

### **State of Hawaii**

Actuarial Study of the Self-Insured Workers Compensation Program as of June 30, 2009

January 27, 2010



January 27, 2010 270324

State of Hawaii Department of Accounting and General Services 1151 Punchbowl Street, Room 320 Honolulu, HI 96813

Attn: Mr. Wayne Horie

Administrator of the Accounting Division

### Actuarial Study of the Self-Insured Workers Compensation Program as of June 30, 2009

This study has been completed for the State of Hawaii for the specific objectives listed in the study. It contains the analysis and conclusions of our work.

Each section and appendix of the study is an integral part of the whole. We recommend a review of the entire study prior to reliance upon this study.

No key personnel have a relationship with the State of Hawaii that may impair our objectivity.

Please call if you have any questions. Thank you for the opportunity to be of service.

Respectfully submitted,

ARM TECH

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MD/TF:dp

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## I. Background

The State of Hawaii (the State) self-insures its workers compensation exposures. The State retains all claim liabilities, up to the statutory limit. Claims for this study are administered by the Department of Human Resources Development (HRD).

#### Data

The State provided individual claim payments made during fiscal year 2009, and incurred amounts on claims open as of June 30, 2009. For valuations prior to June 30, 2009, we relied on the data used in our prior actuarial study.

The State also provided payroll data for calendar years 2005 through 2008, as well as for 2009 through June 30. For years prior to 2005, we relied on the information provided for our previous actuarial study. To estimate the fiscal year amounts, we assumed that payroll was distributed equally throughout the year.

As directed by the State, the following departments were excluded from this study: Employer-Union Trust Fund (EUTF), Hawaii Community Development Authority (HCDA), Hawaii Housing Finance Development Corporation (HHFDC), Hawaii Public Housing Authority (HPHA), Hawaii Health Systems Corporation (HHSC), Transportation-Airports (DOT-Air), and Transportation-Harbor (DOT-Har). All payroll and claim data used in this report, including the historical valuations shown in Exhibit WC-2, exclude these 7 departments.

The aforementioned departments were included in our prior study. As of June 30, 2008, these departments accounted for about 15% of the total reported incurred losses and about 9% of the payroll. As such, the estimates contained in this study are somewhat lower than those in our prior study and are not directly comparable.

# **II. Objectives**

The specific objectives of this study are:

1. **Estimate Outstanding Losses.** Estimate outstanding losses (including allocated loss adjustment expenses [ALAE]) as of June 30, 2009.

The estimated outstanding losses are the cost of unpaid claims. The estimated outstanding losses include case reserves, the development of known claims and incurred but not reported (IBNR) claims. ALAE are the direct settlement expenses for specific claims, primarily legal expenses. The amounts are limited to the self-insured retention.

- 2. **Size of Loss Distribution Analysis.** Analyze the distribution of losses in various layers.
- 3. **Affirm GASB Statement No. 10.** Provide a statement affirming the conclusions of this report are consistent with Governmental Accounting Standards Board (GASB) Statement No. 10.

### III. Conclusions

We have reached the following conclusions:

### 1. Estimate Outstanding Losses

We estimate outstanding losses as of June 30, 2009 at various confidence levels to be as shown in Table III-1.

Table III-1
Estimated Outstanding Losses
at Various Confidence Levels
June 30, 2009

		Present Value of
	Estimated	Estimated
	Outstanding	Outstanding
Confidence Level	Losses	Losses
(1)	(2)	(3)
(A) Expected	\$43,334,187	\$36,461,214
(B) 70%	49,834,315	41,930,396
(C) 80%	56,334,443	47,399,578
(D) 90%	65,001,281	54,691,821

Note: (A) is from Exhibits WC-10.

(B) to (D) are based on (A) and actuarial judgment.

The present value of the estimated outstanding losses is the amount of money, discounted for anticipated investment income, required to meet unpaid claims. It is calculated based on a 3.5% yield on investments.

GASB Statement No. 10 specifies that a liability for estimated outstanding unallocated loss adjustment expenses (ULAE) needs to be established for governmental entities. ULAE are primarily composed of future claims administration for open claims as of June 30, 2009. The estimated outstanding losses include the unpaid losses only. The estimated outstanding losses do not include outstanding ULAE. Based on our experience with other public self-insurance programs, we recommend a ULAE ratio of 7.5% of estimated outstanding losses.

### **Loss Experience Trends**

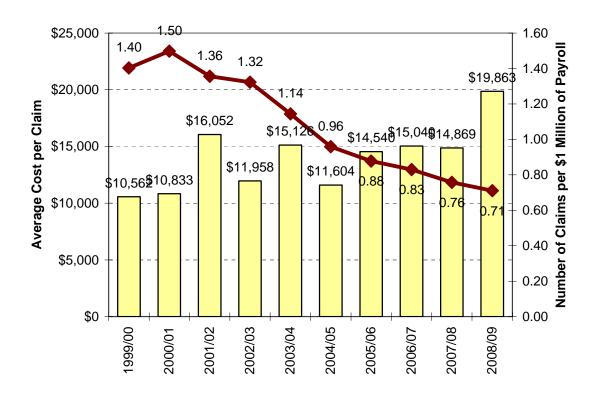
Graphs III-1 and III-2 show loss experience trends for the State as measured by loss rate per \$100 of payroll and frequency and severity, respectively.

Graph III-1 Loss Rate per \$100 of Payroll



Note: Loss rates are based on Exhibit WC-9, column (8) and Exhibit WC-1, column (5).

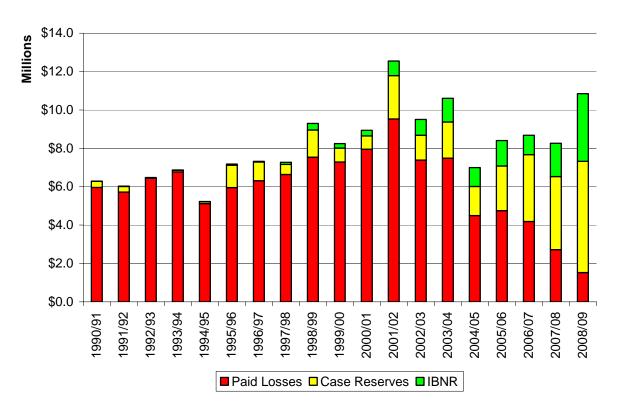
Graph III-2 Frequency and Severity



Note: Frequency amounts are from Exhibit WC-8, Section I, column (7). Severity amounts are based on the projected claim counts in Exhibit WC-8 and the projected ultimate losses in Exhibit WC-9.

Graph III-3 shows the composition of the projected ultimate limited losses.

Graph III-3
Composition of Projected Ultimate Limited Losses



Note: Amounts are from Exhibit WC-10.

### 2. Size of Loss Distribution Analysis

Table III-2 shows the distribution of losses in various layers for workers compensation.

Table III-2
Size of Loss Distribution

Layer (1)	Total Reported Claims (2)	Percent of Total (2)/Total(2) (3)	Cumulative Percent of Total (4)	Total Reported Incurred Losses (5)	Percent of Total (5)/Total(5) (6)	Cumulative Percent of Total (7)
(A) \$0 to \$5,000	9,448	73.6%	73.6%	\$8,332,334	4.9%	4.9%
(B) \$5,000 to \$10,000	850	6.6%	80.2%	6,113,901	3.6%	8.5%
(C) \$10,000 to \$25,000	1,019	7.9%	88.1%	16,435,187	9.7%	18.2%
(D) \$25,000 to \$50,000	711	5.5%	93.6%	25,182,520	14.8%	33.0%
(E) \$50,000 to \$100,000	440	3.4%	97.1%	30,447,018	17.9%	51.0%
(F) \$100,000 to \$250,000	296	2.3%	99.4%	45,057,475	26.6%	77.5%
(G) \$250,000 to \$500,000	58	0.5%	99.8%	19,678,600	11.6%	89.1%
(H) \$500,000 to \$750,000	14	0.1%	99.9%	8,397,266	4.9%	94.1%
(I) \$750,000 to \$1,000,000	5	0.0%	100.0%	4,202,470	2.5%	96.6%
(J) Over \$1,000,000	4	0.0%	100.0%	5,839,278	3.4%	100.0%
(K) Total (A) (J)	12,845	100%		\$169,686,049	100%	_

Note: See Exhibit WC-13.

For workers' compensation, about 80% of the non-zero claims reported are below \$10,000 and represent about 9% of the incurred amounts. The remaining 20% of the claims consume about 91% of the incurred amounts.

### 3. Affirm GASB Statement No. 10

We affirm the conclusions of this report are consistent with GASB Statement No. 10.

# Appendix A Conditions and Limitations

### **Conditions and Limitations**

It is important to understand the conditions and limitations listed below. Each chapter and section is an integral part of the whole study. If there are questions, please contact ARM Tech for clarification.

- **Data Quality.** We relied upon data provided by the organization shown on the transmittal page or its designated agents. The data was used without verification or audit, other than checks for reasonableness. Unless otherwise stated, we assumed the data to be correct and complete.
- **Economic Environment.** Unless otherwise stated, we assumed the current economic conditions will continue in the foreseeable future.
- **Insurance Coverage.** Unless otherwise stated, we assumed no insurance coverage changes (including coverage provided by the organization to others) subsequent to the date this study was prepared. This includes coverage language, self-insured retention, limitations and similar issues.
- **Insurance Solvency.** Unless otherwise stated, we assumed all insurance purchased by the organization is from solvent sources payable in accordance with terms of the coverage document.
- **Interest Rate.** The exhibits specify the annual interest rate used.
- **Methodology.** In this study, different actuarial methods were applied. In some instances, the methods yield significantly disparate results. The estimates, projections and recommendations in this study reflect our judgments as to the best method or combination of methods that are most reliable and reflective of the exposure to loss.
- **Reproduction.** This study may only be reproduced in its entirety.
- **Risk and Variability.** Insurance is an inherently risky enterprise. Actual losses may vary significantly from our estimates, projections and recommendations. They may emerge higher or lower.

- **Statutory and Judicial Changes.** Legislatures and judiciaries may change statutes that govern indemnification. This includes benefit levels for workers compensation, immunities and limitations for liability, and other similar issues. Unless otherwise stated, we assumed no statutory changes subsequent to the date this study was prepared.
- **Supplemental Data.** In addition to the data provided by the organization, we supplemented our analysis with data from similar organizations and insurance industry statistics, as we deemed appropriate.
- **Usage.** This study has been prepared for the usage of the organization shown on the transmittal page. It was not prepared for and may not be appropriate for use by other organizations. Other organizations should obtain written permission from ARM Tech prior to use of this study.

# Appendix B Glossary of Actuarial Terms

## **Glossary of Actuarial Terms**

### **Actuarial Methods (Most Common)**

A major objective of an actuarial study is to statistically project ultimate losses. The following actuarial methods are the most common:

- Developed Paid Losses
- Developed Reported Incurred Losses
- Developed Case Reserves
- Frequency Times Severity Analysis
- Loss Rate Analysis

The following describes each method:

1. **Developed Paid Losses.** Paid losses represent the amounts actually paid to claimants (less excess insurance recoveries). As time goes on, loss payments continue until all claims are closed and there are no remaining payments expected. At this time, the ultimate losses for the claim period are known. This common process is called "paid loss development."

Paid loss development is an extrapolation of actual dollars paid. It does not depend on case reserve estimates. A potential shortcoming of utilizing this method is that only a small fraction of total payments have been made for the most recent claim periods. Extrapolating ultimate losses based on small amounts of actual payments may be speculative. A second potential shortcoming is that payment patterns can change over time.

2. **Developed Reported Incurred Losses.** Reported incurred losses are paid losses plus case reserves. In most programs, total reported incurred losses underestimate the ultimate losses. Over time, as more information about a body of claims becomes known, they are adjusted either up or down until they are closed. Though many individual claims settle for less than what was estimated, these decreases are generally more than offset by increases in the cost of other claims for which new information has emerged.

The net effect is that total estimated costs are often revised upward over time. This normal process is called "reported incurred loss development." Actuaries typically

- review the development patterns of the recent past to make projections of the expected future loss development and, therefore, estimations of ultimate losses.
- 3. **Developed Case Reserves.** The developed case reserves method is a hybrid of the paid loss development and reported incurred loss development methods. It relies on the historical adequacy of case reserves to predict ultimate losses.
- 4. **Frequency Times Severity Analysis.** The frequency times severity analysis is an actuarial method that uses a preliminary projection of ultimate losses to project claims severity. The claims severity times the number of claims is a predictor of ultimate losses. The focus of the frequency times severity analysis is that ultimate losses each period are dependent on the number of claims.
- 5. **Loss Rate Analysis.** The loss rate analysis is based on the historical loss rates per exposure unit (such as payroll, vehicles or property value). The loss rates (projected ultimate losses divided by exposure units) are trended to reflect the effect of claim cost inflation and retention changes. The trended loss rates represent the rates that one would see if all of the claims had been handled in the claim cost environment that will be present in the upcoming period. The trended loss rate times the projected exposure units is a predictor of losses.
- 6. **Bornhuetter-Ferguson Method (B-F).** The B-F method is an actuarial method that weights a preliminary projection of ultimate losses with projections of ultimate losses determined by other actuarial methods (usually the developed paid losses and developed reported incurred losses methods). For less mature claim periods, the B-F method leans more heavily to the preliminary projection. It gradually converges to the projections of ultimate losses determined by the other actuarial methods as the claim periods mature.

### Actuary

A specialist trained in mathematics, statistics, and finance who is responsible for rate, reserve, and dividend calculations and other statistical studies.

### **Allocated Loss Adjustment Expenses**

Allocated loss adjustment expenses (ALAE) are the direct expenses to settle specific claims. These expenses are primarily legal expenses.

Governmental Accounting Standards Board (GASB) Statement No. 10 requires that ALAE be included in financial statements and that they be calculated by actuarial methods.

### **American Academy of Actuaries**

A society concerned with the development of education in the field of actuarial science and with the enhancement of standards in the actuarial field. Members may use the designation MAAA (Member, American Academy of Actuaries).

### **Benefits**

The financial reimbursement and other services provided insureds by insurers under the terms of an insurance contract. An example would be the benefits listed under a life or health insurance policy or benefits as prescribed by a workers compensation law.

### **Casualty Actuarial Society**

A professional society for actuaries in areas of property and casualty insurance work. This society grants the designation of Associate of the Casualty Actuarial Society (ACAS) and Fellow of the Casualty Actuarial Society (FCAS).

### Claim

Demand by an individual or entity to recover for a loss.

### Claims Made

A policy written on this basis covers only those claims that are made during the policy period. Coverage for prior acts is provided back to what is known as the retroactive date, which is the effective date of the original claims made policy with the same insurer.

### **Composite Rate**

A single rate with a single basis of premium (e.g., payroll or sales). For this single rate the insured is covered for a variety of hazards, such as premises and operations, completed operations, products liability, and automobile. Its primary value is to compute premium simply.

### **Confidence Level**

A confidence level is the statistical certainty that an actuary believes funding will be sufficient. For example, an 80% confidence level means that the actuary believes funding will be sufficient in eight years out of ten.

Confidence levels are determined based on mathematical models. Coverages that are low frequency and high severity (such as excess liability) are subject to greater risk than coverages that are high frequency and low severity (such as automobile physical damage). Therefore, they need a greater margin to attain a given confidence level.

GASB Statement No. 10 requires public entities to use "expected" amounts as a liability in financial statements. Expected corresponds to approximately a 55% confidence level. Amounts above expected are prudent, but should be considered equity (not a liability).

### Coverage

The scope of the protection provided under a contract of insurance.

### Credibility

Credibility is the belief that the sample data is an accurate reflection of the larger population. Credibility is highest when the sample data is large and the standard deviation (discussed later) of the larger population is low.

#### **Dates**

There are at least three milestone dates in a claim. They are the date of injury or accident, the date of report and the date of closure. It is best if each of these dates is recorded. Some organizations may also keep the date a claim becomes a lawsuit, as opposed to a demand. ARM Tech recommends this additional level of detail, especially if the data is to be used for litigation management.

### **Deductible**

The portion of an insured loss to be borne by the insured before he is entitled to recovery from the insurer. Deductibles may be expressed as a dollar amount, percentage or waiting period.

### Disability

A condition that curtails a person's ability to carry on his normal pursuits. A disability may be partial or total, and temporary or permanent.

### **Dividend (Policyholder)**

The return of part of the premium paid for a policy issued on a participating basis by either a mutual or a stock insurer.

### **Estimated Outstanding Losses**

Estimated outstanding losses are the cost of claims that have occurred but have not yet been paid. They typically include indemnification and allocated loss adjustment expenses (ALAE), but not unallocated loss adjustment expenses (ULAE).

Estimated outstanding losses are calculated as projected ultimate losses less paid losses. Alternatively, they are the sum of case reserves and incurred but not reported (IBNR) claims.

Estimated outstanding losses are usually the largest single item listed as a liability on the balance sheet of a public entity's financial statement. GASB Statement No. 10 requires they be calculated by actuarial methods. Other common names for estimated outstanding losses are outstanding claims liabilities and unpaid claims.

### **Experience Rating**

A method of adjusting the premium for a risk based on past loss experience for that risk compared to loss experience for an average risk.

### **Exposure Data**

Exposure data refers to the activities of the organization. For example, payroll is the most common exposure measure for workers compensation. ARM Tech suggests collecting exposure data with the following characteristics:

**Readily Available.** The exposure data should be easily obtained. It is best if it is a byproduct of other activities, although this is not always possible. If getting data is arduous, it may discourage collection.

**Vary With Losses.** The exposure data should correlate directly with losses. The ideal situation is where exposure and expected losses move in tandem. The exposure base needs to be fitting to the coverage. For example, the number of employees may vary with property losses (more employees = more office space = more losses), but property value is a clearly superior exposure base for property losses.

### **Generally Accepted Accounting Principles (GAAP)**

These principles are intended to produce financial results (in the insurance industry) consistent with those of other industries and to assure consistency in financial reporting.

### **Incurred But Not Reported**

IBNR is really comprised of two distinct items. These are the development of known case reserves (incurred but not enough reported [IBNER] and incurred but not yet reported [IBNYR]).

IBNER are the actuary's estimate of the inadequacy of case reserves. Most claims settle at amounts close to what is set by the claims administrator. Some claims close favorably and some emerge as more expensive. On balance, case reserves tend to be too low (especially for recent years). IBNER is the actuary's estimate of the amount total case reserves will rise upon closure.

IBNYR refers to those claims that have occurred, but have not yet been reported. A classic example is medical malpractice claim reported several years after the medical procedure was performed.

### Insurance Services Office (ISO)

An organization of the property and casualty insurance business designed to gather statistics, promulgate rates, and develop policy forms.

#### Investment Income

The return received by entities from their investment portfolios, including interest, dividends and realized capital gains on stocks. Realized capital gains means the profit realized on assets that have actually been sold for more than their purchase price.

### Limited

Most programs purchase excess insurance for catastrophic claims. For example, they may purchase coverage for claims above a \$500,000 per occurrence self-insured retention. "Limited" refers to an estimate or projection being limited to the self-insured retention. In contrast, "unlimited" means a loss projection not limited to the self-insured retention.

Other common names for limited are net of excess insurance or capped losses.

### **Loss Development**

The difference between the amount of losses initially estimated by the insurer and the amount reported in an evaluation on a later date. Loss development is typically measured for paid losses, reported incurred losses and claim counts.

### **Manual Rates**

Usually, the published rate for some unit of insurance. An example is in the workers compensation manual, where the rates shown apply to each \$100 of the payroll of the insured, \$100 being the "unit."

### **National Council on Compensation Insurance (NCCI)**

An association of workers compensation insurance companies whose main functions are collecting statistics and calculating rates, establishing policy wording, developing experience and retrospective rating plans, and serving as the filing organization for member companies.

### Net

Many pooling programs assign deductibles to members. For example, each member may have a \$5,000 per claim deductible. "Net" refers to a loss estimate or projection that excludes amounts below member deductibles.

#### Occurrence

An event that results in an insured loss. In some lines of insurance, such as general liability, it is distinguished from accident in that the loss does not have to be sudden and fortuitous and can result from continuous or repeated exposure that results in bodily injury or property damage neither expected nor intended by the insured.

### **Pool**

An organization of entities through which particular types of risks are written with the premiums, losses, and expenses shared in agreed amounts among the members belonging to the organization.

### **Premium**

The price of insurance protection for a specified risk for a specified period of time.

### **Present Value**

The amount of money that future amounts receivable are currently worth. For example, a Life Insurance policy may provide for payments to be made monthly for ten years. The present value of that money would be less than the total amount of the regular periodic payments for 10 years because of the amount of interest that a present lump sum could earn during the term than the payments otherwise would have been made.

### **Probability**

The probability is the likelihood of an event. It is a measure of how likely a value or event is to occur. It can be measured from data by calculating the number of occurrences of the value or event divided by the total number of occurrences. This calculation can be converted to a percentage. For example, tossing a coin has a 50% probability of heads or tails.

### **Projected Losses Paid**

Projected losses paid are the projected claims disbursements in a period, regardless of when the claim occurred. They typically include indemnification and ALAE, but not unallocated loss adjustment expenses (ULAE).

"Projected losses paid" is a cash-flow analysis that can be used in making investment decisions.

### **Projected Ultimate Losses**

Projected ultimate losses are the accrual value of claims. They are the total amount that is expected to be paid in a particular claim period after all claims are closed. Projected ultimate

losses are the total loss costs for a particular period. They typically include indemnification and ALAE, but not ULAE.

Other common names for projected ultimate losses are expected losses, ultimate losses and total losses.

#### Rate

The cost of a given unit of insurance. For example, in life insurance, it is the price of \$1,000 of the face amount. In property insurance, it is the rate per \$100 of value to be insured. The premium is the rate multiplied by the number of units of insurance purchased.

### **Retrospective Rating**

A method for which the final premium is not determined until the end of the coverage period, and is based on the insured's own loss experience for that same period. It is usually subject to a maximum and minimum premium. A plan of this type can be used in various types of insurance, especially workers compensation and liability, and is usually elected by only very large insureds.

### Salvage

Property taken over by an entity to reduce its loss. Automobile physical damage losses can be reduced by the sale of recovered vehicles.

### Schedule Rating

The application of debits or credits within established ranges for various characteristics of a risk according to an established schedule of items. Under liability and automobile insurance, the schedule rating plan allows credits and debits for various good or bad features of a particular commercial risk. An example in automobile schedule rating would be allowing credits for driver training classes or fleet maintenance programs.

### **Self-Insurance Retention (SIR)**

That portion of a risk or potential loss assumed by an insured. It is often in the form of a per occurrence deductible.

### **Society of Actuaries (SOA)**

A professional society for actuaries in areas of pensions, and life and health insurance work. The SOA grants the designation Associate of the Society of Actuaries (ASA) and Fellow of the Society of Actuaries (FSA).

### Standard Premium

Most often used in connection with retrospective rating for Workers Compensation and General Liability Insurance. It is the premium of which the basic premium is a percentage and is developed by applying the regular rates to an insured's payroll.

### State Fund

A fund set up by a state government to finance a mandatory insurance system, such as Workers Compensation or non-occupational disability benefits. Such a fund may be monopolistic, i.e., purchasers of the type of insurance required must place it in the state fund; or it may be competitive, i.e., an alternative to private insurance if the purchaser desires to use it.

### **Statutory Accounting Principles (SAP)**

Those principles required by statute that must be followed by an insurance company or other similar entity when submitting its financial statement to the state insurance department. Such principles differ from (GAAP) in some important respects. For one thing SAP requires that expenses must be recorded immediately and cannot be deferred to track with premiums as they are earned and taken into revenue.

### **Unallocated Loss Adjustment Expenses**

Unallocated loss adjustment expenses (ULAE) are the indirect expenses to settle claims. These expenses are primarily administration and claims handling expenses.

GASB Statement No. 10 requires that ULAE be included in financial statements and that they be calculated by actuarial methods.

# Appendix C

### **Exhibits**

# **Exhibits**

The attached exhibits detail our analysis.

Data Summary as of June 30, 2009

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 6/30/09 (4)	Payroll (000) (5)	Reported Claims 6/30/09 (6)	Open Claims 6/30/09 (7)	Unlimited Paid Losses 6/30/09 (8)	Unlimited Case Reserves 6/30/09 (9)	Unlimited Reported Incurred Losses 6/30/09 (10)
to 1989/90	Statutory	None	240.0	Not Provided	1.974	40	\$25,043,666	\$2,118,656	\$27,162,322
1990/91	Statutory	None	228.0	Not Provided	671	6	5,958,462	322,108	6,280,571
1991/92	Statutory	None	216.0	Not Provided	709	6	5,717,941	296,497	6,014,438
1992/93	Statutory	None	204.0	Not Provided	817	4	6,438,334	36,459	6,474,793
1993/94	Statutory	None	192.0	Not Provided	806	6	6,767,086	96,943	6,864,029
1994/95	Statutory	None	180.0	Not Provided	731	6	5,115,856	98,757	5,214,613
1995/96	Statutory	None	168.0	Not Provided	638	9	5,957,147	1,163,435	7,120,582
1996/97	Statutory	None	156.0	Not Provided	646	7	6,308,845	980,390	7,289,235
1997/98	Statutory	None	144.0	Not Provided	761	17	6,634,211	525,334	7,159,544
1998/99	Statutory	None	132.0	Not Provided	754	22	7,538,088	1,415,641	8,953,729
1999/00	Statutory	None	120.0	556,671	781	22	7,286,797	726,353	8,013,150
2000/01	Statutory	None	108.0	550,839	825	22	7,958,661	689,263	8,647,924
2001/02	Statutory	None	96.0	576,447	782	35	9,530,100	2,258,937	11,789,037
2002/03	Statutory	None	84.0	601,105	795	42	7,390,117	1,288,657	8,678,774
2003/04	Statutory	None	72.0	612,615	701	59	7,491,461	1,882,277	9,373,739
2004/05	Statutory	None	60.0	628,745	602	48	4,497,821	1,517,407	6,015,228
2005/06	Statutory	None	48.0	658,810	576	68	4,753,679	2,327,434	7,081,113
2006/07	Statutory	None	36.0	695,219	572	112	4,185,470	3,489,708	7,675,178
2007/08	Statutory	None	24.0	733,829	543	164	2,722,286	3,808,643	6,530,928
2008/09	Statutory	None	12.0	768,212	472	339	1,528,107	5,794,474	7,322,581
Total					15,156	1,034	\$138,824,135	\$30,837,373	\$169,661,508

All payroll, claim counts, and claim amounts exclude EUTF, HCDA, HHFDC, HPHA, HHSC, DOT-Airports, and DOT-Harbors, as directed by the State.

(8), (9) and (10) are net of specific self insured retention.

Data was provided by the State.

### Summary of Percent Losses Paid, Losses Reported and Claims Reported

Months of Development (1)	Percent Losses Paid (2)	Percent Losses Reported (3)	Percent Claims Reported (4)	Months of Development (5)	Percent Losses Paid (6)	Percent Losses Reported (7)	Percent Claims Reported (8)
360.0	99.9%	100.0%	100.0%	354.0	99.8%	100.0%	100.0%
348.0	99.8%	100.0%	100.0%	342.0	99.8%	100.0%	100.0%
336.0	99.7%	100.0%	100.0%	330.0	99.7%	100.0%	100.0%
324.0	99.6%	100.0%	100.0%	318.0	99.5%	100.0%	100.0%
312.0	99.4%	100.0%	100.0%	306.0	99.3%	100.0%	100.0%
300.0	99.2%	100.0%	100.0%	294.0	99.0%	100.0%	100.0%
288.0	98.9%	100.0%	100.0%	282.0	98.6%	100.0%	100.0%
276.0	98.4%	100.0%	100.0%	270.0	98.0%	100.0%	100.0%
264.0	97.7%	100.0%	100.0%	258.0	97.2%	100.0%	100.0%
252.0	96.7%	100.0%	100.0%	246.0	96.0%	100.0%	100.0%
240.0	95.2%	100.0%	100.0%	234.0	95.1%	100.0%	100.0%
228.0	95.0%	99.9%	100.0%	222.0	94.9%	99.9%	100.0%
216.0	94.8%	99.8%	100.0%	210.0	94.6%	99.8%	100.0%
204.0	94.4%	99.7%	100.0%	198.0	94.2%	99.7%	100.0%
192.0	93.9%	99.6%	100.0%	186.0	93.6%	99.5%	100.0%
180.0	93.4%	99.4%	100.0%	174.0	93.0%	99.3%	100.0%
168.0	92.7%	99.1%	100.0%	162.0	92.2%	98.9%	100.0%
156.0	91.8%	98.7%	100.0%	150.0	91.1%	98.5%	100.0%
144.0	90.4%	98.3%	100.0%	138.0	89.6%	98.1%	100.0%
132.0	88.8%	97.8%	100.0%	126.0	87.6%	97.2%	100.0%
120.0	86.4%	96.7%	100.0%	114.0	85.2%	96.0%	100.0%
108.0	83.9%	95.2%	100.0%	102.0	82.5%	94.3%	100.0%
96.0	81.1%	93.4%	100.0%	90.0	79.5%	92.4%	100.0%
84.0	77.9%	91.4%	100.0%	78.0	75.7%	90.3%	100.0%
72.0	73.5%	89.3%	100.0%	66.0	71.1%	88.3%	100.0%
60.0	68.7%	87.2%	99.9%	54.0	65.7%	86.2%	99.8%
48.0	62.8%	85.1%	99.7%	42.0	58.0%	82.7%	99.5%
36.0	53.2%	80.3%	99.2%	30.0	45.8%	76.6%	98.5%
24.0	38.4%	73.0%	97.7%	18.0	27.1%	62.5%	92.1%
12.0	15.8%	52.1%	86.5%	6.0	7.9%	26.1%	43.2%

<sup>(2)</sup> is from Exhibit WC-2 (page 2).

<sup>(3)</sup> is from Exhibit WC-2 (page 3).

<sup>(4)</sup> is from Exhibit WC-2 (page 4).

<sup>(6), (7)</sup> and (8) are interpolated, based on (2), (3) and (4), respectively.

STATE OF HAWAII

STATE OF HAWAII

WORKERS' COMPENSATION

Exhibit WC-2 (page 2)

#### Historical Unlimited Paid Losses (\$000) and Unlimited Paid Loss Development

<ol> <li>F</li> </ol>	Historical	Unlimited	Paid	Losses	(\$000)
-----------------------	------------	-----------	------	--------	---------

Claim Period	12	24	Months of De	velopment: 48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
to 1989/90 1990/91 1991/92 1992/93 1993/94 1994/95 1995/96 1996/97 1997/98 1998/99 1999/00 2000/01 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09	1,505 1,135 1,180 1,135 1,528	3,940 3,633 2,665 2,848 3,337 2,722	5,986 5,431 5,184 3,635 4,027 4,185	6,238 7,352 6,230 6,376 4,087 4,754	5,904 6,971 8,035 6,777 6,927 4,498	5,782 6,423 7,463 8,563 7,146 7,491	5,486 6,317 6,876 7,649 9,072 7,390	5,621 5,775 6,764 7,073 7,747 9,530	5.124 5,788 6,113 7,051 7,137 7,959	4,732 5,443 5,943 6,351 7,281 7,287	6,472 4,913 5,600 6,086 6,577 7,538	6,346 6,607 4,988 5,730 6,208 6,634	5,521 6,362 6,700 5,031 5,855 6,309	5,486 5,584 6,400 6,706 5,109 5,957	\$23,471 5,556 5,614 6,409 6,713 5,116	\$23,812 5,631 5,662 6,425 6,767	\$24,140 5,726 5,693 6,438	\$24,461 5,827 5,718	\$24,809 5,958	\$25,044
II. Unlimited Paid Loss Claim	Development		Months of De	walanmant:																
Period	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
to 1989/90 1990/01 1991/92 1992/93 1993/94 1994/95 1995/96 1996/97 1997/98 1998/99 1999/00 2000/01 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09	2.413 2.349 2.413 2.588 2.399	1.378 1.427 1.364 1.414 1.254	1.228 1.147 1.230 1.125 1.181	1.117 1.093 1.086 1.100	1.088 1.071 1.066 1.054 1.081	1.092 1.071 1.025 1.059 1.034	1.053 1.071 1.029 1.013 1.051	1.030 1.059 1.042 1.009 1.027	1.062 1.027 1.039 1.033 1.021	1.038 1.029 1.024 1.036 1.035	1.021 1.015 1.023 1.020 1.009	1.002 1.014 1.009 1.022 1.016	1.011 1.006 1.001 1.016 1.017	1.013 1.006 1.001 1.001 1.001	1.015 1.014 1.002 1.002	1.014 1.017 1.005 1.002	1.013 1.018 1.004	1.014	1.009	
Average All Wtd 3 Last 3 Last 5 x-hi,low	2.432 2.471 2.466 2.408	1.367 1.339 1.344 1.385	1.182 1.185 1.178 1.185	1.097 1.090 1.092 1.094	1.072 1.067 1.067 1.073	1.056 1.040 1.039 1.055	1.043 1.032 1.031 1.044	1.033 1.026 1.026 1.033	1.036 1.030 1.031 1.033	1.032 1.032 1.032 1.033	1.018 1.017 1.017 1.019	1.013 1.016 1.016 1.013	1.010 1.011 1.011 1.011	1.004 1.001 1.001 1.003	1.009 1.006 1.006 1.010	1.010 1.008 1.008	1.012 1.013 1.012	1.018	1.009	
Similar Previous	2.507 2.450	1.369 1.385	1.134 1.180	1.057 1.095	1.031 1.070	1.021 1.060	1.014 1.040	1.103 1.035	1.030	1.025	1.018	1.015	1.010	1.007	1.006	1.005	1.004	1.003	1.002	1.050
Selected Cumulative Percent	2.430 6.328 15.8%	1.385 2.604 38.4%	1.180 1.880 53.2%	1.095 1.593 62.8%	1.070 1.455 68.7%	1.060 1.360 73.5%	1.040 1.283 77.9%	1.035 1.234 81.1%	1.030 1.192 83.9%	1.028 1.157 86.4%	1.018 1.126 88.8%	1.015 1.106 90.4%	1.010 1.089 91.8%	1.007 1.079 92.7%	1.006 1.071 93.4%	1.005 1.065 93.9%	1.004 1.059 94.4%	1.003 1.055 94.8%	1.002 1.052 95.0%	1.050 1.050 95.2%

Amounts are unlimited (gross of excess insurance).

Data was provided by the State.

STATE OF HAWAII WORKERS' COMPENSATION Exhibit WC-2 (page 3)

#### Historical Unlimited Reported Incurred Losses (\$000) and Unlimited Reported Incurred Loss Development

I. Historical Unlimited Reported Incurred Losses (\$000)

Claim Period	12	24	Months of De	evelopment: 48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
to 1989/90 1990/91 1991/92 1992/93 1993/94 1994/95 1995/96 1996/97 1997/98 1998/99 1999/00 2000/01 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09	3,516 3,395 4,344 6,877 5,723 7,323	6,029 6,317 5,729 7,204 7,777 6,531	8,722 7,465 8,304 6,511 7,261 7,675	7,087 10,013 8,471 9,469 6,315 7,081	7,355 7,767 11,732 8,393 9,387 6,015	7,176 7,779 8,295 11,975 8,568 9,374	6,852 7,724 8,041 8,473 12,041 8,679	7,071 6,842 8,127 8,110 8,802 11,789	6,259 7,133 7,120 8,694 8,159 8,648	5,055 6,583 7,291 7,192 8,887 8,013	6,638 5,183 6,898 7,388 7,173 8,954	6,384 6,765 5,170 6,959 7,168 7,160	5,897 6,414 6,849 5,167 7,148 7,289	6,059 5,927 6,444 6,851 5,235 7,121	\$25,775 6,080 5,934 6,444 6,886 5,215	\$25,898 6,149 5,952 6,475 6,864	\$25,868 6,210 6,014 6,475	\$25,998 6,227 6,014	\$26,995 6,281	\$27,162
II. Unlimited Reported	Incurred Loss	Developme																		
Claim Period	12-24	24-36	Months of De 36-48	evelopment: 48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
to 1989/90 1990/91 1991/92 1992/93 1993/94 1994/95 1995/96 1996/97 1997/98 1998/99 1999/00 2000/01 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08	1.797 1.688 1.659 1.131 1.141	1.238 1.315 1.137 1.008 0.987	1.148 1.135 1.140 0.970 0.975	1.096 1.172 0.991 0.993	1.058 1.068 1.021 1.021 0.999	1.076 1.034 1.021 1.006 1.013	0.999 1.052 1.009 1.039 0.979	1.009 1.041 1.070 1.006 0.982	1.052 1.022 1.000 1.022 0.982	1.025 1.048 1.013 1.007	1.019 0.997 1.009 0.970 0.998	1.005 1.012 0.999 1.027 1.017	1.005 1.005 1.000 1.013 0.996	1.003 1.001 1.000 1.005 0.996	1.005 1.011 1.003 1.005 0.997	0.999 1.010 1.011 1.000	1.005 1.003 1.000	1.038	1.006	
Average All Wtd 3 Last 3 Last 5 x-hi,low	1.483 1.270 1.310 1.496	1.137 1.036 1.044 1.128	1.074 1.036 1.028 1.083	1.040 0.981 0.978 1.026	1.033 1.014 1.013 1.033	1.030 1.012 1.013 1.023	1.015 1.005 1.009 1.015	1.022 1.018 1.019 1.018	1.016 1.002 1.002 1.015	1.020 1.009 1.009 1.015	0.999 0.992 0.992 1.001	1.012 1.016 1.015 1.011	1.004 1.002 1.003 1.003	1.001 1.001 1.000 1.002	1.004 1.001 1.001 1.004	1.005 1.007 1.007	1.003 1.004 1.003	1.024	1.006	
Similar Previous	1.316 1.400	1.079 1.100	1.013 1.060	1.009 1.025	1.004 1.024	1.015 1.023	1.003 1.022	1.064 1.020	1.015	1.012	1.005	1.004	1.004	1.003	1.002	1.001	1.001	1.001	1.001	1.000
Selected Cumulative Percent	1.400 1.919 52.1%	1.100 1.370 73.0%	1.060 1.246 80.3%	1.025 1.175 85.1%	1.024 1.147 87.2%	1.023 1.120 89.3%	1.022 1.095 91.4%	1.020 1.071 93.4%	1.015 1.050 95.2%	1.012 1.034 96.7%	1.005 1.022 97.8%	1.004 1.017 98.3%	1.004 1.013 98.7%	1.003 1.009 99.1%	1.002 1.006 99.4%	1.001 1.004 99.6%	1.001 1.003 99.7%	1.001 1.002 99.8%	1.001 1.001 99.9%	1.000 1.000 100.0%

Amounts are unlimited (gross of excess insurance).

Data was provided by the State.

STATE OF HAWAII Exhibit WC-2 (page 4)
WORKERS' COMPENSATION

#### Historical Reported Claims and Reported Claim Development

I. Historical Reported Claims	
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Claim			Months of De	evelopment:																
Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
to 1989/90 1990/91 1991/92 1992/93 1993/94 1994/95 1995/96 1996/97 1997/98 1998/99 1999/00 2000/01 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09	588 531 509 488 486 472	783 679 594 570 570 543	777 783 696 601 576 572	816 778 794 702 602 576	781 816 781 795 701 602	753 781 825 782 795 701	760 754 781 825 782 795	645 760 754 781 825 782	638 645 761 754 781 825	730 638 646 761 754 781	806 731 638 646 761 754	817 806 731 638 646 761	709 817 806 731 638 646	671 709 817 806 731 638	1,970 671 709 817 806 731	1,972 671 709 817 806	1,973 671 709 817	1,974 671 709	1,974 671	1,974
II. Reported Claim D	evelopment																			
Claim Period	12-24	24-36	Months of De 36-48	evelopment: 48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
to 1989/90 1990/91 1991/92 1992/93 1993/94 1994/95 1995/96 1996/97 1997/98 1998/99 1999/00 2000/01 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09	1.155 1.119 1.120 1.168 1.117	1.000 1.025 1.012 1.011 1.004	1.001 1.014 1.009 1.002 1.000	1.000 1.004 1.001 0.999 1.000	1.000 1.011 1.001 1.000 1.000	1.001 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.001 1.000 1.000 1.000	1.000 1.002 1.000 1.000 1.000	1.001 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000	1.001 1.000 1.000 1.000 1.000	1.001 1.000 1.000 1.000	1.001 1.000 1.000	1.000 1.000	1.000	
Average All Wtd 3 Last 3 Last 5 x-hi,low	1.136 1.135 1.135 1.131	1.010 1.009 1.009 1.009	1.005 1.004 1.003 1.004	1.001 1.000 1.000 1.000	1.002 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000	1.000 1.000 1.000	1.000	1.000	
Similar Previous	1.130	1.015	1.005	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected Cumulative	1.130 1.156 86.5%	1.015 1.023	1.005 1.008	1.002 1.003	1.001 1.001	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000

Data was provided by the State.

Percent

86.5% 97.7% 99.2%

99.7%

99.9%

100.0%

100.0%

100.0%

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STATE OF HAWAII WORKERS' COMPENSATION

#### Historical Ratio of Unlimited Paid Losses and Unlimited Reported Incurred Losses

I. Ratio of Unlimited Paid Losses to Unlimited Reported Incurred Losses

Claim Period	12	24	Months of De	velopment: 48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
to 1989/90 1990/91 1991/92 1992/93 1993/94 1994/95 1995/96 1996/97 1997/98 1998/99 1998/00 2000/01 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09	42.8% 33.4% 27.2% 18.8% 19.8% 20.9%	65.3% 57.5% 46.5% 39.5% 42.9% 41.7%	68.6% 72.7% 62.4% 55.8% 55.5% 54.5%	88.0% 73.4% 73.5% 64.7% 67.1%	80.3% 89.7% 68.5% 80.8% 73.8% 74.8%	80.6% 82.6% 90.0% 71.5% 83.4% 79.9%	80.1% 81.8% 85.5% 90.3% 75.3% 85.2%	79.5% 84.4% 83.2% 87.2% 88.0% 60.8%	81.9% 81.1% 85.9% 81.1% 97.5% 92.0%	93.6% 82.7% 81.5% 89.2% 90.9%	97.5% 94.8% 81.2% 82.4% 91.7% 84.2%	99.4% 97.7% 96.5% 82.3% 86.6% 92.7%	93.6% 99.2% 97.8% 97.4% 81.9% 86.6%			91.9% 91.6% 95.1% 99.2% 98.6%	93.3% 92.2% 94.7% 99.4%	94.1% 93.6% 95.1%	91.9% 94.9%	92.2%
Average All Last 3 Last 5 x-hi,low	27.1% 19.8% 22.6%	48.9% 41.4% 43.7%	61.6% 55.3% 57.9%	72.4% 66.4% 69.3%	78.0% 76.4% 76.4%	81.3% 78.3% 82.0%	83.0% 83.6% 84.1%	83.9% 85.4% 84.9%	84.9% 86.9% 84.8%	86.6% 87.3% 84.6%	88.6% 86.1% 86.1%	92.5% 87.2% 91.9%	92.7% 88.6% 93.9%	93.9% 93.0% 96.6%	95.3% 98.3% 96.7%	95.3% 97.7% 95.2%	94.9% 95.4%	94.2% 94.2%	93.4%	92.2%
Implicit	30.3%	52.6%	66.3%	73.8%	78.8%	82.3%	85.3%	86.8%	88.1%	89.4%	90.8%	92.0%	93.0%	93.5%	93.9%	94.3%	94.7%	95.0%	95.1%	95.2%

### Developed Unlimited Paid Losses

		Unlimited		Developed Unlimited
	Months of	Paid	Percent	Paid
Claim	Development	Losses	Losses	Losses
Period	6/30/09	6/30/09	Paid	(3)/(4)
(1)	(2)	(3)	(4)	(5)
to 1989/90	240.0	\$25,043,666	95.2%	\$26,295,849
1990/91	228.0	5,958,462	95.0%	6,268,898
1991/92	216.0	5,717,941	94.8%	6,033,893
1992/93	204.0	6,438,334	94.4%	6,821,269
1993/94	192.0	6,767,086	93.9%	7,205,422
1994/95	180.0	5,115,856	93.4%	5,479,918
1995/96	168.0	5,957,147	92.7%	6,425,745
1996/97	156.0	6,308,845	91.8%	6,873,160
1997/98	144.0	6,634,211	90.4%	7,336,043
1998/99	132.0	7,538,088	88.8%	8,485,581
1999/00	120.0	7,286,797	86.4%	8,432,380
2000/01	108.0	7,958,661	83.9%	9,486,166
2001/02	96.0	9,530,100	81.1%	11,756,784
2002/03	84.0	7,390,117	77.9%	9,481,471
2003/04	72.0	7,491,461	73.5%	10,188,185
2004/05	60.0	4,497,821	68.7%	6,545,099
2005/06	48.0	4,753,679	62.8%	7,574,571
2006/07	36.0	4,185,470	53.2%	7,869,632
2007/08	24.0	2,722,286	38.4%	7,089,141
2008/09	12.0	1,528,107	15.8%	9,669,855

<sup>(3)</sup> is from Exhibit WC-1.

<sup>(4)</sup> is from Exhibit WC-2.

### Developed Unlimited Reported Incurred Losses

Claim Period	Months of Development 6/30/09	Unlimited Reported Incurred Losses 6/30/09	Percent Losses Reported	Developed Unlimited Reported Incurred Losses (3)/(4)
(1)	(2)	(3)	(4)	(5)
to 1989/90 1990/91 1991/92 1992/93 1993/94 1994/95 1995/96 1996/97 1997/98 1998/99 1998/00 2000/01 2001/02 2002/03 2003/04	240.0 228.0 216.0 204.0 192.0 180.0 168.0 156.0 144.0 132.0 120.0 108.0 96.0 84.0 72.0	\$27,162,322 6,280,571 6,014,438 6,474,793 6,864,029 5,214,613 7,120,582 7,289,235 7,159,544 8,953,729 8,013,150 8,647,924 11,789,037 8,678,774 9,373,739	100.0% 99.9% 99.8% 99.7% 99.6% 99.4% 99.1% 98.7% 98.3% 97.8% 96.7% 95.2% 93.4% 91.4%	\$27,162,322 6,286,851 6,026,473 6,494,237 6,891,527 5,245,974 7,174,694 * 7,365,813 * 7,282,119 9,152,556 8,289,383 9,080,231 12,468,958 * 9,499,362 10,496,017
2004/05	60.0	6,015,228	87.2%	6,897,056
2005/06	48.0	7,081,113	85.1%	8,322,179
2006/07	36.0	7,675,178	80.3%	9,561,584
2007/08 2008/09	24.0 12.0	6,530,928 7,322,581	73.0% 52.1%	8,949,711 14,048,381

<sup>\* -</sup> Indicates large claim(s) limited to retention. For details, see Exhibit WC-12.

<sup>(3)</sup> is from Exhibit WC-1.

<sup>(4)</sup> is from Exhibit WC-2.

### Developed Unlimited Case Reserves

Claim Period (1)	Months of Development 6/30/09 (2)	Percent Losses Paid (3)	Percent Losses Reported (4)	Percent Losses Reserved 6/30/09 [(4)-(3)]/ [100.0%-(3)] (5)	Unlimited Paid Losses 6/30/09 (6)	Unlimited Case Reserves 6/30/09 (7)	Developed Unlimited Case Reserves (6)+(7)/(5) (8)
to 1989/90	240.0	95.2%	100.0%	100.0%	\$25.043.666	\$2.118.656	\$27,162,322
1990/91	228.0	95.0%	99.9%	98.0%	5,958,462	322,108	6,287,202
1991/92	216.0	94.8%	99.8%	96.2%	5,717,941	296,497	6,026,194
1992/93	204.0	94.4%	99.7%	94.7%	6,438,334	36,459	6,476,847
1993/94	192.0	93.9%	99.6%	93.4%	6,767,086	96,943	6,870,834
1994/95	180.0	93.4%	99.4%	91.0%	5,115,856	98,757	5,224,379
1995/96	168.0	92.7%	99.1%	87.7%	5,957,147	1,163,435	7,181,903 *
1996/97	156.0	91.8%	98.7%	84.3%	6,308,845	980,390	7,321,070 *
1997/98	144.0	90.4%	98.3%	82.4%	6,634,211	525,334	7,271,707
1998/99	132.0	88.8%	97.8%	80.5%	7,538,088	1,415,641	9,295,673
1999/00	120.0	86.4%	96.7%	75.5%	7,286,797	726,353	8,249,222
2000/01	108.0	83.9%	95.2%	70.4%	7,958,661	689,263	8,937,265
2001/02	96.0	81.1%	93.4%	65.0%	9,530,100	2,258,937	12,561,823 *
2002/03	84.0	77.9%	91.4%	60.8%	7,390,117	1,288,657	9,508,340
2003/04	72.0	73.5%	89.3%	59.6%	7,491,461	1,882,277	10,649,424
2004/05	60.0	68.7%	87.2%	59.1%	4,497,821	1,517,407	7,064,267
2005/06	48.0	62.8%	85.1%	60.0%	4,753,679	2,327,434	8,635,535
2006/07	36.0	53.2%	80.3%	57.9%	4,185,470	3,489,708	10,217,035
2007/08	24.0	38.4%	73.0%	56.1%	2,722,286	3,808,643	9,508,231
2008/09	12.0	15.8%	52.1%	43.1%	1,528,107	5,794,474	14,960,432

<sup>\* -</sup> Indicates large claim(s) limited to retention. For details, see Exhibit WC-12.

<sup>(3)</sup> and (4) are from Exhibit WC-2.

<sup>(6)</sup> and (7) are from Exhibit WC-1.

### Preliminary Projected Ultimate Unlimited Losses to 2008/09

Claim Period (1)	Developed Unlimited Paid Losses (2)	Developed Unlimited Reported Incurred Losses (3)	Developed Unlimited Case Reserves (4)	Preliminary Projected Ultimate Unlimited Losses (5)
to 1989/90	\$26,295,849	\$27,162,322	\$27,162,322	\$27,162,322
1990/91	6,268,898	6,286,851	6,287,202	6,287,202
1991/92	6,033,893	6,026,473	6,026,194	6,026,194
1992/93	6,821,269	6,494,237	6,476,847	6,476,847
1993/94	7,205,422	6,891,527	6,870,834	6,870,834
1994/95	5,479,918	5,245,974	5,224,379	5,224,379
1995/96	6,425,745	7,174,694	7,181,903	7,181,903
1996/97	6,873,160	7,365,813	7,321,070	7,321,070
1997/98	7,336,043	7,282,119	7,271,707	7,271,707
1998/99	8,485,581	9,152,556	9,295,673	9,295,673
1999/00	8,432,380	8,289,383	8,249,222	8,249,222
2000/01	9,486,166	9,080,231	8,937,265	8,937,265
2001/02	11,756,784	12,468,958	12,561,823	12,552,536
2002/03	9,481,471	9,499,362	9,508,340	9,506,544
2003/04	10,188,185	10,496,017	10,649,424	10,603,402
2004/05	6,545,099	6,897,056	7,064,267	6,997,383
2005/06	7,574,571	8,322,179	8,635,535	8,404,096
2006/07	7,869,632	9,561,584	10,217,035	8,677,503
2007/08	7,089,141	8,949,711	9,508,231	7,945,073
2008/09	9,669,855	14,048,381	14,960,432	11,603,676

<sup>(2)</sup> is from Exhibit WC-3.

<sup>(3)</sup> is from Exhibit WC-4.

<sup>(4)</sup> is from Exhibit WC-5.

<sup>(5)</sup> is based on (2) to (4) and actuarial judgment.

#### Bornhuetter - Ferguson Analysis

#### I. A-priori Loss Rate

Claim Period (1)	Preliminary Projected Ultimate Unlimited Losses (2)	Payroll (000) (3)	Unlimited Loss Rate per \$100 of Payroll (2)/(3)/10 (4)	Loss Rate Trend (2009/10 = 1.000) (5)	Trended Unlimited Loss Rate per \$100 of Payroll (4)X(5) (6)	Projected A-priori Loss Rate per \$100 of Payroll (7)/(5) (8)
1999/00	\$8,249,222	\$556,671	\$1.48	1.519	\$2.25	\$0.92
2000/01	8,937,265	550,839	1.62	1.481	2.40	0.95
2001/02	12,552,536	576,447	2.18	1.396	3.04	1.00
2002/03	9,506,544	601,105	1.58	1.343	2.12	1.04
2003/04	10,603,402	612,615	1.73	1.293	2.24	1.08
2004/05	6,997,383	628,745	1.11	1.247	1.39	1.12
2005/06	8,404,096	658,810	1.28	1.196	1.53	1.17
2006/07	8,677,503	695,219	1.25	1.123	1.40	1.25
2007/08	7,945,073	733,829	1.08	1.060	1.15	1.32
2008/09	11,603,676	768,212	1.51	1.026	1.55	1.37

(7) Projected 2009/10 a-priori loss rate per \$100 of Payroll

\$1.40

II. Bornhuetter - Ferguson Analysis Based on Unlimited Paid Losses

						B-F
			Projected		B-F	Ultimate
	Unlimited		A-priori		Unpaid	Unlimited
	Paid	Percent	Loss Rate		Losses	Paid
Claim	Losses	Losses	per \$100 of	Payroll	[100.0%-(3)]	Losses
Period	6/30/09	Paid	Payroll	(000)	X(4)X(5)X10	(2)+(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
 0004/05					00.040.050	
2004/05	\$4,497,821	68.7%	\$1.12	\$628,745	\$2,212,358	\$6,710,179
2005/06	4,753,679	62.8%	1.17	658,810	2,877,186	7,630,866
2006/07	4,185,470	53.2%	1.25	695,219	4,063,260	8,248,730
2007/08	2,722,286	38.4%	1.32	733,829	5,979,476	8,701,762
2008/09	1,528,107	15.8%	1.37	768,212	8,844,793	10,372,899

III. Bornhuetter - Ferguson Analysis Based on Unlimited Reported Incurred Losses

						B-F
	Unlimited		Projected		B-F	Ultimate
	Reported		A-priori		Unreported	Unlimited
	Incurred	Percent	Loss Rate		Losses	Reported
Claim	Losses	Losses	per \$100 of	Payroll	[100.0%-(3)]	Losses
Period	6/30/09	Reported	Payroll	(000)	X(4)X(5)X10	(2)+(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2004/05	\$6,015,228	87.2%	\$1.12	\$628,745	\$904,305	\$6,919,533
2005/06	7,081,113	85.1%	1.17	658,810	1,152,119	8,233,233
2006/07	7,675,178	80.3%	1.25	695,219	1,712,363	9,387,540
2007/08	6,530,928	73.0%	1.32	733,829	2,623,468	9,154,396
2008/09	7,322,581	52.1%	1.37	768,212	5,029,301	12,351,882

Section I, (2) is from Exhibit WC-6.

Section I, (3), Section II, (5) and Section III, (5) are from Exhibit WC-1.

Section I, (5) is from Exhibit WC-11.

Section I, (7) is based on Section I, (6) and actuarial judgment.

Sections II and III, (2) are from Exhibit WC-1.

Sections II and III, (3) are from Exhibit WC-2.

Sections II and III, (4) are from Section I, (8).

#### Frequency Times Severity Analysis

#### I. Projected Ultimate Claims

				Projected		Frequency
	Months of	Reported	Percent	Ultimate		(per \$1M of
Claim	Development	Claims	Claims	Claims	Payroll	Payroll)
Period	6/30/09	6/30/09	Reported	(3)/(4)	(000)	(5)/(6)X1,000
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1999/00	120.0	781	100.0%	781	\$556,671	1.40
2000/01	108.0	825	100.0%	825	550,839	1.50
2001/02	96.0	782	100.0%	782	576,447	1.36
2002/03	84.0	795	100.0%	795	601,105	1.32
2003/04	72.0	701	100.0%	701	612,615	1.14
2004/05	60.0	602	99.9%	603	628,745	0.96
2005/06	48.0	576	99.7%	578	658,810	0.88
2006/07	36.0	572	99.2%	577	695,219	0.83
2007/08	24.0	543	97.7%	556	733,829	0.76
2008/09	12.0	472	86.5%	546	768,212	0.71

II. Frequency Times Severity

Claim Period (1)	Preliminary Projected Ultimate Unlimited Losses (2)	Projected Ultimate Claims (3)	Average Severity (2)/(3) (4)	Severity Trend (2009/10 = 1.000) (5)	Trended Average Claim Severity (4)X(5) (6)	De-Trended Projected 2009/10 Average Claim Severity (7)/(5) (8)	Frequency Times Severity (3)X(8) (9)
1999/00	\$8,249,222	781	\$10,562	2.041	\$21,559	\$9,145	\$7,141,906
2000/01	8,937,265	825	10,833	1.932	20,933	9,659	7,968,947
2001/02	12,552,536	782	16,052	1.768	28,381	10,557	8,255,192
2002/03	9,506,544	795	11,958	1.652	19,749	11,302	8,984,818
2003/04	10,603,402	701	15,126	1.544	23,358	12,087	8,472,852
2004/05	6,997,383	603	11,604	1.445	16,771	12,915	7,787,515
2005/06	8,404,096	578	14,540	1.346	19,571	13,867	8,015,048
2006/07	8,677,503	577	15,039	1.227	18,460	15,206	8,773,648
2007/08	7,945,073	556	14,290	1.125	16,072	16,595	9,226,588
2008/09	11,603,676	546	21,252	1.056	22,450	17,669	9,647,430

<sup>(7)</sup> Projected 2009/10 average claim severity

\$18,665

Section I, (3) is from Exhibit WC-1.

Section I, (4) is from Exhibit WC-2.

Section I, (6) is from Exhibit WC-1.

Section II, (2) is from Exhibit WC-6.

Section II, (3) is from Section I, (5).

Section II, (5) is from Exhibit WC-11.

Section II, (7) is based on (6) and actuarial judgment.

### Projected Ultimate Unlimited Losses to 2008/09

Claim Period (1)	Developed Unlimited Paid Losses (2)	Developed Unlimited Reported Incurred Losses (3)	Developed Unlimited Case Reserves (4)	B-F Ultimate Unlimited Paid Losses (5)	B-F Ultimate Unlimited Reported Losses (6)	Frequency Times Severity (7)	Projected Ultimate Unlimited Losses (8)
to 1989/90	\$26,295,849	\$27,162,322	\$27,162,322				\$27,162,322
1990/91	6.268.898	6.286.851	6.287.202				6,287,000
1991/92	6,033,893	6,026,473	6,026,194				6,026,000
1992/93	6,821,269	6,494,237	6,476,847				6,477,000
1993/94	7,205,422	6,891,527	6,870,834				6,871,000
1994/95	5,479,918	5,245,974	5,224,379				5,224,000
1995/96	6,425,745	7,174,694	7,181,903				7,182,000
1996/97	6,873,160	7,365,813	7,321,070				7,321,000
1997/98	7,336,043	7,282,119	7,271,707				7,272,000
1998/99	8,485,581	9,152,556	9,295,673				9,296,000
1999/00	8,432,380	8,289,383	8,249,222				8,249,000
2000/01	9,486,166	9,080,231	8,937,265				8,937,000
2001/02	11,756,784	12,468,958	12,561,823				12,553,000
2002/03	9,481,471	9,499,362	9,508,340				9,507,000
2003/04	10,188,185	10,496,017	10,649,424				10,603,000
2004/05	6,545,099	6,897,056	7,064,267	6,710,179	6,919,533	7,787,515	6,997,000
2005/06	7,574,571	8,322,179	8,635,535	7,630,866	8,233,233	8,015,048	8,404,000
2006/07	7,869,632	9,561,584	10,217,035	8,248,730	9,387,540	8,773,648	8,678,000
2007/08	7,089,141	8,949,711	9,508,231	8,701,762	9,154,396	9,226,588	8,267,000
2008/09	9,669,855	14,048,381	14,960,432	10,372,899	12,351,882	9,647,430	10,845,000

<sup>(2)</sup> is from Exhibit WC-3.

<sup>(3)</sup> is from Exhibit WC-4.

<sup>(4)</sup> is from Exhibit WC-5.

<sup>(5)</sup> and (6) are from Exhibit WC-7.

<sup>(7)</sup> is from Exhibit WC-8.

<sup>(8)</sup> is based on (2) to (7) and actuarial judgment.

#### Estimated Outstanding Losses as of June 30, 2009

								Present Value of
			Unlimited			Estimated		Estimated
	Unlimited	Unlimited	Reported	Projected	Estimated	Outstanding		Outstanding
	Paid	Case	Incurred	Ultimate	IBNR	Losses	Present	Losses
Claim	Losses	Reserves	Losses	Unlimited	6/30/09	6/30/09	Value	6/30/09
Period	6/30/09	6/30/09	6/30/09	Losses	(5)-(4)	(3)+(6)	Factor	(7)X(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
to 1989/90	\$25,043,666	\$2,118,656	\$27,162,322	\$27,162,322	\$0	\$2,118,656	0.92	\$1,946,553
1990/91	5,958,462	322,108	6,280,571	6,287,000	6,429	328,537	0.89	292,877
1991/92	5,717,941	296,497	6,014,438	6,026,000	11,562	308,059	0.87	267,423
1992/93	6,438,334	36,459	6,474,793	6,477,000	2,207	38,666	0.85	32,815
1993/94	6,767,086	96,943	6,864,029	6,871,000	6,971	103,914	0.83	86,543
1994/95	5,115,856	98,757	5,214,613	5,224,000	9,387	108,144	0.82	88,680
1995/96	5,957,147	1,163,435	7,120,582	7,182,000	61,418	1,224,853	0.81	991,604
1996/97	6,308,845	980,390	7,289,235	7,321,000	31,765	1,012,155	0.81	814,795
1997/98	6,634,211	525,334	7,159,544	7,272,000	112,456	637,790	0.81	514,883
1998/99	7,538,088	1,415,641	8,953,729	9,296,000	342,271	1,757,912	0.81	1,422,873
1999/00	7,286,797	726,353	8,013,150	8,249,000	235,850	962,203	0.82	787,254
2000/01	7,958,661	689,263	8,647,924	8,937,000	289,076	978,339	0.82	803,063
2001/02	9,530,100	2,258,937	11,789,037	12,553,000	763,963	3,022,900	0.82	2,484,007
2002/03	7,390,117	1,288,657	8,678,774	9,507,000	828,226	2,116,883	0.82	1,737,582
2003/04	7,491,461	1,882,277	9,373,739	10,603,000	1,229,261	3,111,538	0.82	2,566,629
2004/05	4,497,821	1,517,407	6,015,228	6,997,000	981,772	2,499,179	0.83	2,063,580
2005/06	4,753,679	2,327,434	7,081,113	8,404,000	1,322,887	3,650,321	0.83	3,020,757
2006/07	4,185,470	3,489,708	7,675,178	8,678,000	1,002,822	4,492,530	0.84	3,760,964
2007/08	2,722,286	3,808,643	6,530,928	8,267,000	1,736,072	5,544,715	0.85	4,717,032
2008/09	1,528,107	5,794,474	7,322,581	10,845,000	3,522,419	9,316,893	0.87	8,061,300
Total	\$138,824,135	\$30,837,373	\$169,661,508	\$182,158,322	\$12,496,814	\$43,334,187		\$36,461,214

<sup>(2), (3)</sup> and (4) are net of specific self insured retention and aggregate retention.

<sup>(5)</sup> is from Exhibit WC-9.

<sup>(8)</sup> is based on a 3.5% interest rate and the payout pattern in Exhibit WC-2.

### Loss Rate and Severity Trend

#### I. Benefit Level Changes

Effecitive Date (1)	Benefit Level Change (2)	Cumulative Benefit Level Change (3)
07/01/99	0.002	0.002
	0.992	0.992
01/01/00	1.005	0.996
06/01/01	1.035	1.031
01/01/02	1.016	1.048
01/01/03	1.022	1.071
01/01/04	1.014	1.086
01/01/05	1.020	1.108
01/01/06	1.024	1.134
01/01/07	1.063	1.206
01/01/08	1.016	1.225
01/01/09	1.011	1.238

### II. Loss Rate and Severity Trend

				Loss Rate		Severity
Claim Period (1)	Benefit Trend (2009/10 = 1.000) (2)	Residual Trend (2009/10 = 1.000) (3)	Retention Index (2009/10 = 1.000) (4)	Trend (2009/10 = 1.000) (2)X(3)X(4) (5)	Wage Trend (2009/10 = 1.000) (6)	Trend (2009/10 = 1.000) (5)X(6) (7)
1999/00	1.246	1.219	1.000	1.519	1.344	2.041
2000/01	1.239	1.195	1.000	1.481	1.305	1.932
2001/02	1.191	1.172	1.000	1.396	1.267	1.768
2002/03	1.169	1.149	1.000	1.343	1.230	1.652
2003/04	1.148	1.126	1.000	1.293	1.194	1.544
2004/05	1.129	1.104	1.000	1.247	1.159	1.445
2005/06	1.105	1.082	1.000	1.196	1.126	1.346
2006/07	1.059	1.061	1.000	1.123	1.093	1.227
2007/08	1.019	1.040	1.000	1.060	1.061	1.125
2008/09	1.005	1.020	1.000	1.026	1.030	1.056
2009/10	1.000	1.000	1.000	1.000	1.000	1.000
2010/11	1.000	0.980	1.000	0.980	0.971	0.952

Section I, (2) and (3) reflect NCCI data.

Section II, (2) is based on Section I, (2).

Section II, (3) is based on 2% trend per actuarial judgment.

Section II, (4) is based on industry statistics and actuarial judgment.

Section II, (6) is based on 3% trend.

# List of Large Claims Unlimited Reported Incurred Losses Greater Than or Equal to \$500,000

Claim Number (1)	Date of Loss (2)	Claim Period (3)	Specific Self-Insured Retention (4)	Unlimited Paid Losses 6/30/09 (5)	Unlimited Case Reserves 6/30/09 (6)	Unlimited Reported Incurred Losses 6/30/09 (7)
78002792	6/6/1980	to 1989/90	Statutory	\$814,101	\$0	\$814,101
28205862	2/11/1982	to 1989/90	Statutory	530,427	0	530,427
28836932	8/8/1988	to 1989/90	Statutory	437,216	86,180	523,396
28837021	12/7/1988	to 1989/90	1,069,180	517,366	551,814	1,069,180
48910086	4/13/1989	to 1989/90	Statutory	750,458	191,348	941,806
28940954	5/29/1989	to 1989/90	Statutory	449,398	465,474	914,872
28941329	8/12/1989	to 1989/90	Statutory	464,526	99,202	563,728
29041103	7/2/1990	1990/91	Statutory	457,230	253,230	710,460
29141212	12/26/1990	1990/91	Statutory	716,984	0	716,984
19110379	8/27/1991	1991/92	Statutory	567,860	196,626	764,486
99210095	7/2/1992	1992/93	Statutory	624,137	0	624,137
99210099	7/14/1992	1992/93	Statutory	541,177	0	541,177
29540578	4/24/1995	1994/95	Statutory	621,647	1,193	622,840
99610067	6/13/1996	1995/96	1,129,468	404,290	725,178 *	1,129,468 *
29640900	7/18/1996	1996/97	Statutory	605,452	0	605,452
19710013	1/14/1997	1996/97	1,429,381	619,781	809,600 *	1,429,381 *
29840200	3/5/1998	1997/98	Statutory	562,909	115,446	678,355
29840831	7/26/1998	1998/99	Statutory	402,666	364,539	767,205
29840987	9/18/1998	1998/99	Statutory	447,419	80,605	528,024
79910138	2/14/1999	1998/99	Statutory	450,345	211,211	661,556
10010277	12/20/2000	2000/01	Statutory	473,813	68,687	542,501
10110169	8/12/2001	2001/02	2,211,249	1,387,637	823,612 *	2,211,249 *
20641024	10/30/2006	2006/07	Statutory	268,491	279,739	548,230

The claim(s) indicated by a '\*' have been limited in development to the reported incurred amount, based on judgement.

#### Size of Loss Distribution

#### I. Reported Claim Count

Layer (1)	Prior (2)	2004/05 (3)	2005/06 (4)	2006/07 (5)	2007/08 (6)	2008/09 (7)	Total (2)(7) (8)	Non-Zero Claim Cumulative Total (9)	Non-Zero Claim Cumulative % of Total (10)
0	2,126	41	52	39	37	12	2,307		
0.01 - 5,000	7,819	426	365	357	328	153	9,448	9,448	73.6%
5.000 - 10.000	586	30	50	49	42	93	850	10,298	80.2%
10,000 - 25,000	693	35	41	47	64	139	1,019	11,317	88.1%
25.000 - 50.000	540	33	25	36	30	47	711	12,028	93.6%
50,000 - 100,000	311	27	23	26	31	22	440	12,468	97.1%
100,000 - 250,000	236	9	18	17	11	5	296	12,764	99.4%
250,000 - 500,000	54	1	2	0	0	1	58	12,822	99.8%
500,000 - 750,000	13	0	0	1	0	0	14	12,836	99.9%
750,000 - 1,000,000	5	0	0	0	0	0	5	12,841	100.0%
Over 1,000,000	4	0	0	0	0	0	4	12,845	100.0%
Total	12,387	602	576	572	543	472	15,152	12,845	

### II. Total Reported Incurred Losses

Layer (1)	Prior (2)	2004/05 (3)	2005/06 (4)	2006/07 (5)	2007/08 (6)	2008/09 (7)	Total (2)(7) (8)	Non-Zero Claim Cumulative Total (9)	Non-Zero Claim Cumulative % of Total (10)
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
0.01 - 5,000	6,559,664	444,605	421,233	372,210	321,274	213,348	8,332,334	8,332,334	4.9%
5,000 - 10,000	4,205,320	208,921	349,031	353,557	315,627	681,445	6,113,901	14,446,235	8.5%
10,000 - 25,000	11,336,757	549,013	681,213	704,724	1,005,858	2,157,621	16,435,187	30,881,422	18.2%
25,000 - 50,000	19,090,880	1,203,732	859,136	1,283,177	1,092,350	1,653,245	25,182,520	56,063,942	33.0%
50,000 - 100,000	21,614,277	1,832,876	1,583,544	1,769,034	2,104,850	1,542,437	30,447,018	86,510,960	51.0%
100,000 - 250,000	36,115,183	1,386,055	2,643,435	2,644,246	1,690,969	577,587	45,057,475	131,568,436	77.5%
250,000 - 500,000	18,248,156	390,025	543,521	0	0	496,898	19,678,600	151,247,036	89.1%
500,000 - 750,000	7,849,036	0	0	548,230	0	0	8,397,266	159,644,302	94.1%
750,000 - 1,000,000	4,202,470	0	0	0	0	0	4,202,470	163,846,771	96.6%
Over 1,000,000	5,839,278	0	0	0	0	0	5,839,278	169,686,049	100.0%
Total	\$135,061,021	\$6,015,228	\$7,081,113	\$7,675,178	\$6,530,928	\$7,322,581	\$169,686,049	\$169,686,049	