

# Fighting Workers' Compensation Fraud: A Training Series for the Industry

*Produced by the California Department of Insurance and the California Insurance Commissioner's Workers' Compensation Fraud Advisory Committee*

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In 1994, the California Workers' Compensation Fraud Advisory Committee formed an education subcommittee to research and, ultimately, provide those in the front lines of the insurance industry

with some basic tools with which to identify and fight insurance fraud. This project resulted in a series of ten video modules and an accompanying training manual. The materials reprinted here come from Module 2 of that training program and provide a detailed listing of some of the indicators that could potentially signal fraudulent activity in the workers' compensation line.

**Important Note:** *The presence of one or more "red flags" does not necessarily mean that fraud has actually occurred; they are simply clues or leads to be further investigated for potential fraud. Examples of "red flags" are cited in each of the following subject areas.*

## Attorney Fraud

Such fraud arises when attorneys knowingly participate in the misrepresentation of the truth in order to either secure or deny compensation for their clients and/or themselves:

Examples:

- Knowingly assisting a client in pursuing a false claim;
- Soliciting a person to file a false claim;
- Knowingly pursuing collection of a lien the attorney knows to be fraudulent;
- Related criminal acts that feed fraud, such as accepting consideration from or paying consideration to doctors, vendors, cappers, or others for referral of clients or settlement of cases.

## "Red Flags"

- The majority of claims in which a law firm is involved are of a highly questionable nature;
- A letter of representation is received, but the applicant denies representation or meeting with the attorney;
- In what is referred to as solicitation fraud, several employees from the same employer have reported similar injuries and are represented by the same law firm.

## Adjuster Fraud

This occurs when a claims person purposely misrepresents the truth in order to either deny or

support a claim; or offers or accepts any form of consideration for the referral or settlement of a claim.

### Examples

- Accepting a gift, such as a television or a trip to Hawaii, from a doctor's office in exchange for an implied promise of patient referrals;
- Knowingly referring cases for rehabilitation services that are not needed, in exchange for a rebate or other form of consideration;
- Altering the evidence in a claim in order to support a denial.

### “Red Flags”

- Inconsistent application of cost-containment measures or agreement to pay above the fee schedule;
- Sloppy observance of procedure for referrals to outside vendors, or increase in the use of a particular vendor, to the exclusion of others;
- Use of vendors outside the preapproved vendor panel;
- Assignments made to vendors where the need for the assignment is questionable;
- Adjuster has social relationship with an applicant's attorney or doctor;
- Adjuster is overheard soliciting, or is observed receiving tickets or other gifts from vendors;
- Adjuster's lifestyle grossly exceeds apparent income.

### Employer Fraud

There are two types of employer fraud in workers' compensation: that which is claims-related and that which involves insurance policy premiums. This is an area where others outside the claims function—premium auditors, for example—also need to be vigilant for suspicious activity.

- Employer-claims fraud occurs when an employer knowingly misrepresents the truth in order to avoid, deny, or obtain compensation on behalf of employees; or knowingly lies

about entitlement to benefits to discourage an injured employee from pursuing a claim.

- Employer-premium fraud occurs when an employer knowingly lies in order to obtain a workers' compensation insurance policy at less than the proper rate.

### Examples

- Misrepresenting the risk or exposure for a given insured by: underreporting payroll; misclassifying payroll; reporting an injury under insured company “A”, when in fact the injured was an employee of uninsured company “B”; lying about the company ownership to avoid a high experience modification.
- Employer tells the employee that workers' compensation benefits are available only if employee is off six months or more following an injury.

### “Red Flags”

- Occupations in claims file don't match the type of business being insured;
- Addition of many DBAs (“doing business as”) on a small policy;
- Policyholder claiming “independent contractor” status of employees;
- Employees reporting wages paid in cash or by personal check;
- Policyholder appears to be “hiding” injuries: paying medical bills, not reporting;
- Employee has difficulty getting claims form from employer;
- Employer denies all claims.

### Pursuing “Red Flags”

“Red flags” do not automatically translate into guilt, but they are indicators of potential fraud. They need to be followed up and, when appropriate, the SIU personnel in your organization should be consulted. Remember what it takes to prove criminal fraud, and always ask yourself these questions when you suspect fraud.

- What was the lie?
- Was it knowingly or intentionally made?
- Was it made for the purpose of either obtaining or denying benefits, or (in the case of suspected premium fraud) for obtaining a policy of insurance at less than the proper rate?
- How is it material to the outcome?

## The Most Common Workers' Compensation "Red Flags"

*Please note that these "red flags" serve only to alert to the possibility of fraud. The presence of any one by itself is not necessarily indicative of fraud, but it is a clue or lead to be further investigated for potential fraud.*

- The injured worker is a new hire.
- The applicant took unexplained or excessive time off prior to claimed injury.
- The alleged injury occurs prior to or just after a strike, layoff, plant closure, job termination, completion of seasonal or temporary work, or notice of employer relocation, and so on.
- Applicant reports an alleged injury immediately following disciplinary action, notice of probation, demotion, or being passed over for a promotion.
- Applicant has a history of personal injury, workers' compensation claims, and/or of reporting "subjective" injuries.
- Applicant's job history shows many jobs held for fairly short periods of time.
- The alleged injury relates to a preexisting injury or health problem.
- Applicant uses addresses of friends, family, or post office boxes; has no known permanent address and moves frequently.
- Applicant's family members know nothing about claim.
- Applicant was experiencing financial difficulties and/or domestic problems prior to submission of claim.
- Applicant has a high-risk activity, such as sky-diving, as a hobby.
- The applicant's version of the accident has inconsistencies, is not credible.
- There are no witnesses to the accident, or witnesses to the accident conflict with the applicant's version or with one another.
- Applicant fails to report the injury in a timely manner.
- Accident or type of injury is unusual for the applicant's line of work.
- Facts regarding accident are related differently in various medical reports, statements, and employer's first report of injury.
- The Social Security number provided does not belong to the applicant.
- Applicant refuses to or cannot produce solid or correct identification.
- Applicant avoids use of U.S. mail; hand-delivers documents.
- Applicant cannot be reached at home during working hours although claims to be disabled from working; or message taker is vague and noncommittal. Applicant is otherwise unavailable and elusive.
- Applicant lifestyle does not coincide with reported/known income.
- Several of applicant's family members are receiving workers' compensation, unemployment, Social Security, welfare, etc.
- Income from workers' compensation and collateral sources (unemployment, Social Security, long-term disability, etc.) meet or exceed wages after taxes.
- Applicant refuses diagnostic procedures to confirm injury, or refuses to attend a scheduled defense medical exam.
- Applicant's co-workers express opinion that injury is not legitimate.
- Alleged injuries are all subjective; i.e., soft tissue, pain, and emotional issues.
- Applicant changes versions of accident after learning of inconsistencies; misrepresentation or fabrication by any party.

- Applicant frequently changes physicians, or does so after being released to return to work.
- Physical description of applicant indicates muscular, well-tanned individual, with callused hands, grease under fingernails, or other signs of active work.
- Medical treatment is inconsistent with injuries originally alleged by employee.
- Applicant undergoes excessive treatment for soft tissue injuries.
- Treatment as reported by applicant is different from doctor's statements in medical report.
- Applicant is examined by several doctors when one doctor could have taken all the information and reached a diagnosis.
- Applicant reports seeing doctor for a very brief period of time; however, reports and billing indicate a lengthy visit.
- Applicant's description of treatment indicates nonmedical personnel rendering medical treatment.
- Applicant sends in medical or reports that appear to be altered.
- Applicant lives far from medical facility, yet receives frequent treatment.
- Surveillance shows applicants activities are inconsistent with physical limitations related in medical reports and desposition.
- Surveillance or "tip" reveals totally disabled worker is employed elsewhere (especially suspicious if employment conflicts with work restrictions given by treating doctor).
- Applicant cannot describe either diagnostic tests or treatment for which employer was billed.
- The doctor ordered diagnostic testing that is not necessary to determine extent of applicant's injury; or, diagnostic testing is performed, yet there is no request by doctor in medical files.
- Diagnostic tests are performed by a vendor not in close proximity to doctor's office or applicant's home, vendor uses post office boxes on all document, or cannot supply diagnostic records.
- Doctor or medical clinic has ownership share in diagnostic group.
- Various reports by a doctor on different applicants' cases read identically or similarly.
- Post office box used for a clinic/doctor address, instead of street address.
- Medical reports appear to be second- or third-generation photocopies.
- Physician cannot be located at address shown on documentation.
- Doctor's report never identifies claimant by gender or gets gender wrong.
- New or additional medical problems are alleged and attributable to the original injury.
- Specific "soft tissue" injury develops psychiatric overtones.
- Medical reports contain inaccurate terminology, spelling errors, variations in physician's signature or are rubber-stamped with the doctor's name.
- Medical facility uses multiple names or changes name often.
- RVS/CPT (Relative Value Scale/Current Procedural Terminology) codes show evidence of upgrading level of services.
- Billings are received for unnecessary or not rendered services.
- Medical facility has consistently billed both WC carrier and auto, health, etc., insurance carrier and has received payments from both.
- Applicant is unable to define medical ailments as listed on claim form.
- Lawyer's letter or representation or letter from medical clinic is first notice of claim.
- The lawyer's letter is dated the same day as the reported incident or shortly thereafter.
- There is a repeated pattern of doctor/attorney referrals; the same doctor and attorney work together on a large volume of claims.
- Applicant states that a "friend", whose name is no longer remembered, provided reference to attorney/clinic.
- Applicant filed for unemployment or disability benefits before visiting attorney or clinic.
- Applicant alleges doctor or clinic found through a "hot line".

- Applicant is overly pushy, demanding a quick settlement, commitment, or decision.

- Applicant is unusually familiar with claims-handling procedures; workers' compensation rules, laws, and proceedings.

## **Information Box on California Fraud Division**

# Things You Should Know About the 1996 HMO Data Collection Process at the NAIC

by Teresa Walker

Beginning in early 1997, the National Association of Insurance Commissioners (NAIC) will begin collecting health maintenance organization (HMO) annual statement information for the first time. While HMOs have been filing financial information with individual states for years, this marks the first time that this information will be processed through the NAIC's cooperative database. The NAIC members voted to begin maintaining HMO annual statement filings on its extensive database filings, beginning with the 1996 annual statement.

For calendar year 1995, the NAIC database contained annual statement filings for more than 5,000 entities, including:

Property/Casualty	
Individual Company .....	2,691
Combined Group.....	336
Life/Health	
Individual Company .....	1,648
Combined Group.....	219
Hospital, Medical and Dental	
Indemnity (HMDD) .....	114
Title .....	71
Fraternal .....	139
Total.....	5,218

***Teresa Walker is a Data Quality Specialist in the Quality Assurance Department of the NAIC. She is involved in the review of annual financial data filed on the NAIC database.***

The NAIC members agreed to begin collecting HMO data on the common database for a number of reasons. HMOs and other managed care organizations are increasingly important components of the health care markets in the various states. The growing popularity of HMOs can be seen in Table 1 (HMO Premiums by State, 1990-1994) and Table 2 (HMO Enrollment 1994). The HMO total premiums have more than doubled in recent years. The number of persons enrolling in HMOs continues its upward trend, although that growth differs by state and region. In addition to the growing premiums for HMOs and the increasing enrollment, new health care financing entities and variations of existing types continue to evolve. A few of the variations that exist include:

## 1. Health Maintenance Organization (HMO)

- A. Staff Model - The physicians practice solely as employees and are usually paid a salary.
- B. Group Model - The HMO pays the physician group a negotiated per capita rate.
- C. Network Model - The HMO contracts with two or more independent group practices to provide services and pays a fixed monthly fee per enrollee.
- D. Independent Practice Association (IPA) - The managed care plan contracts with physicians to provide services to the plan members at a negotiated rate per capita, a flat retainer, or a negotiated fee-for-service rate.

2. Preferred Provider Organization (PPO) - This is a combination of standard fee-for-service indemnity plans and HMOs. The PPO has contracts with networks of providers who agree to provide medical services and to be paid according to a negotiated fee schedule. Enrollees of the PPO are often penalized if they choose to seek care from a non-affiliated provider.

3. Exclusive Provider Organization (EPO) - This type is similar to a PPO; however, in an EPO the enrollees must pay the entire cost themselves if they choose to seek care from a non-affiliated provider.

4. Point-of-Service Plans (POS) - This type combines the characteristics of the HMO and the PPO. POS plans utilize a network of participating providers.

The employee must select a primary physician who makes all necessary referrals. If care is received within the network, there is little or no "out-of-pocket" cost to the employee; however, if care is sought outside the network, the employee pays significantly higher copayments and deductibles. The provider reimbursement may be fee-for-service or capitation.

The development of these new entities requires state regulators to stay abreast of the changing health insurer structures so that appropriate regulatory policies are put in place. By capturing HMO data on the common database, the NAIC members will be better able to effect uniform policies and procedures in the regulation of HMOs. Individual state regulators will be better able to master the diverse reporting practices of HMOs in different jurisdictions. Eventually, after multiple years of data are captured on the database, regulators will be able to study trends in the national and regional markets as well. The states will be able to produce efficient and cost-effective review of the HMO entities with the financial data that will be readily available to them. This timely review will help regulators in detecting financial and market conduct problems that these entities might be experiencing that may have otherwise been more difficult to detect. Regulators will be able to form more common bases for the analysis of these types of organizations through the use of the data available to them on the database. The common database of HMOs also will help regulators to monitor HMO industry trends or environmental changes that could have a significant bearing on the solvency of HMOs or other health care financing organizations.

One of the considerations that led the NAIC members to make the decision is the advent of Health Organizations Risk-Based Capital (HORBC). HORBC, which will be tested in 1996 and 1997, will extend the NAIC's risk-based capital standards to HMOs and other health organizations, which is one important reason to begin the collection of HMO financial data. The HORBC remains in the draft and testing stages at this time. However, when the eventual HORBC formula becomes reality, regulators already will have HMO financial data readily available for use in implementing and evaluating the system.

## State Variations In Reporting Requirements for HMOs

There are a number of variations in the manner in which states currently gather data on HMOs. In most states, HMOs report financial information to the state insurance department. However, in some states this is not the case at all. Table 3 (Department Regulation of HMOs) shows that of the 53 jurisdictions listed, there are 42 jurisdictions where the insurance department is the primary regulator of HMOs and six jurisdictions where the insurance department is the secondary regulator of HMOs. For example, in California the Department of Insurance does not have primary responsibility for the regulation of HMOs. Instead, primary regulatory responsibility lies with the California Department of Corporations.

The California Department of Corporations does not use the same annual statement blank as do the majority of states where the primary regulatory authority rests with the state insurance commissioner. California HMOs are currently using the 1989 version of the HMO blank. The HMO blank has gone through many changes since the 1989 version. Therefore, there are numerous schedules in the 1995 version for which there is no comparable data in the 1989 version. The use of the 1989 version of the HMO blank has been written into the California law governing HMOs and would require additional legislation to change the version that is used. There is also a reluctance to change the blank reporting version arrangement because it would entail significant costs to retool existing computer systems, processes and databases. Therefore, even if California HMOs file an annual statement with the NAIC, it will only appear on the NAIC database if it is filed by diskette on the current version of the NAIC blank.

Another interesting aspect of the data collection for HMOs has to do with the annual statement blank on which HMOs are required to file. Some states require HMOs to file on two different blanks. Not only do the HMOs have to prepare the orange NAIC HMO blank, but some are also required to prepare either the blue life/health blank or the yellow property/casualty blank. However, currently only one annual statement per company code may be placed on the database. For each company that is required by its state to report on more than one annual statement blank, a decision would have to

be made to choose which type of insurer blank would be filed with the NAIC and included on the database.

## Schedules That Will Appear on the NAIC Database

The data collection effort for calendar year 1996 will include the following schedules and exhibits specified in the NAIC HMO Annual Statement Diskette Filing Specifications:

### Jurat Page

Report #1	Part A - Assets
Report #1	Part B - Liabilities and Net Worth
Report #2	Revenue, Expenses and Net Worth
Report #3	Cash Flow (Indirect Method)
Report #4	Enrollment and Utilization Table
Premiums, Enrollment and Utilization Table	
Medicare Supplement Insurance Experience Exhibit	

### General Interrogatories

Schedule A-1	Cash and Cash Equivalents
Schedule A-2	Restricted Cash and Other Assets
Schedule B	Investments
Schedule C	Premiums Receivables (Other than Affiliates)
Schedule D-1	Health Care Receivables (Other than Affiliates)
Schedule D-2	Amounts Due from Affiliates
Schedule E	Property and Equipment
Schedule F-1	Analysis of Non-Admitted Assets
Schedule G	Accounts Payable
Schedule H	Claims Payable (Reported and Unreported)
Section I -	Aging Analysis of Unpaid Claims
Section II -	Analysis of Unpaid Claims - Current Year
Section III -	Analysis of Unpaid Claims - Previous Year
Schedule I	Loans and Notes Payable (Other than Affiliates)
Schedule J	Amounts Due to Affiliates
Schedule K	Surplus Notes
Schedule L	Summary of Transactions with Providers
Schedule M	Part 1
Schedule M	Part 2
	Summary of Insurer's Transactions with any Affiliates
Schedule N	Premiums and Annuity Considerations

Notes to Financial Statements  
Five-Year Historical Data  
Supplementary Interrogatories  
Directors and Officers Information

The filing deadline for HMOs that complete their annual statement as of the calendar year-end (December 31) will be March 1, as stated in the HMO annual statement instructions. The filing deadline for those HMOs that complete their annual statements as of a varying fiscal year-end will be established by each company's state of domicile. Per the direction of the NAIC membership, only those HMOs that submit their annual statement data on the current NAIC HMO annual statement blank and on diskette will be loaded to the database. The current annual statement blank for those HMOs that file their annual statement as of a varying fiscal year-end will be the blank used for the previous calendar year-end. For example, a company filing its statement as of June 30, 1997, would file on the HMO annual statement blank for the calendar year-end 1996.

In addition, only "full service" HMOs will be a part of the data capture. The "limited or single service" HMOs will not be included. In general, the limited or single service HMOs would be those that provide dental care services, vision care services, mental health services, substance abuse services, pharmaceutical services, podiatric care services and other similar services. However, the definition may vary from state to state according to the individual state statutes that provide licensing and filing requirements for domiciliary companies.

NAIC staff will review the HMO annual statement filings, as they currently review the filings of other insurer types that are captured on the database. This review will help to ensure completeness and consistency throughout the statements that are filed. If incompleteness or inaccuracies are detected, NAIC staff will communicate the discrepancies to both the HMO annual statement contact person and the state of domicile. This is the same procedure that is followed for other insurer types. The NAIC review includes testing of the data using cross-checks to verify the consistency of the data.

## NAIC Training Seminar on HMO Annual Statement Reporting

The NAIC has prepared a three-and-one-half day training seminar, with presentations by state insurance regulators, NAIC staff and industry representatives. The seminar is intended to be a complete "how to" course on the preparation of the HMO annual statement and will include detailed discussion of applicable statutory accounting procedures, an in-depth review of the changes and reporting procedures for 1996, and an overview of HMO annual statement software that is available. The seminar also will include a detailed discussion on variations in reporting requirements among states. The seminar is recommended for all persons responsible for the preparation, analysis or audit of an HMO's annual statement.

The HMO Annual Statement Seminar will be offered in 1996 in Kansas City on October 14 - 17 and in Philadelphia on November 12 - 15. Below is an outline of the materials that will be included in the training seminar.

### I. Regulation of HMOs

### II. Types of HMOs

### III. Terminology

### IV. Statutory Accounting

### V. Other Required Filings

- A. Directors and Officers Information
- B. Actuarial Certification
- C. Management Discussion and Analysis

### VI. The Statement

- A. General
  - 1. Formatting
    - a) Line Numbers and Captions
    - b) Write-in Lines
  - 2. Bar Codes
  - 3. Printing Standards
  - 4. Whole Dollar Reporting
  - 5. Prior Year Data Changes
    - a) Amended Statements
  - 6. Suggested Order of Completion
- B. Jurat
- C. Assets

- 1. Schedule A - Cash
  - a) A1 - Cash and Cash Equivalents
  - b) A2 - Restricted Cash and Other Assets
- 2. Schedule B - Investments
- 3. Schedule C - Premiums Receivable
- 4. Schedule E - Property/Equipment
- 5. Schedule D - Health Care and Affiliated Receivables
  - a) D1 - Other than Affiliates
  - b) D2 - Affiliates
- 6. Report #1 - Part A - Assets
- 7. Schedule F-1 - Analysis of Nonadmitted Assets

### D. Liabilities

- 1. Schedule G - Accounts Payable
- 2. Schedule H - Claims Payable
  - a) Section I - Aging Analysis
  - b) Section II - Analysis of Current Year Unpaid Claims
  - c) Section III - Analysis of Prior Year Unpaid Claims
- 3. Schedule I - Loans and Notes Payable
- 4. Schedule J - Amounts Due to Affiliates
- 5. Schedule K - Surplus Notes
- 6. Report #1 - Part B - Liabilities and Net Worth

### E. Income Statement and Net Worth

- 1. Schedule N - Premiums and Other Considerations
- 2. Schedule L - Transactions with Providers
- 3. Report #2 - Statement of Revenue, Expenses and Net Worth

### F. Report #3 - Cash Flows

### G. Enrollment and Utilization

- 1. Report #4
- 2. State Pages

### H. Medicare Supplement Insurance Experience Exhibit

### I. Five-Year Historical Data

### J. General Interrogatories

### K. Notes to Financial Statements

### L. Schedule M - Organizational Chart and Transactions

### M. Supplemental Interrogatories

### VII. Annual Statement Problems From the Regulators' View

### VIII. Supplements

#### A. Supplemental Compensation Exhibit

### IX. Reporting Changes

X. Quarterly statements

XI. Mergers

XII. Annual Statement Specifications and Software

A. Hard Copy vs. Diskette Filings

B. Guidance Available

C. Responsibility

XIII. Risk-Based Capital

Further information on these seminars may be obtained by calling the NAIC Education & Training Department at (816) 374-7192.

The inception of HMO data collection on the NAIC's common database will provide regulators

with detailed information on HMOs across the country. The communal access to this detailed regulatory information will allow regulators in each state to better assess the financial solvency of HMOs in their jurisdictions. Trend analysis, industry summaries and peer comparisons are just a few of the benefits that will emerge from this decision. However, there are still several hurdles that will have to be cleared before the full benefit can be realized. The lack of completely standardized reporting among states is one such hurdle. However, no matter how long or difficult the journey, it must still begin with the first step, and the 1996 HMO data collection decision represents that all-important initial step for regulators.

**Table 1**  
**HMO Premiums By State, 1990-1994**

NAIC Member	1990	1991	1992	1993	1994
Alabama	194,418,000	127,837,120	268,211,970	200,857,765	206,883,497
Alaska	0	0	0	0	0
American Samoa	0	0	0	0	0
Arizona	579,967,000	660,926,669	763,805,000	1,346,692,408	1,617,682,923
Arkansas	52,866,943	83,590,266	72,922,668	79,107,059	106,574,773
California	0	2,324,613,000	0	0	0
Colorado	782,685,176	907,964,476	1,045,049,867	854,526,405	619,181,585
Connecticut	827,980,595	943,045,485	995,967,665	1,078,663,856	1,216,224,144
Delaware	126,038,767	0	0	132,364,164	131,461,998
Dist. of Columbia	0	0	0	0	0
Florida	2,130,941,954	2,600,000,000	3,389,778,739	4,138,641,347	4,986,874,517
Georgia	403,095,379	406,005,633	0	762,824,418	853,228,112
Guam	0	0	0	0	0
Hawaii	0	0	0	0	0
Idaho	15,178,584	29,195,814	31,425,818	25,195,538	11,321,152
Illinois	1,320,008,048	1,390,380,551	2,232,156,480	2,376,103,261	2,862,017,944
Indiana	1,411,424,726	1,411,424,726	534,794,685	357,497,997	781,010,567
Iowa	269,451,656	269,451,656	180,865,388	246,004,599	244,967,137
Kansas	0	143,976,294	207,351,850	255,752,000	272,460,000
Kentucky	555,634,991	719,399,138	902,941,908	1,054,288,443	1,260,260,957
Louisiana	0	311,003,420	344,957,176	256,035,343	357,713,002
Maine	36,327,772	44,715,276	59,429,219	81,170,151	106,980,956
Maryland	890,283,429	972,168,397	1,148,217,612	1,222,538,254	1,331,576,349
Massachusetts	0	2,041,485,297	3,416,474,823	4,730,347,067	4,385,312,842
Michigan	1,840,386,000	2,033,180,589	2,123,366,150	2,259,998,421	2,488,341,878
Minnesota	0	1,413,773,648	1,413,773,648	1,268,137,313	1,257,627,335
Mississippi	0	0	0	1,504,777	0
Missouri	587,647,371	611,938,662	698,246,543	815,994,131	1,091,118,360
Montana	0	0	12,127,884	13,842,053	17,382,371
Nebraska	87,446,280	112,275,710	121,532,805	130,764,014	154,796,953
Nevada	155,685,116	193,146,620	288,124,587	294,833,648	252,712,218
New Hampshire	0	0	0	0	130,376,900
New Jersey	0	1,253,413,000	1,511,783,446	1,936,231,066	2,100,000,000
New Mexico	0	0	148,282,983	176,825,000	278,855,684
New York	2,725,100,000	2,511,000,000	4,322,000,000	5,258,424,755	6,407,266,660
North Carolina	0	352,235,016	347,434,085	541,927,000	600,000,000
North Dakota	0	0	2,844,000	3,287,981	8,529,951
Ohio	1,678,441,004	1,983,478,345	2,227,718,000	2,466,883,000	2,581,763,512
Oklahoma	0	185,416,891	301,976,901	367,259,670	250,773,572
Oregon	520,705,834	520,705,834	0	0	0
Pennsylvania	1,506,467,000	2,686,780,472	2,232,196,867	3,090,960,054	3,768,937,100
Puerto Rico	353,186,404	156,169,514	177,419,097	196,380,000	224,934,000
Rhode Island	272,615,294	272,615,294	306,017,900	289,992,095	302,232,056
South Carolina	0	0	122,509,900	158,536,680	199,343,335
South Dakota	0	8,495,332	11,831,856	26,221,326	26,753,388
Tennessee	24,900,000	258,661,021	297,638,863	343,249,807	889,809,217
Texas	1,706,546,800	1,746,791,955	2,048,233,728	2,504,701,304	2,847,696,728
U.S. Virgin Islands	0	0	0	0	0
Utah	237,035,862	285,591,170	346,744,171	394,310,258	452,533,832
Vermont	35,400,000	49,182,361	57,179,464	79,832,224	79,957,000
Virginia	519,770,000	542,203,000	610,807,961	610,807,961	842,380,588
Washington	0	914,746,861	1,254,119,000	1,124,639,590	1,712,202,996
West Virginia	228,018,628	79,157,897	50,297,975	55,580,825	54,749,915
Wisconsin	1,023,415,965	1,214,105,330	1,401,293,227	1,587,018,729	1,770,897,019
Wyoming	0	0	3,961,320	5,409,652	3,452,659
Total	23,099,070,578	34,772,247,740	38,033,813,229	45,202,163,409	52,147,157,682

Source: NAIC Insurance Department Resources Report, various years

**Table 2**  
**Number of HMOs and Enrollment By State, 1994**

NAIC Member	Number of HMOs	Enrollment
Alabama	8	419,128
Alaska	0	0
American Samoa	*	*
Arizona	20	1,483,481
Arkansas	6	92,929
California	36	12,093,270
Colorado	12	904,746
Connecticut	14	897,013
Delaware	6	145,892
Dist. of Columbia	2	144,723
Florida	36	2,826,654
Georgia	11	624,750
Guam	2	76,630
Hawaii	7	274,702
Idaho	2	13,283
Illinois	27	1,996,750
Indiana	12	424,753
Iowa	3	117,307
Kansas	10	278,703
Kentucky	7	465,658
Louisiana	11	304,203
Maine	3	76,453
Maryland	16	1,818,624
Massachusetts	16	2,130,655
Michigan	17	1,925,811
Minnesota	9	1,221,898
Mississippi	1	7,283
Missouri	18	778,625
Montana	1	13,364
Nebraska	5	155,173
Nevada	7	219,890
New Hampshire	3	194,779
New Jersey	14	1,343,407
New Mexico	6	290,461
New York	33	4,418,550
North Carolina	12	594,173
North Dakota	2	7,262
Ohio	31	2,139,094
Oklahoma	6	238,266
Oregon	7	1,165,658
Pennsylvania	19	2,590,938
Puerto Rico	*	*
Rhode Island	3	286,853
South Carolina	4	155,437
South Dakota	1	20,968
Tennessee	17	844,599
Texas	31	1,796,610
U.S. Virgin Islands	*	*
Utah	8	370,975
Vermont	1	73,349
Virginia	13	554,834
Washington	11	884,388
West Virginia	0	0
Wisconsin	27	1,235,252
Wyoming	0	0
Total	574	51,138,204

Source: GHAA 1995 National Directory of HMOs

\* Not Listed

**Table 3**  
**Departmental Regulation of HMOs**

<b>STATE</b>	<b>CITATION</b>	<b>PRIMARY</b>	<b>SECONDARY</b>
Alabama	§§ 27-21A-1 to 27-21A-32	Insurance Department	Department of Health
Alaska	§§ 21.86.010 to 21.86.900	Insurance Department	Department of Health and Social Services
Arizona	§§ 20-1051 to 20-1075	Insurance Department	Department of Health Services
Arkansas	§§ 23-76-101 to 23-76-131	Insurance Department	Department of Health
California	Health and Safety Code §§ 1340-1399.64	Commissioner of Corporations	Insurance Department
Colorado	§§ 10-16-401 to 10-16-427	Insurance Department	Department of Health Care Policy & Financing
Connecticut	§§ 38a-175 to 33a-194	Insurance Department	
Delaware	tit. 18 §§ 6401 to 6406 tit. 16 §§ 9101 to 9115	Department of Health and Social Services	Insurance Department
District. of Columbia	No Provision		
Florida	§§ 641.17 to 641.3922	Insurance Department	Dept. of Health and Rehabilitative Services
Georgia	§§ 33-21-1 to 33-21-28	Insurance Department	Department of Human Resources
Hawaii	No Provision		
Idaho	§§ 41-3901 to 41-3936	Insurance Department	
Illinois	215 ILCS 125/1-2	Insurance Department	Department of Public Health
Indiana	§§ 27-8-7-1 to 27-8-7-21	Insurance Department	
Iowa	§§ 514B.1 to 514B.32	Insurance Department	Department of Public Health
Kansas	§§ 40-3201 to 40-3227	Insurance Department	
Kentucky	§§ 304.38-010 to 304.38-230	Insurance Department	Department of Health Services
Louisiana	§§ 22:2001 to 22:2027	Insurance Department	Department of Health and Human Resources
Maine	24-A §§ 4201 to 4234	Insurance Department	Department of Human Services
Maryland	§§ 19-701 to 19-734	Insurance Department	Department of Health and Mental Hygiene
Massachusetts	Ch. 176G §§ 1 to 18	Insurance Department	
Michigan	§§ 333.21001 to 333.21098	Insurance Department	Department of Public Health
Minnesota	§§ 62D.01 to 62D.30	Department of Health	Commerce Department
Mississippi	§§ 41-7-401 et seq.	Department of Health	Insurance Department
Missouri	§§ 354.400 to 354.550	Insurance Department	
Montana	§§ 33-31-101 to 33-31-405	Insurance Department	Dept. of Health and Environmental Services

**Table 3 (Continued)**  
**Departmental Regulation of HMOs**

<b>STATE</b>	<b>CITATION</b>	<b>PRIMARY</b>	<b>SECONDARY</b>
Nebraska	§§ 44-3292 to 44-32,180	Insurance Department	Department of Health
Nevada	§§ 695C.010 to 695C.350	Insurance Department	Department of Human Resources
New Hampshire	§§ 420-B:1 to 420-B:26	Insurance Department	Department of Health and Human Services
New Jersey	§§ 26:2J-1 to 26:2J-30	Department of Health	Insurance Department
New Mexico	§§ 59A-46-1 to 59A-46-45	Insurance Department	Department of Health
New York	Public Health Law §§ 4400 to 4413	Department of Health	Insurance Department
North Carolina	§§ 58-67-1 to 58-67-185	Insurance Department	
North Dakota	§§ 26.1-18.1-01 to 26.1-18.1-35	Insurance Department	
Ohio	§§ 1742.01 to 1742.39	Insurance Department	Department of Health
Oklahoma	tit. 63 §§ 2501 to 2510	Department of Health	Insurance Department
Oregon	§§ 750.003 to 750.095	Insurance Department	
Pennsylvania	§§ 40-83-101 to 40-83-119	Insurance Department	Department of Health
Puerto Rico	tit. 26 §§ 1901 to 1927	Department of Business Regulation	
Rhode Island	§§ 27-41-1 to 27-41-39	Insurance Department	Department of Health
South Carolina	§§ 38-33-10 to 38-33-300	Insurance Department	Dept. of Health and Environmental Control
South Dakota	§§ 58-41-1 to 58-41-98	Insurance Department	Department of Health
Tennessee	§§ 56-32-201 to 56-32-225	Insurance Department	
Texas	art. 20A.01 to 20A.36	Insurance Department	Department of Health
Utah	§§ 31A-8-101 to 31A-8-408	Insurance Department	Department of Health
Vermont	tit. 8 §§ 5101 to 5115	Insurance Department	
Virgin Islands	No Provision		
Virginia	§§ 38.2-4300 to 38.2-4321	Insurance Commission	Department of Health
Washington	§§ 48.46.010 to 48.46.920	Insurance Department	Department of Social Health and Services
West Virginia	§§ 33-25A-1 to 33-25A-32	Insurance Department	
Wisconsin	§§ 609.001 to 609.98	Insurance Department	
Wyoming	§§ 26-34-101 to 26-34-128	Insurance Department	Department of Health and Social Services

Source: NAIC Legal Division. Data is current as of August 1995.

# Minimum Capital Requirements for Health Maintenance Organizations

*Compiled by the Staff of the NAIC's Legal Division*

*Editor's Note: The net worth and deposit requirements in the chart on the following pages is taken directly from the NAIC Compendium of State Laws on Insurance Topics - 1996 which is published by the NAIC. The compilation of the chart presented here and of the other charts in the Compendium is directed by Carolyn J. Johnson, Senior Counsel in the NAIC's Legal Division. A comprehensive list of the charts available in the Compendium can be found at the end of this article. The complete Compendium is available through the NAIC Publications Department at (816) 374-7259.*

Beginning this year, most HMOs will begin filing copies of their annual statements with the NAIC. That information will be maintained on the NAIC database of annual statement information. The explosive growth of HMOs and managed care organizations in recent times has led to increased general interest in the ways in which the various states regulate these entities. This article summarizes the current minimum capital standards that HMOs are subject to in the states.

The NAIC's Health Organizations Risk-Based Capital Working Group has been developing a new set of risk-based capital standards for health organizations, including HMOs, over the last several years. The NAIC has completed a draft formula that will be distributed to companies during the summer of 1996. While the new draft formula is still early in the testing phase and will probably experience at least minor, and possibly major, revisions as the testing goes forward, it is safe to assume that a new RBC formula will soon emerge to complement existing minimum capital requirements in most states.

Most people are somewhat familiar with the minimum capital and surplus requirements that currently exist for life/health and property/casualty insurers in each state. Similarly, HMOs are currently subject to capital and surplus minimums in most states as well. However, there are some significant differences between the required minimums from state to state, as illustrated by the chart on the following pages. Risk-based capital will not repeal these existing minimums, but will instead complement them with additional standards based on the risk of each particular HMO. In some cases, RBC standards actually fall below minimum capital and surplus standards for some life/health and property/casualty companies, and there is no reason to suspect that the same pattern will not emerge when the health organizations RBC standards are eventually finalized. In some states, the insurance commissioner does not exercise primary regulatory authority over HMOs, so the advent of risk-based capital may not affect HMOs in those states unless those standards are adopted by the appropriate regulatory authority. Therefore, the minimum capital and surplus requirements for HMOs in each state are still important.

Readers who are interested in other HMO-related topics or on health care topics in general should take a look at the index to the *NAIC Compendium of State Laws on Insurance Topics - 1996* which is available from the NAIC Publications Department. In addition to the charts shown in the index, the NAIC Legal Division has a much more extensive collection of charts on other topics of interest to state regulators as well.

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

<b>STATE</b>	<b>CITATION</b>	<b>NET WORTH</b>	<b>DEPOSIT</b>
Ala.	§ 27021A-12	Required surplus for company beginning operation: Greater of: (1) 5% estimate expenditures for first year, (2) twice estimated average monthly expenditures, (3) \$100,000 Second and successive years add 4% of estimated annual uncovered expenditures until achieve net worth of \$1 million not including land, buildings and equipment, or \$5 million including land, buildings and equipment.	Minimum deposit of \$100,000 required. May require deposit of amount of surplus indicated. No deposit required if net worth of \$1 million, not including land, buildings and equipment or \$5 million including land, buildings and equipment.
Alaska	§ 21.86.140	Net worth of at least \$1 million, calculated without land, building, and equipment. If these included, \$5 million or the lesser of 25% annual uncovered expense or amount equal to capital and surplus requirements for a disability insurer.	If do not have listed net worth, deposit greater of: (1) 10% estimated expenditures (2) twice estimated monthly expenditures (3) \$250,000 After first year, deposit amount equal to 4% estimated annual uncovered expenditures.
Ariz.	§§ 20-1052, 20-1055	Health care services corporation shall possess unimpaired capital or surplus of \$1,500,000 and maintain a financial reserve of 2% of enrollee charges until maintain \$1 million in reserve.	Deposit \$500,000
Ark.	§§ 23-76-108, 23-76-118	Paid in capital of \$100,000 plus additional working capital.	HMO shall furnish a surety bond in an amount satisfactory to the commissioner or deposit with the commissioner cash or securities in at least the same amount as a guarantee that the obligation to the enrollees will be performed. Commissioner may waive the requirement.
Calif.	Health & Safety Code § 1375.1, 10 CCR 1300.76.1	Demonstrate adequate capital.	Each health care service plan shall deposit a minimum of \$300,000 in cash, certificates, accounts or combination of these. Plans offering specialized health care service contracts shall deposit a minimum of \$50,000 in cash, certificates or a combination of these.

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

<b>STATE</b>	<b>CITATION</b>	<b>NET WORTH</b>	<b>DEPOSIT</b>
Colo.	§ 10-16-411	HMO initial minimum surplus of \$1.2 million. Shall maintain an amount equal to the greater of: \$600,000; 2% annual premium revenues; or 3 months uncovered health care expenditures.	Initial deposit of \$150,000; commissioner may require additional amount.
Conn.	§ 38a-193	Health care center certificate of authority issued on or after 7/1/90: \$1.5 million. To maintain certificate of authority, the greater of \$1 million or 2% annual premium revenues on first \$150 million premium revenues + 1% premiums over \$150 million.	
Del.	tit. 18 § 513		Deposit \$100,000 in cash or securities.
D.C.	No HMO law		
Fla.	§§ 641.225, 641.227	HMO shall have a minimum surplus upon licensing of the greater of: \$1.5 million; 10% total liabilities based on start-up projection; or \$500,000 + all start up losses, excluding profits. HMO shall maintain minimum surplus which is the greater of \$500,000 or 10% of total liabilities.	Deposit \$10,000 with the department.
Ga.	§ 33-21-10	Must have adequate working capital.	Deposit \$100,000 in cash or securities. Commissioner has authority to request additional amounts.

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

<b>STATE</b>	<b>CITATION</b>	<b>NET WORTH</b>	<b>DEPOSIT</b>
Hawaii	HB 1918 (1995) (Eff. 1/1/96)	Initial net worth \$1.5 million and maintain an amount equal to the greater of: \$1.5 million; 2% annual premium revenues on the first \$150 million and 1% of premium in excess of \$150 million; 3 months uncovered health expenditures; or an amount equal to 8% of annual care expenditures and 4% of annual hospital expenditures	HMO shall deposit \$300,000 in cash or securities.
Idaho	§ 41-3905	HMO must maintain \$25,000 surplus over all its liabilities and as much more as the director may find reasonably necessary and reserves to meet its obligations.	
Ill.	215 ILCS 125/2-4	HMO shall maintain net worth of not less than \$1.5 million. Organizations certified prior to effective date of Act shall maintain a special contingent reserve.	Deposit securities with value of at least \$300,000
Ind.	§§ 27-13-12-2, 27-13-12-3, 27-13-13-2	Initial net worth \$1.5 million and maintain an amount equal to the greater of: \$1 million; 2% annual premium revenues on the first \$150 million and 1% of premium in excess of \$150 million; 3 months uncovered health expenditures; or an amount equal to 8% of annual care expenditures and 4% of annual hospital expenditures HMOs licensed before July 1, 1994 must maintain a net worth equal to: 50% of the amount required by December 31, 1995 75% of the amount required by December 31, 1996 100% of the amount required by December 31, 1997.	Deposit \$500,000 in cash or other securities.

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

STATE	CITATION	NET WORTH	DEPOSIT
Iowa	§§ 514B.5, 514B.16	Must have adequate working capital.	HMO shall provide surety bond or deposit cash or securities in at least the same amount as a guarantee that its obligations to enrollees will be performed. Commissioner may waive this requirement.
Kan.	§ 40-3227		Beginning operation shall deposit the greater of 5% expected first year expenditures; or twice its estimated average monthly uncovered expenses for first year; or \$25,000. Each year thereafter shall deposit 4% estimated annual uncovered expenses. Deposits may be waived if Commissioner is satisfied organization has sufficient net worth. Deposit not required if organization has net worth not including land, building, and equipment, of \$1 million; including land, building, and equipment, \$5 million.
Ky.	§304.38-070	Each corporation shall have initial capital stock of \$1 million and initial surplus of \$2 million. An HMO in existence before 7/1/86 may continue to do business with surplus equal to \$250,000 until it comes up to the preceding standard.	
La.	R.S. 22:2010	For companies licensed after 7/1/95, \$2 million. For companies licenses prior to 7/1/95, should have \$800,000 by 7/1/96 \$1.5 million by 7/1/97 \$2 million by 7/1/98	HMO shall deposit \$1 million is cash to guaranty its financial responsibility.

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

<b>STATE</b>	<b>CITATION</b>	<b>NET WORTH</b>	<b>DEPOSIT</b>
Maine	24-A § 4204-A	HMO shall have initial minimum surplus of \$1.5 million. HMO shall maintain the greater of: \$1 million; 2% annual premium on first \$150 million and 1% annual premium in excess of \$150 million; Amount equal to 3 months uncovered health care expenses; or Sum equal to 8% annual health expenses; and 4% annual hospital expenses.	
Md.	Art. 19 § 19-710	HMO licensed on or after 7/1/89 shall have initial surplus of at least \$1.5 million. HMOs shall maintain a surplus equal to the greater of \$750,000 or 5% of subscription charges. No HMO shall be required to maintain a surplus of over \$3 million.	
Mass.	ch. 176G:15		HMO shall furnish to the commissioner evidence of a surety bond or deposit cash or securities in the same amount as a guarantee that the obligations to the enrollees will be performed. Commissioner may waive this requirement.
Mich.	§ 333.21034	HMO shall maintain net worth of not less than \$100,000, plus \$250,000 in working capital. Within 5 years, HMO shall have a net worth of \$500,000 excluding land, buildings, and equipment; \$1 million including these.	\$100,000 cash or securities initial deposit, maintain deposit of 5% of annual subscription income, up to \$500,000.
Minn.	§§ 62D.041 to 62D.042	Beginning organizations shall maintain net worth of at least 8.33% of the sum of all expenses expected to be incurred in the 12 months or \$1.5 million, whichever is greater. Net worth for established HMO shall not fall below \$1 million.	\$500,000

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

STATE	CITATION	NET WORTH	DEPOSIT
Miss.	§ 83-41-325	HMO shall have net worth of \$1.5 million and shall maintain a minimum net worth equal to the greater of: \$1 million; or 2% annual premium revenues on the first \$150,000 and 1% of annual premiums in excess of \$150 million; or an amount equal to 3 months uncovered health care expenditures; or For HMO in which 75% or more of providers are paid on a capitated basis: 8% of annual health care expenditures except those paid on a capitated basis; and 4% of annual hospital expenditures paid on a managed hospital payment basis.	Minimum deposit \$500,000. Commissioner may waive deposit requirement.
Mo.	§ 354.410	New HMO must have net worth of at least 10% of the yearly average of the 3 year projected annual premium or \$300,000 if individual practice association or \$150,000 if a medical group/staff mode, whichever is greater. Existing HMO must maintain net worth of at least 2% of annual premium or \$300,000 for individual or \$150,000 for medical group, whichever is greater. Maximum net worth \$4 million.	Deposit requirement of \$300,000 individual practice, \$150,000 group/staff mode. May be waived if net worth not including land and buildings of \$1 million, or \$5 million including land and buildings.

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

<b>STATE</b>	<b>CITATION</b>	<b>NET WORTH</b>	<b>DEPOSIT</b>
Mont.	§ 33-31-216		HMO shall deposit during the first year the greater of: 5% of its expenditures for health care services; twice estimated average monthly uncovered expenses; or \$100,000; thereafter: 4% estimated annual uncovered expenses. When net worth, not including building, land, and equipment reaches \$1 million or \$5 million including building, land, and equipment, deposit requirements do not apply.
Neb.	§§ 44-32,138 to 44-32,139	Initial net worth \$1.5 million; shall maintain net worth equal to the greater of: \$1 million; or 2% annual premium on first \$150 million premium revenue 1% premium revenues over \$150 million.	\$300,000
Nev.	§ 695C.270		HMO shall furnish a cash deposit or a surety bond in an amount as a guaranty that the obligations to the enrollees will be performed. Commissioner may waive requirements.
N.H.	§ 420-B:25	Net worth \$6 million; shall maintain net worth equal to the greater of: \$6 million; or 7.5% of annual premium revenues If at any time uncovered expenditures exceed 15% of total health care expenditures, HMO shall increase required net worth by 120% of HMO's outstanding liability for uncovered expenditures. Increase shall not exceed \$5 million.	

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

STATE	CITATION	NET WORTH	DEPOSIT
N.J.	§ 26:2J-14		HMO shall deposit cash or a bond that will assure that the obligations to the enrollees will be performed as prescribed by the commissioner. Commissioner may waive this requirement.
N.M.	§ 59A-46-13	<p>Initial net worth \$1.5 million; shall maintain the greater of:                      \$1 million;                      2% annual premium revenues on first \$150 million;                      and                      1% of annual premium on premium in excess of \$150 million;                      Amount equal to:                      3 months uncovered health care expenditures or sum equal to 8% annual health care expenses for enrollees under prepaid contracts;                      4% annual hospital expenditures for enrollees of prepaid contracts;</p> <p>HMO licensed before 1/1/94 shall maintain net worth of:                      50% of above by 12/31/95;                      75% by 12/31/96;                      100% by 12/31/97.</p>	\$300,000
N.Y.	No provision		
N.C.	§§ 58-67-25, 58-67-110	HMO shall maintain net worth of not less than \$1 million which shall be increased by the amount of contingency reserves calculated annually.	\$500,000

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

<b>STATE</b>	<b>CITATION</b>	<b>NET WORTH</b>	<b>DEPOSIT</b>
N.D.	§ 26.1-18.1-12	HMO initial net worth \$1 million. Thereafter maintain the greater of: \$1 million; 2% annual premium revenue on first \$150 million 1% annual premium in excess of \$150 million 3 months uncovered health care expenditures; or 8% annual health care expenditures; and 4% annual hospital expenditures	\$300,000, except HMO licensed only in N.D. and in operation 8/1/93 needs to deposit \$100,000.
Ohio	§§ 1742.17 to 1742.171	HMO shall maintain total admitted assets equal to at least 110% of the liabilities of the HMO. HMOs shall not be required to possess admitted assets in excess of \$2.5 million in excess of its liabilities.	\$250,000
Okla.	tit. 63 § 2509		HMO shall furnish a surety bond or deposit cash or securities in at least an amount as a guaranty that the obligations to the enrollees will be performed. Department of Health may waive requirement.
Ore.	§ 750.045	Capital and surplus of not less than \$250,000 or an amount equal to 50% of average claims for preceding 12 months.	Surety bond or irrevocable letter of credit of \$250,000
Penn.	Reg. tit. 31 § 301.121	New plans - minimum initial net worth \$1.5 million. Operating HMOs, net worth equal to the greater of \$1 million or 3 months uncovered health care expenditures.	\$100,000
Puerto Rico	T. 26 § 1914		\$300,000

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

STATE	CITATION	NET WORTH	DEPOSIT
R.I.	§ 27-41-13		<p>HMO shall deposit during the first year the greater of:                      5% of its expenditures for health care services;                      twice estimated average monthly uncovered expenses; or                      \$100,000; thereafter: 4% estimated annual                      uncovered expenses.</p> <p>When net worth, not including building, land, and equipment reaches \$1 million or \$5 million including building, land, and equipment, deposit requirements do not apply.</p>
S.C.	§§ 38-33-100, 38-33-130	HMO must have a net worth of \$1.2 million, \$600,000 of which must be capital if a stock HMO. HMO must maintain net worth of \$600,000.	\$300,000
S.D.	§ 58-41-11		HMO shall furnish a surety bond or deposit cash or securities in an amount as a guarantee that the obligations to the enrollees will be performed.
Tenn.	§ 56-32-212		<p>HMO shall deposit during the first year the greater of:                      5% of its expenditures for health care services;                      twice estimated average monthly uncovered expenses; or                      \$100,000; thereafter: 4% estimated annual                      uncovered expenses.</p> <p>When net worth, not including building, land, and equipment reaches \$1 million or \$5 million including building, land, and equipment, deposit requirements do not apply.</p>

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

STATE	CITATION	NET WORTH	DEPOSIT
Texas	Art. 20A.13	Minimum surplus of \$500,000 net of accrued uncovered liabilities.	<p>HMO receiving certificate of authority before 9/1/87 shall deposit:                      \$100,000 if a basic health care service organization;                      \$50,000 if a single health care service organization; and                      100% of uncovered health care expenses for preceding year.                      Each year after, shall make additional deposits of the difference between its total uncovered health care expenses and total amount previously deposited and not withdrawn.</p> <p>HMO receiving certificate of authority after 9/1/87 shall deposit:                      \$100,000 if a basic health care service organization                      \$50,000 if a single health care service organization; and                      On 3/15 of the year after receiving certificate of authority,                      shall deposit the difference between initial deposit and 100% of its estimated uncovered health care expenses for the first 12 months of operation.                      Each year after, shall deposit the difference between its total uncovered health expenses and the total amount previously deposited and not withdrawn from the treasury.</p> <p>Board of insurance may waive deposit requirements if it finds that one or more of the following conditions justifies the waiver:                      the total amount of the deposit is equal to 25% of HMO's estimated uncovered expenses for the next calendar year;                      HMO's net worth is equal to at least 25% of its estimated uncovered expenses for the next calendar year; or                      HMO has a net worth of \$5 million.</p>

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

STATE	CITATION	NET WORTH	DEPOSIT
Utah	§§ 31A-8-210 to 31A-8-211	HMO shall maintain qualified assets in an amount equal to the organization's total liabilities; minimum capital or minimum permanent surplus; and compulsory surplus. Compulsory surplus is the greater of: (a) \$900,000; or (b) 2% annual premium revenues; or (c) an amount equal to 3 months uncovered health care expenditures	Maintain deposit equal to minimum capital or permanent surplus plus 50% of compulsory surplus. Commissioner may waive.
Vt.	tit. 8 § 5102b	Initial net worth \$1.5 million. Must maintain the greater of: \$1.5 million; 2% annual premium revenues on first \$150 million + 1% annual premium over \$150 million; an amount to cover three months uncovered expenditures; or sum equal to 10% of annual health care expenditures related to Vt. business + 4% of annual hospital expenditures related to Vt. business.	\$300,000
Virgin Islands	No HMO law		
Va.	Reg. 28 § 7	Initial net worth of \$300,000. HMO shall maintain amount equal to 3 months uncovered expenses. Maximum net worth requirement \$2 million.	\$300,000
Wash.	§§ 48.46.235 to 48.46.240	HMO must maintain net worth equal to the greater of: \$1 million; or 2% of annual revenues on first \$150 million of premium and 1% of premium in excess of \$150 million; or Amount equal to 3 months uncovered expenditures	\$150,000

**STATE HMO NET WORTH AND DEPOSIT REQUIREMENTS**

<b>STATE</b>	<b>CITATION</b>	<b>NET WORTH</b>	<b>DEPOSIT</b>
W.Va.	§ 33-25A-4	Commissioner shall consider fiscal soundness before issuing certificate of authority. HMO is fiscally sound if it has paid in capital or statutory surplus of \$1 million.	\$100,000
Wis.	§§ 609.97 to 609.98	HMO shall maintain compulsory surplus as follows: the greater of \$750,000; or if less than 90% of covered liabilities, 6% of earned premiums; if at least 90% of covered liabilities, 3% of earned premiums.	Deposit .33% of premiums written in the state.
Wy.	§ 26-34-114	HMO shall have an initial net worth \$1.5 million and shall maintain the greater of: 2% of annual premium revenues on first \$75 million of premium; and 1% of annual premium in excess of \$75 million; 3 times the average monthly uncovered health care expenditures; \$1 million; or an amount equal to the sum of : 8% of annual health expenditures and 4% of annual hospital expenditures paid on a managed hospital payment basis. HMO licensed before 7/1/95 shall maintain minimum net worth listed above by 12/31/98.	Minimum deposit \$300,000. A company in operation before 7/1/95 may deposit \$150,000 before 8/1/95 and \$150,000 before 7/1/96.

Every attempt has been made to provide clear and complete information. For further detail, consult the statutes cited.

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Compilation of State Laws Surplus Lines Insurance Premium Taxes

# Investment Income and Capital Gains for Life/Health Insurers - 1995

Compiled by NAIC Staff

The following pages show aggregate investment results for life/health companies for 1995. These tables include data for all companies filing a blue blank with the NAIC for calendar year 1995. The data is presented on an *aggregate* rather than a *combined* basis so that differences in company size (as defined by assets) may be analyzed.

The distinction between aggregate results and combined results is a subtle but important one. The aggregate basis simply adds together the statement values for all companies, while the combined basis makes adjustments for inter-company ownership in affiliates. Therefore, the aggregate basis tends to overstate certain affiliated investments and is not generally used to compile industry statistics. However, it is sometimes more appropriate for comparisons between individual companies or groupings of companies. A detailed discussion of the differences between aggregate reporting and combined reporting appeared in a previous issue of the *NAIC Research Quarterly* (see "Comparing Aggregate and Combined Industry Totals," July 1995).

The aggregates are broken down by company asset size to illustrate differences in investment patterns between different sizes of companies. The breakdowns shown here are a) companies with assets of less than \$10 million, b) companies with assets between \$10 million and \$100 million, c) companies with assets between \$100 million and \$1 billion, d) companies with assets greater than \$1 billion, and e) all companies.

Tables 1 through 5 are the aggregate Exhibit 2 - Net Investment Income results. Table 6 shows the percentage of investment income generated by each of the major asset types and by asset size groups. Smaller companies tend to generate relatively more of their investment income through U.S. government bonds, cash and short-term investments while relatively larger companies are concentrated more heavily in unaffiliated non-U.S. government bonds, mortgages and real estate. Equity-type investment income (common and preferred stocks, real estate, derivatives and write-ins) shows an inverse relationship with assets size, meaning that the percentage of earnings from equity-type investments declines as asset size increases.

Tables 7 through 12 provide information on aggregate realized capital gains for these insurers. The information is taken from Exhibit 3 - Realized Capital Gains (and Losses) on Investments. Realized capital gains on unaffiliated bonds showed great improvement over 1994's aggregate realized capital loss of \$3 billion. Continuing a trend, the mortgage loans and real estate categories showed another realized capital loss, although the results were a slight improvement over last year.

Tables 13 through 17 contain data from Exhibit 4 - Unrealized Capital Gains (and Losses) on Investments. Table 18 shows the return on average invested assets (ROAIA) for each group of companies and for the aggregate total. The heavier emphasis on corporate bonds, mortgages and real estate tend to generate slightly higher overall returns for the largest tier of companies, consistent with the relatively higher risk of their investment portfolios. The sheer size of the investment portfolios of large multistate life insurers and the considerable ability to diversify make it possible to safely combine relatively higher-risk securities into well-diversified portfolios so as to enjoy higher overall yields.

Readers who are interested in industry totals and trends computed on a combined basis can look forward to the October release of the NAIC's *1995 Statistical Compilation of Annual Statement Information for Life/Health Insurance Companies*. That publication is available through the NAIC's Publications Department at 816-374-7259.



**Table 3**  
**Life/Health Companies - Assets Between \$100 Million and \$1 Billion**  
**Exhibit 2 - Net Investment Income**

	Collected During Year	Current Year				Previous Year	Earned During Year
		Unearned	Due	Accrued	Nonadmitted		
Government Bonds	1,569,163,369	0	13,705,115	266,452,581	0	286,539,030	1,562,782,035
Other Bonds (Unaffiliated)	4,475,032,506	0	28,173,179	1,050,886,701	-112,992	958,884,057	4,595,321,323
Bonds of Affiliates	21,674,008	0	0	4,164,109	0	5,766,950	20,071,168
Preferred Stocks (Unaffiliated)	109,073,276	0	876,050	6,224,428	0	9,411,094	106,762,662
Preferred Stocks of Affiliates	42,169,226	0	200,000	36,563,921	0	36,384,310	42,548,837
Common Stock (Unaffiliated)	85,570,725	0	1,403,747	4,638,256	0	5,762,406	85,850,321
Common Stock of Affiliates	545,613,628	0	2,500,199	24,768,695	0	27,218,189	545,664,334
Mortgage Loans	549,591,375	558,369	13,147,044	46,480,200	8,785,166	50,733,028	549,142,062
Real Estate	172,132,798	180,554	563,089	1,991,249	54,586	2,241,520	172,210,476
Premium notes, policy loans and liens	281,572,881	61,001,895	38,224,798	64,391,500	841	33,023,860	290,162,578
Collateral Loans	1,690,300	0	0	236,195	0	413,297	1,513,198
Cash On Hand and On Deposit	37,076,861	0	120,267	2,738,516	34,074	1,963,907	37,937,666
Short-Term Investments	321,215,706	0	1,086,234	11,452,052	68,200	16,194,437	317,491,356
Other Invested Assets	51,539,191	13,281	564,867	7,349,631	188,334	3,029,828	56,222,246
Derivative Instruments	35,357	0	0	-520,872	0	161,765	-647,280
Aggregate Write-Ins for Invest Income	253,303,087	295,432	29,632,473	20,544,037	17,944	45,264,784	257,901,436
<b>Gross Investment Income</b>	<b>8,516,454,286</b>	<b>62,049,533</b>	<b>130,197,059</b>	<b>1,548,361,209</b>	<b>9,036,152</b>	<b>1,482,992,459</b>	<b>8,640,934,410</b>
Investment Expenses							270,265,456
Investment Taxes, Licenses and Fees							31,528,830
Depreciation on Real Estate and Other Invested Assets							38,529,403
Aggregate Write-ins for Deductions							64,022,961
Totals							404,346,654
<b>Net Investment Income</b>							<b>8,236,587,758</b>

**Table 4**  
**Life/Health Companies - Assets \$1 Billion Plus**  
**Exhibit 2 - Net Investment Income**

	Collected During Year	Current Year				Previous Year	Earned During Year
		Unearned	Due	Accrued	Nonadmitted		
Government Bonds	11,957,274,862	0	85,868,251	1,694,467,135	0	2,164,598,062	11,573,012,190
Other Bonds (Unaffiliated)	67,066,268,952	360,118	635,367,948	14,047,500,685	20,093,885	13,443,066,989	68,285,616,592
Bonds of Affiliates	385,120,490	0	12,301,695	127,592,372	0	77,221,856	447,792,701
Preferred Stocks (Unaffiliated)	564,346,779	0	23,327,749	28,122,260	349,416	72,633,728	542,813,643
Preferred Stocks of Affiliates	29,754,079	0	0	1,997,354	0	3,082,493	28,668,940
Common Stock (Unaffiliated)	575,424,185	0	11,557,226	39,889,842	333,612	45,112,950	581,424,694
Common Stock of Affiliates	3,365,058,149	1,381,234	70,511,756	72,029,381	10,760,642	78,871,015	3,416,586,397
Mortgage Loans	18,450,142,979	52,420,338	411,898,059	1,761,269,549	465,100,329	1,712,832,185	18,392,957,735
Real Estate	7,520,617,484	35,444,519	239,004,009	349,448,463	52,806,976	487,585,845	7,533,232,614
Premium notes, policy loans and liens	6,305,342,591	541,129,061	544,649,458	2,444,679,713	298,646	2,093,567,662	6,659,676,384
Collateral Loans	27,563,372	1,419,459	6,930	1,796,969	17,129	576,767	27,353,916
Cash On Hand and On Deposit	100,569,350	0	65,650	7,519,399	0	9,963,991	98,190,404
Short-Term Investments	2,731,513,723	0	2,623,724	107,172,868	5,000	95,348,126	2,745,957,186
Other Invested Assets	1,275,354,817	738,179	23,139,759	92,963,457	2,985,851	84,440,341	1,303,293,667
Derivative Instruments	65,113,915	0	0	89,143,671	0	141,118,715	13,138,870
Aggregate Write-Ins for Invest Income	1,582,057,526	8,503,945	7,646,149	91,892,051	13,326	145,405,823	1,527,672,633
<b>Gross Investment Income</b>	<b>122,001,523,253</b>	<b>641,396,853</b>	<b>2,067,968,367</b>	<b>20,957,485,169</b>	<b>552,764,812</b>	<b>20,655,426,558</b>	<b>123,177,388,564</b>
Investment Expenses							6,555,358,761
Investment Taxes, Licenses and Fees							1,076,810,590
Depreciation on Real Estate and Other Invested Assets							1,474,142,177
Aggregate Write-ins for Deductions							1,120,924,915
Totals							10,227,236,442
<b>Net Investment Income</b>							<b>112,950,152,126</b>

**Table 5**  
**All Life/Health Companies**  
**Exhibit 2 - Net Investment Income**

	Collected During Year	Current Year				Previous Year	Earned During Year
		Unearned	Due	Accrued	Nonadmitted		
Government Bonds	13,904,085,474	329,089	104,720,185	2,035,386,006	360,443	2,530,816,879	13,512,685,262
Other Bonds (Unaffiliated)	71,949,459,667	360,221	671,290,617	15,183,925,875	20,127,182	14,495,659,797	73,288,528,925
Bonds of Affiliates	412,910,184	0	12,316,790	133,184,053	158	84,635,203	473,775,667
Preferred Stocks (Unaffiliated)	691,230,830	0	24,493,327	35,521,467	349,416	83,712,972	667,183,242
Preferred Stocks of Affiliates	72,671,886	0	213,890	38,641,705	0	39,551,000	71,976,531
Common Stock (Unaffiliated)	679,561,243	0	13,257,862	44,988,579	333,612	51,779,911	685,694,164
Common Stock of Affiliates	3,985,889,988	1,381,234	73,180,981	156,161,263	10,761,178	155,995,638	4,047,094,185
Mortgage Loans	19,056,670,918	53,030,396	426,097,464	1,811,388,095	474,299,923	1,768,137,333	18,998,688,831
Real Estate	7,725,554,390	35,648,184	239,752,464	351,798,600	52,893,111	490,679,024	7,737,885,133
Premium notes, policy loans and liens	6,612,972,108	610,220,806	583,031,691	2,514,088,946	799,392	2,123,168,799	6,975,903,733
Collateral Loans	31,530,602	1,419,459	74,522	2,904,326	303,875	1,663,893	31,122,222
Cash On Hand and On Deposit	171,803,534	115,006	531,173	12,883,534	68,372	14,192,362	170,842,501
Short-Term Investments	3,130,692,477	0	4,176,265	123,771,865	77,828	117,868,746	3,140,694,030
Other Invested Assets	1,333,200,155	752,102	24,194,793	101,060,154	3,201,199	89,373,215	1,365,128,592
Derivative Instruments	65,194,563	0	0	88,622,799	0	141,289,416	12,527,945
Aggregate Write-Ins for Invest Income	1,865,068,997	9,275,918	37,917,232	116,727,864	354,583	194,961,026	1,815,122,566
<b>Gross Investment Income</b>	<b>131,688,497,033</b>	<b>712,532,418</b>	<b>2,215,249,260</b>	<b>22,751,055,155</b>	<b>563,930,271</b>	<b>22,383,485,255</b>	<b>132,994,853,493</b>
Investment Expenses							6,892,381,187
Investment Taxes, Licenses and Fees							1,114,196,168
Depreciation on Real Estate and Other Invested Asset							1,519,984,823
Aggregate Write-ins for Deductions							1,198,719,084
Totals							10,725,257,995
<b>Net Investment Income</b>							<b>122,269,595,497</b>

**Table 6**  
**Percentage of Investment Income By Category By Size Group**

	Percent of Investment Income Earned By Investment Type				
	Assets Less Than \$10 Million	Assets Between \$10 Million and \$100 Million	Assets Between \$100 Million and \$1 Billion	Assets Over \$1 Billion	All Companies
Number of Companies >>>	620	441	351	236	1,648
Government Bonds	37.0%	31.3%	18.1%	9.4%	10.2%
Other Bonds (Unaffiliated)	18.6%	37.0%	53.2%	55.4%	55.1%
Bonds of Affiliates	0.0%	0.6%	0.2%	0.4%	0.4%
Preferred Stocks (Unaffiliated)	1.1%	1.6%	1.2%	0.4%	0.5%
Preferred Stocks of Affiliates	0.1%	0.1%	0.5%	0.0%	0.1%
Common Stock (Unaffiliated)	2.3%	1.5%	1.0%	0.5%	0.5%
Common Stock of Affiliates	9.3%	6.9%	6.3%	2.8%	3.0%
Mortgage Loans	3.6%	5.0%	6.4%	14.9%	14.3%
Real Estate	2.9%	2.7%	2.0%	6.1%	5.8%
Premium notes, policy loans and liens	1.5%	2.3%	3.4%	5.4%	5.2%
Collateral Loans	0.4%	0.2%	0.0%	0.0%	0.0%
Cash On Hand and On Deposit	8.1%	2.2%	0.4%	0.1%	0.1%
Short-Term Investments	10.8%	5.9%	3.7%	2.2%	2.4%
Other Invested Assets	1.0%	0.4%	0.7%	1.1%	1.0%
Derivative Instruments	0.0%	0.0%	0.0%	0.0%	0.0%
Aggregate Write-Ins for Invest Income	3.3%	2.4%	3.0%	1.2%	1.4%
<b>Totals</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Fixed Income Type	61.0%	76.4%	81.2%	85.6%	85.2%
Equity Type	20.0%	15.5%	14.7%	12.1%	12.3%
Short-term and Cash	18.9%	8.1%	4.1%	2.3%	2.5%

**Table 7**  
**Life/Health Companies - Assets Less Than \$10 Million**  
**Exhibit 3 - Realized Capital Gains (and Losses) on Investments**

	Profit on Sales or Maturity	Loss on Sales or Maturity	Other Realized Adjustment	Net Realized Gains or (Losses)
Government Bonds	1,790,458	2,187,678	0	-397,222
Other Bonds (Unaffiliated)	2,139,228	1,473,051	-78,148	588,027
Bonds of Affiliates	4,355	6,624	0	-2,269
Preferred Stocks (Unaffiliated)	560,663	255,213	0	305,450
Preferred Stocks of Affiliates	22,078	19,826	0	2,252
Common Stock (Unaffiliated)	2,978,428	2,471,441	120,013	626,999
Common Stock of Affiliates	328,678	1,276,667	0	-947,989
Mortgage Loans	6,779	25,088	-676,852	-695,161
Real Estate	825,586	677,804	-96,278	51,504
Premium Notes, Policy Loans And Liens	0	0	0	0
Collateral Loans	0	0	0	0
Cash On Hand and On Deposit	254	532	0	-278
Short-Term Investments	1,129,282	106,494	0	1,022,788
Other Invested Assets	142,695	93,363	-94,000	-44,668
Derivative Instruments	0	0	0	0
Aggregate Write-Ins	80,695	267,102	0	-186,407
<b>Totals</b>	<b>10,009,181</b>	<b>8,860,884</b>	<b>-825,265</b>	<b>323,028</b>
Capital Gains Tax				627,541
<b>Net Capital Gains or (Losses)</b>				<b>-304,514</b>

**Table 8**  
**Life/Health Companies - Assets Between \$10 Million and \$100 Million**  
**Exhibit 3 - Realized Capital Gains (and Losses) on Investments**

	Profit on Sales or Maturity	Loss on Sales or Maturity	Other Realized Adjustment	Net Realized Gains or (Losses)
Government Bonds	36,866,571	17,453,825	0	19,412,745
Other Bonds (Unaffiliated)	19,840,148	21,209,083	-313,674	-1,682,610
Bonds of Affiliates	24,920	7,463	0	17,457
Preferred Stocks (Unaffiliated)	4,129,186	1,059,327	0	3,069,859
Preferred Stocks of Affiliates	0	9,012	0	-9,012
Common Stock (Unaffiliated)	34,217,971	9,829,736	-50,000	24,338,235
Common Stock of Affiliates	21,325,658	9,020,481	0	12,305,177
Mortgage Loans	804,985	7,515,945	-583,750	-7,294,710
Real Estate	1,440,787	6,327,586	-1,804,693	-6,691,494
Premium Notes, Policy Loans And Liens	0	1,485	0	-1,485
Collateral Loans	0	0	0	0
Cash On Hand and On Deposit	648	13,846	0	-13,198
Short-Term Investments	106,323	54,734	0	51,589
Other Invested Assets	4,517,814	111,093	-214,346	4,192,375
Derivative Instruments	710,723	90,637	0	620,086
Aggregate Write-Ins	406,541	3,391,734	-16,119	-3,001,313
<b>Totals</b>	<b>124,392,277</b>	<b>76,095,993</b>	<b>-2,982,582</b>	<b>45,313,704</b>
Capital Gains Tax				12,022,843
<b>Net Capital Gains or (Losses)</b>				<b>33,290,858</b>

**Table 9**  
**Life/Health Companies - Assets Between \$100 Million and \$1 Billion**  
**Exhibit 3 - Realized Capital Gains (and Losses) on Investments**

	Profit on Sales or Maturity	Loss on Sales or Maturity	Other Realized Adjustment	Net Realized Gains or (Losses)
Government Bonds	195,749,918	86,988,670	-1,113,327	107,647,921
Other Bonds (Unaffiliated)	276,891,371	200,220,988	-1,587,369	75,083,016
Bonds of Affiliates	7,146,531	12,069,733	2,651,116	-2,272,086
Preferred Stocks (Unaffiliated)	41,906,493	14,924,841	0	26,981,653
Preferred Stocks of Affiliates	45,519	0	0	45,519
Common Stock (Unaffiliated)	307,560,479	76,203,426	-734,710	230,622,344
Common Stock of Affiliates	35,526,404	26,764,057	-41,390,633	-32,628,286
Mortgage Loans	9,721,344	8,289,176	-27,596,853	-26,164,685
Real Estate	24,315,459	14,783,262	-2,052,256	7,479,941
Premium Notes, Policy Loans And Liens	274	5,485	0	-5,211
Collateral Loans	0	0	0	0
Cash On Hand and On Deposit	102,552	789,804	-433,255	-1,120,507
Short-Term Investments	2,362,336	487,336	0	1,874,999
Other Invested Assets	7,087,908	3,249,304	-6,071,816	-2,233,211
Derivative Instruments	12,433,040	28,550,862	0	-16,117,822
Aggregate Write-Ins	1,461,537	1,783,223	6,808,088	6,486,401
<b>Totals</b>	<b>922,311,165</b>	<b>475,110,165</b>	<b>-71,521,015</b>	<b>375,679,987</b>
Capital Gains Tax				164,541,268
Net Capital Gains or (Losses)				211,138,723

**Table 10**  
**Life/Health Companies - Assets Greater Than \$1 Billion**  
**Exhibit 3 - Realized Capital Gains (and Losses) on Investments**

	Profit on Sales or Maturity	Loss on Sales or Maturity	Other Realized Adjustment	Net Realized Gains or (Losses)
Government Bonds	3,339,115,781	1,067,339,976	0	2,271,775,804
Other Bonds (Unaffiliated)	5,225,592,539	3,332,113,083	-273,511,848	1,619,967,607
Bonds of Affiliates	8,582,512	942,152	-8,337,357	-696,997
Preferred Stocks (Unaffiliated)	315,607,633	132,400,942	-4,121,576	179,085,117
Preferred Stocks of Affiliates	0	3,306,631	-86,000,000	-89,306,631
Common Stock (Unaffiliated)	3,465,731,368	1,070,372,267	-8,286,885	2,387,072,214
Common Stock of Affiliates	702,679,267	741,612,308	-71,204,490	-110,137,530
Mortgage Loans	273,583,950	1,329,864,827	-1,195,722,131	-2,252,003,007
Real Estate	852,949,912	1,022,815,667	-540,213,016	-710,078,765
Premium Notes, Policy Loans And Liens	17,144	352,713	0	-335,568
Collateral Loans	0	47,071	-6,250,000	-6,297,071
Cash On Hand and On Deposit	31,586,598	82,036,739	-1,874,601	-52,324,741
Short-Term Investments	37,274,181	32,870,422	0	4,403,756
Other Invested Assets	884,890,950	271,285,700	-387,648,909	225,956,341
Derivative Instruments	1,042,849,007	1,339,028,121	-3,079,916	-299,259,029
Aggregate Write-Ins	51,337,470	-103,871,086	60,414,725	215,623,279
<b>Totals</b>	<b>16,231,798,319</b>	<b>10,322,517,531</b>	<b>-2,525,836,003</b>	<b>3,383,444,785</b>
Capital Gains Tax				2,178,616,445
Net Capital Gains or (Losses)				1,204,828,344

**Table 11**  
**Aggregate Life/Health Companies**  
**Exhibit 3 - Realized Capital Gains (and Losses) on Investments**

	Profit on Sales or Maturity	Loss on Sales or Maturity	Other Realized Adjustment	Net Realized Gains or (Losses)
Government Bonds	3,573,522,728	1,173,970,149	-1,113,327	2,398,439,248
Other Bonds (Unaffiliated)	5,524,463,286	3,555,016,205	-275,491,039	1,693,956,040
Bonds of Affiliates	15,758,318	13,025,972	-5,686,241	-2,953,895
Preferred Stocks (Unaffiliated)	362,203,975	148,640,323	-4,121,576	209,442,079
Preferred Stocks of Affiliates	67,597	3,335,469	-86,000,000	-89,267,872
Common Stock (Unaffiliated)	3,810,488,246	1,158,876,870	-8,951,582	2,642,659,792
Common Stock of Affiliates	759,860,007	778,673,513	-112,595,123	-131,408,628
Mortgage Loans	284,117,058	1,345,695,036	-1,224,579,586	-2,286,157,563
Real Estate	879,531,744	1,044,604,319	-544,166,243	-709,238,814
Premium Notes, Policy Loans And Liens	17,418	359,683	0	-342,264
Collateral Loans	0	47,071	-6,250,000	-6,297,071
Cash On Hand and On Deposit	31,690,052	82,840,921	-2,307,856	-53,458,724
Short-Term Investments	40,872,122	33,518,986	0	7,353,132
Other Invested Assets	896,639,367	274,739,460	-394,029,071	227,870,837
Derivative Instruments	1,055,992,770	1,367,669,620	-3,079,916	-314,756,765
Aggregate Write-Ins	53,286,243	-98,429,027	67,206,694	218,921,960
<b>Totals</b>	<b>17,288,510,942</b>	<b>10,882,584,573</b>	<b>-2,601,164,865</b>	<b>3,804,761,504</b>
Capital Gains Tax				2,355,808,097
<b>Net Capital Gains or (Losses)</b>				<b>1,448,953,411</b>

**Table 12**  
**Percentage of Realized Capital Gains By Category By Size Group**

	Assets Less Than \$10 Million	Assets Between \$10 Million and \$100 Million	Assets Between \$100 Million and \$1 Billion	Assets Greater Than \$1 Billion	All Companies
Number of Companies >>>	620	441	351	236	1,648
Government Bonds	-123.0%	42.8%	28.7%	67.1%	63.0%
Other Bonds (Unaffiliated)	182.0%	- 3.7%	20.0%	47.9%	44.5%
Bonds of Affiliates	- 0.7%	0.0%	- 0.6%	0.0%	- 0.1%
Preferred Stocks (Unaffiliated)	94.6%	6.8%	7.2%	5.3%	5.5%
Preferred Stocks of Affiliates	0.7%	0.0%	0.0%	- 2.6%	- 2.3%
Common Stock (Unaffiliated)	194.1%	53.7%	61.4%	70.6%	69.5%
Common Stock of Affiliates	-293.5%	27.2%	- 8.7%	- 3.3%	- 3.5%
Mortgage Loans	-215.2%	- 16.1%	- 7.0%	- 66.6%	- 60.1%
Real Estate	15.9%	- 14.8%	2.0%	- 21.0%	- 18.6%
Premium Notes, Policy Loans And Liens	0.0%	0.0%	0.0%	0.0%	0.0%
Collateral Loans	0.0%	0.0%	0.0%	- 0.2%	- 0.2%
Cash On Hand and On Deposit	- 0.1%	0.0%	- 0.3%	- 1.5%	- 1.4%
Short-Term Investments	316.6%	0.1%	0.5%	0.1%	0.2%
Other Invested Assets	- 13.8%	9.3%	- 0.6%	6.7%	6.0%
Derivative Instruments	0.0%	1.4%	- 4.3%	- 8.8%	- 8.3%
Aggregate Write-Ins	- 57.7%	- 6.6%	1.7%	6.4%	5.8%
<b>Totals</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**Table 13**  
**Life/Health Companies - Assets Less Than \$10 Million**  
**Exhibit 4 - Unrealized Capital Gains (and Losses) on Investments**

	Increase in Book Value	Decrease in Book Value	Net Gain (Loss) from Change in Difference Between Book and Admitted Value	Net Unrealized Gains or (Losses)
U. S. Government Bonds	349,469	0	62,557	412,026
Other Bonds (Unaffiliated)	79,947	222	107,887	187,612
Bonds Of Affiliates	0	0	-349,028	-349,028
Preferred Stocks (Unaffiliated)	60,307	0	233,975	294,282
Preferred Stocks Of Affiliates	0	0	163,060,561	163,060,561
Common Stocks (Unaffiliated)	371,624	265,609	1,891,798	1,997,813
Common Stocks Of Affiliates	138,434	663,937	3,206,867	2,681,364
Mortgage Loans	20,738	0	862,861	883,599
Real Estate	2,589	0	993,075	995,664
Premium Notes, Policy Loans And Liens	0	0	-213,899	-213,899
Collateral Loans	0	0	-424,930	-424,930
Cash On Hand And On Deposit	0	0	0	0
Short-Term Investments	4,449	128,897	-520,734	-645,182
Other Invested Assets	23,606	0	147,984	171,590
Derivative Instruments	0	0	0	0
Aggregate Write-Ins	242,611	-627,473	-576,139	293,945
Foreign Exchange			0	0
Net Unrealized Capital Gains Or (Losses)	1,293,774	431,192	168,482,838	169,345,420

**Table 14**  
**Life/Health Companies - Assets Between \$10 Million and \$100 Million**  
**Exhibit 4 - Unrealized Capital Gains (and Losses) on Investments**

	Increase in Book Value	Decrease in Book Value	Net Gain (Loss) from Change in Difference Between Book and Admitted Value	Net Unrealized Gains or (Losses)
U. S. Government Bonds	105,452	39,332	174,759	240,879
Other Bonds (Unaffiliated)	0	412,265	4,122,194	3,709,929
Bonds Of Affiliates	0	0	79,327	79,327
Preferred Stocks (Unaffiliated)	31,180	4,502	736,280	762,958
Preferred Stocks Of Affiliates	2,028	0	-93,891	-91,863
Common Stocks (Unaffiliated)	2,874,269	641,562	73,057,013	75,289,720
Common Stocks Of Affiliates	1,306,617	14,646,891	-38,303,559	-51,643,833
Mortgage Loans	7,975	4,059	7,130,063	7,133,979
Real Estate	1,488,685	502,037	4,996,101	5,982,749
Premium Notes, Policy Loans And Liens	0	28,116	17,851	-10,265
Collateral Loans	0	0	282,711	282,711
Cash On Hand And On Deposit	114,142	78,703	3,978	39,417
Short-Term Investments	181,676	0	-377,565	-195,889
Other Invested Assets	1,358,522	0	1,015,846	2,374,368
Derivative Instruments	0	0	-100,956	-100,956
Aggregate Write-Ins	6,988	-37,349	77,807	122,144
Foreign Exchange			119,669	119,669
Net Unrealized Capital Gains Or (Losses)	7,477,534	16,320,118	52,937,632	44,095,048

**Table 15**  
**Life/Health Companies - Assets Between \$100 Million and \$1 Billion**  
**Exhibit 4 - Unrealized Capital Gains (and Losses) on Investments**

	Increase in Book Value	Decrease in Book Value	Net Gain (Loss) from Change in Difference Between Book and Admitted Value	Net Unrealized Gains or (Losses)
U. S. Government Bonds	157,066	10,010	3,431,766	3,578,822
Other Bonds (Unaffiliated)	2,623,026	2,225,124	-3,389,242	-2,991,340
Bonds Of Affiliates	0	0	60,829	60,829
Preferred Stocks (Unaffiliated)	886,564	3,808,187	7,789,976	4,868,353
Preferred Stocks Of Affiliates	0	0	-5,412,380	-5,412,380
Common Stocks (Unaffiliated)	15,331,758	1,271,088	286,151,027	300,211,697
Common Stocks Of Affiliates	284,804,798	96,091,350	177,936,273	366,649,722
Mortgage Loans	1,553,274	1,672,496	2,637,015	2,517,793
Real Estate	144,802	2,717,297	3,887,538	1,315,043
Premium Notes, Policy Loans And Liens	0	130	947,157	947,027
Collateral Loans	0	0	-485,906	-485,906
Cash On Hand And On Deposit	0	0	1,019	1,019
Short-Term Investments	4,197,831	0	-1,656,205	2,541,626
Other Invested Assets	2,738,789	4,132,303	4,570,315	3,176,801
Derivative Instruments	0	167,703	197,041	29,338
Aggregate Write-Ins	-151,787,604	-805,623	7,084,035	-143,897,946
Foreign Exchange			-521,554	-521,554
Net Unrealized Capital Gains Or (Losses)	160,650,304	111,290,065	483,228,703	532,588,944

**Table 16**  
**Life/Health Companies - Assets Over \$1 Billion**  
**Exhibit 4 - Unrealized Capital Gains (and Losses) on Investments**

	Increase in Book Value	Decrease in Book Value	Net Gain (Loss) from Change in Difference Between Book and Admitted Value	Net Unrealized Gains or (Losses)
U. S. Government Bonds	436,111	4,488,920	-35,352,920	-39,405,729
Other Bonds (Unaffiliated)	570,674,705	308,913,849	129,216,231	390,977,086
Bonds Of Affiliates	12,076	32,685,301	3,102,169	-29,571,056
Preferred Stocks (Unaffiliated)	174,930,956	72,335,433	7,254,806	109,850,329
Preferred Stocks Of Affiliates	0	3,672,397	-16,975,814	-20,648,211
Common Stocks (Unaffiliated)	1,725,653,169	1,038,718,879	1,997,550,284	2,684,484,574
Common Stocks Of Affiliates	1,445,489,400	249,964,734	1,119,601,812	2,315,126,478
Mortgage Loans	257,989,471	159,133,016	-118,342,728	-19,486,274
Real Estate	276,597,723	209,737,433	-100,220,183	-33,359,892
Premium Notes, Policy Loans And Liens	526,185	1,405,619	419,470	-459,964
Collateral Loans	0	0	781,468	781,468
Cash On Hand And On Deposit	16,226,423	15,443,694	-243,373	539,356
Short-Term Investments	29,588	25,919	1,996,360	2,000,029
Other Invested Assets	461,811,991	324,470,128	92,662,399	230,004,262
Derivative Instruments	76,051,733	123,787,984	52,300,752	4,564,501
Aggregate Write-Ins	172,308,160	4,685,278	-25,774,482	141,848,400
Foreign Exchange			57,759,431	57,759,431
Net Unrealized Capital Gains Or (Losses)	5,178,737,690	2,549,468,582	3,165,735,685	5,795,004,796

**Table 17**  
**Aggregate Life/Health Companies**  
**Exhibit 4 - Unrealized Capital Gains (and Losses) on Investments**

	Increase in Book Value	Decrease in Book Value	Net Gain (Loss) from Change in Difference Between Book and Admitted Value	Net Unrealized Gains or (Losses)
U. S. Government Bonds	1,048,098	4,538,262	-31,683,838	-35,174,002
Other Bonds (Unaffiliated)	573,377,678	311,551,460	130,057,070	391,883,287
Bonds Of Affiliates	12,076	32,685,301	2,893,297	-29,779,928
Preferred Stocks (Unaffiliated)	175,909,007	76,148,122	16,015,037	115,775,922
Preferred Stocks Of Affiliates	2,028	3,672,397	140,578,476	136,908,107
Common Stocks (Unaffiliated)	1,744,230,820	1,040,897,138	2,358,650,122	3,061,983,804
Common Stocks Of Affiliates	1,731,739,249	361,366,912	1,262,441,393	2,632,813,731
Mortgage Loans	259,571,458	160,809,571	-107,712,789	-8,950,903
Real Estate	278,233,799	212,956,767	-90,343,469	-25,066,436
Premium Notes, Policy Loans And Liens	526,185	1,433,865	1,170,579	262,899
Collateral Loans	0	0	153,343	153,343
Cash On Hand And On Deposit	16,340,565	15,522,397	-238,376	579,792
Short-Term Investments	4,413,544	154,816	-558,144	3,700,584
Other Invested Assets	465,932,908	328,602,431	98,396,544	235,727,021
Derivative Instruments	76,051,733	123,955,687	52,396,837	4,492,883
Aggregate Write-Ins	20,770,155	3,214,833	-19,188,779	-1,633,457
Foreign Exchange	0	0	57,357,546	57,357,546
Net Unrealized Capital Gains Or (Losses)	5,348,159,302	2,677,509,957	3,870,384,858	6,541,034,208

**Table 18**  
**Return on Average Invested Assets By Asset Size Group**

	Assets Less Than \$10 Million	Assets Between \$10 Million and \$100 Million	Assets Between \$100 Million and \$1 Billion	Assets Greater Than \$1 Billion	All Companies
Net Investment Income (millions)	141	942	8,237	112,950	122,270
Net Realized Capital Gains (millions)	0	33	211	1,205	1,449
Net Unrealized Capital Gains (millions)	169	44	533	5,795	6,541
Total	310	1,019	8,980	119,950	130,260
Average Invested Assets (millions)	2,037	14,123	110,736	1,483,677	1,610,574
Net Investment Income ROAIA	6.9%	6.7%	7.4%	7.6%	7.6%
Net Realized Capital Gains ROAIA	0.0%	0.2%	0.2%	0.1%	0.1%
Net Unrealized Capital Gains ROAIA	8.3%	0.3%	0.5%	0.4%	0.4%

# Investment Income and Capital Gains for Property/Casualty Insurers - 1995

Compiled by NAIC Staff

The following pages show aggregate investment returns for all companies filing a yellow blank with the NAIC for calendar year 1995. The data is presented on an *aggregate* rather than a *combined* basis so that differences in company size may be analyzed. The aggregate basis simply adds together the statement values for all companies, while the combined basis makes adjustments for inter-company ownership in affiliates. Therefore, the aggregate basis tends to overstate certain affiliated investments and is not generally used to compile industry statistics. However, it is more appropriate for comparisons between individual companies or groupings of companies. A detailed discussion of the differences between aggregate reporting and combined reporting appeared in a previous issue of the *NAIC Research Quarterly* (see "Comparing Aggregate and Combined Industry Totals," July 1995).

The aggregates are broken down by company asset size to illustrate differences in investment patterns between different sizes of companies. The breakdowns shown here are a) companies with assets of less than \$10 million, b) companies with assets between \$10 million and \$100 million, c) companies with assets between \$100 million and \$1 billion, d) companies with assets over \$1 billion, and e) all companies.

Table 6 shows the investment income percentages for each aggregate grouping. Smaller companies tend to generate relatively more of their investment income through U.S. government bonds, affiliated investments, and cash and short-term investments while relatively larger companies are concentrated more heavily in unaffiliated bonds and tax exempt bonds. Equity-type investment income is also a larger percentage of earnings for relatively large companies.

As Table 13 shows, investment income as a percentage of average invested assets is relatively constant across size groups. However, the amount of capital gains generated was relatively higher for larger companies in 1995. The variability in investment returns is somewhat lower for larger companies as well.

The bulk of the capital gains are generated by unaffiliated common stock, with affiliated common stock a distant second. There are also differences in the make-up of aggregate capital gains between size groups, as shown in Table 12.

**Table 1**  
**Property-Casualty Companies - Assets Less Than \$10 Million**  
**Underwriting and Investment Exhibit Part 1**  
**Interest, Dividend and Real Estate Income**

	Collected During Year Less Paid For Accrued On Purchases	Paid In Advance		Due and Accrued		Earned During Year
		Current Year	Previous Year	Current Year	Previous Year	
		1. U.S. Government Bonds	73,302,904	77,504	41,803	
1.1 Bond Exempt From U.S. Tax	36,128,801	44,941	13,636	7,785,301	10,769,819	33,112,972
1.2 Other Bonds (Unaffiliated)	32,127,212	24,535	57,221	6,099,689	7,505,498	30,754,092
1.3 Bonds of Affiliates	250,235	13,216	0	187,564	101,522	323,060
2.1 Preferred Stocks (Unaffiliated)	2,867,598	0	0	271,624	207,425	2,931,797
2.11 Preferred Stocks of Affiliates	82,803	0	0	10,809	0	93,612
2.2 Common Stock (Unaffiliated)	7,957,756	0	0	232,491	279,364	7,910,883
2.21 Common Stock of Affiliates	41,878,735	0	0	71,107	8,130	41,941,712
3. Mortgage Loans	1,096,909	0	59	131,140	100,216	1,127,892
4. Real Estate	4,450,634	0	0	99,223	62,887	4,486,970
5. Collateral Loans	80,731	0	0	174,436	2,078	253,089
6.1 Cash On Hand and On Deposit	14,092,980	0	0	1,433,210	1,043,384	14,482,804
6.2 Short-Term Investments	29,315,456	17,467	0	2,847,064	2,123,866	30,021,183
7. Other Invested Assets	338,721	0	0	669,861	340,178	668,404
8. Derivative Instruments	1,437	0	0	0	0	1,437
9. Aggregate Write-Ins for Invest Income	1,301,251	0	0	217,676	132,329	1,386,597
10. Totals	245,361,325	177,663	112,719	38,202,611	39,630,657	243,868,332
11. Investment Expense Incurred						16,003,758
12. Depreciation on Real Estate						1,347,487
13. Aggregate Write-Ins for Deductions						765,637
14. Total Deductions						18,108,983
15. Net Investment Income Earned						225,759,344

**Table 2**  
**Property/Casualty Companies - Assets Between \$10 Million and \$100 Million**  
**Underwriting and Investment Exhibit Part 1**  
**Interest, Dividend and Real Estate Income**

	Collected During Year Less Paid For Accrued On Purchases	Paid In Advance		Due and Accrued		Earned During Year
		Current Year	Previous Year	Current Year	Previous Year	
		1. U.S. Government Bonds	757,288,206	914,732	791,284	
1.1 Bond Exempt From U.S. Tax	420,569,292	501,945	487,165	129,349,707	138,894,635	411,009,590
1.2 Other Bonds (Unaffiliated)	507,795,787	631,880	586,520	119,396,593	118,149,350	508,997,664
1.3 Bonds of Affiliates	11,103,579	0	0	471,591	1,057,581	10,517,589
2.1 Preferred Stocks (Unaffiliated)	42,011,947	0	0	2,808,104	3,326,750	41,493,304
2.11 Preferred Stocks of Affiliates	3,874,059	0	0	876,574	289,665	4,460,968
2.2 Common Stock (Unaffiliated)	63,546,716	0	0	3,653,238	3,710,009	63,489,946
2.21 Common Stock of Affiliates	50,681,596	0	0	4,622,301	7,935,462	47,368,435
3. Mortgage Loans	8,294,623	39	122	647,227	638,325	8,303,611
4. Real Estate	42,556,255	22,264	17,393	253,520	195,676	42,609,228
5. Collateral Loans	2,774,774	0	0	397,373	435,520	2,736,627
6.1 Cash On Hand and On Deposit	48,501,856	0	0	3,311,506	2,236,310	49,577,052
6.2 Short-Term Investments	165,928,228	0	5,069	11,938,751	9,235,871	168,636,172
7. Other Invested Assets	10,280,789	0	0	650,410	535,806	10,395,393
8. Derivative Instruments	442,894	45,115	6,941	0	0	404,720
9. Aggregate Write-Ins for Invest Income	6,027,825	312,243	142,564	4,069,726	1,313,689	8,614,182
10. Totals	2,141,678,408	2,428,218	2,037,058	464,913,204	464,952,376	2,141,248,070
11. Investment Expense Incurred						138,877,795
12. Depreciation on Real Estate						11,631,093
13. Aggregate Write-Ins for Deductions						5,911,504
14. Total Deductions						156,420,393
15. Net Investment Income Earned						1,984,827,672

**Table 3**  
**Property/Casualty Companies - Assets Between \$100 Million and \$1 Billion**  
**Underwriting and Investment Exhibit Part 1**  
**Interest, Dividend and Real Estate Income**

	Collected During Year Less Paid For Accrued On Purchases	Paid In Advance		Due and Accrued		Earned During Year	
		Current Year	Previous Year	Current Year	Previous Year		
		1. U.S. Government Bonds	2,987,290,990	0	0		721,358,129
1.1 Bond Exempt From U.S. Tax	2,403,023,327	0	0	736,333,680	783,278,482	2,356,078,535	
1.2 Other Bonds (Unaffiliated)	3,056,446,571	0	0	722,818,311	649,028,389	3,130,236,494	
1.3 Bonds of Affiliates	17,632,995	0	0	4,395,633	1,397,745	20,630,883	
2.1 Preferred Stocks (Unaffiliated)	215,976,759	0	0	17,342,966	20,432,703	212,887,021	
2.11 Preferred Stocks of Affiliates	15,616,757	0	0	1,581,445	1,776,794	15,421,408	
2.2 Common Stock (Unaffiliated)	283,011,091	0	0	22,148,402	22,716,745	282,442,748	
2.21 Common Stock of Affiliates	299,781,537	0	0	1,823,437	18,188,699	283,416,275	
3. Mortgage Loans	35,574,652	0	0	4,017,660	3,589,469	36,002,842	
4. Real Estate	216,004,895	13,988	1,801	2,030,745	312,834	217,710,622	
5. Collateral Loans	6,706,829	0	0	2,010,727	3,063,654	5,653,902	
6.1 Cash On Hand and On Deposit	58,099,517	0	0	3,550,323	2,588,672	59,061,165	
6.2 Short-Term Investments	609,864,332	0	0	39,954,590	25,510,130	624,308,787	
7. Other Invested Assets	55,489,851	0	0	9,807,310	3,162,623	62,134,539	
8. Derivative Instruments	-778,956	0	0	-138,610	-3,200	-914,366	
9. Aggregate Write-Ins for Invest Income	60,343,218	233	291	7,697,671	3,206,744	64,834,203	
10. Totals	10,320,084,369	14,221	2,092	2,296,732,411	2,218,561,134	10,398,243,516	
11. Investment Expense Incurred							498,254,441
12. Depreciation on Real Estate							54,771,222
13. Aggregate Write-Ins for Deductions							58,738,468
14. Total Deductions							611,764,129
15. Net Investment Income Earned							9,786,479,387

**Table 4**  
**Property/Casualty Companies - Assets \$1 Billion Plus**  
**Underwriting and Investment Exhibit Part 1**  
**Interest, Dividend and Real Estate Income**

	Collected During Year Less Paid For Accrued On Purchases	Paid In Advance		Due and Accrued		Earned During Year	
		Current Year	Previous Year	Current Year	Previous Year		
		1. U.S. Government Bonds	6,098,837,821	0	0		1,369,143,958
1.1 Bond Exempt From U.S. Tax	7,948,516,258	0	0	2,409,870,868	2,498,557,206	7,859,829,923	
1.2 Other Bonds (Unaffiliated)	7,296,816,649	0	0	1,782,379,751	1,603,019,006	7,476,177,396	
1.3 Bonds of Affiliates	69,772,097	0	0	14,070,356	17,643,017	66,199,437	
2.1 Preferred Stocks (Unaffiliated)	522,908,542	0	0	34,449,713	37,325,627	520,032,627	
2.11 Preferred Stocks of Affiliates	151,786,927	0	0	2,660,673	2,808,457	151,639,143	
2.2 Common Stock (Unaffiliated)	1,482,649,636	0	0	103,551,206	101,899,011	1,484,301,834	
2.21 Common Stock of Affiliates	2,586,814,810	0	0	155,989,171	47,873,768	2,694,930,213	
3. Mortgage Loans	243,271,970	0	15,723	17,739,793	35,079,203	225,948,282	
4. Real Estate	1,189,663,712	85,081	76,755	9,872,234	13,481,600	1,186,046,018	
5. Collateral Loans	326,459	0	0	43,802	0	370,261	
6.1 Cash On Hand and On Deposit	58,015,083	0	0	11,027,626	9,508,949	59,533,757	
6.2 Short-Term Investments	1,283,983,328	0	0	125,558,006	57,517,232	1,352,024,107	
7. Other Invested Assets	608,295,901	0	0	44,374,304	62,059,617	590,610,587	
8. Derivative Instruments	7,929,311	0	0	10,953,472	907,716	17,975,067	
9. Aggregate Write-Ins for Invest Income	442,325,224	0	-1,459	38,434,075	-3,481,313	484,239,153	
10. Totals	29,991,913,712	85,081	91,019	6,130,119,000	5,892,675,356	30,229,363,290	
11. Investment Expense Incurred							1,542,790,358
12. Depreciation on Real Estate							255,829,771
13. Aggregate Write-Ins for Deductions							505,826,111
14. Total Deductions							2,304,446,237
15. Net Investment Income Earned							27,924,917,056

**Table 5**  
**All Property/Casualty Companies**  
**Underwriting and Investment Exhibit Part 1**  
**Interest, Dividend and Real Estate Income**

	Collected During Year Less Paid For Accrued On Purchases	Paid In Advance		Due and Accrued		Earned During Year
		Current Year	Previous Year	Current Year	Previous Year	
1. U.S. Government Bonds	9,916,719,921	992,236	833,087	2,290,940,091	2,282,738,650	9,924,762,205
1.1 Bond Exempt From U.S. Tax	10,808,237,678	546,886	500,801	3,283,339,556	3,431,500,142	10,660,031,020
1.2 Other Bonds (Unaffiliated)	10,893,186,219	656,415	643,741	2,630,694,344	2,377,702,243	11,146,165,646
1.3 Bonds of Affiliates	98,758,906	13,216	0	19,125,144	20,199,865	97,670,969
2.1 Preferred Stocks (Unaffiliated)	783,764,846	0	0	54,872,407	61,292,505	777,344,749
2.11 Preferred Stocks of Affiliates	171,360,546	0	0	5,129,501	4,874,916	171,615,131
2.2 Common Stock (Unaffiliated)	1,837,165,199	0	0	129,585,337	128,605,129	1,838,145,411
2.21 Common Stock of Affiliates	2,979,156,678	0	0	162,506,016	74,006,059	3,067,656,635
3. Mortgage Loans	288,238,154	39	15,904	22,535,820	39,407,213	271,382,627
4. Real Estate	1,452,675,496	121,333	95,949	12,255,722	14,052,997	1,450,852,838
5. Collateral Loans	9,888,793	0	0	2,626,338	3,501,252	9,013,879
6.1 Cash On Hand and On Deposit	178,709,436	0	0	19,322,665	15,377,315	182,654,778
6.2 Short-Term Investments	2,089,091,344	17,467	5,069	180,298,411	94,387,099	2,174,990,249
7. Other Invested Assets	674,405,262	0	0	55,501,885	66,098,224	663,808,923
8. Derivative Instruments	7,594,686	45,115	6,941	10,814,862	904,516	17,466,858
9. Aggregate Write-Ins for Invest Income	509,997,518	312,476	141,396	50,419,148	1,171,449	559,074,135
10. Totals	42,699,037,814	2,705,183	2,242,888	8,929,967,226	8,615,819,523	43,012,723,208
11. Investment Expense Incurred						2,195,926,352
12. Depreciation on Real Estate						323,579,573
13. Aggregate Write-Ins for Deductions						571,241,720
14. Total Deductions						3,090,739,742
15. Net Investment Income Earned						39,921,983,459

**Table 6**  
**Percentage of Investment Income By Category By Size Group**

	Percent of Net Investment Income Earned By Investment Type				
	Assets Less Than \$10 Million	Assets Between \$10 Million and \$100 Million	Assets Between \$100 Million and \$1 Billion	Assets Over \$1 Billion	All Companies
Number of Companies	805	1,082	620	151	2,658
U.S. Government Bonds	30.5%	35.6%	29.1%	20.0%	23.1%
Bond Exempt From U.S. Tax	13.6%	19.2%	22.7%	26.0%	24.8%
Other Bonds (Unaffiliated)	12.6%	23.8%	30.1%	24.7%	25.9%
Bonds of Affiliates	0.1%	0.5%	0.2%	0.2%	0.2%
Preferred Stocks (Unaffiliated)	1.2%	1.9%	2.0%	1.7%	1.8%
Preferred Stocks of Affiliates	0.0%	0.2%	0.1%	0.5%	0.4%
Common Stock (Unaffiliated)	3.2%	3.0%	2.7%	4.9%	4.3%
Common Stock of Affiliates	17.2%	2.2%	2.7%	8.9%	7.1%
Mortgage Loans	0.5%	0.4%	0.3%	0.7%	0.6%
Real Estate	1.8%	2.0%	2.1%	3.9%	3.4%
Collateral Loans	0.1%	0.1%	0.1%	0.0%	0.0%
Cash On Hand and On Deposit	5.9%	2.3%	0.6%	0.2%	0.4%
Short-Term Investments	12.3%	7.9%	6.0%	4.5%	5.1%
Other Invested Assets	0.3%	0.5%	0.6%	2.0%	1.5%
Derivative Instruments	0.0%	0.0%	0.0%	0.1%	0.0%
Aggregate Write-Ins for Invest Income	0.6%	0.4%	0.6%	1.6%	1.3%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%
Fixed Income Type	57.3%	79.6%	82.5%	71.7%	74.7%
Equity Type	24.4%	10.2%	10.9%	23.6%	19.9%
Short-term and Cash	18.2%	10.2%	6.6%	4.7%	5.5%

**Table 7**  
**Property/Casualty Companies - Assets Less Than \$10 Million**  
**Underwriting and Investment Exhibit Part 1A**  
**Capital Gains (and Losses) on Investments**

		2	3	4	5	6	7	
		Profit on Sales or Maturity	Loss on Sales or Maturity	Increases by Adjustment in Book Value	Decreases by Adjustment in Book Value	Net Gain or (Loss) from Change in Difference Between Book and Admitted Value	Total	
1.	U.S. Government Bonds	10,164,780	4,481,194	795,446	173,174	278,966	6,584,822	
1.1	Bond Exempt From U.S. Tax	5,073,388	2,810,649	107,916	22,207	109,921	2,458,369	
1.2	Other Bonds (Unaffiliated)	7,172,987	1,380,532	42,888	65,581	341,248	6,111,011	
1.3	Bonds of Affiliates	0	23,267	73	0	5,238	-17,956	
2.1	Preferred Stocks (Unaffiliated)	796,128	166,658	790,084	127,503	1,951,431	3,243,482	
2.11	Preferred Stocks of Affiliates	0	5,000	0	0	622	-4,378	
2.2	Common Stock (Unaffiliated)	13,462,358	3,086,952	2,299,095	274,160	24,024,879	36,425,221	
2.21	Common Stock of Affiliates	7,064,626	7,300,505	1,187,864	86,337	-7,895,114	-7,029,465	
3.	Mortgage Loans	153,951	26,277	1,890	0	-21,078	108,486	
4.	Real Estate	755,890	1,937,466	258,653	153,531	-46,743	-1,123,197	
5.	Collateral Loans	0	0	0	0	7,830	7,830	
6.1	Cash On Hand and On Deposit	1,119	0	791	0	0	1,910	
6.2	Short-Term Investments	43,625	20,874	55,321	8,602	32,410	101,880	
7.	Other Invested Assets	36,024	45,926	0	0	135,626	125,724	
8.	Derivative Instruments	5,543	0	0	0	-503	5,040	
9.	Aggregate Write-Ins for Invest Income	84,251	21,340	0	-110,284	-46,228	126,967	
10.	Totals	44,814,670	21,306,638	5,540,021	800,812	18,878,505	47,125,747	
11.	Net Realized Capital Gains or (Losses) (Col. 2 - 3, Line 10)							23,510,505
12.	Net Unrealized Capital Gains or (Losses) (Col. 4 - 5 + 6, Line 10)							23,615,239

**Table 8**  
**Property/Casualty Companies - Assets Between \$10 Million and \$100 Million**  
**Underwriting and Investment Exhibit Part 1A**  
**Capital Gains (and Losses) on Investments**

		2	3	4	5	6	7	
		Profit on Sales or Maturity	Loss on Sales or Maturity	Increases by Adjustment in Book Value	Decreases by Adjustment in Book Value	Net Gain or (Loss) from Change in Difference Between Book and Admitted Value	Total	
1.	U.S. Government Bonds	59,923,140	27,045,063	1,665,813	586,037	2,185,691	36,143,542	
1.1	Bond Exempt From U.S. Tax	22,813,290	13,649,226	168,195	334,649	1,451,542	10,449,158	
1.2	Other Bonds (Unaffiliated)	40,885,048	23,545,305	638,669	280,034	19,628,468	37,326,847	
1.3	Bonds of Affiliates	4,865	7,913	0	0	11,944,415	11,941,367	
2.1	Preferred Stocks (Unaffiliated)	6,943,990	4,743,275	1,092,718	107,033	30,333,130	33,519,528	
2.11	Preferred Stocks of Affiliates	0	26,895	43,083	0	9,694,816	9,711,004	
2.2	Common Stock (Unaffiliated)	126,989,605	40,444,146	11,867,630	1,386,949	382,173,019	479,199,160	
2.21	Common Stock of Affiliates	65,725,305	15,762,631	21,519,602	2,764,922	-98,692,926	-29,975,572	
3.	Mortgage Loans	89,329	190,788	0	0	1,107,656	1,006,197	
4.	Real Estate	3,340,135	4,311,442	2,778,055	356,175	321,793	1,772,366	
5.	Collateral Loans	0	682,842	0	0	-1,220,535	-1,903,377	
6.1	Cash On Hand and On Deposit	1,215	641,182	0	0	84,665	-555,302	
6.2	Short-Term Investments	1,362,964	406,000	784,434	17,549	53,987	1,777,837	
7.	Other Invested Assets	1,625,128	1,665,835	2,162	42,392	8,391,510	8,310,573	
8.	Derivative Instruments	4,816,009	5,393,199	15,809	266,418	-72,845	-900,645	
9.	Aggregate Write-Ins for Invest Income	-2,253,264	-1,071,286	-32,577	30,011	1,275,393	30,827	
10.	Totals	332,266,750	137,444,453	40,543,592	6,172,169	368,659,778	597,853,504	
11.	Net Realized Capital Gains or (Losses) (Col. 2 - 3, Line 10)							194,822,295
12.	Net Unrealized Capital Gains or (Losses) (Col. 4 - 5 + 6, Line 10)							403,031,201

**Table 9**  
**Property/Casualty Companies - Assets Between \$100 Million and \$1 Billion**  
**Underwriting and Investment Exhibit Part 1A**  
**Capital Gains (and Losses) on Investments**

		2	3	4	5	6	7	
		Profit on Sales or Maturity	Loss on Sales or Maturity	Increases by Adjustment in Book Value	Decreases by Adjustment in Book Value	Net Gain or (Loss) from Change in Difference Between Book and Admitted Value	Total	
1.	U.S. Government Bonds	401,910,732	184,007,831	2,686,100	653,770	1,004,021	220,939,257	
1.1	Bond Exempt From U.S. Tax	238,733,730	87,827,063	3,330,343	63,017	9,731,702	163,905,692	
1.2	Other Bonds (Unaffiliated)	324,275,412	140,627,917	5,038,049	5,552,052	31,442,942	214,576,434	
1.3	Bonds of Affiliates	350,400	0	0	0	-901,754	-551,354	
2.1	Preferred Stocks (Unaffiliated)	44,581,004	23,865,943	3,993,623	904,519	150,093,335	173,897,497	
2.11	Preferred Stocks of Affiliates	922,049	13,141,706	0	0	-1,631,041	-13,850,698	
2.2	Common Stock (Unaffiliated)	913,950,800	206,020,858	144,960,616	3,176,672	2,088,985,713	2,938,699,601	
2.21	Common Stock of Affiliates	187,306,751	95,500,904	55,304,119	10,438,262	512,788,735	649,460,437	
3.	Mortgage Loans	661,412	1,695,439	1,083,224	0	520,749	569,945	
4.	Real Estate	14,298,062	9,926,179	1,596,939	3,673,866	-10,176,688	-7,881,732	
5.	Collateral Loans	0	1,687,896	0	0	-5,440,740	-7,128,636	
6.1	Cash On Hand and On Deposit	236,326	2,940,998	0	0	34,423	-2,670,249	
6.2	Short-Term Investments	4,291,335	2,805,192	79,108	585,632	-286,826	692,793	
7.	Other Invested Assets	38,136,004	38,540,368	5,734,548	1,629,088	6,988,321	10,689,417	
8.	Derivative Instruments	17,865,671	48,440,869	6,479,972	0	-31,011,265	-55,106,490	
9.	Aggregate Write-Ins for Invest Income	3,934,578	5,775,218	-1,349,922	81,698	2,448,764	-823,497	
10.	Totals	2,191,454,265	862,804,376	228,936,719	26,758,574	2,754,590,388	4,285,418,417	
11.	Net Realized Capital Gains or (Losses) (Col. 2 - 3, Line 10)							1,334,416,353
12.	Net Unrealized Capital Gains or (Losses) (Col. 4 - 5 + 6, Line 10)							2,951,002,065

**Table 10**  
**Property/Casualty Companies - Assets \$1 Billion Plus**  
**Underwriting and Investment Exhibit Part 1A**  
**Capital Gains (and Losses) on Investments**

		2	3	4	5	6	7	
		Profit on Sales or Maturity	Loss on Sales or Maturity	Increases by Adjustment in Book Value	Decreases by Adjustment in Book Value	Net Gain or (Loss) from Change in Difference Between Book and Admitted Value	Total	
1.	U.S. Government Bonds	764,694,515	452,191,805	0	0	-4,337,809	308,164,901	
1.1	Bond Exempt From U.S. Tax	617,862,775	326,762,636	1,819,618	142	40,418,456	333,338,071	
1.2	Other Bonds (Unaffiliated)	852,149,661	557,370,306	18,947,239	77,218,857	163,835,008	400,342,745	
1.3	Bonds of Affiliates	8,205,451	10,801,902	0	0	-3,637,570	-6,234,021	
2.1	Preferred Stocks (Unaffiliated)	119,973,340	91,370,293	8,504,890	1,705,720	454,488,727	489,890,945	
2.11	Preferred Stocks of Affiliates	2,339,545	21,629,454	0	1,930,000	-181,300,501	-202,520,410	
2.2	Common Stock (Unaffiliated)	4,211,706,540	957,853,034	133,531,115	17,364,411	15,152,262,903	18,522,283,109	
2.21	Common Stock of Affiliates	1,234,550,615	351,154,221	136,091,637	122,494,219	4,903,619,207	5,800,613,020	
3.	Mortgage Loans	2,195,298	163,532,424	6,058,202	7,822,834	7,859,347	-155,242,409	
4.	Real Estate	62,948,424	149,740,941	69,544,737	42,749,015	20,442,957	-39,553,836	
5.	Collateral Loans	0	0	0	0	0	0	
6.1	Cash On Hand and On Deposit	6,650,529	2,591,221	174,300	5,515,427	-357,256	-1,639,076	
6.2	Short-Term Investments	29,185,652	30,834,200	143,552	11,319,249	1,742,711	-11,081,532	
7.	Other Invested Assets	316,670,263	206,049,406	7,942,563	8,176,958	688,617,397	799,003,856	
8.	Derivative Instruments	68,537,124	234,616,642	29,149,441	192,060	-107,978,876	-245,101,013	
9.	Aggregate Write-Ins for Invest Income	98,841,398	94,314,521	-5,283,495	-3,098,222	11,455,867	13,797,469	
10.	Totals	8,396,511,130	3,650,813,001	406,623,801	293,390,671	21,147,130,562	26,006,061,821	
11.	Net Realized Capital Gains or (Losses) (Col. 2 - 3, Line 10)							4,791,386,520
12.	Net Unrealized Capital Gains or (Losses) (Col. 4 - 5 + 6, Line 10)							21,214,675,298

**Table 11**  
**All Property/Casualty Companies**  
**Underwriting and Investment Exhibit Part 1A**  
**Capital Gains (and Losses) on Investments**

	2	3	4	5	6	7
	Profit on Sales or Maturity	Loss on Sales or Maturity	Increases by Adjustment in Book Value	Decreases by Adjustment in Book Value	Net Gain or (Loss) from Change in Difference Between Book and Admitted Value	Total
1. U.S. Government Bonds	1,236,693,167	667,725,893	5,147,359	1,412,981	-869,131	571,832,522
1.1 Bond Exempt From U.S. Tax	884,483,183	431,049,574	5,426,072	420,015	51,711,621	510,151,290
1.2 Other Bonds (Unaffiliated)	1,224,483,108	722,924,060	24,666,845	83,116,524	215,247,666	658,357,037
1.3 Bonds of Affiliates	8,560,716	10,833,082	73	0	7,410,329	5,138,036
2.1 Preferred Stocks (Unaffiliated)	172,294,462	120,146,169	14,381,315	2,844,775	636,866,623	700,551,452
2.11 Preferred Stocks of Affiliates	3,261,594	34,803,055	43,083	1,930,000	-173,236,104	-206,664,482
2.2 Common Stock (Unaffiliated)	5,266,109,303	1,207,404,990	292,658,456	22,202,192	17,647,446,514	21,976,607,091
2.21 Common Stock of Affiliates	1,494,647,297	469,718,261	214,103,222	135,783,740	5,309,819,902	6,413,068,420
3. Mortgage Loans	3,099,990	165,444,928	7,143,316	7,822,834	9,466,674	-153,557,781
4. Real Estate	81,342,511	165,916,028	74,178,384	46,932,587	10,541,319	-46,786,399
5. Collateral Loans	0	2,370,738	0	0	-6,653,445	-9,024,183
6.1 Cash On Hand and On Deposit	6,889,189	6,173,401	175,091	5,515,427	-238,168	-4,862,717
6.2 Short-Term Investments	34,883,576	34,066,266	1,062,415	11,931,032	1,542,282	-8,509,022
7. Other Invested Assets	356,467,419	246,301,535	13,679,273	9,848,438	704,132,854	818,129,570
8. Derivative Instruments	91,224,347	288,450,710	35,645,222	458,478	-139,063,489	-301,103,108
9. Aggregate Write-Ins for Invest Income	100,606,963	99,039,793	-6,665,994	-3,096,797	15,133,796	13,131,766
10. Totals	10,965,046,815	4,672,368,468	681,644,133	327,122,226	24,289,259,233	30,936,459,489
11. Net Realized Capital Gains or (Losses) (Col. 2 - 3, Line 10)						6,344,135,673
12. Net Unrealized Capital Gains or (Losses) (Col. 4 - 5 + 6, Line 10)						24,592,323,803

**Table 12**  
**Percentage of Capital Gains By Category By Size Group**

	Percent of Capital Gains By Investment Type				
	Assets Less Than \$10 Million	Assets Between \$10 Million and \$100 Million	Assets Between \$100 Million and \$1 Billion	Assets Over \$1 Billion	All Companies
Number of Companies	805	1,082	620	151	2,658
U.S. Government Bonds	14.0%	6.0%	5.2%	1.2%	1.8%
Bond Exempt From U.S. Tax	5.2%	1.7%	3.8%	1.3%	1.6%
Other Bonds (Unaffiliated)	13.0%	6.2%	5.0%	1.5%	2.1%
Bonds of Affiliates	0.0%	2.0%	0.0%	0.0%	0.0%
Preferred Stocks (Unaffiliated)	6.9%	5.6%	4.1%	1.9%	2.3%
Preferred Stocks of Affiliates	0.0%	1.6%	-0.3%	-0.8%	-0.7%
Common Stock (Unaffiliated)	77.3%	80.2%	68.6%	71.2%	71.0%
Common Stock of Affiliates	-14.9%	-5.0%	15.2%	22.3%	20.7%
Mortgage Loans	0.2%	0.2%	0.0%	-0.6%	-0.5%
Real Estate	-2.4%	0.3%	-0.2%	-0.2%	-0.2%
Collateral Loans	0.0%	-0.3%	-0.2%	0.0%	0.0%
Cash On Hand and On Deposit	0.0%	-0.1%	-0.1%	0.0%	0.0%
Short-Term Investments	0.2%	0.3%	0.0%	0.0%	0.0%
Other Invested Assets	0.3%	1.4%	0.2%	3.1%	2.6%
Derivative Instruments	0.0%	-0.2%	-1.3%	-0.9%	-1.0%
Aggregate Write-Ins for Invest Income	0.3%	0.0%	0.0%	0.1%	0.0%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%
Fixed Income Type	32.4%	15.9%	13.8%	3.4%	5.1%
Equity Type	67.4%	83.9%	86.2%	96.7%	94.9%
Short-Term and Cash	0.2%	0.2%	0.0%	0.0%	0.0%

**Table 13**  
**Property/Casualty Investment Returns By Size Group**

Asset Categories	Assets Less Than \$10 Million	Assets Between \$10 Million and \$100 Million	Assets Between \$100 Million and \$1 Billion	Assets Over \$1 Billion	All Companies
<b>Average Invested Assets from Page 2, Assets of the Annual Statement</b>					
Bonds	2,062,437,519	25,773,444,885	130,047,296,427	312,327,377,610	470,210,556,440
Preferred Stocks	42,320,724	598,799,337	3,011,556,926	8,258,637,201	11,911,314,188
Common Stocks	251,871,981	3,100,169,594	21,613,310,013	133,191,280,674	158,156,632,262
Mortgage Loans	11,368,322	92,694,549	461,137,355	2,772,934,346	3,338,134,572
Company Occupied Real Estate	32,288,272	286,330,994	1,330,252,179	5,842,142,704	7,491,014,149
Other Real Estate	5,635,734	57,337,328	269,260,036	1,531,803,563	1,864,036,660
Collateral Loans	1,771,495	20,724,276	96,423,913	486,784,136	605,703,819
Cash	370,363,105	1,234,930,025	1,547,154,808	2,331,989,188	5,484,437,125
Short-term Investments	522,478,223	2,967,964,459	10,390,616,263	20,871,727,841	34,752,786,784
Other Invested Assets	9,585,645	124,125,690	1,119,682,854	8,901,043,213	10,154,437,401
Aggregate Write-ins for Invested Assets	6,039,681	89,108,659	238,126,469	-297,582,951	35,691,857
Cash and Invested Assets	3,314,961,650	34,345,629,791	170,124,817,232	496,218,137,518	704,003,546,191
<b>Investment Income and Capital Gains</b>					
Net Investment Income Earned	225,759,344	1,984,827,672	9,786,479,387	27,924,917,056	39,921,983,459
Net Realized Capital Gains	23,510,505	194,822,295	1,334,416,353	4,791,386,520	6,344,135,673
Net Unrealized Capital Gains	23,615,239	403,031,201	2,951,002,065	21,214,675,298	24,592,323,803
<b>Aggregate Investment Returns</b>					
Net Investment Income Earned	6.81%	5.78%	5.75%	5.63%	5.67%
Net Realized Capital Gains	0.71%	0.57%	0.78%	0.97%	0.90%
Net Unrealized Capital Gains	0.71%	1.17%	1.73%	4.28%	3.49%
<b>Variability in Investment Returns</b>					
Net Investment Income Earned	1.43%	1.16%	1.50%	1.59%	1.49%
Net Realized Capital Gains	1.10%	0.95%	0.68%	0.28%	0.72%
Net Unrealized Capital Gains	3.86%	2.36%	1.30%	0.51%	1.51%

# The Effect of Rate Regulation on Underwriting Results

by Mike Barth

In the process of drafting the health organizations risk-based capital formula, a question arose as to the effect of rate regulation on underwriting risk. The proposed formula submitted by the American Academy of Actuaries included a surcharge for premiums subject to rate regulation, based on the idea that delays in obtaining approval of rate changes would slow a company's reaction time in responding to inadequate rates. The following article summarizes some of the academic research that has been done on the effect of rate regulation on underwriting results. While the bulk of the research summarized here has looked at the auto insurance market, the underlying economic theory can be generalized to health markets as well. There has been some research specifically into health insurance markets, and that research has been included where applicable.

Most of the academic research into the effect of rate regulation has been in the automobile insurance market. The auto insurance market is large and there is a great deal of readily available quantitative data to work with. In most states, consumers actually have both a duty and a right to purchase auto insurance. Auto insurance coverage is mandatory in many states and quasi-mandatory in most others. There are other pressures that cause this coverage to be widespread as well. For

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example, most lenders will not finance the purchase of a car without proof of insurance coverage. Since there is a requirement for consumers to have auto insurance, states generally make provisions for consumers that are denied coverage in the general market to obtain insurance, frequently at subsidized prices, through alternative market mechanisms.

Generally, that research has looked at the relative cost of auto insurance in rate-regulated states and in non-rate-regulated states, at the market shares of certain types of insurers, or at the effect of rate regulation on the size of alternative (e.g., assigned risk) markets for auto insurance. Any of these could cause changes in the general profitability of insurers in those markets.

## Principle Theories of the Effect on Underwriting Profits

There are three general theories on the effect of rate regulation on profits in insurance markets. They are a) the regulatory lag hypothesis, b) the excessive rate hypothesis, and c) the consumer pressure hypothesis.

**Regulatory Lag Hypothesis.** Under this hypothesis, regulatory delays in approving rate filings result in delays for companies trying to implement new rates and react to market changes. In the long-run, there should be no differences in the loss ratios between regulated and unregulated jurisdictions, but in the short-run rate regulation will exacerbate cyclical behavior. During the favorable portion of the underwriting cycle, loss ratios in rate-regulated states will be lower than in non-rate-regulated states. During the unfavorable portion of the underwriting cycle, loss ratios will be higher in rate-regulated states relative to unregulated states. This should lead to more variability in underwriting results for the rate-regulated business and, therefore, higher risk. If entry and exit into such a market was relatively flexible, companies would be more inclined to participate. However, rate regulation is generally indicative of other forms of regulation as well, so there would be an expectation of market entry and exit barriers that should discourage companies from participating in this type of market.

**Excessive Rate Hypothesis.** This theory assumes that regulators tend to protect consumers against

insolvency risk through minimum rate floors that reduce cutthroat competition. This means that, on average, insurers are forced to charge rates that are higher than they would otherwise be in the absence of rate regulation. Loss ratios would be lower and presumably more stable if this behavior was dominant. The excessive rate hypothesis would encourage companies to participate in such a market because there would be relatively less risk of losing money.

**Consumer Pressure Hypothesis.** Under this theory, consumers pressure regulators to restrict prices (i.e., establish a cap on prices) and enhance affordability. If this behavior were dominant, then rates would be, on average, below the level that the competitive market would establish. A researcher would expect to find higher loss ratios and less voluntary participation in rate-regulated markets if this behavior was dominant.

The empirical evidence as to the effect of rate regulation under each of these competing theories has been mixed. Most of the empirical research has been carried out on auto insurance, and researchers have generally categorized rate regulation according to the type of filing law in place in each state. Generally, prior approval rating laws cause a state to be classified in the "rate regulation" group while file-and-use, use-and-file and no-filing states are lumped into the "no rate regulation" group. Studies that have used this dichotomy [e.g., Harrington 1984, Tennyson 1991] have generally found empirical support for the *consumer pressure hypothesis*. Their research indicates that loss ratios are generally higher in the rate-regulated states than in the non-rate-regulated states.

However, other studies that have used a measure of the stringency of rate regulation [D'Arcy (1982); Grabowski, Viscusi and Evans (1989)] have supported the *excessive rate hypothesis* by showing that the loss ratios were actually lower in the heavily rate-regulated states relative to the non-regulated states. The stringency-of-regulation measure comes from a series of Conning & Company studies that use survey data from insurance companies to quantify a relative measure of the effect of rate regulation. In the Conning & Company studies, insurance executives were asked to rank states by their level of actual stringency as opposed to the description of the rating law. A rating law might be "file and use" on paper but

"prior approval" in practice. Some researchers argue that the use of the relative stringency measure provides a better measure of the true operation of the rate regulation law.

The empirical evidence to support the *regulatory lag hypothesis* has produced mixed and conflicting results. Harrington (1984) reported that some early studies found that the variability of loss ratios was greater in rate-regulated states while others showed that there were no differences. Outreville (1987) reported that rate regulation caused the auto insurance cycle to increase in intensity, but Tennyson (1991) suggested that those results were flawed because they did not account for systematic economic differences between states. Tennyson, using a multivariate approach to account for these economic differences, reported that prior approval rate regulation did increase the variance of underwriting results in private passenger auto, but did not affect cyclic extremes in that line. She also reported that the homeowners line of business did not show the same effect.

Grabowski et. al. (1989) reported that a significant amount of the total differences in auto insurance underwriting results between regulated and unregulated states could be attributable to just three states. Their work suggests that the results of other empirical studies might have been unduly influenced by the data from those three states.

More recently, in a study of European non-life insurance markets, Swiss Re (1995) reported that loss ratios were higher and results were more stable in those jurisdictions with relatively higher levels of rate regulation:

The revealed pattern of performance and volatility is largely explained by the extremely diverse level of regulation and competition in the individual countries: the more competition was limited by government regulation and/or industry collusion, the more profitable were the examined insurance markets and the more stable were their performance trends during the review period. On one hand, this outcome can be traced to the underwriting side, whose volatility depends on both the claims trend and on government influence on market structures or price mechanisms. On the other hand, the diverse legal regulations regarding the type of investments and requirements for their

composition also have an effect on insurance's systematic risk profile.

Against the backdrop of deregulatory tendencies which herald structural change and heightened competition for many an insurance industry, this statistical correlation signals a looming downward trend in underwriting results- accompanied by greater volatility. (Swiss Re, 1995, p. 1).

Eastman (1994) concluded that price dispersion in the auto physical damage line was reduced through rate regulation, although he found no such effect in the auto liability line. He also pointed out that difficulties arise in performing empirical work on the variability auto liability insurance because of the inherent difficulty in accurately establishing the dollar amount of losses.

The majority of these studies on the effect of rate regulation use a weighted average variance as the dependent variable. Conflicts can arise in states that use some form of rate approval, but apply it with differing degrees of stringency. For example, a regulator may take a harder look at a 10 percent rate increase for a \$1 billion insurer than for a \$1 million insurer. Anecdotal evidence (e.g., trade press reports) tend to support this idea. Rate increases in a state by the largest companies almost always make the news, while rate increases by the hundreds of other companies operating in a state almost never do. In addition, if there are political pressures on regulators to hold down rates (i.e., the consumer pressure hypothesis is alive and well in a state), those pressures will be brought to bear on large market share insurers more often or more intensely than on small market share insurers.

### Rate Regulation in Health Lines

Rate regulation of health insurance differs from state to state. Table 1 summarizes the state rating laws for health insurance as of 1993. For the most part, individual health coverages are more heavily regulated than group health coverages. Additionally, there are other state-specific differences, such as the treatment of Blue Cross/Blue Shield plans, that are not included in the table. There are also differences in the stringency of rate regulation from state to state that are again difficult to quantify and that might provide significantly different answers than

measures based strictly on the description of the rate regulation law.

Differences in rate regulation from state to state would appear in different ways, according to which of the theories has the dominant effect. Alternatively, if none of these theories is applicable, there would be no differences between underwriting profitability, either in the average profits or in the variability of profits, attributable to rate regulation.

Taylor (1994) attempted to measure health insurance underwriting cycles on a state-by-state basis. Differences in the cyclic patterns between rate-regulated and non-rate-regulated states would tend to support the regulatory lag hypothesis. Interestingly, she found that on a state-by-state basis, commercial health insurance did not exhibit cyclical behavior (only five of 50 states tested showed any cyclical pattern). However, she did find a cyclical pattern in the Blue Cross/Blue Shield business in 23 of 38 states tested. Footnoting the work of Cummins and Outreville (1987), she concluded, "Rate regulation or some other factor endemic to that state may cause these organizations [Blues] to experience difficulty responding to changing market conditions such as increases or decreases in the cost of providing a particular aspect of medical care or changes in interest rates." (Taylor 1994, p.52). This could tend to support the concept of regulatory lag theory *for certain insurers*. Since the Blue Cross/Blue Shield companies tend to have a large market share in the states in which they operate, this could tend to support the regulatory lag hypothesis, at least as it applies to large, politically sensitive organizations. However, the lack of cyclical patterns for the rest of the market suggest that the regulatory lag hypothesis does not apply to all organizations.

Cassidy, Hardigree and Hogan (1996, hereafter CHH) found empirical evidence of an underwriting cycle in health insurance similar in length to that of the property-liability industry. They reported, "[t]he fact that these two lines of insurance both exhibit cycles even though subject to different regulation implies that regulation does not in and of itself cause cycles." (CHH, p. 516). They also concluded that the health underwriting cycle was correlated with interest rates and, therefore, was at least partially a reflection of the general business cycle. Additionally, the regulatory treatment of the Blues is generally different from that of other

insurers in each state. This could also partially explain the observed cyclic patterns in the Blue Cross/Blue Shield plans and would tend to undercut support for the regulatory lag hypothesis.

Ambrose and Drennan (1994) provide an excellent synopsis of the empirical work to date on HMO insolvency studies that have tried in some measure the effect of regulation. They also included a variable in their empirical research to test whether a requirement that an HMO's rates be certified by an actuary had any effect on HMO solvency. They hypothesized that such a requirement should have a negative impact on the probability of insolvency, which is contrary to the regulatory lag hypothesis that suggests that underwriting results are more variable under rate regulation.

Ahearn (1991) also provides some empirical and theoretical justification for the hypothesis that rate regulation has an ameliorative effect on risk because it limits the ability of companies to engage in cutthroat competition. She reported that during the 1980s the regulatory policy in Florida had shifted from one of restricting rates to one of enforcing rate adequacy. If so, this would signal a shift from the consumer pressure hypothesis to the excessive rate hypothesis. Hsia and Reiersen (1987) made similar arguments, that rate regulation tended to force insurers to increase inadequate prices more often than it restricted adequate pricing.

### **The Effect of Competition on Underwriting Results**

All else being equal, reduced competition among insurers in a state should lead to relatively lower loss ratios (higher prices) and more stability in underwriting results. However, it is relatively rare that all else is ever equal. Certain aspects of competition that have been examined in various empirical studies can lead to differences in both the level and variability of underwriting results in markets. Researchers have reported that rate regulation was negatively correlated with direct writer market shares (e.g., Gron 1995). Since direct writers are thought to be more efficient providers of insurance (and can thus maintain relatively higher loss ratios), the effect would be to show lower loss ratios in the presence of rate regulation.

However, Gron also pointed out that there was a "chicken and egg" question, in that the various demographic and political factors in a particular state might influence both underwriting results and the presence of rate regulation. That is, rate regulation might be another symptom of these various factors that influence underwriting results rather than a cause.

### **Size Related Differences in Loss Ratios**

Loss ratios in group health insurance tend to increase as the size of the premium increases (see Figure 1). There are a number of reasons for that, but the simplest is the economic concept of "economies of scale." As companies write more premium, the expenses associated with writing and servicing that business don't grow as fast. That means that, all else being equal, the loss ratio for a \$1 billion book of business will be larger than the average loss ratio for 10 separate \$100 million books of business. Competition in the group health market place pretty much forces insurance companies to pass these cost savings back to the consumer rather than pocketing the difference.

There is also an observable relationship between the size of a company's individual health book of business and the loss ratio (see Figure 2), but the relationship is not as strong. There should be less pressure on companies in the individual market to pass the savings back to individual consumers because individual consumers don't exert as much market pressure.

### **Concentration Effect on Loss Ratios**

A company that has a good spread of risk can stomach more risk in any particular market than can a company that has all of its business in that one market. Put another way, a \$1 billion company that writes a small amount of business in all 50 states can rely on diversification to smooth out its overall underwriting results. However, a company that writes its entire book of business in a single state or in just a few states is less likely to take on excess risk. That is, the results for the single state company would have to be relatively stable to entice the company to stay in the market. Put another way, single-state insurers are less likely to exist in markets where there is intense competition and unstable results because they have no opportunity for diversification. For a company to be willing to

put all its eggs into a single basket, that basket must be on firm ground.

On the other hand, national insurers (i.e., those that write in many different states) are likely to have more variability in their underwriting results for an individual state because underwriting losses in that state will offset underwriting gains in another.

Several studies also have found that high levels of market concentration affect underwriting results. Studies of competition in the HMO market have found that urban concentration is a determinant of entry and exit for HMOs (see Ambrose and Drennan 1994, p. 421 for a summary of the relevant literature). This makes sense because certain marketing costs and operating costs are lower when the concentration of customers is higher. Studies on auto insurance have found similar results, concluding that the increased efficiency of highly urbanized or highly concentrated markets leads to relatively higher loss ratios.

## The Effect of Non-Rate Regulation on Underwriting Results

Many of the empirical studies on the effect of rate regulation have relied on an assumption that there are no significant quality differences in insurance products, either among insurers within a state or between policies issued in different states. However, that assumption has some holes in it.

### Auto Insurance

In auto insurance, there are a significant number of differences between states' laws that can affect either the absolute level of loss ratios or the variability of loss ratios. For example, researchers have used indicator variables to measure differences in loss ratios attributable to the presence of no-fault [e.g., Harrington (1984), Grabowski et. al. (1989), Eastman (1994)]. Researchers have generally found that average loss ratios are higher in no-fault states. Eastman reported that the variance of underwriting results declined in no-fault states as well. However, not all no-fault laws are created equal. Maroney et. al. (1991) showed that the presence of a verbal

threshold in a no-fault law was able to reduce costs, but that monetary thresholds proved to be a target and were ineffective in reducing costs. There are also significant differences in state laws with regard to uninsured and underinsured motorists coverage, driver exclusions, minimum limits of liability, cancellation requirements and negligence laws (American Insurance Association 1996). These differences should be reflected in the loss costs, and hence the premiums, for each particular state. However, the real effect of all these different laws is to make each particular claim more variable and, therefore, underwriting results will tend to be more variable.

### Health Insurance

Like automobile insurance, there are aspects of state laws affecting health insurance that make comparisons across state lines difficult. Nielson (1996) reports that 990 mandated coverages were in effect in 1994, but that the number differed dramatically from state to state. She also pointed out that the effect of mandated coverages varies directly with group size as a result of ERISA preemptions. Because self-insured employer-provided health care benefits are exempt from state laws, those health plans are not required to meet the state mandates (Nielson 1996, p. 477). The higher the level of mandated coverages, the more likely employers will opt out of state-regulated insurance and opt into ERISA-regulated plans. Therefore, there can be significant differences in the underwriting results of health business from state to state, and also from year to year in any particular state.

There are other state-by-state differences that also affect the variability of underwriting results. In some states, Blue Cross/Blue Shield plans act as "insurer of last resort," effectively acting in a similar capacity as an auto insurance assigned risk pool or joint underwriting association servicing carrier. There are premium tax differences from state to state, as well as intrastate differences between Blue Cross/Blue Shield companies. Small group laws are also different from state to state, and even when those differences are accurately reflected in premium levels, these differences can still inject more variability into underwriting results for individual companies.

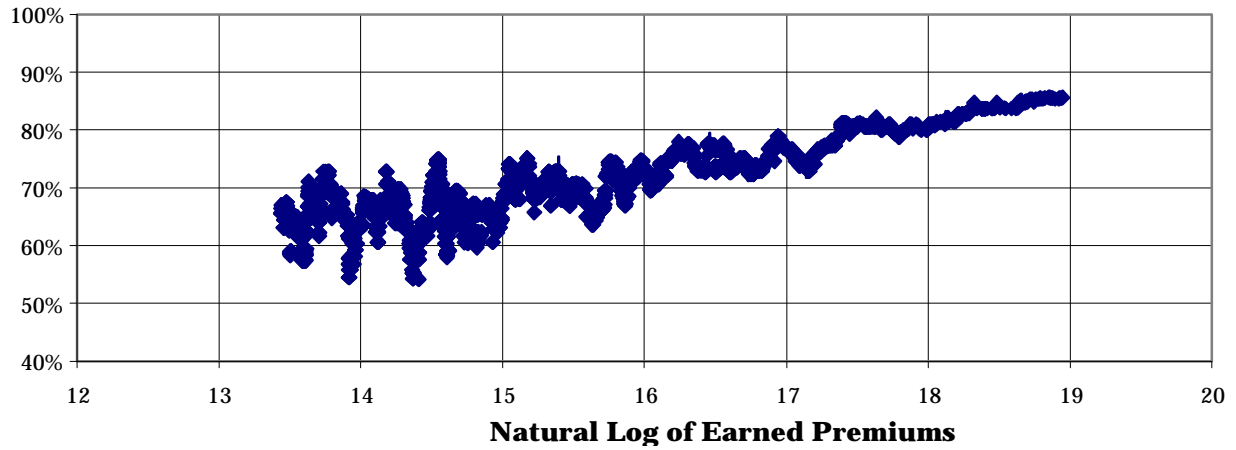
**Table 1**  
**NAIC Chart of Health Insurance Rate Filings in the States, 1993**

State:	Citation:	Filing Requirement:	Applies to:
Alabama	Reg. 24	filing not required	
Alaska	3 AAC 28.220	filing not required	
Arizona	Reg. R20-6-607 SB 1147 (1996)	file and use	individual health
Arkansas	§ 23-79-109	file and use prior approval (30 day deemer)	Med Supp individual health
California	§ 10290 Reg. T. 10 § 2213	file and use (30 days)	all health
Colorado	§ 10-16-107	file and use (30 day deemer)	all health
Connecticut	§ 38a-481	file and use (30 days)	all health
Delaware	tit. 18 §§ 3333, 2504	file and use (90 days)	all health including Med Supp and BC/BS
District of Columbia	§ 35-517	file and use (30 days)	all health
Florida	Reg. 4-149.001	file and use	all health
Georgia	§ 33-20-20	prior approval	all health
Hawaii	No provision		
Idaho	§ 41-2136	file and use	individual health
Illinois	215 ILCS 5/355	file and use	all health
Indiana	§ 27-8-5-1	file and use (30 days)	all health
Iowa	Reg. 191-36.9	file and use	individual health including Med Supp
Kansas	§ 40-2215	file and use (30 days)	individual health
Kentucky	§§ 304.17-380 to 304.17-383	prior approval	individual policies unless contain loss ratio guarantee
Louisiana	R.S. 22:211	file and use (30 days)	all health
Maine	24-A § 2736	file and use (60 days)	individual health, Med Supp, LTC
Maryland	Reg. 09.30.44.02	file and use (90 days)	all health
Massachusetts	Ch. 175 § 108	file and use (30 days)	all health
Michigan	§ 500.3474	file and use	individual health
Minnesota	§ 62A.02	file and use (60 days)	all policies
Mississippi	Reg. LA&H 73-4	file and use	all health
Missouri	20 CSR 400-8.200	file and use (60 days)	all health
Montana	No provision		
Nebraska	§ 44-710	file and use (30 days)	all health
Nevada	§ 689A.360	file and use	individual health
New Hampshire	§ 415:1	file and use (30 days)	all health
New Jersey	Reg. 11:4-18.1	file and use	individual health
New Mexico	§ 59A-18-13	prior approval	all health

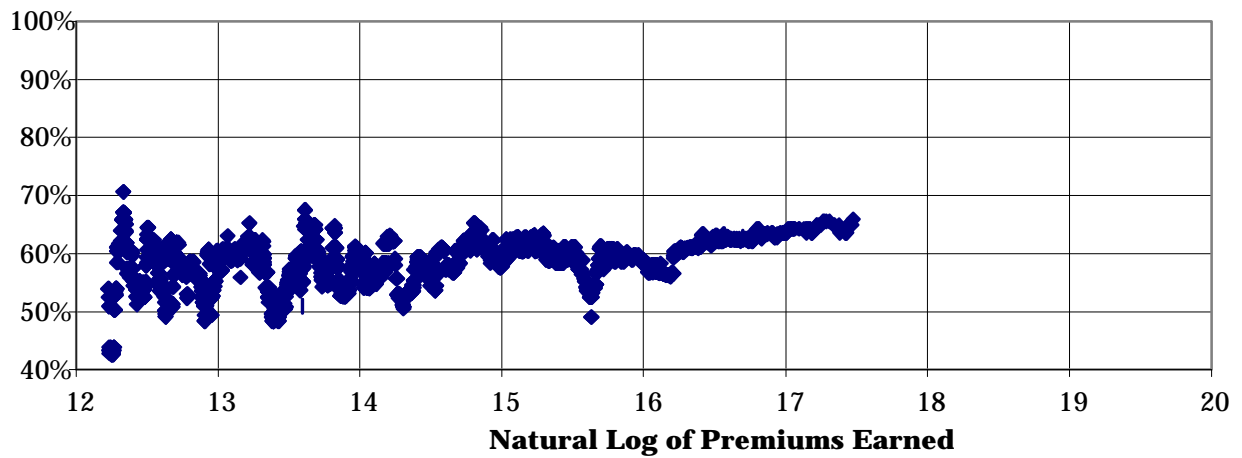
**Table 1 (continued)**  
**NAIC Chart of Health Insurance Rate Filings in the States, 1993**

State:	Citation:	Filing Requirement	Applies to:
New York	§ 3216	file and use	individual health
North Carolina	§ 58-51-95	file and use (90 days)	all health
	§ 58-51-85	file and use	group health
North Dakota	§ 26.1-30-19	prior approval	all health
Ohio	§ 3923.021	file and use (30 days)	all health
Oklahoma	tit. 36 § 4402	file and use	individual health
Oregon	§ 743.018	file and use	all health
Pennsylvania	40 P.S. § 751	prior approval	all health
Rhode Island	Reg. XXIII, Part XI	prior approval	all health
South Carolina	§ 38-71-310	prior approval (90 day deemer)	individual health
South Dakota	§ 58-17-4.1	file and use (30 day deemer)	individual health
Tennessee	§ 56-26-102	prior approval (30 day deemer)	all health except experience rated groups
Texas	Art. 3.42	file and use (60 day deemer)	individual health
Utah	Reg. R590-85	file and use	individual health
Vermont	Title 8 § 4062	file and use (30 days)	all health
Virginia	§ 38.2-316	file and use (30 day deemer)	all health
Washington	No provision		
West Virginia	§ 33-16B-1	prior approval (60 day deemer)	all health
Wisconsin	§ 625.13	use and file (30 days)	individual health
Wyoming	§ 26-18-135	file and use	individual health

**Figure 1**  
**Median Trace of State Market Loss Ratio By Premium Size**  
**Life/Health Insurers - 1995**  
**Group Health**



**Figure 2**  
**Median Trace of State Market Loss Ratios By Premiums**  
**Life/Health Insurers - 1995**  
**Individual Health Insurance**



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