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CASUALTY ACTUARIAL SOCIETY

ORGANIZED 1914

RECOMMENDATIONS FOR STUDY

(1970 Syllabus)

RULES REGARDING EXAMINATIONS FOR ADMISSION
SYLLABUS OF EXAMINATIONS
RECOMMENDATIONS FOR STUDY

OFFICE OF THE SOCIETY

200 East 42nd Street • New York, New York 10017

Seventeenth Edition, 1970

PROCEEDINGS AND OTHER PUBLICATIONS OF THE SOCIETY

The prices of back numbers of the Proceedings and other publications of the Society and a list of those back numbers still in print are set out in the Year Book of the Society.

Those wishing to purchase these publications should apply to the Secretary-Treasurer whose name and address will be found in the Year Book of the Society.

At the time of this printing, communications should be addressed to:

RONALD L. BORNHUETTER Secretary-Treasurer Casualry Actuarial Society 200 East 42nd Street New York, New York 10017

RULES REGARDING EXAMINATIONS FOR ADMISSION

(Effective with 1970 Examinations)

1. Dates of Examinations

Examinations for Parts 1 and 2 will be held twice yearly, in May and November. The examinations for Parts 4, 6, and 8 will be offered annually in November. The examinations for Parts 3, 5, 7, and 9 will be offered annually in May.

The Secretary-Treasurer will announce the exact dates on which the examinations will be given. It is customary to hold the examinations in such cities as will be convenient.

2. Filing of Application

A candidate who wishes to take Part 1 or Part 2, or both, must make application on the Society's application form, which may be obtained from the Secretary-Treasurer.

A candidate who has previously submitted his application on the Society's application form, and who wishes to take one or more examinations other than Parts I and 2, need not again make use of the Society's application form, but may simply write to the Secretary-Treasurer, stating the part or parts for which he is applying.

Each application must be accompanied by the appropriate examination fee, in check, draft, or money order payable to the Casualty Actuarial Society.

Applications must be received by the Secretary-Treasurer by April 1 for the Spring examinations and by October 1 for the Fall examinations.

3. Associateship and Fellowship Examinations

There are five examinations which the candidate must pass in order to become an Associate of the Casualty Actuarial Society. Part 1, the General Mathematics examination, and Part 2, the Probability and Statistics examination, are jointly sponsored by the Casualty Actuarial Society and the Society of Actuaries. Successful candidates will be given credit for these examinations by both Societies regardless of the Society through which the candidate registers.

A candidate may write any one or more of the five examinations and will receive credit for those passed, except that Parts I and 2 must be taken in numerical order.

There are four examinations which a candidate must also pass to become a Fellow of the Casualty Actuarial Society. A candidate may present himself for one or more of the Fellowship examinations either if he has previouly passed the Associateship examinations or if he concurrently presents himself for and submits papers for all unpassed Associateship examinations given during that examination period. Subject to the foregoing requirements, a candidate will be given credit for any examination which he may pass.

4. Fees

The examination fee schedule is as follows:

Parts 4-3 /0.0\\$ 7.50 for each Part \$15.00 for each Part \$2.0.6\\$

The examination fees for the partial Part 4 examinatons which were given in 1969 to those candidates requiring them are as follows:

Part 4(a) \$10.00 Part 4(b) \$10.00

Examination fees are payable each time the candidate presents himself. Check, draft, or money order payable to the order of the Casualty Actuarial Society must be received by the Secretary-Treasurer before April 1 for the Spring examinations, or before October 1 for the Fall examinations.

5. Prize Awards

The Casualty Actuarial Society and the Society of Actuaries will jointly award one \$200 and four \$100 prizes to the five successful undergraduates ranking highest in the General Mathematics examination. These prize awards will be granted for both the Spring and Fall examinations.

6. Waiver of Examinations for Associateship

Waiver of certain Associateship examinations will be allowed for a candidate who has passed or been credited with corresponding examinations of the Society of Actuaries, in accordance with the following:

Casualty Actuarial Society	Society of Actuaries
Part 1	Part I, General Mathematics, passed prior to 1963 (before joint sponsorship)
Part 2	Part 2, Probability and Statistics, passed prior to 1966 (before joint sponsorship)
Part 3	Part 4, Life Contingencies, passed prior to 1969
Part 3	Parts 3 and 4 both, if Part 4 is passed after 1968

Candidates who take the Advanced Mathematics test of the Graduate Record examinations may apply for credit for Part 1. Credit will be granted if the candidate's score on the Graduate Record Advanced Mathematics test is equivalent, as determined by the Casualty Actuarial Society, to the passing score on Part I. An application to the Casualty Actuarial Society for such credit may be completed either in advance of taking the Graduate Record Advanced Mathematics test or within two years after taking it. The necessary application form may be secured from the Secretary-Treasurer of the Casualty Actuarial Society.

The Council may waive, subject to such other requirements as it may prescribe, any examination of the Casualty Actuarial Society if the applicant has passed any examination required by another recognized actuarial organization that the Council deems equivalent to such examination of the Casualty Actuarial Society.

LIBRARY

All candidates registered for the examinations of the Casualty Actuarial Society and all members of the Casualty Actuarial Society have access to all the library facilities of the Insurance Society of New York, the Casualty Actuarial Society, and the Society of Actuaries, These libraries, with combined operations, are located at 150 William Street, New York, New York 10038.

Registered candidates may have access to the Library by receiving from the Society's Secretary-Treasurer the necessary credentials. Books and manuals may be withdrawn from the library for a period of one month without charge. In general, not morethan two references may be in the hands of a borrower at one time. The Insurance Society is responsible for postage and insurance charges for sending books to out-of-town borrowers, and borrowers are responsible for the safe return of the books.

Address requests for books to:

-Mr. Riehard Lino, Librarian Casualty Actuarial Society 10th Floor 125 Maiden Lane New York, New York 10038

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(Effective with 1969 Examinations)

ASSOCIATESHIP

	Part	Time Allowed	Subject	
multiselt	* 1	3 hours	General Mathematics (jointly sponsored with the Society of Actuaries)	
)hultisk Chock	₹ 2	3 hours	Probability and Statistics (jointly sponsored with the Society of Actuaries)	
	3	2 hours	Compound Interest and Life Contingencies	
multiple	. 4	3 hours	(a) Principles of Economics: Theory of Risk and Insurance(b) Insurance Coverages and Policy Forms	
) multiple Chovil	* 5	3 hours	(a) Principles of Ratemaking (b) Insurance Statistics and Data Processing	
	FELLOWSHIP			
	6	3 hours	(a) Insurance Law; Supervision, Regulation, and Taxation(b) Statutory Insurances	
	7	3 hours	(a) Insurance Accounting and Expense Analysis (b) Premium, Loss, and Expense Reserves	
	8	2 hours	Individual Risk Rating	
	9	3 hours	Advanced Insurance Problems	

RECOMMENDATIONS FOR STUDY

The examinations for admission to the two grades of membership in the Society are designed to establish the qualifications of candidates. The following Recommendations For Study are provided as a guide for the candidates in their preparation for the examinations. It should be realized that although the examination questions will be based upon the textual material cited, they will not necessarily be drawn directly therefrom. The examinations will test not only the candidate's knowledge of the subject matter, but also his ability to apply that knowledge.

In their study of the mathematical sections of the Associateship Examinations, candidates are advised to work out as many examples as possible, in order to acquire facility in the application of the mathematical principles and methods to specific problems. The questions on the examinations for Parts 1 and 2 are all of the multiple choice type,

In preparing for each part of the Fellowship Examinations, the candidate should become familiar with current developments by reading regularly at least two general insurance periodicals.

The references to papers in the Proceedings of the Casualty Actuarial Society (denoted by P.C.A.S.) are considered to include all discussions of these papers in these publications, though the page references cited refer to the papers only.

A description of the texts cited will be found in the Index To Readings at the end of these Recommendations. The reading material suggested in these Recommendations is designed to acquaint the student with the respective subjects and should not be interpreted as representing views endorsed by the Casualty Actuarial Society.

The study notes have been prepared to assist the student in connection with the Associate Pari 3 (Multiple Life Functions) and Fellowship Part 8 (Retrospective Rating Plan D) examinations. Each study note can be obtained from the Secretary-Treasurer's office at a cost of \$1.00 per copy.

Candidates can review the examinations given in previous years by referring to the reprints contained in the Proceedings of the Society. Copies of examinations for recent years may be obtained from the Secretary-Treasurer.

ASSOCIATESHIP: PART 1

GENERAL MATHEMATICS
(Jointly sponsored by the Casualty Actuarial Society and the Society of

This three-hour multiple-choice examination is based on material usually covered in undergraduate mathematics courses through the differential and integral calculus. The following list of topics will serve to indicate the general scope of the examination:

Real and complex numbers, binomial theorem; elementary set theory including unions, intersections, and complements; functions; equations and inequalities; analytic geometry of two and three dimensions; systems of linear equations; determinants and elementary matrix algebra; standard algebraic and transcendental functions including polynomial, rational, trigonometric, logarithmic and exponential functions; limits, continuity, differentiability and integrability; derivatives, integrals and partial derivatives; the fundamental theorem of integral calculus; applications of derivatives and integrals, including multiple integrals; finite and infinite sequences and series, including the Taylor series expansion; mean value theorem.

The subject matter on which this examination is based is covered by textbooks used in standard mathematics courses. For students who have not had such courses a list of textbooks will be furnished by the Secretary-Treasurer of the Casualty Actuarial Society upon request.

ASSOCIATESHIP: PART 2

PROBABILITY AND STATISTICS (Jointly sponsored by the Casualty Actuarial Society and the Society of Actuaries.)

This three-hour multiple-choice examination is based on material usually covered in undergraduate mathematics courses in probability and statistics. It can be taken by college students who have had a thorough course in these subjects or by persons who have done concentrated reading in these fields. The following list of topics will serve to indicate the general scope of the examination:

Addition and multiplication theorems for probabilities, conditional probability and Bayes' Theorem; permutations and combinations and their application to probability problems; sample spaces and random variables; binomial, Poisson, normal and other probability distributions; moments and moment-generating functions of probability distributions; probability distributions in two variables; correlation and regression; distributions and moments of functions of random variables; random sampling; applications of sampling distributions, such as the normal, chi-square, F and Student's t-distributions, to confidence intervals and to tests of statistical hypotheses; point estimation, including maximum likelihood estimation and the application of criteria such as unbiasedness and minimum variance; likelihood ratio tests; order statistics; design of experiments; randomization techniques, types of sampling errors; interpretation of experimental results.

For students who have not had courses covering the above topics and who may wish to do independent reading for this examination, there are a number of textbooks available which will provide the necessary mathematical background. One such textbook is introduction to Mathematical Statistics (Third Edition) by Paul G. Hoel. Students who have mastered the text material and can work the problems in this book and who have had adequate practice in solving problems on these topics such as the illustrative problems in Appendix I, should be adequately prepared to handle the mathematics in this examination. In addition, to acquire a more general background in the underlying nature of statistics, with particular reference to the more common statistical fallacies, students may wish to read The Nature of Statistics (paperback) by W. Allen Wallis and Harry V. Roberts.

ASSOCIATESHIP: PART 3

COMPOUND INTEREST AND LIFE CONTINGENCIES

Kellison, S.G. The Theory of Interest. 1970. Rubball Rubball driver McMensed Il.

Menge, W.O. and Fischer, C.H. The Mathematics of Life Insurance. (Either the 1965 publication by the Macmillan Company or the 1970 publication by Ulrich's Books, Inc. may be used.)

New York (State) Workmen's Compensation Board, "Workmen's Compensation Tables" (3% interest), 1948, (Special Bulletin No. 222).

Potofsky, S. "Valuation of Death Benefits under U.S. Longshoremen's and Harbor Workers' Compensation Act as Amended, June 24, 1948." P.C.A.S. XXXVI, 1948. p. 105.

Schloss, H.W. "Valuation of Death Benefits Provided by the Workmen's Compensation Law of New York." P.C.A.S. XXXV, 1948, p. 40.

Study Note on Multiple Life Functions. (The Study Note may be obtained from the Casualty Actuarial Society's Secretary-Treasurer at a cost of \$1,00 per copy).

The candidate should have a working knowledge of the tables set forth in Special Bulletin No. 222, published by the New York Workmen's Compensation Board. The candidate will not be required to develop or reproduce the formulas contained in the Appendix to Special Bulletin No. 222 nor in the papers by Schloss and Potofsky.

ASSOCIATESHIP: PART 4

(a) PRINCIPLES OF ECONOMICS: THEORY OF RISK AND INSURANCE

The candidate will need to have a knowledge of the principles of economics at the college level. The College Outline Series textbook, No. 8, Principles of Economics (Ninth Edition) by Clifford L. James is recommended for review purposes.

In studying the following references it is recommended that they be read in the order listed:

Kulp, C.A. and Hall, J.W. Casualty Insurance. (Fourth Edition) 1968. Chapters 1 and 18.

Bickelhaupt, D.L. and Magee, J.H. General Insurance. (Eight Edition) 1970, Chapters 1-3.

Raiffa, H. "Decision Analysis - Introductory Lectures on Choices Under Uncertainty."

Houston, D.B. "Risk, Insurance, and Sampling." The Journal of Risk and Insurance. Vol. XXXI, No. 4, p. 5ll.

Attiyeh, Lumsden and Bach, Macroeconomics (A Programmed Book) 1967.

Lumsden, Attiyeh and Bach. Macroeconomics. (A Programmed Book) 1966.

Johnson, H. L. "Insurance Pricing and its Role in Relation to Economic Theory and Market Management: Comments." The Journal of Risk and Insurance. Vol. XXXV, No. 2 (June, 1968) p. 317.

(b) INSURANCE COVERAGES AND POLICY FORMS

The candidate should be familiar with the Policy provisions and the bases of exposure used in the respective lines of insurance.

The principal current manuals should be studied. The names of the organizations publishing these manuals are cited herein; where separate manuals are published for individual states, the manual for a typical state should be used.

Policy provisions change from time to time, so that it is essential to supplement the cited texts by study of the contracts currently in use, Copies of current insurance contracts may be obtained from a carrier or reference may be made to the book of sample policies for property and liability coverages cited herein.

Certain of the references encompass some material beyond the scope of this section, such as the determination of manual or class rates and individual risk rating plans. The examination for this section will not reflect such extraneous material.

Kulp, C.A. and Hall, J.W. Casualty Insurance. 1968. Chapters 2-11 and 14-16.

Bickelhaupt, D.L. and Magee, J.H. General Insurance.1970. Chapters 4,10-13, 20, 21, 27, 28 and Appendixes C and D.

American Mutual Insurance Alliance.
Study Kit of Policies, Forms and Endorsements -- Casualty, Fire, Marine and Life.

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Insurance Information Institute.

Advanced Book of Sample Insurance Policies for Property and Liability Coverages.

Note: A review of The Fire, Casualty and Surety Bulletins, National Underwriter Company, or Broadened Protection for Personal and Business Risks, 1969 Edition, The National Underwriter Company may be helpful to the student in preparing for this section although examination questions will not be derived from these sources. The latter consists of pages from the F.C. & S. Bulletins,

Insurance Rating Board.
Private Passenger Automobile Manual.
Commercial Automobile Manual.
Private Passenger Automobile Physical Damage Manual.
Burglary Insurance Manual.
Glass Insurance Manual.
Manual of Boiler and Machinery Insurance.
Manuals of Liability Insurance.

National Council on Compensation Insurance.

Basic Manual of Rules, Classifications and Rates for Workmen's Compensation and Employers' Liability Insurance.

New England Insurance Rating Association. Manuals of Rules and Clauses.

Multi-Line Insurance Rating Bureau. Homeowners policy Manual of Rules and Rates. Special Multi-Peril Policy Program Manual.

Inland Marine Insurance Bureau. Forms - Rules - Rates.

ASSOCIATESHIP: PART 5

(a) PRINCIPLES OF RATEMAKING

It is recommended that the student study references in the order listed. Reference in the readings listed herein to individual risk rating plans and the determination of deductible and excess coverage rates should be ignored.

Hartman, G.R. Ratemaking for Homeowners Insurance. 1967. Chapters 1-3.

Michelbacher, G.F. Multiple Line Insurance. 1957. Chapter 5.

Bickelhaupt, D.L. and Magee, J.H. General Insurance. 1970. Chapter 7. p. 142-150 and Appendix A.

Kulp, C.A. and Hall, J.W. Casualty Insurance. 1968. Chapters 19-21.

Mowbray, A.H., Blanchard, R.H., and Williams, C.A., Jr. Insurance. 1969, Chapter 27.

Dorweiler, P. "Notes on Exposures and Premium Bases," P.C.A.S.XVI, 1929, p. 319.

Longley-Cook, L.H. An Introduction to Credibility Theory. 1962.

Marshall, R.M. Worken's Compensation Insurance Ratemaking. Revised, 1961.

Fratello, B. "The Workmen's Compensation Injury Table and Standard Wage Distribution Table - Their Development and Use in Workmen's Compensation Ratemaking." P.C.A.S. XLII, 1955, 110.

Stern, P. K. "Ratemaking Procedures for Automobile Liability Insurance." P.C.A.S. LII, 1965. p. 139.

Benbrook, P. "The Advantages of Calendar-Accident Year Experience and the Need for Appropriate Trend and Projection Factors in the Determination of Automobile Liability Rates." P.C.A.S. XLV, 1958. p. 20.

McWilliams, J.R. "The New Private Passenger Automobile Classification System: Its History and Development." The Annals of the Society of Chartered Property and Casualty Underwriters. Vol. 18, No. 4, p.293.

Tarbell, L.L. "Automobile Physical Damage Ratemaking." P.C.A.S. XLVI, 1959. p.123.

Lange, J.T. "General Liability Insurance Ratemaking." P.C.A.S. LIII, 1966. p. 26.

Newman, S.H. "Burglary Insurance Ratemaking." P.C.A.S. LIII, 1966. p. 312.

Brannigan, J.F. "Current Ratemaking Procedures in Boiler and Machinery Insurance." P.C.A.S. LIII, 1966. p. 248.

Fire Insurance Research and Actuarial Association, Recommended Procedure for Rating Bureau Review of the Overall Fire Rate Level by State, Revised, March 1965.

Fire Insurance Research and Actuarial Association. Recommended Procedure for Rating Bureau Review of the Overall ECE Rate Level by State. Revised, March 1965.

Crist, G.W. Corporate Suretyship, 1950. Chapter 8.

Hartman, G.R. Ratemaking for Homeowners Insurance, 1967, Chapters 10 and 11.

Robertson, D.D. "Ocean Marine Rate Making." P.C.A.S. XLVI, 1959. p. 81.

Pickrell, J.F. Group Health Insurance. 1961. Chapter VII.

Lange, J.T. "The Interpretation of Liability Increased Limits Statistics." P.C.A.S. LVI, 1969.

(b) INSURANCE STATISTICS AND DATA PROCESSING

This section includes reading which covers the planning and use of internal statistical material, the compilation and presentation of insurance statistics for administrative and ratemaking purposes, the sources and uses of external statistics, particularly as they may be required in insurance administration and ratemaking, and general consideration of data processing methods. References are listed in the suggested order for study.

(1) Insurance Statistics

Michelbacher, G.F. Multiple Line Insurance, 1957. Chapters 17 and 18.

Finnegan, J.H. "Statistics of the National Board of Fire Underwriters." P.C.A.S. XLIII, 1956. p. 82.

National Council on Compensation Insurance. Workmen's Compensation Statistical Plan.

Insurance Rating Board, Mutual Insurance Rating Bureau. Automobile Statistical Plan.

National Insurance Actuarial and Statistical Association, Statistical Plan for Homeowners Policies, Comprehensive Dwelling Policy, Dwelling Policies and Commercial Risks.

Health Insurance Association of America, Statistical Plan for Individual Accident and Health and Individual and Family Hospital, Surgical, Medical Policies, 1958.

The candidate should be familiar with the sources of published insurance statistics, so as to know where to obtain such information when the need arises. The following annual publications constitute a representative list of such sources:

Best, Alfred M., Co., Inc.

Best's Insurance Reports (Fire and Casualty).

Best's Reproductions of Principal Schedules from Casualty and Surety Statements.

Best's Fire and Casualty Aggregates and Averages.

Executive Data Service (Summary of).

The National Underwriter.

Argus F.C. & S. Chart.

Argus Chart of Health Insurance.

New York Insurance Department. Loss and Expense Ratios compiled from Insurance Expense Exhibits.

The Spectator.

The Property, Liability Insurance Index. Health Insurance Index.

Weekly Underwriter.

The Insurance Almanac.

(2) Data Processing

Insurance Accounting and Statistical Association. Insurance Accounting – Fire and Casualty. 1965. Chapter 18.

International Business Machines Corp. Basic Computer Systems Principles. R 29-0071 and R 29-0075.

12-10

Colbert, D.A. Data Processing Concepts. 1968. Chapters 1-3, 2003, 15-16.

Goshay, R.C. Information Technology in the Insurance Industry. 1964. Chapters 2-3, 6-7.

Travelers, Planning for Computer-Based Systems.

FELLOWSHIP: PART 6

- (a) INSURANCE LAW; SUPERVISION, REGULATION AND TAXATION
- (1) Background Law and Insurance

Weissman, J. Law in a Business Society. 1964.

Anderson, R.A. The Insurer's Tort Law.

Kulp, C.A. and Hall, J.W. Casualty Insurance. 1968. Chapter 23.

Michelbacher, G.F. Multiple Line Insurance. 1957. Chapters 1, 22 and 23.

Mowbray, A.H., Blanchard, R.H. and Williams, C.A., Jr. Insurance. 1969. Chapters 34 and 35.

New York (State) Insurance Department. Examination of Insurance Companies. Volume 2, Chapters 2, 3 and 5; Volume 5, p. xv-xliii; Volume 6, Chapters 1 and 2.

New York (State) Laws, Statutes, etc. New York Insurance Law. Articles I-V (except IIIa) VII, VIII, X, XIa, b, c, XII, XV (except XVa), and XVI.

(Note: The candidate is responsible only for the sections of the law as stated. If he is studying from publications such as the Consolidated Laws Service, which cite case histories as well as the law itself the candidate is not responsible for the case histories although he may find them helpful to an understanding of the law.)

(2) Taxation

Andrews, E.C. "Observations on State Taxation of Casualty and Fire Insurance Companies." P.C.A.S. XLII, 1955, p. 97.

Insurance Accounting and Statistical Association. Insurance Accounting --Fire and Casualty. 1965. Chapters 11, 15, and 17.

New York (State) Laws, Statutes, etc. New York Tax Law. Section 187.

New York (State) Laws, Statutes, etc. New York Insurance Law. Article XVII.

(3) Supervision and Regulation

Hartman, G. R. Ratemaking for Homeowners Insurance. 1967. Chapters 4 and 7.

Whitney, S. N. Anti-trust Policies. Volume II. Chapter 21.

Mertz, A.C. The First Twenty Years.

Carlson, T.O. "Rate Regulation and the Casualty Actuary." P.C.A.S. XXXVIII, 1951. p. 9 (Contains analysis of Casualty rate regulatory laws).

New York (State) Insurance Department, "The Public Interest Now in Property and Liability Insurance Regulation," (A Report to Governor Nelson A, Rockefeller, January 7, 1969.)

Hartman, G.R. and Lange, J.T. "Rate Regulation and the Casualty Actuary-Revisited." P.C.A.S. LV.

Symposium on Insurance and Government, University of Wisconsin, 1960, Insurance and Government, No. 4 Rate Regulation Revisited, p. 283-433.

National Association of Insurance Commissioners. Proceedings. (The last four years, Volumes I and II, should be reviewed for all discussions and committee reports relating to topics covered in section 6(a), as found in reports of the following committees:

Laws and Legislation (D). Property, Casualty and Surety Insurance (F).

(b) STATUTORY INSURANCES

(1) Statutory Automobile Insurance

Kulp, C.A. and Hall, J.W. Casualty Insurance, 1968, Chapters 12 and 13.

Aponte, J. and Denenberg, H. "The Automobile Problem in Puerto Rico: Dimensions and Proposed Solution." The Journal of Risk and Insurance. 1968.

Kline, G.H. and Pearson, C.O. The Problem of the Uninsured Motorist. 1951.

American Insurance Association, Analysis of Automobile Financial Responsibility and Related Laws, (Chart), Latest edition.

National Association of Independent Insurers. Chart Analysis of Automobile Insurance Plans, Latest edition.

Day, E.W. "A History of the Uniform Automobile Assigned Risk Plan." P.C.A.S. XLIII, 1956. p. 20.

Maine Automobile Insurance Plan Automobile Insurance Plan.

(2) Social Insurance and Allied Programs

Myers, R.J. Social Insurance and Allied Government Programs. 1965. Chapters I-XII, XIV and Addendum.

(This text should be read for the basic background underlying Social Security Systems in the United States. Up-to-date provisions will be found in the pamphlet Social Security Programs in the United States. Published by the U.S. Department of Health, Education and Welfare,)

New York (State) Department of Labor, Studies in Disability Insurance, (Special Bulletin No. 224).

Schwartz, M.J. "New York Statutory Disability Benefits Law, Coverage, Rates and Rating Plans," P.C.A.S. XXXVII, 1950, p. 57.

Gaines, N. "Actuarial Aspects of Unemployment Insurance." P.C.A.S. XLII, 1955, p. 203.

FELLOWSHIP: PART 7

(a) INSURANCE ACCOUNTING AND EXPENSE ANALYSIS

(1) Insurance Accounting

Convention form of Annual Statement Blank for Fire and Casualty Companies. (For specific illustrations, see Best's Reproductions of Principal Schedules from Casualty and Surety Statements. The candidate should be familiar with this blank and its compilation.

Michelbacher, G.F. Multiple Line Insurance, 1957. Chapter 19.

Insurance Accounting and Statistical Association. Insurance Accounting --Fire and Casualty. 1965. Chapters 1-4, 7, 8, 13, 16.

New York (State) Insurance Department, Examination of Insurance Companies, Volume 2, Part 4.

Committee on Annual Statement, "Report on the Annual Statement," P.C.A.S. LII, 1965, p. 244.

American Institute of Certified Public Accountants. Audits of Fire and Casualty Insurance Companies, Chapter 9.

Balcarek, R.J. "Effect of Loss Reserves Margins in Calendar Year Results." P.C.A.S. LIII, 1966. p. 1.

Salzmann, R. "Schedule P. on a Calendar/Accident Year Basis." P.C.A.S. LIV, 1967. p. 120.

Otteson, P.M. "Some Observations Concerning Fire and Casualty Insurance Company Financial Statements." P.C.A.S. LII, 1965. p. 215.

Pruitt, D.M. "Uniform Accounting--A Study of Regulation." P.C.A.S. XXXVI, 1949. p. 22.

Insurance Accounting and Statistical Association. Proceedings.

Year	Page	Article
1961	142	Annual Statement Question and Answer Forum.
1965	269	Interpretation and Analysis of Insurance Financial Statements.
1969	630	Thoughts about Annual Statement Reporting.
1969	632	What is New in the 1969 Annual Statement.

(2) Expense Analysis

Insurance Expense Exhibit, The candidate should be familiar with this blank and its compilation.

Insurance Accounting and Statistical Association. Insurance Accounting --Fire and Casualty. 1965. Chapters, 5, 14.

New York (State) Insurance Department. Examination of Insurance Companies. Volume 4, Part 2.

Insurance Accounting and Statistical Association. Proceedings.

Year	Page	Article
1963	27 3	Review of Uniform Accounting Instruc - tions and Methods Used by Country Mutual in Allocating Expenses,

Morison, G.D. "1965 Study of Expenses by Size of Risk." P.C.A.S. LIII, 1966. p. 61.

(b) PREMIUM, LOSS AND EXPENSE RESERVES

Convention form of Annual Statement Blank for Fire and Casualty Companies. Pages 3, 7, 9, 27 and 31-36. (For specific illustrations as to relationship of Schedules, see Best's Reproductions of Principal Schedules from Casualty and Surety Statements).

Michelbacher, G.F. Multiple Line Insurance. 1957. Chapter 7.

Insurance Accounting and Statistical Association. Insurance Accounting --Fire and Casualty. 1965. Chapters 9, 10 and 12.

New York (State) Insurance Department. Examination of Insurance Companies. Volume 4, Part 2.

Tarbell, T.F. "Incurred but not Reported Claim Reserves." P.C.A.S. XX, 1933. p. 275.

Balcarek, R.J. "Reserves for Reopened Claims on Workmen's Compensation." P.C.A.S. XLVIII, 1961. p. 1.

Fitzgibbon, W.J., Jr. "Reserving for Retrospective Returns." P.C.A.S. LII, 1965. p. 203.

Insurance Accounting and Statistical Association, Proceedings.

<u>Year</u>	Page	Article
1955	332	Unearned Premium Reserve Accounting
1956	308	Special Reserves in the Annual Statement Related to Group Accident and Health Coverage
1956	533	Loss ReservesIncluding IBNR
1958	323	Claim Expense Reserve
1959	240	IBNR Reserves Including Reopened Cases
1959	244	IBNR Reserves Including Reopened Cases
1959	306	Establishing Adequacy of Reserves on Slow Closing Lines—Use of Paid Loss Formulae
1960	196	Unearned Premium Reserve Methods
1961	176	Loss ReservesCase and Incurred but not Reported, Auto Lines Only
1964	181	Accident & Health Claim Liability Estimating & Testing
1967	171	Discussion of Active Life Reserves As Respects Loss of Time Policies
1967	498	Formula Reserving for Loss Expenses
1968	291	Testing of Loss Adjustment (Allocated) Expense Reserve

The candidate is advised to read the references in the books cited below to obtain the general principles underlying individual risk rating prior to studying the respective plans and technical articles.

Michelbacher, G.F. Multiple Line Insurance, 1957. Chapter 6.

Kulp, C.A. and Hall, J.W. Casualty Insurance. 1968. Chapter 22,

(1) Experience Rating

Note: As parts of some of the following papers are not current, the candidate should study them for their explanations of the theory.

Dorweiler, P."A Survey of Risk Credibility in Experience Rating." P.C.A.S. XXI, 1934. p. 1.

Perryman, F.S. "Experience Rating Plan Credibilities." P.C.A.S. XXIV, 1937. p. 60.

Peters, S. "Ex-medical Coverage -- Workmen's Compensation." P.C.A.S. XXVII, 1940, p. 112.

Johnson, R.A. "The Multi-Split Experience Rating Plan in New York." P.C.A.S. XXVIII, 1941. p. 15.

Smith, S.E. "Interstate and Overall Rating Plans," P.C.A.S. XXXIV, 1947, p. 6.

Bailey, A.L. "Workmen's Compensation D-Ratio Revision." P.C.A.S. XXXV, 1948, p. 26.

Uhthoff, D.R. "The Compensation Experience Rating Plan--A Current Review." P.C.A.S. XLVI, 1959. p. 285.

Marshall, R. M. Workmen's Compensation Insurance Ratemaking. Revised, 1961. (Only the parts concerning the Experience Rating Plan and the correction for Off-Balance Factor).

The candidate should study the following rating plans and the forms used in the application thereof:

National Council on Compensation Insurance: Experience Rating Plan.

Insurance Rating Board, Experience and Schedule Rating Plans applicable to:

Automobile Liability. Automobile Physical Damage. Burglary. General Liability. Glass. Surety Association of America:
Experience Rating Plan - Financial Institutions,
Experience Rating Plan - Mercantile Establishments.

(2) Retrospective Rating

Note: As parts of some of the following papers are not current, the candidate should study them for their explanations of the theory.

Dorweiler, P. "On Graduating Excess Pure Premium Ratios." P.C.A.S. XXVIII, 1941, p. 132.

Carlson, T.O. "An Actuarial Analysis of Retrospective Rating." P.C.A.S. XXXVIII, 1941. p. 283.

Valerius, N.M. "Risk Distributions Underlying Insurance Charges in the Retrospective Rating Plan." P.C.A.S. XXIX, 1942. p. 96.

Smith, S.E. "Interstate and Overall Rating Plans." P.C.A.S. XXXIV, 1947. p. 6.

Uhthoff, D.R. "Excess Loss Ratios via Loss Distributions." P.C.A.S. XXXVII, 1950. p. 82.

Leslie, W., Jr. "The National Defense Projects Rating Plan." P.C.A.S. XXXVIII, 1951. p. 174.

Foster, R.B. "The Boiler and Machinery Adjustment Rating Plan." P.C.A.S. XLI, 1954. p. 135.

Simon, L.J. "The 1965 Table M." P.C.A.S. LII, 1965. p. 1.

Study Note on Retrospective Rating Plan D - Table M and Insurance Charges. (The Study Note may be obtained from the Casualty Actuarial Society's Secretary-Treasurer at a cost of \$1.00 per copy).

The candidate should study the following retrospective rating plans and the forms used in the application thereof:

National Council on Compensation Insurance:

Retrospective Rating Plans - Plans A, B, C and J.

Retrospective Rating Plan D.

Retrospective Rating Plan D - Rating Supplement for Workmen's Compensation.

Insurance Rating Board, Mutual Insurance Rating Bureau:
Retrospective Rating Plan D - Rating Supplement for Liability, Burglary
and Glass Lines.

Retrospective Rating Plan D - Rating Supplement for Automobile Physical Damage.

(3) Miscellaneous Rating

Cahill, J.M. "Deductible and Excess Coverages, Liability and Property Damage Lines Other Than Automobile." P.C.A.S. XXIII, 1936. p. 18.

The candidate should study the following rating plans and the forms used in the application thereof:

Insurance Rating Board, Mutual Insurance Rating Bureau: Composite Rating Plan (Automobile, General Liability, Burglary, Glass). Fire Insurance Research and Actuarial Association, Reporting Form Service Department:

Multiple Location Rating Plan -- Rules and Forms.

Note: This is a plan for contents coverage. The candidate should also study the corresponding plan for buildings and equipment, Multiple Location Rating Plan for Buildings and Equipment, which may be found in the Fire Insurance manual of most states.

FELLOWSHIP: PART 9

ADVANCED INSURANCE PROBLEMS

This examination will cover the following subjects:

- a) Operations of Insurance Companies
- b) Reinsurance
- c) Operations Research
- d) Ratemaking
- e) Topics of Current Interest

The candidate is expected to have acquired considerable technical knowledge and practical experience during preparation for previous examination parts. Ability to apply this knowledge and experience may be tested through questions dealing with problems for which there may be no generally recognized solutions.

The following references are indicated for particular attention:

- (a) OPERATIONS OF INSURANCE COMPANIES
- Herron, S.D., Jr. "Insurance Company Investments." P.C.A.S. LII, 1965, p. 238.
- Kenney, R. Fundamentals of Fire and Casualty Insurance Strength. 1967. Chapters 4, 18, 23, 26, 29 and 30.
- Goddard, R.P. "Total Earnings from Insurance Operations -- The Investor's Viewpoint." P.C.A.S. LV, 1968, p. 110.
- Balcarek, R.J. "The Capital Investment Market and the Insurance Industry." P.C.A.S. LV, 1968, p. 186.
- Ferrari, J.R. "The Relationship of Underwriting, Investments, Leverage, and Exposure to Total Return on Owners' Equity." P.C.A.S. LV, 1968. p. 295.
- Arthur, D. Little, Inc. "Rates of Return in the Property and Liability Insurance Industry: 1955-1967." Report to the N.A.I.I. (June 1969).
- Plotkin, I.H. "Rates of Return in the Property and Liability Insurance Industry: A Comparative Analysis." The Journal of Risk and Insurance. Volume XXXVI, No. 3 (June, 1969). p. 173.
- Review of the A. D. Little, Inc. report (Prices and Profits in the Property and Liability Insurance Industry). The Journal of Risk and Insurance, Volume XXXV, No. 2 (June, 1968). p. 293.

- Hedges, B. A. "Insurance Rates and Investment Earnings Considered Together." The Journal of Risk and Insurance. Volume XXXVI, No. 4 (September, 1969), p. 455.
- Ferrari, J.R. "A Theoretical Portfolio Selection Approach for Insuring Property and Liability Lines." P.C.A.S. LIV, 1967. p. 33.
- Bailey, R.A. "A Review of the Little Report on Rates of Return in the Property and Liability Insurance Industry." P.C.A.S. LVI, 1970.
- Plotkin, I.H. "Discussion of R. A. Bailey's 'A Review of the Little Report on Rates of Return in the Property and Liability Insurance Industry'." P.C.A.S. LVI, 1970.
- Bailey, R.A. "Review of I. H. Plotkin's Discussion of R. A. Bailey's 'A Review of the Little Report on Rates of Return in the Property and Liability Insurance Industry"." P.C.A.S. LVI, 1970.
- Bailey, R. A. "Underwriting Profit from Investments." P.C.A.S.LIV, 1967.

(b) REINSURANCE

Michelbacher, G.F. Multiple Line Insurance. 1957. Chapter 10.

Munich Reinsurance Co. Reinsurance and Reassurance. Volumes I-IV.

Kenney, R. Fundamentals of Fire and Casualty Insurance Strength, 1967. Chapter 45.

(c) OPERATIONS RESEARCH

- Churchman, C.W., Ackoff, R.L. and Arnoff, E.L. An Introduction to Operations Research. 1957. Chapters 1-3.
- Dorfman, R. "Operations Research." The American Economic Review. Volume L, Number 4, September 1960. (The Journal of The American Economic Association).
- Zubay, Eli. "Symposium on Operations Research in the Insurance Industry." IBM.
- Forester, J. "Industrial Dynamics." <u>Harvard Business Review.</u> (July-August 1958).

(d) RATEMAKING

(1) General

- Mayerson, A.L., Jones, D.A., Bowers, N.L., Jr. "The Credibility of the Pure Premium." P.C.A.S. LV, 1968.
- Masterson, N.E. "Economic Factors in Liability and Property Insurance Claims Costs, 1935-1967." P.C.A.S. LV, 1968.
- Lange, J.T. "Application of a Mathematical Concept of Risk to Property-Liability Insurance Ratemaking." The Journal of Risk and Insurance. Volume XXXVI, No. 4, 1969.

(2) Property and Multiple Line

Hurley, R.L. "Multiple Peril Rating Problems - Some Statistical Considerations." P.C.A.S. XLVI, 1959. p. 196.

Lange, J.T. "Implications of Sampling Theory for Package Policy Ratemaking." P.C.A.S. LIII, 1966. p. 285.

Longley-Cook, L.H. "Underwriting Profit in Fire Bureau Rates." P.C.A.S. LIII, 1966, p.305.

(3) Liability and Workmen's Compensation

McDonald, M.G. "Compulsory Automobile Insurance Rate Making in Massachusetts." P.C.A.S. XLII, 1953, p. 19.

Dropkin, L.B. "Some Considerations on Automobile Rating Systems Utilizing Individual Driving Records." P.C.A.S. XLVI, 1959. p. 165.

Bailey, R.A. and Simon, L. J. "An Actuarial Note on the Credibility of Experience of a Single Private Passenger Car." P.C.A.S. XLVI, 1959, p. 159.

Cahill, J.M. "Excess Coverage (per accident basis) for Self-Insurers: Workmen's Compensation - New York." P.C.A.S. XXVII, 1940. p. 77.

(4) Accident and Health

Bartleson, E.L. Health Insurance Provided Through Individual Policies. 1968. Chapters 4-7 and Appendixes 1 and 4.

Fairbanks, A.V. "Notes on Non-Cancellable Health and Accident Ratemaking," P.C.A.S. XLII, 1955. p. 89.

Otteson, P.M. "Group Accident and Health Therapeutic Benefits - Measurement of Loss Costs for Ratemaking Purposes." P.C.A.S. XLI, 1954. p. 116.

McIntyre, D.M. Voluntary Health Insurance and Rate Making. 1962, Chapters 2-6.

Pickrell, J.F. Group Health Insurance. 1961. Chapters VIII and XII.

(5) Other Lines

Backman, J. Surety Rate Making. 1948. Chapters 3-9 and 12-14.

Roth, R.J. "The Rating of Crop-Hail Insurance." P.C.A.S. XLVII, 1960, p. 108.

(e) TOPICS OF CURRENT INTEREST

The following is a list of topics of current interest in the industry with which the candidate should be familiar. Each September the Education Committee will review the topics and establish the list from which examination questions for the following year will be drawn. Consult the Secretary-Treasurer for the current list of topics.

In preparing for this subject, the candidate must do his own study and research by reading articles in the general press and in trade journals, by discussing the topics with people in the industry, and by reading whatever industry papers he can obtain.

The candidate should pay particular attention to all pertinent papers in Proceedings of the Casualty Actuarial Society for the most recent four years with special attention to the reviews. The candidate should also review the volumes for the most recent four years of the Proceedings of

the National Association of Insurance Commissioners for material on these topics.

LIST OF TOPICS OF CURRENT INTEREST

Changes in The Automobile Tort Liability System

Federal Investigations and Legislation

FAIR Plans

Flood Insurance

Holding Companies

Investment Income in Ratemaking

Marketing Developments and Trends (e.g. mass merchandising, total security programs, etc.)

Rate Regulatory Problems (e.g. competitive rating laws)

Substandard Problems (automobile and dwelling)

Trend and Projection

National Health Insurance



INDEX TO READINGS

Readings are available through the library of the Insurance Society of New York, the Casualty Actuarial Society and the Society of Actuaries. However, the following information is furnished for those who wish to purchase the references.

- AICPA. Audits of Fire and Casualty Insurance Companies. American Institute of Certified Public Accountants, 666 Fifth Avenue, New York, New York 10019.
- American Insurance Association, Analysis of Motor Vehicle Financial Responsibility and Related Laws, (Chart) American Insurance Association, 85 John Street, New York, New York 10038.
- Anderson, R.A. The Insurer's Tort Law. The Insurance Press, Ocean City, New Jersey 08226.
- Attiyeh, Lumsden and Bach. Macroeconomics. (A programmed book) (1967). Prentice-Hall, Inc., 70 Fifth Avenue, New York, New York 10011.
- Backman, J. Surety Rate-Making. (1948). Surety Association of America, 110 William Street, New York, New York 10038.
- Bartleson, E.L. Health Insurance Provided Through Individual Policies. (1968). The Society of Actuaries, 208 South LaSalle Street; Chicago, Illinois 60604.
- Bickelhaupt, D.L. and Magee, J.H. General Insurance. (8th Edition) (1970). Richard D. Irwin, Inc., 1818 Ridge Road, Homewood, Illinois 60430.
- Churchman, C.W., Ackoff, R.L., and Arnoff, E.L. An Introduction to Operations Research. (1957). John Wiley and Sons, Inc., 605 Third Avenue, New York, New York 10016.
- Colbert, D.A. Data Processing Concepts. (1968). McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York, New York 10036.
- Crist, G.W. Corporate Suretyship. (2nd Edition) (1950). McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York, New York 10036.
- Dorfman, Robert. "Operations Research." The American Economic Review. Vol. L, No. 4, September, 1960. Northwestern University, 629 Noyes Street, Evanston, Illinois 60201.
- Forester, J. "Industrial Dynamics." Harvard Business Review. (July-August, 1958). Harvard Business Review, Subscription Service Department, 108 Tenth Street, Des Moines, Iowa 50305.
- Goshay, R.C. Information Technology in the Insurance Industry. (1964). Richard D. Irwin, Inc., 1818 Ridge Road, Homewood, Illinois 60430.
- Hartman, G.R. Ratemaking for Homeowners Insurance. (1967). Richard D. Irwin, Inc., 1818 Ridge Road, Homewood, Illinois 60430. (For the S. S. Huebner Foundation for Insurance Education, University of Pennsylvania).
- Hoel, Paul G. Introduction to Mathematical Statistics. (3rd Edition). John Wiley and Sons, Inc., 605 Third Avenue, New York, New York 10016.

- Insurance Accounting and Statistical Association. Insurance Accounting Fire and Casualty. (2nd Edition) (1965). The Spectator Company, Chestnut and 56th Streets, Philadelphia, Pennsylvania 19139.
- International Business Machines Corp. Basic Computer Systems Principles. R29-0071 and R29-0075. This set of manuals can be purchased through the nearest local IBM branch office.
- James, Clifford L. Principles of Economics. (9th Edition). College Outline Series. Textbook No. 8. Barnes and Noble, Inc., 105 Fifth Avenue, New York, New York 10003.
- Kellison, S.G. The Theory of Interest. (1970). Richard D. Irwin, Inc., 1818 Ridge Road, Homewood, Illinois 60430.
- Kenney, R. Fundamentals of Fire and Casualty Insurance Strength. (1967). The Kenney Insurance Studies, 159 Lowder Street, Dedham, Massachusetts 02026.
- Kline, G.H. and Pearson, C.O. The Problem of the Uninsured Motorist; a report to Superintendent of Insurance Bohlinger, (1951). New York State Insurance Department, 324 State Street, Albany, New York 12210.
- Kulp, C.A. and Hall, J.W. Casualty Insurance. (4th Edition) (1968). The Ronald Press Co., 79 Madison Avenue, New York, New York 10016.
- Little, A.D., Inc. Rates of Return in the Property and Liability Insurance Industry: 1955-1967. Arthur D. Little, Inc., Acorn Park, Cambridge, Massachusetts 02140.
- Longley-Cook, L.H. An Introduction to Credibility Theory. (1962). Casualty Actuarial Society.
- Lumsden, Attiyeh and Bach, Microeconomics. (A programmed book) (1966). Prentice-Hall, Inc., 70 Fifth Avenue, New York, New York 10011.
- MacIntyre, D.M. Voluntary Health Insurance and Rate Making. (1962). Cornell University Press, 124 Roberts Place, Ithaca, New York 14858.
- Marshall, R.M. Workmen's Compensation Insurance Ratemaking. (Revised,1961). Casualty Actuarial Society.
- McWilliams, J.R. "The New Private Passenger Automobile Classification System: Its History and Development." The Annals of the Society of Chartered Property and Casualty Underwriters, Vol. 18, No. 4, Winter 1965. The Society of Chartered Property and Casualty Underwriters, Business Manager, 201 Penn State Building, Media, Pennsylvania 19063.
- Menge, W.O. and Fischer, C.H. The Mathematics of Life Insurance. (2nd Edition) (1965). The Macmillan Company, 866 Third Avenue, New York, New York 10022 or 1970 printing by Ulrich's Books, Inc. 549 East University, Ann Arbor, Michigan 48104.
- Mertz, A.C. The First Twenty Years. National Association of Independent Insurers. (Available in many property-liability insurance companies and from Casualty Actuarial Society Library. Do not write to National Association of Independent Insurers).

- Michelbacher, G.F. Multiple Line Insurance. (1957). McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York, New York 10036.
- Mowbray, A.H. and Blanchard, R.H. Insurance; Its Theory and Practice in the United States. (1969) McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York, New York 10036.
- Multiple Life Functions. May be obtained from the Secretary Treasurer of the Casualty Actuarial Society.
- Munich Reinsurance Company, Reinsurance and Reassurance. (Available in many property-liability insurance companies and from Casualty Actuarial Society Library. Do not write to Munich Reinsurance Company).
- Myers, R.J. Social Insurance and Allied Government Programs. (1965). Richard D. Trwin, Inc., 1818 Ridge Road, Homewood, Illinois 60430.
- New York (State) Dept. of Labor, Division of Research and Statistics, Studies in Disability Insurance, (1949), (Special Bulletin No. 224). The New York State Department of Labor, 80 Centre Street, New York, New York 10013.
- New York (State) Insurance Dept. Examination of Insurance Companies. (1953-1955, 7 Volumes). Prepared under the supervision of Deputy Superintendent Adelbert G. Straub, Jr., New York State Insurance Department, 324 State Street, Albany, New York 12210.
- New York (State) Insurance Department, Loss and Expense Ratios. New York State Insurance Department, 324 State Street, Albany, New York 12210,
- New York (State) Insurance Department. The Public Interest Now in Property and Liability Insurance Regulation. (A report to Governor Nelson A. Rockefeller, January 7, 1969). New York State Insurance Department, 324 State Street, Albany, New York 12210.
- New York (State) Laws, Statutes, etc. New York Insurance Law. (This can be obtained from several sources, such as The Williams Press, Inc., 99 Broadway, Menands, New York 12202; or Edward Thompson Company, 399 Gold Street, Brooklyn, New York 11201.)
- New York (State) Laws, Statutes, etc. New York Tax Law. (See sources for New York Insurance Law).
- New York (State) Workmen's Compensation Board, Workmen's Compensation Tables (3% interest) 1948. (1948). (Special Bulletin No. 222). New York Workmen's Compensation Board, 50 Park Place, New York, New York 10007.
- Pickrell, J.F. Group Health Insurance. (1961). Richard D. Irwin, Inc., 1818 Ridge Road, Homewood, Illinois 60430.
- Raiffa, H. Decision Analysis Introductory Lectures on Choices Under Uncertainty. Addison -Wesley Publishing Company, Inc., Reading, Massachusetts 01867.
- Retrospective Rating Guide. May be obtained from the Secretary-Treasurer of the Casualty Actuarial Society.
- Symposium on Insurance and Government, University of Wisconsin, 1960. Insurance and Government. (1962). McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York, New York 10036.

Travelers. Planning for Computer-Based Systems. (Available in many property - Itability insurance companies and from Casualty Actuarial Society Library. - Do not write to Travelers).

(outob)

- Wallis; W. Allen and Roberts, Harry V. The Nature of Statistics. (paperback). Free Press, Division of the Macmillan Company, 866 Third Avenue, New York, New York 10022.
- Weissman, J. Law in a Business Society. (1964). Prentice-Hall, Inc., 70 Fifth Avenue, New York, New York 10011.
- Whitney, S.N. Anti-Trust Policies, (1958, Two Volumes). (The reference is to Chapter 21, Insurance, which is in Volume II). The Twentieth Century Fund, 41 E. 41st Street, New York, New York 10021.
- Zubay, Eli. Symposium on Operations Rearch in the Insurance Industry. IBM,

ADDRESSES OF OTHER ORGANIZATIONS WHOSE MATERIAL IS SUGGESTED READING

A.M. Best Co., Inc. One Park Avenue Morristown, New Jersey 07964

American Mutual Insurance Alliance 20 North Wacker Drive Chicago, Illinois 60606

Health Insurance Association of America
1701 K Streat, NW
Washington, D.C. 20006
or
750 Third Avenue
New York, New York 10017
or
332 South Michigan Avenue
Chicago, Illinois 60604

Inland Marine Insurance Bureau 161 William Street New York, New York 10038

Insurance Accounting and Statistical Association 3520 Broadway P. O. Box 139 Kansas City, Missouri 64111

Insurance Information Institute 110 William Street New York, New York 10038

Insurance Rating Board 125 Maiden Lane New York, New York, 10038

Fire Insurance Research and Actuarial Association 125 Maiden Lane New York, New York 10038

The Journal of Risk and Insurance 112 E. Washington Street Blloomington, Illinois 61701

Multi-Line Insurance Rating Bureau 110 William Street New York, New York 10038

ADDRESSES OF OTHER ORGANIZATIONS WHOSE MATERIAL IS SUGGESTED READING

Mutual Insurance Rating Bureau 733 Third Avenue New York , New York 10017

National Association of Independent Insurers 30 West Monroe Street Chicago, Illinois 60603

National Association of Insurance Comissioners 660 E. Mason Street Milwaukee, Wisconsin 53202

National Council on Compensation Insurance 200 East 42nd Street New York, New York 10017

National Insurance Actuarial and Statistical Association 110 William Street New York, New York 10038

The National Underwriter Company 420 E. Fourth Street Cincinnati, Ohio 45202

New England Insurance Rating Association 89 Broad Street P.O. Box 699 Boston, Massachusetts 02110

The Weekly Underwriter 116 John Street New York, New York 10038





UNITED STATES FIDELITY AND GUARANTY COMPANY

BALTIMORE, MARYLAND 21203

AREA CODE 301 LEXINGTON 9-0380 ACTUARIAL DEPARTMENT

JACK MOSELEY VICE PRESIDENT AND SENIOR ACTUARY

December 3, 1970

Mr. Ronald E. Ferguson, Actuarial Asst. General Reinsurance Corporation 400 Park Avenue New York, New York 10022

Dear Ron:

Re: Part 9 Syllabus

The intent of the Zubay reference in the new Syllabus is that the student is responsible only for Dr. Zubay's article.

Sincerely,

CASUALTY ACTUARIAL SOCIETY

ORGANIZED 1914

RONALD L. BORNHUETTER

SECRETARY-TREASURER 200 East 42nd Street New York, N. Y. 10017

September 30, 1970

TO ALL CANDIDATES FOR THE EXAMINATIONS

Re: Recommendations for Study - Correction List

The following corrections should be made in your copy of the Recommendations for Study . Seventeenth Edition, 1970.

- Page 7 1st paragraph, line 8 Delete phrase "such as the illustrative problems in Appendix I".
- 2. Page 7 Potofsky, S. The date of the Proceedings should be 1949.
- 3. Page 7 Bickelhaupt & Magee "h" should be added to Eighth Edition.
- 4. Page 8 Lumsden, Attiyeh & Bach Should be Microeconomics.
- 5. Page 10 Change "Recommended Procedure for Rating Bureau Review of the Overall Fire Rate Level by State" to "Recommended Procedure for Statewide Rate Level Analysis Fire Insurance" and "Fire Classification Rate Level Adjustment Procedure".

 (No change on ECE reference).
- 6. Page 10 (1) Insurance Statistics Workmen's Compensation Statistical Plan should be Workmen's Compensation Unit Statistical Plan Manual.
- 7. Page 11 IBM Corp. R 29-0071 and R 29-0075 should read R 29-0071 Through R 29-0075.
- 8. Page 11 Colbert, D.A. Chapters should be 1-3, 12-13, 15-16.
- 9. Page 13 Part 7 1st paragraph, 2nd sentence Show "1" after Statements.
- 10. Page 15 New York Insurance Department Wrong volume and part. Should be <u>Volume 3, Chapters 2-10</u>.
- 11. Page 17 Carlson, T. O. Should be P.C.A.S. XXVIII not XXXVIII.
- 12. Page 24 Myers, R. J. Need "n" in Government.
- 13. Page 24 Need "Study" in Retrospective Rating Study Guide.
- 14. Page 25 Zubay, Eli Need "se" in Research.

Ronald L. Bornhuetter, Secretary-Treasurer Mr. Alan C. Curry
Examination Chairman
Education & Examination Committee
State Farm Mutual Automobile
Insurance Company
112 East Washington Street
Bloomington, Illinois 61701

RE: PART 8 STUDY MATERIAL

Dear Alan:

Charles Cook recently pointed out to me that the 1970 Syllabus' reference to a Study Note on retrospective rating is somewhat misleading in a couple of ways.

The complete title of the Study Note, "Fundamentals of Individual Risk Rating and Related Topics," is much more descriptive of the contents than the title presently appearing in the Syllabus. While this synecdochic reference may not create any confusion in identifying the Note, it could work to the disadvantage of the methodical student who studies the material in the order listed. It must be rather disconcerting to such a student to find, after completing experience rating and while tackling retrospective rating, fourteen pages of invaluable material on experience rating - material which would have been of great benefit to him before and during his preparation for experience rating.

We therefore suggest that a circular be sent out by the Secretary-Treasurer explaining that this Study Note, properly and completely identified, ought to be listed at the top of page 16 of the Syllabus, along with the Michelbacher and Kulp & Hall texts since it presents material pertinent to all subsections of the Part 8 readings.

I imagine Ron Bornhuetter would like official approval from you before issuing such a circular but it should be released very soon because less than four months remain before Part 8 is next administered.

Yours very truly,

keb

cc: R. L. Bornhuetter

C. F. Cook

M. S. Hughey

J. H. Muetterties