

AN EDUCATIONAL PROGRAM IN ECONOMICS FOR
INSURANCE STUDENTS*

BY

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One of the groups of subjects in the revised 1926 Syllabus of the Society relates to substantive and applied economics. This includes: (a) the principles of economics; (b) insurance investments on a background of monetary science (money, credit and banking); (c) the theory of risk; (d) social insurance, with its foundation in industrial, political and legal history; and (e) economic statistics. The Committee has already organized a study program in two other groups,—law and accounting for the insurance technician, and the present paper is an attempt to suggest an organization of readings in the important division of the insurance sciences which is broadly titled "substantive and applied economics for insurance students."

In considering a study program under the "economics" group the Committee held closely to the certain parts of the definition of the aims of technical education for the insurance manager and the actuary as expressed in the statement of objects set down by the Institute of Actuaries of Great Britain and by the Faculty of Actuaries of Scotland. One of the objects of the Institute was "to investigate all monetary questions involving a consideration of the effects of interest and probability." The Faculty has stated one of its aims to be "the promotion of the study of finance as bearing on the fluctuations in the value of money and of all cognate subjects, a knowledge of which is essential to the efficient discharge of the duties of a life assurance Manager or of an Actuary."

*Paper number 3, "Outlines of Studies in the Insurance Sciences." (No. 1: "Needs and Prospects of an Educational Program in Insurance Law," by Richard Fondiller, *Proceedings*, Vol. XI, Page 99; No. 2: "Statistics in the Service of Insurance Administration" by E. W. Kopf, *Proceedings*, Vol. XI, Page 102). It is hoped to offer further outlines for the pure and applied mathematics and rate-making groups in further papers to be contributed by members of the Council and of the Educational and the Examination Committees.

It may be helpful to our students and to teachers of insurance, to have a more definitive statement on these disciplines in the Syllabus and to suggest ancillary readings for those of our membership who wish to attain competence in this special group of studies. Insurance, abroad, is often considered to be primarily an important branch of investment banking and its technicians pursue advanced inquiries in economic subjects with distinct benefit to the institution of insurance. In fact, some of the leading minds in investment banking in England and on the Continent are found among actuaries and other insurance officials. I take it that our Society endorses every effort to plan for broad-guage insurance scholarship in so complex a field as casualty and the social insurances and that it supports reasonable effort to provide guidance along right lines for the young people who are at present contemplating an insurance career.

I. INTRODUCTORY OR SUBSTANTIVE ECONOMICS

Your Committee recommends sound preparation in substantive economics as a foundation for real competence in the specialized subjects which are of major interest to insurance technicians. Unless properly directed in his introductory readings, the student is likely to be confused in his later studies of applied economics. This preparation and direction aims to reduce confusion on two important points: the *first* difficulty is the seeming subversion of time-tried doctrines; the *second* is inability to discriminate between sound principles on the one hand from unsound application of these principles on the other. As Alfred Marshall points out in his great "Principles of Economics," some of the best work of the present generation appears at first sight to be antagonistic to that of earlier writers, but when discussion has had time to settle down into its proper place, and the rough edges have worn away, no real breach will be found in the continuity of development of the science. The texts chosen for our students show, we believe, that the older doctrines have only been extended, developed or corrected and not subverted.

By all means, the student should avoid the writings of persons who have tried to construct an abstract economics not justified by the facts of history. This includes the writings of those who

build a system of discussion exclusively on imperative ethical precepts or upon special enthusiasms. The aim of these introductory studies should be to develop clear, precise definitions of the essential objects of economic inquiry, and a sense for the logical treatment of economic facts leading to the simpler doctrines which appeal to conscience and common-sense. The student needs to be cautioned against dogma which results from artificial classification, forced definition, and special pleading, suited only to particular classes, at given times and places.

We can expect our candidates to show more than passing acquaintance with essential ideas on constructive competition, the freedom of industry and trade, on enterprise, self-reliance and forethought. A common-sense approach may also be expected toward incentives and motives for economic activity, and toward the fundamental notions of wealth, the production and consumption of utilities, the nature of capital and income, surplus, the transfer and exchange of wealth, the media of exchange, the concepts of price in its various manifestations, profit, value, utility, "costs," and margin.

II. APPLIED ECONOMICS FOR INSURANCE STUDENTS

It is assumed, first, that within a given field of applied economics the student will endeavor to relate appropriate basic principles to the facts and conditions in the special field. It should be clear to our candidate that there is an essential unity in the different fields of economic inquiry; lacking that, the student may have reason to feel that his effort has been sterile, that the Syllabus has been badly planned, or that the readings have been hastily chosen.

(a) INSURANCE INVESTMENT AND ITS BACKGROUND

Our first subject in applied economics deals with the principles and practices of insurance investment, with its supporting structure, the theory of money and credit and the history, theory and practice of banking. In dealing with the supporting disciplines of monetary and banking theory the student meets with the second, and to some, an insurmountable difficulty,—the conflict between sound principles and unsound practice. A cool, cautious approach to the study of money and credit is

necessary; and this becomes clear when one recalls that the quantity theory of money has been used to support propaganda for irredeemable paper money and for the national free coinage of silver at a ratio of 16 to 1! Two or three years of study of money and credit may lead our student to a number of time-tried specialized principles.

There cannot be too great emphasis upon sound scholarship in economics among persons expected to discuss professionally the monetary and banking problems which affect sound investment practice and conservative management in the insurance business. From one point of view, insurance is a special form of investment banking, and the insurance technician who would understand his business must be acquainted more or less intimately with the sound principles and sound practices which prevail in the general field of investment banking. It is to the credit of the insurance business that during the past half-century practically none of its officials has ever openly supported any of the systems of monetary logic which were afterward shown to be freakish and impracticable.

(b) THE THEORY OF RISK; RISK MITIGATION

Perhaps the most brilliant contribution of pure thought to the insurance business of the future will come from a really worthwhile and rigorous treatment of the theory of risk. This will include a consideration of the several methods of transferring risk—and insurance is only one of them—and of ways and means of mitigating risk. Discussions available to our students are generally unsatisfactory, perhaps because of the fleeting interest of the authors. It would be especially helpful if discussions of risk measurement and the subsequent actuarial treatment of the data, took into account the technique of *a priori* or subjective probabilities as practiced by the actuaries on the Continent of Europe. The meagre text on probabilities which appears in some of our readings on risk and risk-bearing deals altogether with *a posteriori* probabilities applicable only to tremendous and stable masses of cases and not to the relatively small samples of data available to the student of risk or to the insurance pioneer. Perhaps the lack of an observation calculus has been responsible for the retarded development of the theory of risk

and for the lack of pioneering spirit in the transfer of more risks to insurance institutions.

In the preparation of a text on risk suitable for insurance students, much will depend upon the constructive imagination of the author, upon judgment seasoned by years of study of insurance and of other machinery for transferring and mitigating risk, and upon diligence in locating data for further development at the hands of the qualified statistician or actuary. Constructive pioneering will discover new risks for coverage and newer or less expensive modes of cover for risks now being insured.

With the wider application of the insurance principle and of economy in the operation of that principle, there will follow necessarily a discussion of ways and means for mitigating risk. Mr. Whitney* has already shown that wherever practicable and effective methods can be evolved, prevention follows insurance quite naturally. For one casualty line particularly, four times as much is paid out for preventive activity as is disbursed for losses! Most of the economists who discuss risk in its relation to profit and interest place preventive activity first and insurance or other methods of transferring risk, second.

(c) INDUSTRIAL, POLITICAL AND LEGAL HISTORY; THE THEORY AND PRACTICE OF SOCIAL INSURANCE

Experience has shown that it is undesirable to introduce our students directly to the complex pattern of social insurance theory and practice without some preparation in industrial, political and legal history. The insurance student should be able to view critically and cautiously the plans proposed for covering the risks which are relatively new in the life of the wage-working class of the population. And by "relatively new" we mean since 1700. Before that date the simple handicraft system prevailed, few work accidents occurred and a friendly relation prevailed between master and men. Then came the industrial revolution, the steam engine, long days of labor in attendance upon the machine driven by the steam engine, a division of labor, the introduction of the labor of women and

*Whitney, Albert W. "Insurance as Conservation and its Relation to the Public Welfare." National Bureau of Casualty and Surety Underwriters, New York, 1925.

children, differentiation between entrepreneur, capitalist and laborer, large-scale production, and horizontal and vertical management and ownership. And bearing upon the later institution of State insurance, there came, as in Germany, a very rapid integration of governmental machinery.

A clear grasp of the principles underlying mass or social insurance and of the institutional forms which such insurances have taken, can be obtained only by viewing clearly the following factors: the change in the status of the laboring classes during the past two centuries, the lack of uniform development of industrial organization, the halting progress of jurisprudence during the latter part of the nineteenth century and the very rapid changes in the mechanism of the public authority. Due reflection on the facts of industrial, political and legal history will suggest that further changes are still to come and that, perhaps, the entrance of the State into mass or social insurance, as in Germany, England and France, was simply a rough experimental attempt to provide large-scale insurance coverage at a time when the factory system was still in a primitive condition and large-scale management was incomplete. At the inception of State insurance only a small part of the workers was employed in relatively large industrial units and even in these establishments the executive element was still actuated by small-time doctrines in management and jurisprudence carried over from the seventeenth and eighteenth centuries. A heavy proportion of the workers was under small employers in unorganized industries or pursuits. It may have seemed desirable, therefor, fifty years ago to secure State action as a temporary, solidifying agency.

At the present time we may expect that under advanced industrial development, under a philosophy of management which is reasonably up to date and under a sociological jurisprudence well beyond the mechanical stage, there may come a revival of positive, private action for the mass coverage of both new and old insecurities and hazards in the lives of wage-workers. It follows, therefor, that the insurance student today should have an adequate idea of the progressive and irreversible changes which have taken place in industrial society,—in working conditions, in management, in jurisprudence and in the forms and application of public authority. He may then be able to weigh care-

fully the facts on the new movement for private initiative and private action in covering some of the more important risks to the security of life, health, income and property.

Systems or mechanical types of mass or social insurance which were suitable, perhaps, for a country in an era of wide contrasts in industrial organization, with exceptional development of public authority, may be unsuited to an ensuing era of practically complete organization of major industries, under a broad social jurisprudence, with differentiated governmental forms. In guiding the student of casualty and social insurance, I should urge, therefore, the development of a substantial foundation in political, industrial and legal history.

(c) INSURANCE TAXATION

Acquaintance with prevailing practices in insurance taxation and with the law governing such practices, is assumed under our Syllabus section which deals with insurance law. We ought to urge the study of the principles of taxation and the cultivation of some knowledge of prevailing tax practice of the Federal Government and the States, and perhaps for cities and minor civil divisions. Definitions of taxation must be carefully weighed and an attempt made to differentiate between those insurance "taxes" which in essence are *not* taxes but only charges for specific service rendered to individuals directly benefited, and those taxes which are compulsory levies without a definite *quid pro quod* between taxpayer and the public authority. It may be well for insurance students to keep in touch with current developments in the unification of State tax laws and practice in the publications of the National Tax Association.

(d) THE SUBSTANCE AND METHODS OF ECONOMIC STATISTICS

An attempt has been made in our Fellowship Syllabus (Section 14-B) to direct the student's attention toward the available external statistical data of interest and value to the insurance technician. The published Syllabus list leads the student to the chief sources of current data. Much remains to be done, however, in the direction of acquainting the student with the history of current attempts at quantitative analysis of economic data. There is scope for a work similar to Richmond Mayo-Smith's two volumes on Statistics in Economics and Sociology which

would sketch the methods, sources aims and purposes of economic statistics in the United States from Francis A. Walker, through Carroll D. Wright, S. N. D. North and other pioneers, to the contemporary official and private agencies purveying such data. For the United States, there have been systematic data since 1876 (Massachusetts Bureau of Labor Statistics) which were planned to serve what some have called Welfare Economics; again public and private agencies have prepared data which tend to develop a formal pecuniary logic. This latter chain of data sources for the United States goes back to Alexander Hamilton's "First Report on Public Credit." January 9, 1790 and to prior reports of the Colonial Confederation. Within each of these two "Schools" there is endless variety, the result of sub-division and of cross-breeding with related sciences. The insurance student may find in these efforts to determine the characteristics of our contemporary economic life, important leading thoughts which are directly applicable to the insurance business.

The student should learn, however, to discriminate between the several levels of competence in contemporary statistical effort in economics. Some of the "bureaus," "services" and "associations" publish conclusions induced by methods which plainly violate conscience and common-sense; others seemed to be managed by cautious, critical and scholarly men. Our Society's Syllabus (Fellowship Section 14-B) contains impartial references to both types of effort. This will encourage critical reading! The student is cautioned particularly against "forecasters" whose methods and results are palpably grounded upon an uncritical use of statistical methods. Mr. Whitney and Miss Outwater, of this Society, have frankly stated the failure of certain statistical methods in the correlative study of business and insurance operating conditions. The seasoned, disciplined insurance scholar will know the difference between a mechanical projection or graphical device and a reliable forecasting technique when such technique is discovered.

FURTHER READINGS IN ECONOMICS FOR INSURANCE STUDENTS

The following advanced readings are submitted for members of the Society who may wish to develop a wider knowledge of certain subjects of fundamental interest to insurance technicians. Before closing I wish to acknowledge the Committee's indebted-

ness to the following gentlemen whose comments enabled me to condense and order this paper: Dr. I. M. Rubinow, Professor Frank A. Fetter; Professors A. H. Mowbray, R. H. Blanchard and W. B. Bailey of this Society; Professor Irving Fisher, Mr. W. W. Greene, Dr. A. W. Whitney, Mr. Richard Fondiller and Dr. I. S. Adlerblum.

LIST OF READINGS TO SUPPLEMENT 1926 SYLLABUS*

I. INTRODUCTORY OR SUBSTANTIVE ECONOMICS

Carver, Thomas N. The distribution of wealth. New York, Macmillan. 1904, \$1.50; *Carver, Thomas N.* Essays in social justice. Cambridge, Mass. Harvard University Press. 1915. 429p. \$2.00; *Clark, John B.* The distribution of wealth. New York, Macmillan. \$3.00; *Clark, John B.* Philosophy of wealth. Boston, Ginn. \$1.00; *Hobson, J. A.* Work and wealth, a human valuation. New York, Macmillan. 1914, 367p. \$2.00; *Macleod, Henry D.* The history of economics. New York, Putnam. 1896; *Marshall, Alfred.* Principles of economics. New York, Macmillan. 1920 (8th edition) 871p. \$6.00; *Seligman, E. R. A.* Principles of economics. 10th ed. rev. New York. Longmans. 1924. 711p. \$3.50; *Walker, Francis A.* Political economy. Briefer course. New York, Holt. 1884. \$1.20.

II. INVESTMENTS; MONEY AND BANKING

Bagehot, Walter. Lombard Street. London. John Murray. 1924. 348p. \$2.50; *Bullock, C. J.* Essays on the monetary history of the U. S. New York, Macmillan. 1900; *Cassel, Gustav.* Money and foreign exchange after 1914. New York, Macmillan. 1922. 287p. \$2.25; *Dewey, D. R.* Financial history of the U. S. New York. Longmans Green. 1922. 567p; *Fisher, Irving.* The purchasing power of money. New York, Macmillan, 1922, 515p; *Fisher, Irving.* The rate of interest. New York, Macmillan, 1907. \$3.00, *Gilbart, Jas. W.* Principles and practice of banking. 2 Vols. New York, Macmillan. 1904; *Hamilton, Alexander.* Complete works. Edited by Henry Cabot Lodge. New York, Putnam. 9 Vols. (II and III on finance). 1885-1889, *See also* the biographies of *Hamilton* by *Wm. Graham Sumner* and *Henry Cabot Lodge*; *Hawtrey, Ralph G.* Currency and credit. 2nd edition rev. New York, Longmans. 1923, 442p. \$5.00; *Heppburn, A. Barton.* History of coinage and currency in the U. S. (laws, bibliography). New York, Macmillan. 1903 and 1924. 573p; *Jevons, W. Stanley.* Money and the mechanism of exchange. New York, Appleton. 1921, \$2.75; *Johnson, J. F.* Money and currency. Boston, Ginn. 1921, 475p. \$3.00; *Kemmerer, E. W.* Money and credit instruments in their relation to general prices. New York, Holt, 1907, \$1.25; *Lehfeldt, R. A.* Money. New York, Oxford Press. 1926. 116p. \$1.00; *Magee, J. D.* Materials for the study of banking. New York, Prentice-Hall. 1923, 769p. \$5.00; *National Monetary Commission.* Reports. Senate Document 399, 61st. Congress, 2nd Session. Use of credit instruments in payment in the U. S. 1910; *Noyes, Alexander D.* Forty years of American finance. New York, Putnam. 1925; *Scott, Wm. A.* Money and banking. New York, Holt, 1926, 280p. \$2.75.

*This list supplements that given in syllabus sections 10, 11, 12 and 14 B of the Fellowship readings. pp. 183-195, *Proceedings*, Casualty Actuarial Society, Nov. 18, 1925.

III. THE THEORY OF RISK

Hobson, J. A. The industrial system. New York, Scribner. 1909, 328p. \$2.00; *Hoffman, Frederick L.* Insurance science and economics. Chapters I and II. New York, Spectator Co. 1911. 366p. \$3.00; *Knight, F. H.* Risk, uncertainty and profit. Boston, Houghton. 1921. 381p. \$3.00; *Macleod, Henry D.* The history of economics. *op. cit.*; *Seligman. E. R. A.* Principles of economics. Chapter 24. *op. cit.*

IV. INDUSTRIAL, POLITICAL AND LEGAL HISTORY; A FOUNDATION FOR READINGS IN SOCIAL INSURANCE

(a) *Industrial History*

Barnes, H. E. Social history of the western world. New York, Appleton. 1921, 126p. \$1.25; *Bogart, E. L.* Economic history of the United States. Rev. ed. New York, Longmans. 1922, 593p. \$2.00; *Bryce, James.* Modern democracies. New ed. 2 vols. New York, Macmillan. 1924, 682p. \$8.00; *Bucher, C.* Industrial evolution, tr. fr. 3rd. Germ. ed. New York, Holt. 1901. \$2.50; *Commons, John R.* The legal foundations of capitalism. New York, Macmillan. 1924, 394p. \$3.00; *Douglas, Paul H. and W. E. Atkins.* The worker in modern economic society. Chicago, Univ. of Chicago Press. 1923, 929p. \$4.50; *Gras, N. S. B.* Introduction to economic history. New York, Harper. 1922, 350p. \$2.25; *Hayes, C. J. H.* A political and social history of modern Europe. Vol. 1, 1916. 582p. \$2.00. Vol. 2 (1815-1924) New rev. ed. New York, Macmillan. 1924, 905p. \$4.00; *Hobson, J. A.* The evolution of modern capitalism. new ed. New York, Scribner. 1917, 488p. \$1.75; *Keir, N.* Manufacturing industries in America. New York, Ronald. 1920, 324p. \$3.00; *Ogburn, W. F.* Social change with respect to culture and original nature. New York, Huebsch. 1922. 365p. \$2.00; *Pigou, A. E.* Economics of welfare. New York, Macmillan. 1925, 783p. \$8.00; *Robinson, James H.* Medieval and modern times. rev. Boston, Ginn. 1919, 790p. \$1.72; *Russell, Bertrand.* The prospects of industrial civilization. New York, Century. 1923, 287p. \$2.00; *Usher, A. P.* Industrial history of England. Boston, Houghton. 1920, 529p. \$5.00; *Webb, Sidney and Beatrice.* Industrial democracy. New York, Longmans. 1920. 899p. \$7.50; *Wright, Carroll D.* Industrial evolution of the United States. New York, Scribner. \$1.25.

(b) *Political and Legal History*

American Association of Law Schools. Continental Legal History Series. Vols. I and II. 1912-1918; *Ames, J. B.* Lectures on legal history. Cambridge, Mass. Harvard Univ. Press. 1913, 553p. \$3.00; *Benihem, Jeremy.* Introduction to the principles of morals and legislation. 2nd ed. New York, Oxford Press. 1926. 378p. \$2.50; *Bryce, James.* Studies in history and jurisprudence. 2 Vols. New York, Oxford.

1901. \$3.50; *Carter, J. C.* Law: its origin, growth and function. New York, Putnam. 1907, \$2.50; *Dacey, A. V.* Lectures on the relation between law and public opinion in England during the 19th century. New York, Macmillan. 1914. 506p. \$2.60; *Dunning, W. A.* A history of political theories: recent times. (Edited by C. E. Merriam and H. E. Barnes). New York, Macmillan. 1924, 597p. \$4.00; *Gettell, R. G.* History of political thought. New York, Century. 1924, 511p. \$3.75; *Holcombe, A. N.* Foundations of the modern commonwealth. New York, Harper. 1923, 491p. \$3.00; *Krabbe, H.* The modern idea of the state. New York, Appleton. 1922, 281p. \$4.00; *Laski, H. J.* Studies in the problem of sovereignty. New Haven, Yale Univ. Press. 1917, 297p. \$2.50; *Laski, H. J.* Authority in the modern state. New Haven, Yale Univ. Press. 1919, 398p. \$3.00; *Merriam, C. E.* American political ideas. New York, Macmillan. 1920, 481p. \$2.75; *Pollock, Frederick.* Introduction to the history of the science of politics. New York, Macmillan. 1923. 138p. \$1.25; *Pound, Roscoe.* Interpretations of legal history. New York, Macmillan. 1923, 171p. \$2.25; *Pound, Roscoe.* Preventive justice and social work. *Proc. National Conference of Social Work.* 1923, p. 151; *Pound, Roscoe.* Introduction to the philosophy of law. New Haven, Yale Univ. Press. 1922, 307p. \$2.50; *Vinogradoff, P.* Introduction to historical jurisprudence. New York, Oxford Press. 1923, 173p. \$3.50; *Willoughby, W. W.* Examination of the nature of the state. New York, Macmillan. 1903, \$3.00.

V. MANAGEMENT

Copley, Frank B. "Frederick W. Taylor," 2 Vols. New York, Harper. 1923, 472p. \$10.00. *Federated American Engineering Societies.* "Report of the Committee on the Elimination of Waste in Industry" New York, MacGraw. 1921, 409p. \$4.00. *Hunt, Edward E.* (editor) Scientific management since Taylor. New York, McGraw. 1924, 263p. \$3.00. *Tead, O. and H. C. Metcalf.* Personnel administration. New York, McGraw. 1920. 538p. \$5.00. *Marshall, Alfred.* Industry and trade, New York, Macmillan. 1919, 875p. \$6.50. *Taylor, Frederick W.* Principles of scientific management. New York, Harper. 1911, \$1.50.

VI. TAXATION

Bastable, C. F. Public finance. 3rd. ed. New York, Macmillan. \$4.25; *National Tax Association.* Proceedings. The association, A. E. Holcomb, Sec. 195 Broadway, New York City; *Plehn, C. C.* Introduction to public finance. 4th ed. New York, Macmillan. 1920. 446p. \$2.90; *Seligman, E. R. A.* Essays in taxation, 10th ed. rev. New York, Macmillan. 1925, 806p. \$4.00; *Stamp, J. C.* Fundamental principles of taxation in the light of modern developments. New York, Macmillan. 1921, 201p. \$4.00; *United States Bureau of the Census.* Reports on wealth, debt and taxation and on "statistics of states and cities." Govt. Ptg. Office, Washington, D. C. 1900+; *Journal of Accountancy.* Recent editorials and articles on tax practice and accounting.