaking and Experience Rating processes subsequent to the systems conversion.

Finding No. 8—Data Validation Thresholds—NCCI validation testing used only a single threshold based on total exposure by class and appears to be too high to identify issues either in small states or small volume class codes.

Finding No. 12—NCCI Accountability to States and Periodic Examination—There is no required periodic examination requirement or process in place; there are no established criteria for reporting, performance standards and other measurements of accountability; and NCCI’s governance structure does not provide for representation by regulators.

Finding No. 13—Experience Rating Impact—Incomplete or inaccurate data unit report data elements in the Class Ratemaking process impacted the creation of
D-Ratios and Expected Loss Rate Factors used by the Experience Rating process resulting in incorrect experience modifications.

Closing

The assistance from Company personnel during the examination process is hereby gratefully acknowledged. Along with the undersigned, Richard Nelson, David Fusco, Bryan Fischer, Jeffrey Plump, Jenny Jeffers, Roderick Twiss and Kent Dover participated in the examination at the Company's offices in Boca Raton, FL.

Respectfully submitted,

Margaret C Spencer, CIE, CPCU, CFE, CLU, CPA, CIA, QIA
Examiner-in-Charge
Margaret C. Spencer, being duly sworn, upon her oath deposes and says:
That she is an examiner employed by RSM McGladrey, Inc., formerly American Express Tax and Business Services Inc., which was engaged by the Department of Insurance of the State of New Hampshire;
That an examination was made of the affairs of:

National Council on Compensation Insurance, Inc.

Licensed under the laws of the State of New Hampshire, pursuant to authority vested by Roger A. Sevigny, Commissioner of Insurance of the State of New Hampshire;
That she was the examiner-in-charge of said examination and that the attached report of the examination is a true and complete report of the condition of the above named Company as of September 23, 2005 as determined by the examiners.

Examiner-in-Charge

Subscribed and sworn to before me this
5th day of December, A.D. 2005

Notary Public
Justice of the Peace
APPENDIX A

Summary of Recommendations

A summary of all recommendations generated during the examination is presented below:

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 approximately 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 in fact 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 that 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 which then could 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: 3.1., 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.