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
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 1 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 1 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 previously passed the Associateship examinations or if he concurrently presents himself for and submits papers for all the 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:

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
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<tbody>
<tr>
<td>Parts 1-3</td>
<td>$25.00</td>
<td>$25.00</td>
</tr>
<tr>
<td>Parts 4-9</td>
<td>$50.00</td>
<td>$50.00</td>
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The examination fees for the partial Part 4 examinations which were given in 1969 to those candidates requiring them are as follows:

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<tr>
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<th>1st</th>
<th>2nd</th>
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<tbody>
<tr>
<td>Part 4a</td>
<td>$10.00</td>
<td></td>
</tr>
<tr>
<td>Part 4b</td>
<td>$10.00</td>
<td></td>
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</table>

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:

<table>
<thead>
<tr>
<th>Casualty Actuarial Society</th>
<th>Society of Actuaries</th>
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</thead>
<tbody>
<tr>
<td>Part 1, General Mathematics, passed prior to 1963 (before joint sponsorship)</td>
<td>Part 1, General Mathematics, passed prior to 1963 (before joint sponsorship)</td>
</tr>
<tr>
<td>Part 2, Probability and Statistics, passed prior to 1966 (before joint sponsorship)</td>
<td>Part 4, Actuarial Mathematics, passed prior to 1969</td>
</tr>
<tr>
<td>Part 3, Life Contingencies, passed prior to 1969</td>
<td>Part 3 and 4 both, if Part 4 is passed after 1968</td>
</tr>
</tbody>
</table>

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 1. 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 more than 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. Richardino, Librarian
Casualty Actuarial Society
10th Floor
125 Maiden Lane
New York, New York 10038
### SYLLABUS OF EXAMINATIONS

(Effective with 1969 Examinations)

#### ASSOCIATESHIP

<table>
<thead>
<tr>
<th>Part</th>
<th>Time Allowed</th>
<th>Subject</th>
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<tbody>
<tr>
<td></td>
<td>3 hours</td>
<td>General Mathematics (jointly sponsored with the Society of Actuaries)</td>
</tr>
<tr>
<td></td>
<td>3 hours</td>
<td>Probability and Statistics (jointly sponsored with the Society of Actuaries)</td>
</tr>
<tr>
<td></td>
<td>2 hours</td>
<td>Compound Interest and Life Contingencies</td>
</tr>
</tbody>
</table>
|      | 3 hours      | (a) Principles of Economics; Theory of Risk and Insurance  
(b) Insurance Coverages and Policy Forms |
|      | 3 hours      | (a) Principles of Rate Making  
(b) Insurance Statistics and Data Processing |

#### FELLOWSHIP

<table>
<thead>
<tr>
<th>Part</th>
<th>Time Allowed</th>
<th>Subject</th>
</tr>
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</table>
| 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 Part 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
Actuaries.)

This three-hour multiple-choice examination is based on material
usually covered in undergraduate mathematics courses through the
differentiable 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; deter-
minants and elementary matrix algebra; standard alge-
braic and transcendental functions including polynomial,
trigonometric, logarithmic and exponential func-
tions; limits, continuity, differentiability and integrability;
derivatives, integrals and partial derivatives; the funda-
mental theorem of integral calculus; applications of deri-

This 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 concen-
trated 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, con-
ditional 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 distrib-

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 Mathe-
matical 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 ade-

ASSOCIATESHIP: PART 3

COMPOUND INTEREST AND LIFE CONTINGENCIES


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 Com-

Potosky, S., “Valuation of Death Benefits under U.S. Longshoremen’s
and Harbor Workers’ Compensation Act as Amended, June 24, 1948.”

Schloss, H.W., “Valuation of Death Benefits Provided by the Workmen’s

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
replicate the formulas contained in the Appendix to Special Bulletin
No. 222 nor in the papers by Schloss and Potosky.

ASSOCIATESHIP: PART 4

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

The candidate will need to have a knowledge of the principles of

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

1970, Chapters 1–3.
(b) INSURANCE COVERAGE 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 class rates and individual risk rating plans. The examination for this section will not reflect such extraneous material.


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


or

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.


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


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


(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.


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 only).

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.

Weekly Underwriter,

The Insurance Almanac.

(2) Data Processing


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


Travelers, Planning for Computer-Based Systems.

FELLOWSHIP: PART 6

(a) INSURANCE LAW; SUPERVISION, REGULATION AND TAXATION

(1) Background Law and Insurance


Michelbacher, G.F., Multiple Line Insurance, 1957, Chapters 1, 22 and 23.
New York (State) Insurance Department, Examination of Insurance Companies, Volume 2, Chapters 2, 3 and 5; Volume 5, p. X-XIII; Volume 6, Chapters 1 and 2.
New York (State) Laws, Statutes, etc., New York Insurance Law, Articles I-V (except IIIa), VII, VIII, X, Xla, 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
New York (State) Laws, Statutes, etc., New York Insurance Law, Article XVI.
(3) Supervision and Regulation
Mertz, A.C. The First Twenty Years.
Hartman, G.R., and Lange, J.T., "Rate Regulation and the Casualty Actuary-Revisited," P.C.A.S., LIV.
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
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).
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.)
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.


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


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


<table>
<thead>
<tr>
<th>Year</th>
<th>Page</th>
<th>Article</th>
</tr>
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<tbody>
<tr>
<td>1961</td>
<td>142</td>
<td>Annual Statement Question and Answer Forum,</td>
</tr>
<tr>
<td>1965</td>
<td>269</td>
<td>Interpretation and Analysis of Insurance Financial Statements,</td>
</tr>
<tr>
<td>1969</td>
<td>630</td>
<td>Thoughts about Annual Statement Reporting,</td>
</tr>
<tr>
<td>1969</td>
<td>632</td>
<td>What is New in the 1969 Annual Statement,</td>
</tr>
</tbody>
</table>

(2) Expense Analysis

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


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


<table>
<thead>
<tr>
<th>Year</th>
<th>Page</th>
<th>Article</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>273</td>
<td>Review of Uniform Accounting Instructions and Methods Used by Country Mutual in Allocating Expenses,</td>
</tr>
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</table>


(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).


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.


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

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.


(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.


(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.


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 Plan A, B, C and J
- 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


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) Rate Making
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, 15, 22, 26, 59 and 83.

Goddard, R.P. "Total Earnings from Insurance Operations -- The

Balcarek, R.J. "The Capital Investment Market and the Insurance

Ferrari, J.R. "The Relationship of Underwriting, Investments, Leverage,
and Exposure to Total Return on Owners' Equity." P.C.A.S. LV,
1968, p. 293.

Arthur, D. Little, Inc. "Rates of Return in the Property and Liability

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. 725.

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, 1970), p. 455.

Ferrari, J.R. "A Theoretical Portfolio Selection Approach for Insuring

Bailey, R.A. "A Review of the Little Report on Rates of Return in the

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

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

Bailey, R. A. "Underwriting Profit from Investments." P.C.A.S. LV,
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 Arnoft, E.L., An Introduction to

Dorfman, R. "Operations Research." The American Economic Review,
Volume L, Number 4, September 1960, (The Journal of The American
Economic Association).

Industry." IBM.

Forester, J. "Industrial Dynamics." Harvard Business Review, (July-
August 1958).

(d) RATE MAKING

(1) General


Masterson, N.E. "Economic Factors in Liability and Property Insurance

Lange, J.T. "Application of a Mathematical Concept of Risk to Property-
Liability Insurance Rate Making." The Journal of Risk and Insurance,
Volume XXXVI, No. 4, 1969.

(2) Property and Multiple Line

Harley, R.L. "Multiple Peril Rating Problems - Some Statistical


(3) Liability and Workmen's Compensation


(4) Accident and Health


McIntyre, D.M. Voluntary Health Insurance and Rate Making, 1952, 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.


(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, 60 Fifth Avenue, New York, New York 10019.


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.


Mertz, A.G., 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).


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).


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) 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, 299 Gold Street, Brooklyn, New York 11201.)


Retrospective Rating Guide, May be obtained from the Secretary-Treasurer of the Casualty Actuarial Society.

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 Street, 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 193
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
Bloomington, Illinois 61701

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

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 Commissioners
660 E. Mason Street
Milwaukee, Wisconsin 53207

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
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,

[Signature]

JM/cs
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.

1. Page 7 - 1st paragraph, line 8 - Delete phrase "such as the illustrative problems in Appendix II".

2. Page 7 - Potofsky, S. - The date of the Proceedings should be 1252.

3. Page 7 - Bickelhaupt & Magee - "h" should be added to Eighth Edition.


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 BCR reference).


8. Page 11 - Colbert, D.A. - Chapters should be 1-3, 12-13, 15-16.


Ronald L. Bornhueter,
Secretary-Treasurer
July 14, 1971

Mr. Alan G. 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 Michelsbacher 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. Maetterties