American Economic Association American Finance Association American Marketing Association American Statistical Association Econometric Society Industrial Relations Research Association Institute of Mathematical Statistics American Association of University Teachers of Insurance

> American Business Law Association Catholic Economic Association

### Holding joint meetings with

American Association for the Advancement of Science (Section K)

American Farm Economic Association

American Hospital Association

American Public Health Association

American Society for Quality Control (Midwest Regional Group)

Biometric Society (East North American Region) Social Work Research Group

## **GENERAL INFORMATION**

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- American Business Law Association; John F, Sembower, Williams, Leonard & Sembower Biometric Society (ENAR): Herbert C, Batson, Illinois Department of Public Health

Catholic Economic Association: Louis F. Buckley, U. S. Department of Labor

#### Schedule of Meetings and Activities

All scheduled meetings and activities of the associations participating in the 1952 conventions of the Allied Social Science Associations are listed in chronological order in the body of the program. Meetings are scheduled from Saturday, December 27, through Tuesday, December 30. Following the body of the program are an index of the individuals taking part in the meetings, a listing of the officers of the participating associations, an index of the advertisers in this printed program, names of the exhibitors in the respective hotels, and lists of members of the local arrangements committees for these meetings.

#### **Convention Headquarters of Participating Associations**

Headquarters of the American Economic Association, American Finance Association, Catholic Economic Association, Econometric Society, and Industrial Relations Research Association are in the Conrad Hilton Hotel. Headquarters of the American Marketing Association, American Statistical Association, Biometric Society (ENAR) and Institute of Mathematical Statistics are in the Palmer House. Headquarters of the American Association of University Teachers' of Insurance and the American Business Law Association are in the Morrison Hotel. A map of the Chicago Loop and surrounding area is on the outside back cover of this program.

#### Information and Registration Centers

Information concerning registrants. meetings, and other matters may be obtained at the Information Desks (Conrad Hilton Hotel: in the Normandy Lounge on 2nd Floor; Palmer House: southwest corner of Exhibition Hall on 4th Floor) or at the adjacent Registration Desks. The Information Desks will serve as distribution centers for copies or abstracts of conference papers intended for general distribution, and as message centers for the convenience of registrants at the conventions. Registration facilities for the American Association of University Teachers of Insurance and the American Business Law Association will be provided in the Morrison Hotel beginning Sunday, December 28.

#### **Employment Register**

Convention registrants who desire assistance in obtaining personnel or positions in economics, marketing, statistics or related fields are invited to visit the Employment Desks, which are located as follows: Conrad Hilton Hotel, in the Normandy Lounge exhibit hall on 2nd Floor; Palmer House: American Marketing in Room 15 on the Club Floor, American Statistical Association in Room 792 on h Floor. Application blanks and vacancy forms will be available at these desks. ists of applicants and vacancies will be made available to prospective employers nd employees. Conference rooms will be provided for interviews.

#### ress Rooms

The rooms provided for the use of representatives of the press are: in the Conrad Hilton Hotel, Room 19 on 4th Floor; in the Palmer House, Room 2 on 3rd Floor. Manuscripts and summaries of papers should be taken to these rooms. All such nanuscripts and summaries should be identified fully as to time and title of session, sponsoring association, name and affiliation of author, etc.

#### Tours

Information about regular tours of Chicago firms, in addition to the special tours listed in the general program, is available at the Press Rooms and Information Desks.

#### Exhibitors and Advertisers

Convention registrants are invited to view the exhibits that have been furnished by a number of firms. Times of scheduled demonstrations in connection with exhibits will be found in chronological order in the body of the program. At the Conrad Hilton Hotel exhibits are located in the Normandy Lounge on 2nd Floor. At the Palmer House exhibits are in the Exhibition Hall on 4th Floor. Lists of exhibitors and of advertisers in this program follow the body of the program.

#### Key to Abbreviations

Names of associations meeting in joint sessions are indicated as follows: AAAS - American Association for the Advancement of Science (Section K) AAUTI - American Association of University Teachers of Insurance ABLA - American Business Law Association AEA - American Economic Association AFA – American Finance Association AFEA - American Farm Economic Association AHA - American Hospital Association AMA - American Marketing Association APHA - American Public Health Association ASA - American Statistical Association ASOC - American Society for Quality Control (Midwest Regional Group) BS - Biometric Society (East North American Region) CEA - Catholic Economic Association ES - Econometric Society IMS - Institute of Mathematical Statistics IRRA - Industrial Relations Research Association

SATURDAY MEETINGS OF SUMMARY

:45 P.M. 8:30 A.M

Meeting (IMS) A.M. 9:30 Council 1952

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4:00 P.M.

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1

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### SCHEDULE OF MEETINGS

#### Saturday, December 27, 1952

8:30 A.M. PALMER HOUSE Room 6 (3rd Floor)

1952 Council Meeting Institute of Mathematical Statistics

9:30 A.M. **CONRAD HILTON** HOTEL South Ballroom

**Regional and Spatial Economics** Econometric Society

(3rd Floor) Chairman: Walter Isard, Harvard University Papers: THE EQUILIBRIUM OF LAND-USE PATTERNS IN AGRICULTURE Edgar S. Dunn, University of Florida A SPATIAL-EQUILIBRIUM MODEL OF THE LIVE-STOCK-FEED ECONOMY IN THE UNITED STATES Karl Fox, Bureau of Agricultural Economics **REGIONAL ECONOMICS AND ECONOMIC DEVEL-**OPMENT Stefan Robock, Tennessee Valley Authority Discussion: Guy S. Freutel, Washington University, St. Louis Gregory P. Vore, Bureau of the Budget Meeting of the Executive Committee 10:00 A.M. American Economic Association **CONRAD HILTON** HOTEL **Private Dining Room** 

No. 3 (3rd Floor)

Room 18

10:00 A.M. Mathematical Training for Social Scientists PALMER HOUSE loint Session: ASA, ES (Club Floor)

> Chairman: Frederick F. Stephan, Princeton University Speaker: William G. Madow, University of Illinois Discussion: Jacob Marschak, Cowles Commission Frederick Mosteller, Harvard University R. M. Thrall, University of Michigan

#### 10:00 A.M. PALMER HOUSE Room 8 (3rd Floor)

1

## Ghairman: Mortimer Spiegelman, Metropolitan Life In-

The Role of Credibility in Insurance American Statistical Association

surance Company

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|   | CREDIBILITY PROCEDURES ARE REQUIRED TO<br>ESTIMATE PARAMETER VALUES FOR INDIVID-<br>UALS OF HETEROGENEOUS POPULATIONS<br>A. L. Bailey, Lumbermen's Mutual Casualty<br>Company of Illinois<br>J. E. Freund, Alfred University<br>J. W. Tukey, Princeton University | 11:00-11:50 A.M.<br>PALMER HOUSE<br>Room 17<br>(Club Floor)<br>12:00 M.<br>PALMER HOUSE<br>Crystal Room | Student Marketing Club Rally<br>American Marketing Association<br>Combined Survey and Experimental<br>Investigations<br>Institute of Mathematical Statistics |
|---|---|---|--|
|   |   | (3rd Floor)   | T. A. Bancroft, Iowa State College   |
| 10:00 A.M.<br>PALMER HOUSE<br>Room 14<br>(Club Floor) | Quality Control<br>Joint Session: ASA, ASQC   | Papers:   | GENERAL PRINCIPLES AND SOME EXAMPLES<br>R. J. Jessen, Iowa State College<br>USES BY THE U. S. CENSUS<br>J. F. Daley, Bureau of the Census                    |
|   | W. R. Pabst, Jr., Dept. of Navy<br>PLACE OF QUALITY CONTROL IN A STATISTICAL<br>PROGRAM FOR INDUSTRY<br>W. E. Deming, Bureau of Budget  | Discussion  | SOME ASPECTS OF THEORY<br>W. G. Cochran, Johns Hopkins University<br>Donovan Thompson, Iowa State College  |
| Discussion:   | Fred J. Halton, Deere & Company<br>Ray S. Saddoris  | 12:00 M.  | B. G. Greenberg, University of North Carolina  |
| 10:00 A.M.  | Federal Sponsorship of Data Collecting  | CONRAD HILTON<br>HOTEL<br>Private Dining Room   | Luncheon Meeting of the Executive Committee<br>American Economic Association   |
| PALMER HOUSE<br>Room 9<br>(3rd Floor)                 | Activities by Non-Governmental Agencies<br>American Statistical Association   | No. 6<br>(3rd Floor)  | Turnham Masting  |
| Chairman:   | Thomas J. Mills, Bureau of the Budget<br>SCOPE AND NATURE OF THE FEDERAL<br>PROGRAM   | 12:00 M.<br>PALMER HOUSE<br>Red Lacquer Room<br>(4th Floor)   | Luncheon Meeting<br>American Marketing Association   |
|   | Harry Alpert, Bureau of the Budget<br>PROBLEMS OF DATA COLLECTION UNDER<br>FEDERAL SPONSORSHIP  | Speaker:  | Belding  |
|   | <ul> <li>a) By the Universities</li> <li>Steven B. Withey, University of Michigan</li> <li>b) By private survey agencies</li> </ul>   | 12:00 M.  | Tickets \$4.00, available at registration desk.<br>Luncheon Meeting  |
| Discussion:   | Arnold J. King, National Analysts, Inc.<br>Everett Ashley, Housing and Home Finance   | PALMER HOUSE<br>Grand Ballroom  | American Statistical Association   |
|   | Agency<br>Clyde W. Hart, National Opinion Research  | (4th Floor)<br>Topic:   | ECONOMIC FORECASTS   |
|   | Center  |   | Martin Gainsbrugh, National Industrial Con-<br>ference Board   |
| 10:00 A.M.  | Invited Addresses   | Speakers:   | Frederick W. Waugh, Bureau of Agricultural<br>Economics  |
| PALMER HOUSE<br>Crystal Room<br>(3rd Floor)           | Institute of Mathematical Statistics  |   | Charles E. Young, Weyerhaeuser Timber Com-<br>pany<br>Theodore Yntema, Ford Motor Company  |
| Chairman:   | J. Wolfowitz, Cornell University and Univer-<br>sity of California at Los Angeles   |   | Tickets \$3.25, available at registration desk.  |
|   | APPLICATIONS OF MARTINGALE THEORY TO<br>STATISTICS<br>J. L. Doob, University of Illinois<br>INFORMATION THEORY  | 1:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 5                                     | Luncheon Meeting of the Committee on<br>Research<br>American Economic Association  |
|   | B. McMillan, Bell Telephone Laboratories<br>6   | (3rd Floor)   | 7  |
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Saturday

| New Harper Texts  | 1:45 P.M.<br>CONRAD HILTON<br>HOTEL<br>West Ballroom<br>(3rd Floor) | Sample Survey Design and Measurement for<br>Econometric Models: A Round Table<br>Econometric Society       |
|---|---|--|
|   |   | David Rosenblatt, Bureau of the Budget   |
| BUSINESS<br>FLUCTUATIONS  | Paper:  | SAMPLE SURVEY DESIGN AND MEASUREMENT<br>FOR ECONOMETRIC MODELS<br>Stanley Lebergott, Bureau of the Budgett |
| ROBERT A. GORDON, University of California  | Panel Discussion:   | Lawrence R. Klein, University of Michigan<br>Geoffrey H. Moore, National Bureau of Eco-<br>nomic Research  |
| Published in May and immediately adopted by<br>50-odd leading colleges and universities, this new<br>volume is clearly destined to be the leading text  |   | Joseph Daley, Bureau of the Census   |
| for college courses on business cycles. Compre-<br>hensive and authoritative, clearly and simply<br>written, and thoroughly up to date, it skillfully<br>combines historical, theoretical, and statistical<br>approaches into a logically developed and ad- | 2:00-3:00 P.M.<br>PALMER HOUSE<br>Room 6<br>(3rd Floor)             | Student Marketing Club Advisers and Officers<br>Meeting<br>American Marketing Association                  |
| mirably integrated text for courses in both eco-<br>nomics departments and schools of business ad-<br>ministration.<br>603 pages \$5.00   | 2:00-3:20 P.M.<br>PALMER HOUSE<br>Room 796<br>(7th Floor)           | Teaching of Marketing Research<br>American Marketing Association   |
| COMPARATIVE   | Chairman:   | David J. Luck, Michigan State College<br>BRASS TACKS SESSION – WHAT ARE WE TRY-<br>ING TO DO?              |
| ECONOMIC SYSTEMS  | Panel Members:  | Roy Ashmen, Young and Rubicam, Inc.<br>Lyndon O. Brown, Dancer-Fitzgerald-Sample,<br>Inc.                  |
| Fourth Edition<br>WILLIAM N. LOUCKS and J. WELDON HOOT  |   | Kenneth A. Grubb, University of Maryland<br>Donald F. Mulvihill, University of Alabama                     |
| This has been the leading text in its field since<br>it first appeared, fourteen years ago, as is shown<br>by its adoption in nearly 400 colleges and uni-  | 2:00 P.M.<br>PALMER HOUSE<br>Room 11<br>(3rd Floor)                 | Practical Uses of Transportation Flow Data<br>Joint Session: ASA, AEA                                      |
| versities in the U.S. and Canada. The new edi-<br>tion, published in May, represents an extensive<br>reworking of much of the material, especially on   |   | E. Grosvenor Plowman, United States Steel<br>Corporation   |
| the Soviet economy, the British economy, and Fascism. It also includes a considerable amount  | Papers:   | TECHNICAL ASPECTS OF TRANSPORTATION FLOW DATA  |
| of new material, including discussions of the<br>"pricing problem" in a socialist economy and<br>problems created by Britain's nationalization of   |   | R. Tynes Smith, III, Interstate Commerce Commission  |
| industry, as well as discussions of the economy of<br>Israel, Spain, and Argentina.   |   | UTILIZATION OF TRANSPORTATION FLOW<br>DATA BY THE CARRIERS<br>E. S. Root, Erie Railroad                    |
| , <sup>863</sup> pages \$6.00<br>HARPER & BROTHERS, Publishers  |   | UTILIZATION OF TRANSPORTATION FLOW<br>DATA BY THE DEPARTMENT OF DEFENSE AND<br>OTHER SHIPPERS              |
| 49 East 33d Street, New York 16, New York   |   | D. M. Steiner, Department of Defense   |
|   | Discussion:   | W. Edwards Deming, Bureau of the Budget<br>C. Austin Sutherland, National Tank Truck<br>Carriers           |
| 8   |   | 9  |

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2:00 P.M. PALMER HOUSE Room 9 (3rd Floor) Symposium: Recent Developments in the Use of Probability Sampling in Agricultural Economics and Statistics

Joint Session: ASA, AFEA

Chairman: Arnold J. King, National Analysts, Inc.

Papers: OBJECTIVE SAMPLING OF CALIFORNIA FRUIT CROPS

George Kuznets, University of California, and George Harvey, Federal State Crop Reporting Service

USE OF PROBABILITY SAMPLING IN TURKISH 1951 AGRICULTURAL CENSUS

Charles F. Sarle, National Analysts, Inc., and Vincent Lidquist, Mutual Security Agency, Ankara, Turkey

COMBINING PROBABILITY SAMPLING AND EX-PERIMENTAL DESIGN IN MARKETING RE-SEARCH

Walter T. Federer, Cornell University, N. Y. Max E. Brunk, Cornell University, N. Y.

Discussion: Joseph A. Becker, Department of Agriculture Robert K. McMillan, National Analysts, Inc.

2:00 P.M. PALMER HOUSE Room 8 (3rd Floor)

#### Statistical Analysis of Biological Time Series Joint Session: ASA, BS

Chairman: B. G. Greenberg, University of North Carolina Papers: THE PROBLEM OF AUTOREGRESSION IN RE-GRESSION ANALYSIS

R. L. Anderson, North Carolina State College THE USE OF OBSERVATIONS TAKEN PERIODI-CALLY IN GROWTH STUDIES

H. L. Lucas, North Carolina State College

THE APPLICATIONS OF MULTIVARIATE ANAL-

YSIS TO BIOLOGICAL TIME SERIES

A. M. Dutton, University of Rochester

Discussion: Informal

2:00 P.M. PALMER HOUSE Room 7 (3rd Floor) New Developments in the Use of Sample Surveys to Determine Health Conditions Joint Session: ASA, APHA, BS

Chairman: Paul M. Densen, University of Pittsburgh

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#### **CONSUMER ECONOMICS**

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THE USE OF CENSUS CURRENT POPULATION SURVEY TO OBTAIN INFORMATION ON MOR-BIDITY

Theodore D. Woolsey, Federal Security Agency

THE ASSOCIATION BETWEEN HEALTH AND SOCIAL PROBLEMS IN THE POPULATION Paul M. Densen, Antonio Ciocco, and Daniel Horvitz, University of Pittsburgh

2:00 P.M.

PALMER HOUSE Room 18 (Club Floor)

#### Multi-Part Dynamical Systems Econometric Society

Chairman: Arnold C. Harberger, Johns Hopkins University

Papers: A FUNDAMENTAL PROPERTY OF SYSTEMS CHARACTERIZED BY NON-NEGATIVE MATRICES WHOSE COLUMN SUMS ARE LESS THAN OR EQUAL TO UNITY

John S. Chipman, Harvard University

THE STABILITY OF THE EXCHANGE RATE MECHANISM IN A MULTI-COUNTRY SYSTEM J. J. Polak and Ta-Chung Liu, International

J. J. Polak and Ta-Chung Liu, International Monetary Fund

Discussion: Stephen Enke, University of California at Los Angeles

Nicholas Georgescu-Roegen, Vanderbilt University

2:00-5:50 P.M. Application of Statistics to Astronomy Joint Session: ASA, IMS

Crystal Room (3rd Floor)

Chairman: Walter Bartky, University of Chicago Papers: THE STRUCTURE OF THE UNIVERSE Bengt Strömgren, Yerkes Observatory ANALYSIS OF COUNTS OF THE EXTRA-GALAC.

TIC NEBULAE IN TERMS OF A FLUCTUATING DENSITY FIELD

D. Nelson Limber

THEORY OF CLUSTERING OF GALAXIES IN A STATIC AND IN AN EXPANDING UNIVERSE

J. Neyman and E. L. Scott, University of California

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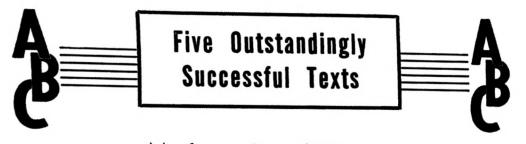
| Discussions:                            | John W. Tukey, Princeton University   |  | SOCIAL STRATIFICATION AND ECONOMIC AD-<br>VANCE  |
|---|---|--|--|
|   | Harold Hotelling, University of North Carolina<br>S. Chandrasekhar, University of Chicago |  | Nelson Foote, University of Chicago, and<br>Paul K. Hatt, Northwestern University      |
|   |   | Discussion:  | Mary Jean Bowman, University of Kentucky   |
| 2:00-5:50 P.M.                          | Quality Control   |  |  |
| PALMER HOUSE<br>Room 14<br>(Club Floor) | Joint Session: ASA, ASQC  | 2:30 P.M.<br>Conrad Hilton<br>Hotel                  | Reports on Maturing Research<br>American Finance Association                           |
|   | Lloyd Knowler, Iowa State University  | Private Dining Room<br>No. 2                         |  |
| Papers:                                 | WHAT MAKES A QUALITY CONTROL CHART  | (3rd Floor)  |  |
|   | Leo A. Aroian, Hughes Aircraft  | Chairman:  | Donald B. Woodward, Mutual Life Insurance  |
|   | DESIGN OF X- AND R- CHARTS FOR CURRENT  |  | Company  |
|   | USE WITH A GIVEN STANDARD<br>Acheson J. Duncan, Johns Hopkins Univer-<br>sity             | Papers:  | CAPITAL FORMATION AND FINANCING<br>Simon Kuznets, University of Pennsylvania<br>SAVING |
|   | QUALITY INDEX CONTROL CHARTS  |  | Raymond Goldsmith, independent consultant<br>RISK IN INVESTMENT                        |
| <b>D</b> '                              | Bonnie B. Small, Western Electric Company   |  | Eleanor S. Bagley, Mutual Life Insurance   |
| Discussion:                             | Bessie B. Day and W. R. Pabst, Jr., Department<br>of the Navy                             |  | Company  |
|   |   |  | •  |
|   |   | 2:30 P.M.  | Some New Concepts  |
| 2:30 P.M.                               | Underdeveloped Countries: The Theory and  | PALMER HOUSE   | American Marketing Association   |
| CONRAD HILTON<br>HOTEL                  | Practice of Technical Assistance<br>American Economic Association                         | Red Lacquer Room (4th Floor)                         |  |
| Grand Ballroom                          | American Economic Association   |  | D. Maynard Phelps, Professor of Marketing,   |
| (2nd Floor)                             | Colin D. Hanne D. L. Haimain  |  | University of Michigan   |
|   | Calvin B. Hoover, Duke University   |  | DO WE HAVE TOO MUCH GROUP-THINK IN   |
| Papers:                                 | FACTORS IN THE ECONOMIC DEVELOPMENT<br>OF GUATEMALA                                       |  | MARKETING?<br>Paul Lazarsfeld, Professor of Sociology, Co-                             |
|   | G. E. Britnell, University of Saskatchewan  |  | lumbia University  |
|   | FACTORS IN THE ECONOMIC DEVELOPMENT<br>OF CEYLON  |  | A NEW LOOK AT MARKETING INTEGRATION  |
|   | P. T. Ellsworth, University of Wisconsin  |  | Corwin D. Edwards, Chief Economist, Fed-   |
| Discussion:                             | Edwin P. Reubens, College of the City of New  |  | eral Trade Commission  |
|   | York  |  |  |
|   | John B. Condliffe, University of California   | 3:30 P.M.<br>PALMER HOUSE<br>Room 796<br>(7th Floor) | Teaching of Salesmanship<br>American Marketing Association                             |
| 2:30 P.M.                               | Sociology and Economic Science  |  | Ralph B. Thompson, University of Texas   |
| CONRAD HILTON<br>HOTEL                  | American Economic Association   |  | NEW THOUGHTS ON TEACHING AIDS  |
| North Ballroom                          |   | Films:   | Frank Beach, University of Illinois  |
| ( <b>3rd Floor</b> )<br>Chairman:       | Frank W. Notestein, Princeton University  | Student Presentations:                               | Allan M. Cain, Austin Life Insurance Com-<br>pany                                      |
|   | SOCIAL VALUE THEORY, ECONOMIC ANALYSIS<br>AND ECONOMIC POLICY                             | · 1t   | NEW THOUGHTS ON SALES CURRICULUM<br>From the University Viewpoint                      |
|   | Joseph J. Spengler, Duke University   | Speaker:   | W. R. Bennett, University of Alabama   |
|   | THE ECONOMIC SYSTEM AND THE SOCIAL SYS-<br>TEM  | •  | From the Industry Viewpoint  |
|   | Manuel Gottlieb, Harvard University   | Speaker:   | Richard S. Steffa, The Dartnell Corporation  |
|   |   |  | 15   |

| 4:00 P.M.<br>PALMER HOUSE<br>Grand Ballroom<br>(4th Floor) | Economic Forecasts and Their Accuracy<br>Joint Session: ASA, AEA   | Discussion:  | Stephen P. Taylor, Department of Commerce<br>Robert N. Grosse, Bureau of the Budget<br>Francis P. Hober, Johns Hopkins University   |
|--|--|--|---|
| Chairman:<br>Papers:                                       | Arthur R. Upgren, University of Minnesota<br>A SURVEY OF RECENT ECONOMIC FORECASTS<br>Rutledge Vining, University of Virginia<br>FORECASTS OF THE WAR PRODUCTION   | 4:00 P.M.<br>PALMER HOUSE<br>Room 17<br>(Club Floor)                             | Mathematics of Biological and Social<br>Phenomena<br>Joint Session: BS, ASA   |
|  | AUTHORITIES<br>Robinson Newcombe, Office of Defense<br>Mobilization, and Paul McCracken, Univer-<br>sity of Michigan, and Stahrl Edmunds, Mc-<br>Graw-Hill Publishing Company  |  | Nicolas Rashevsky, University of Chicago<br>A MATHEMATICAL THEORY OF CAPILLARY EX-<br>CHANGE AS A FUNCTION OF TISSUE STRUCTURE<br>G. W. Schmidt, University of Chicago<br>MATHEMATICAL BIOPHYSICS OF THE CARDIO-  |
| Discussion:  | Geoffrey Moore, National Bureau of Economic<br>Research<br>Lewis Bassie, University of Illinois<br>T. V. Kreps, Stanford University<br>Gerhard Colm, National Planning Association   |  | VASCULAR SYSTEM<br>George Karreman, University of Chicago<br>PROBABILISTIC THEORY OF NEURAL AND<br>SOCIAL PROCESSES<br>Anatol Rapoport, University of Chicago   |
| 4:00 P.M.<br>PALMER HOUSE<br>Room 8<br>(3rd Floor)         | Coordination of Social Statistics at the Federal<br>Level<br>American Statistical Association  | 4:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>North Ballroom<br>Assembly<br>(3rd Floor) | Macro-Dynamic Models of Economic<br>Fluctuations<br>Econometric Society   |
|  | Harry Alpert, Bureau of the Budget   | Chairman:  | Harold M. Somers, University of Buffalo   |
|  | BUILDING A COORDINATED NATIONAL SYS-<br>TEM OF VITAL STATISTICS<br>Halbert Dunn, National Office of Vital Statis-<br>tics<br>COORDINATION OF POPULATION ESTIMATES<br>USED BY FEDERAL, STATE AND LOCAL AGEN-<br>CIES<br>Henry S. Shryock, Jr., Bureau of the Census<br>COORDINATION OF POPULATION AND MAN-<br>POWER STATISTICAL STUDIES<br>Seymour Wolfbein, Bureau of Labor Statistics | -  | NON-LINEAR SELF-EXCITED OSCILLATIONS AND<br>BUSINESS CYCLES<br>Takuma Yasui, Tohoku University<br>THE RELATIONSHIP BETWEEN VELOCITY AND<br>THE COST OF HOLDING MONEY<br>Richard Selden, Vanderbilt University<br>INTEREST AND MONEY IN MACRO-DYNAMIC<br>MODELS<br>Warren L. Smith, University of Michigan<br>Robert Eisner, Northwestern University<br>Clark Warburton, Federal Deposit Insurance |
| Discussion:  | Donald C. Riley, Bureau of the Budget  |  | Corporation   |
| 4:00 P.M.<br>PALMER HOUSE<br>Room 9                        | Meaning and Measurement of Capacity<br>American Statistical Association  | 4:00 P.M.<br>PALMER HOUSE<br>Room 18<br>(Club Floor)                             | The Theory of Games<br>Econometric Society  |
|  | Alvin Mayne, Defense Production Adminis-<br>tration<br>CONCEPTS OF CAPACITY<br>Raymond T. Bowman, University of Penn-<br>sylvania<br>A NEW APPROACH TO CAPACITY MEASUREMENT<br>Samuel Weiss, and Seymour Wolfbein, Bu-<br>reau of Labor Statistics   | Chairman:<br>Papers:   | Harold Hotelling, University of North Caro-<br>lina<br>SELF-POLICING SOLUTIONS IN THE THEORY OF<br>GAMES<br>William Vickrey, Columbia University<br>SOME GAME THEORETIC POINTS OF VIEW ON<br>SCIENTIFIC RESEARCH<br>Leo Törnqvist, University of Helsinki and<br>Cowles Commission for Research in Eco-<br>nomics   |
|  | 10   |  |   |

Saturday

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|  | EXISTENCE OF AN EQUILIBRIUM FOR A COM-<br>PETITIVE ECONOMY<br>Kenneth J. Arrow, Stanford University and    |   | Harlan L. McCracken, Louisiana State Univer-<br>sity  |
|--|--|---|---|
| Discussion                               | Gerald Debreu, Cowles Commission for Re-<br>search in Economics<br>Oskar Morgenstern, Princeton University | 8:00 P.M.<br>PALMER HOUSE<br>Grand Ballroom | The Use of Statistics in Collective Bargaining<br>Joint Session: ASA, IRRA  |
| Distassion.                              | Leonard J. Savage, University of Chicago   | (4th Floor)                                 |   |
| 6:00 P.M.<br>Palmer house                | Dinner – AMA Chapter Presidents<br>American Marketing Association  |   | J. Douglas Brown, Princeton University, Presi-<br>dent, Industrial Relations Research Associa-<br>tion                    |
| Room 11<br>(3rd Floor)                   | -  | Papers:                                     | GROUND RULES FOR THE USE OF STATISTICS<br>IN COLLECTIVE BARGAINING<br>George W. Taylor, former Chairman, War              |
| 6:00 P.M.<br>PALMER HOUSE<br>Room 6      | Informal Dinner – Committee on Census<br>Enumeration Areas<br>American Statistical Association             |   | Labor Board, University of Pennsylvania<br>STATISTICS FROM THE MEDIATOR'S POINT OF<br>VIEW                                |
| (3rd Floor)                              |  |   | Cyrus Ching, former Director, Federal Media-<br>tion and Conciliation Service   |
| 8:00 P.M.<br>CONRAD HILTON<br>HOTEL      | Monetary Policy<br>American Economic Association   |   | STATISTICS FROM THE LABOR POINT OF VIEW<br>Arthur J. Goldberg, General Counsel, Con-<br>gress of Industrial Organizations |
| Grand Ballroom<br>(2nd Floor)            |  |   | STATISTICS FROM THE INDUSTRY POINT OF   |
|  | John H. Williams, Harvard University   |   | VIEW  |
| Papers:                                  | RECENT DEVELOPMENTS IN BRITISH MONE-<br>TARY POLICY<br>Harry Johnson, King's College, Cambridge            |   | Speaker to be announced.  |
|  | RECENT DEVELOPMENTS IN AMERICAN MONE-<br>TARY POLICY<br>Henry C. Wallich, Yale University                  |   |   |
|  | RECENT DEVELOPMENTS IN CANADIAN MONE-<br>TARY POLICY<br>Mabel F. Timlin, University of Saskatchewan        | See   | These Modern Books  |
| Discussion:                              | Lloyd W. Mints, University of Chicago<br>Herbert Stein, Committee for Economic Devel-<br>opment            | See<br>At                                   | These Modern Books<br>Our Exhibit   |
|  | G. Findlay Shirras, University of Illinois   | Econo                                       | omics: Principles and Applications  |
| 8:00 P.M.                                | Development of Economic Thought  |   | By Dodd and Hasek   |
| CONRAD HILTON<br>HOTEL<br>North Ballroom | American Economic Association  |   | r Law and Legislation<br>By Mueller   |
| (3rd Floor)                              | Frank H. Knight University of Chinese  | Gove  | rnment Regulation of Business   |
|  | Frank H. Knight, University of Chicago<br>PATTERNS OF ECONOMIC THOUGHT                                     |   | By Anderson   |
| Tupers.                                  | , Karl Pribram, Washington, D.C.<br>THE DEVELOPMENT OF THE CONCEPTS OF                                     |   | c Finance<br>By Bennett and Lippincott  |
|  | MECHANISM AND MODEL IN PHYSICAL AND<br>ECONOMIC THOUGHT<br>Gregor Sebba, University of Georgia             |   | <b>DUTH-WESTERN PUBLISHING CO.</b><br>Specialists in Business and Economic Education)                                     |
| Discussion:                              | Joseph J. Spengler, Duke University<br>Carl Christ, Johns Hopkins University                               | Cinci                                       | nnati 2 Chicago 5 Dallas 2<br>New Rochelle, N.Y. San Francisco 3  |
|  | 18   |   | 19  |



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#### Sunday

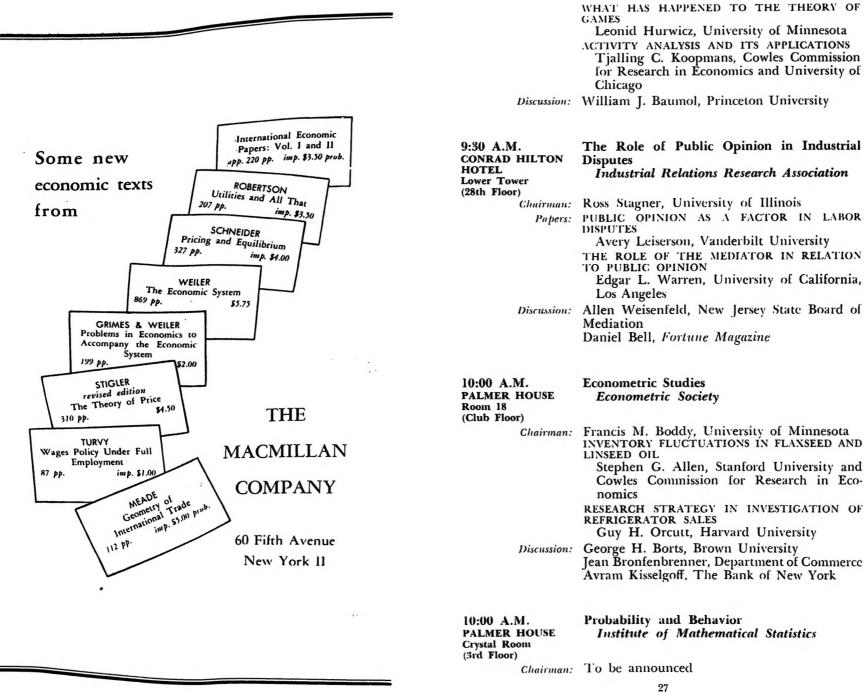
### SUNDAY, DECEMBER 28, 1952

| 8:00 A.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 6<br>(3rd Floor) | Breakfast – Conference of Secretaries of the<br>Allied Social Science Associations:<br>American Association of University Teachers of Insur-<br>ance<br>American Business Law Asso-<br>ciation<br>American Finance Association<br>American Finance Association<br>American Marketing Associa- |
|--|---|
| 8:00 A.M.<br>CONRAD HILTON<br>HOTEL<br>Park Row Restaurant<br>(1st Floor)          | Breakfast: American Finance Association<br>A roundtable discussion of the teaching of<br>consumer and personal finance.   |
| (list Floor)<br>Chairman:  | Ernst Dauer, Household Finance Corporation  |
| 8:00 A.M.<br>PALMER HOUSE<br>Coffee Shop<br>(Sub-Arcade)                           | Breakfast; Business Meeting–Section on Train-<br>ing of Statisticians<br>American Statistical Association   |
| 8:00 A.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 5<br>(3rd Floor) | Breakfast – for present and former faculty<br>members and graduate students of the Univer-<br>sity of Minnesota   |
| 8:00 A.M.<br>CONRAD HILTON<br>HOTEL<br>West Ballroom<br>(3rd Floor)                | Breakfast – Alumni of the University of Wis-<br>consin  |
| 8:30-9:50 A.M.<br>PALMER HOUSE<br>Room 6<br>(3rd Floor)                            | Business Meeting – Institute of Mathematical<br>Statistics  |
| 9:30 A.M.<br>CONRAD HILTON<br>HOTEL<br>Grand Ballroom<br>(2nd Floor)               | Governmental Economic Activity<br>American Economic Association   |
| Chairman:<br>Papers:   | THE PART OF THE IN THE UNITED STATES  |

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### Sunday

| Discussion:               | TRENDS IN LOCAL AND FEDERAL EXPENDI-<br>TURES IN THE UNITED STATES SINCE 1900<br>Lyle C. Fitch, Middletown, Connecticut<br>Ronald H. Coase, University of Buffalo<br>M. Slade Kendrick, Cornell University<br>Theodore C. Mesmer,, United Nations Statis-<br>tical Office  | 9:30-11:50 A.M.<br>PALMER HOUSE<br>Red Lacquer Room<br>(4th Floor) | <ul> <li>SPENDING THE PROMOTIONAL DOLLAR – A NEW<br/>THEORY WITH PRACTICAL IMPLICATIONS<br/>Leo V. Aspinwall, University of Colorado</li> <li>What's New in Techniques for Understanding<br/>Buying and Selling Behavior?<br/>American Marketing Association</li> <li>L. Stanger Steek, Director of Personsh and Me</li> </ul>  |
|---------------------------|--|--|---|
|                           | Long-run Effects of Full Employment on the<br>Labor Market<br>Joint Session: AEA, IRRA<br>Gladys L. Palmer, University of Pennsylvania<br>WAGE LEVELS AND WAGE DIFFERENTIALS<br>Albert E. Rees, University of Chicago<br>THE IMPACT OF EFFECTIVE DEMAND ON THE<br>LABOR SUPPLY<br>Clarence D. Long, Johns Hopkins University<br>Richard A. Lester, Princeton University<br>Charles A. Myers, Massachusetts Institute of<br>Technology  | Chairman:  | J. Stevens Stock, Director of Research and Me-<br>dia, McCann-Erickson, Inc.<br>WHAT ABOUT GROUP DYNAMICS AND OTHER<br>SOCIAL RESEARCH METHODS?<br>Harold J. Leavitt, Vice President, Nejelski<br>& Company, Incorporated, Management<br>Counsel<br>THE THEORY OF GAMES – CAN IT BE USED IN<br>MARKETING?<br>John McDonald, Board of Editors, Fortune<br>Magazine and author of Strategy in Poker,<br>War and Business<br>APPLYING PROJECTIVE TECHNIQUES TO MAR-<br>KETING PROBLEMS<br>James Vicary, Consultant in Marketing and<br>Public Opinion Research |
|                           | Needed Research in Finance<br>American Finance Association<br>Robert V. Rosa, Federal Reserve Bank of New<br>York<br>BUDGETING AND PLANNING CAPITAL OUTLAYS<br>Joel Dean, Columbia University and Joel<br>Dean Associates<br>NEW YORK STOCK EXCHANGE RESEARCH PRO-<br>GRAM ON STOCK OWNERSHIP<br>Jonathan Brown, New York Stock Exchange<br>EFFECTS OF TAXATION ON THE INVESTMENT<br>CAPACITY AND POLICY OF INDIVIDUALS<br>J. Keith Butters and Lawrence Thompson,<br>Harvard University |  | <ul> <li>What's New in Industrial Marketing Techniques?<br/>American Marketing Association</li> <li>A. T. Bush, Acme Steel Company<br/>WHAT'S NEW IN FORECASTING<br/>Arthur G. Auble, Associate Professor, Business Statistics, Northwestern University</li> <li>INDUSTRIAL SALESMEN – KEY TO EFFECTIVE<br/>RESEARCH?<br/>John S. Hawley, Marketing Manager, Shakeproof, Inc.</li> <li>AN INDUSTRIAL "ALICE" IN THE "DO-IT-YOUR-<br/>SELF" WONDERLAND<br/>William H. Ferry, Merchandising Manager,<br/>Skil Corporation</li> </ul>                          |
| 9:30 A.M.<br>Palmer house | Teaching of General Marketing  | 9:30 A.M.<br>CONRAD HILTON   | Recent Developments in Mathematical<br>Economics and Econometrics: An Expository  |
| Room 796<br>(7th Floor)   | American Marketing Association<br>Richard M. Clewett, Northwestern University<br>NEW VIEWPOINTS IN MARKETING<br>E. D. McGarry, University of Buffalo   | HOTEL<br>South Ballroom<br>(3rd Floor)<br>Chairman:<br>Papers:     | Session<br>Joint Session: AEA, ES<br>Wassily Leontief, Harvard University<br>CARDINAL UTILITY<br>Robert H. Strotz, Northwestern University  |



| Papers:  | PERSONAL PROBABILITY<br>Leonard J. Savage, University of Chicago<br>FOUNDATIONS OF A THEORY OF BEHAVIOR<br>Edward W. Barankin, University of Califor-<br>nia, Berkeley, and National Bureau of Stand-<br>ards, Los Angeles |  | <ul> <li>(4) TOPICS IN ANALYSIS OF VARIANCE: A. OP-<br/>TIMUM PROPERTIES OF TESTS FOR MODEL II.</li> <li>B. GENERALIZATIONS OF MODEL II (Preliminary<br/>Report)</li> <li>L. Herbach, Brooklyn College and Columbia<br/>University</li> <li>(5) FURTHER EXAMPLES FOR WHICH THE</li> </ul> |
|--|--|--|---|
| 10:00 A.M.<br>PALMER HOUSE<br>Room 8<br>(3rd Floor)  | Meeting – 1953 Program Committee<br>American Statistical Association   |  | <ul> <li>LÍKELIHOOD RATIO TEST IS POOR</li> <li>L. M. Court, Brooklyn College</li> <li>(6) AN EMPIRICAL SAMPLING METHOD</li> <li>E. L. Cox, Dugway Proving Ground</li> <li>(7) DISTRIBUTION OF SEMI-DEFINITE AND OF</li> </ul>  |
| 10:00 A.M.<br>PALMER HOUSE<br>Room 11<br>(3rd Floor) | Business Meeting: Business and Economic<br>Statistics Section<br>American Statistical Association  | <b>K</b> a   | <ul> <li>(i) DISTRIPCION OF OR DESIGNATION FOR MALE AND OF TROPERINTE QUADRATIC FORMS</li> <li>J. Gurland, Iowa State College</li> <li>(8) ASYMPTOTIC PROPERTIES OF IDEAL LINEAR ESTIMATORS (By title)</li> <li>Carl A. Bennett, General Electric Company</li> </ul>                      |
| 10:00-11:00 A.M.<br>PALMER HOUSE<br>Room 9           | Round Table on Activities of Committee on<br>Statistics in the Physical Sciences<br>American Statistical Association   |  | <ul> <li>(9) BIAS IN ESTIMATION BY INTERVAL (By title)</li> <li>M. C. K. Tweedie, Virginia Polytechnic Institute. Introduced by B. Harshbarger, Virginia Polytechnic Institute</li> <li>(10) COMPLETENESS OF THE ORDER STATISTICS</li> </ul>  |
| (3rd Floor)<br>10:00-10:30 A.M.                      | ACB Newspaper Research Services as an Aid  |  | IN THE NONPARAMETRIC CASE (By title)<br>D. A. S. Fraser, University of Toronto<br>(11) PARAMETER-FREE AND NON-PARAMETRIC  |
| PALMER HOUSE<br>Booth 30<br>Exhibition Hall          | to Market Research and Merchandizing   |  | TOLERANCE LIMITS: THE EXPONENTIAL CASE<br>(By title)<br>L. A. Goodman, University of Chicago  |
| Speaker:   | W. Carroll Shelton, Advertising Checking Bu-<br>reau, Inc.   |  | (12) A SIMPLE METHOD FOR IMPROVING SOME<br>ESTIMATORS (By title)<br>L. A. Goodman, University of Chicago  |
| 12:00 M.   | Contributed Papers – I   |  |   |
| PALMER HOUSE<br>Crystal Room<br>(3rd Floor)          | Institute of Mathematical Statistics   | 12:00 M.<br>Conrad Hilton<br>Hotel                       | Luncheon – Editors of Economic Journals<br>American Economic Association  |
| Chairwoman:<br>Papers:                               | E. L. Scott, University of California, Berkeley<br>(1) A TWO-SAMPLE MULTIPLE DECISION PRO-<br>CEDURE FOR RANKING MEANS OF NORMAL<br>POPULATIONS WITH UNKNOWN VARIANCES<br>(Preliminary Report)                             | Private Dining Room<br>No. 3<br>(3rd Floor)              |   |
|  | R. E. Bechhofer, C. W. Dunnett and M.<br>Sobel, Cornell University<br>(2) A SEQUENTIAL MULTIPLE DECISION PRO-<br>CEDURE FOR RANKING MEANS OF NORMAL<br>POPULATIONS WITH KNOWN VARIANCES (Pre-                              | 12:00-4:00 P.M.<br>PALMER HOUSE<br>Room 9<br>(3rd Floor) | Luncheon 1952 Census Tract Conference<br>Joint Session: ASA, AMA  |
|  | R. E. Bechhofer and M. Sobel, Cornell Uni-   |  | Howard Whipple Green, Cleveland Health<br>Council   |
|  | versity<br>(3) ON QUADRATIC ESTIMATES OF VARIANCE<br>COMPONENTS  | Papers:  | CURRENT DEVELOPMENTS AND PROBLEMS IN<br>CONNECTION WITH THE CENSUS TRACT PRO-<br>GRAM   |
|  | F. Graybill, Oklahoma Agricultural and<br>Mechanical College and Iowa State College  |  | Roy V. Peel, Director of the Census<br>CENSUS TRACT AND URBAN RESEARCH<br>Donald L. Foley, University of Rochester  |
|  | 28   |  | 29  |

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Sunday

INDEX OF SOCIO-ECONOMIC STATUS BY CENSUS TRACTS
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#### GENERAL DISCUSSION

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Luncheon – Business Meeting of Outgoing 12:00 M. PALMER HOUSE **Board of Directors** Room 6 American Statistical Association (3rd Floor) Luncheon - Research Council of Economic 12:00 M. CONRAD HILTON Security HOTEL **Private Dining Room** No. 8 (3rd Floor) Round Table on the Patman "Textbooks" I 1:30 P.M. CONRAD HILTON American Finance Association HOTEL West Ballroom (3rd Floor) Chairman: Wesley Lindow, Irving Trust Company Papers: GENERAL RETROSPECT Henry C. Murphy, International Monetary Fund THE PUBLIC DEBT: HINDRANCE OR ADVAN-TAGE TO CREDIT CONTROL Paul W. McCracken, University of Michigan ORGANIZATION OF THE FEDERAL RESERVE SYSTEM G. L. Bach, Carnegie Institute of Technology 1:30 P.M. **Teaching of Advertising** PALMER HOUSE American Marketing Association **Room 796** (7th Floor) Vance Chamberlin, Fenn College Chairman: WHAT'S NEW - IN THE TEACHING OF ADVER-TISING

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1:45 P.M. **CONRAD HILTON** 

HOTEL North Ballroom

(3rd Floor)

2:00-3:20 P.M.

**Grand Ballroom** 

(4th Floor)

2:00 P.M.

Room 17 (Club Floor)

PALMER HOUSE

PALMER HOUSE

| Panel:                 | Kenneth Dameron, Ohio State University<br>Charles G. Ellington, Harvard University<br>Vernon Fryburger, University of Illinois<br>Kenneth A. Grubb, University of Maryland<br>Karl H. Krauskopf, Ohio University<br>James D. Scott, University of Michigan<br>Vance Chamberlin, Fenn College | Papers:<br>Discussion:                        | <ul> <li>WHAT AN ECONOMIST WANTS IN THE WAY OF<br/>SAVINGS DATA</li> <li>Gerhard Colm, National Planning Associa-<br/>tion</li> <li>NEXT STEPS IN THE STATISTICAL STUDY OF<br/>SAVINGS</li> <li>Raymond Goldsmith</li> <li>Peter Henle, American Federation of Labor</li> <li>Eugene Zorn, American Bankers Association</li> <li>V. Lewis Bassie, University of Illinois</li> </ul> |
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| í.<br>Hilton           | The United States Demand for Imports<br>Joint Session: AEA, ES   | 2:00 P.M.                                     | Demonstration and Experiment in the Teach-  |
| lroom<br>)             |  | PALMER HOUSE<br>Room 18<br>(Club Floor)       | ing of Statistics<br>American Statistical Association   |
|                        | Fritz Machlup, Johns Hopkins University<br>THE UNITED STATES DEMAND FOR IMPORTS<br>Hans P. Neisser, New School for Social Re-<br>search  | - Chairman:                                   | Philip J. McCarthy, Cornell University<br>THE USE OF LABORATORY EXPERIMENTS IN<br>THE TEACHING OF PROBABILITY STATISTICS<br>A. C. Rosander, George Washington Univer-   |
|                        | A STRUCTURAL APPROACH TO THE PROBLEM<br>OF IMPORT DEMAND<br>Arnold C. Harberger, Johns Hopkins Uni-<br>versity   | Discussion:                                   | sity<br>W. J. Dixon, University of Oregon<br>Edwin G. Olds, Carnegie Institute of Tech-<br>nology   |
| Discussion:            | John H. Adler, International Bank for Recon-<br>struction and Development<br>Sidney S. Alexander, Columbia Broadcasting<br>System<br>Herbert K. Zassenhaus, International Monetary   | 2:00 P.M.<br>PALMER HOUSE<br>Red Lacquer Room | Two Recent Developments in the Design and<br>Analysis of Experiments<br>Joint Session: ASA, BS  |
|                        | Fund   |   | Cuthbert Daniel<br>EXPERIMENTAL DESIGNS FOR THE PHYSICAL  |
| P.M.<br>HOUSE<br>Iroom | Marketing and the Pricing Dilemma<br>American Marketing Association  |   | SCIENCES<br>W. J. Youden, National Bureau of Standards<br>MULTIPLE COMPARISONS<br>John Tukey, Princeton University  |
| Chairman:              | Ira D. Anderson, Professor of Marketing, North-<br>western University<br>THE COMPANY AND THE LAW   | 2:00 P.M.<br>PALMER HOUSE                     | The Role of Mathematics in the Social Sciences<br>Joint Session: ASA, AAAS  |
| Speaker:               | Thomas Sunderland, General Counsel, Stand-<br>ard Oil of Indiana   | Room 14<br>(Club Floor)                       | Simon Kuznets, University of Pennsylvania   |
| Speaker:               | PUBLIC POLICY AND THE LAW<br>Morris Adelman, Associate Professor, Massa-<br>chusetts Institute of Technology   | Chairman:<br>Papers:                          | THE POTENTIAL CONTRIBUTIONS OF MATHE-<br>MATICS TO ECONOMIC AND SOCIAL STATISTICS<br>Frederick F. Stephan, Princeton University   |
| [.<br>HOUSE            | Federal Estimates of National Savings<br>American Statistical Association  |   | LIMITS OF MATHEMATICS IN STATISTICS<br>Wladimir S. Woytinsky, Johns Hopkins University  |
| er)                    | Peyton Stapp, Bureau of the Budget   | Discussion:                                   | David Rosenblatt, Washington, D.C.<br>Dorothy Brady, Bureau of Labor Statistics<br>Jacob Marschak, Cowles Commission  |
|                        |  |   |   |

#### Sunday

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2:00 P.M.

Fover to the

**Grand Ballroom** (4th Floor)

## WILEY Books — 1952 Highlights

THE DEVELOPMENT OF ECONOMIC THOUGHT: Great Economists in Perspective by HENRY WILLIAM SPIEGEL, The Catholic University of America . . . 1952. 811 pages. \$6.50.

\* DEMAND ANALYSIS: A Study in Econometrics by HERMAN WOLD, University of Uppsala; with LARS JURÉEN, State Agricultural Marketing Board of Sweden ... 1952. 515 pages. \$7.00.

ECONOMETRICS by GERHARD TINTNER, Ioura State College ... 1952. 370 pages. \$5.75.

PRINCIPLES OF HUMAN RELATIONS: Applications to Management by NORMAN R. F. MAIER, The University of Michigan ... 1952. 474 pages. \$6.00.

\* STATISTICAL THEORY WITH ENGINEERING APPLI-CATIONS: Text and Tables by A. HALD, The University of Copenhagen . . . Text: 1952. 783 pages. \$9.00. Tables: 1952. 97 pages. \$2.50.

\* 50-100 BINOMIAL TABLES by HARRY G. ROMIG, Hughes Aircraft Company... 1952. 172 pages. \$4.00.

\* ADVANCED STATISTICAL METHODS IN BIOMETRIC RESEARCH by C. RADHAKRISHNA RAO, the Indian Statistical Institute, Calcutta . . . 1952. 390 pages. \$7.50.

\* THE DESIGN AND ANALYSIS OF EXPERIMENTS br OSCAR KEMPTHORNE, Iowa State College ... 1952. 631 pages. \$8.50.

## COMING early in 1953

| STUDIES IN ECONOMETRIC METH   | • |  |  |  |
|-------------------------------|---|--|--|--|
| ODS Edited by William C. Hood | I |  |  |  |
| and Tjalling C. Koopmans.     |   |  |  |  |

- \*INTERNATIONAL TRADE STATIS-TICS: A Guide to the User of Statistics by Edward Ely and R. G. D. Allen.
- **\*AN INTRODUCTION TO STATISTICS** by Charles E. Clark.
- \* STOCHASTIC PROCESSES by J. L. Doob.
- NATIONALISM AND SOCIAL COM-MUNICATION by Karl W. Deutsch.
- \* A WILEY PUBLICATION IN STATISTICS.

Walter A. Shewhart, Editor.

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American Statistical Association

Chairman: Emil Schell, Department of the Air Force

Papers: C. C. Hurd, International Business Machines H. L. Mitchell, Eckert Mauchly Division, Remington Rand

2:00-5:50 P.M. PALMER HOUSE Room 11 (3rd Floor)

#### **Application of Statistics to Earth Sciences** American Statistical Association

Chairman: John C. Griffiths, Pennsylvania State College

Papers: APPLICATION OF STATISTICAL METHODS TO SEDIMENTARY DATA

W. C. Krumbein, Northwestern University

SOME STATISTICAL PROBLEMS IN FIELD GEOL-OGY

Hard J. Pincus, Ohio State University

OCEAN WAVES AND ANALYSIS OF THEIR APPEAR-ANCE, PROPAGATION AND PROPERTIES IN TERMS OF TIME, SERIES, POWER SPECTRA AND STATISTICS

Willard J. Pierson, Jr., New York University

CLIMATOLOGY'S NEEDS IN STATISTICAL RE-SEARCH

Arnold Court, University of California

Discussion: K. A. Brownlee, University of Chicago I. W. Burr, Purdue University

2:00 P.M. PALMER HOUSE **Crystal Room** (3rd Floor)

#### **Controlled Stochastic Processes** Joint Session: ES, IMS

- lacob Marschak, Cowles Commission for Re-Chairman: search in Economics and University of Chicago
  - Papers: ON CONTROLLED STACHASTIC PROCESSES Jack Kiefer, Cornell University

ON SOME PROBLEMS IN THE THEORY OF DY-NAMIC PROGRAMMING

Richard Bellman, The RAND Corporation

Discussion: Leo Törnqvist, University of Helsinki and Cowles Commission for Research in Economics

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| 2:00-2:30 P.M.<br>PALMER HOUSE<br>Booth 25<br>Exhibition Hall<br>Speak           | Research with a Practical Accent<br>er: A. Edwin Fein, Research Company of America   |  | Edwin C. Johnson, United States Senate<br>GOVERNMENT CO-ORDINATION AND PROMO-<br>TION OF TRANSPORTATION<br>Jack Garrett Scott, Under Secretary of Com-<br>merce for Transportation  |
|--|--|--|---|
| 2:30 P.M.<br>CONRAD HILTO<br>HOTEL<br>North Ballroom<br>Assembly                 | Technology<br>N American Economic Association  | Discussion:  | John H. Frederick, University of Maryland<br>Charles S. Morgan, Interstate Commerce Com-<br>mission   |
| ( <b>3rd Floor</b> )<br>Chairm   | an: B. U. Ratchford, Duke University<br>rs: THE ROLE OF TECHNOLOGY IN ECONOMIC<br>THEORY<br>Clarence E. Ayres, University of Texas<br>DETERMINANTS OF THE DIRECTION OF TECH-<br>NOLOGICAL CHANGE   |  | <ul> <li>The Principles and Factors Influencing Managerial Decisions in Industrial Relations<br/>Joint Session: IRRA, AEA</li> <li>Douglass V. Brown, Massachusetts Institute of<br/>Technology</li> </ul>  |
| Discussio  | Yale Brozen, Northwestern University<br>m: M. C. Urquhart, Queen's University<br>Irving H. Siegel, Twentieth Century Fund  | Papers:  | CHANGING ASSUMPTIONS IN THE THEORY OF<br>BUSINESS BEHAVIOR<br>George Katona, University of Michigan<br>PRESSURES ON COMPANY DECISION-MAKING IN<br>INDUSTRIAL RELATIONS<br>James C. Worthy, Sears, Roebuck & Company   |
| 2:30 P.M.<br>CONRAD HILTO<br>HOTEL<br>Upper Tower<br>(29th Floor)                | Research<br>M American Economic Association  | Discussions:   | E. H. van Delden, New York University<br>Sidney C. Sufrin, Syracuse University  |
| Chairma  | an: Simeon E. Leland, Northwestern University<br>rs: SOME CONTEMPORARY TENDENCIES IN ECO-<br>NOMIC RESEARCH<br>Bernard F. Haley, Stanford University<br>ECONOMIC RESEARCH IN RELATION TO PUBLIC  | 2:30 P.M.<br>CONRAD HILTON<br>HOTEL<br>Lower Tower<br>(28th Floor) | Problems in the Development of Pension Pro-<br>grams under Collective Bargaining<br>Industrial Relations Research Association   |
| Discussio  | POLICY<br>Robert D. Calkins, Brookings Institution<br>M: Howard S. Ellis, University of California<br>Alfred C. Neal, Federal Reserve Bank of Boston<br>Milton Friedman, University of Chicago<br>Meyer Kestnbaum, Hart, Schaffner & Marx<br>Arthur R. Upgren, University of Minnesota |  | George W. Taylor, University of Pennsylvania<br>CONTRIBUTION AND BENEFITS<br>Leonard Lesser, United Automobile Workers<br>of America, CIO<br>PROBLEMS AND PROCEDURES IN RETIREMENT,<br>CONTINUATION, AND RECALL<br>Curtis B. Gallenbeck, Inland Steel Company |
| 0.00 D.14  |  | Discussion:  | Robert M. Ball, Social Security Administration<br>Lane Kirkland, American Federation of Labor   |
| 2:30 P.M.<br>CONRAD HILTO<br>HOTEL<br>Private Dining Roo<br>No. 2<br>(3rd Floor) | (program arranged by W. H. S. Stevens)<br>American Economic Association  | 2:30-3:00 P.M.<br>PALMER HOUSE<br>Booth 9                          | A New Symbolism for Economics and Statistics  |
|  | an: Kent T. Healy, Yale University<br>rs: PROPOSED CHANGES IN TRANSPORTATION<br>REGULATION   | Exhibition Hall<br>Speaker:  | Arthur O. Dahlberg, Visual Economics Labora-<br>tory of Columbia University   |
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| 3:30 P.M.<br>CONRAD HILTON<br>HOTEL<br>West Ballroom<br>(3rd Floor)          | Round Table on the Patman "Textbooks" II<br>American Finance Association  | Papers:  | ESTIMATES OF LABOR FORCE, EMPLOYMENT,<br>AND UNEMPLOYMENT, 1900-50<br>Stanley Lebergott, Bureau of the Budget<br>PROJECTIONS OF LABOR FORCE AND EMPLOY-  |
|--|---|--|--|
| Chairman:  | Roland I. Robinson, Northwestern University<br>WORKING OF THE CREDIT MECHANISM<br>Roy L. Reierson, The Bankers Trust Com-<br>pany<br>NEW AND OLD IDEAS ON RESERVE REQUIRE-<br>MENTS                                     | Discussion:  | MEN'T, 1950-2000<br>Calman Winegarden, Bureau of Labor Sta-<br>tistics<br>John Durand, United Nations Population Office<br>David Kaplan, Bureau of the Census<br>Gladys Palmer, University of Pennsylvania |
|  | Charles R. Whittlesey, University of Pennsyl-<br>vania<br>PHILOSOPHY OF DEBT MANAGEMENT<br>Henry C. Wallich, Yale University<br>GAPS AND OMISSIONS IN THE PATMAN INQUIRY<br>John D. Clark, Council of Economic Advisers |  | Use of Statistics in Hospital Planning<br>Joint Session: ASA, AHA<br>Paul M. Densen, University of Pittsburgh  |
| 0.00 D.15  |   | Papers:  | STATISTICAL ASPECTS OF HOSPITAL ACCREDI-<br>TATION   |
| 3:30 P.M.<br>PALMER HOUSE<br>Room 796<br>(7th Floor)                         | Teaching of Sales Management<br>American Marketing Association  |  | E. L. Crosby, Johns Hopkins Hospital<br>STATISTICAL PROBLEMS ENCOUNTERED IN THE<br>WORK OF THE COMMISSION ON FINANCING OF<br>HOSPITAL CARE   |
| Chairman:<br>Speaker:  | Kenneth D. Hutchinson, Boston University<br>SALESMEN'S RETIREMENT PLANS<br>Phillip McVey, Case Institute of Technology  |  | Isidore Altman, Commission on Financing<br>Hospital Care   |
| Speaker:   | SPECIAL INCENTIVES FOR SALESMEN<br>Albert Haring, Indiana University  | 4:00 P.M.<br>PALMER HOUSE<br>Room 17               | Determining Optimum Conditions<br>Joint Session: ASA, BS   |
| 3:30-5:00 P.M.<br>PALMER HOUSE<br>Grand Ballroom<br>(4th Floor)<br>Chairman: | Mediamatics – A New Approach for the<br>Measurement and Evaluation of Media<br>Audiences<br>American Marketing Association<br>Hans Zeisel, Tca Bureau, New York City  | (Club Floor)<br>Chairman:<br>Papers:               | Harold Hotelling, University of North Carolina<br>RECENT ADVANCES IN FINDING BEST OPERAT-<br>ING CONDITIONS<br>R. L. Anderson, University of North Carolina<br>SOME PROBLEMS IN DETERMINING MAXIMA OF      |
| Speaker:   | MEDIAMATICS WHAT IT IS<br>Ira Bix, Director of Advertising Research,<br>Farm Journal  |  | FUNCTIONS OF SEVERAL VARIABLES<br>Fred Mosteller, Harvard University   |
| Speakers:  | MEDIAMATICS AN EVALUATION<br>George H. Brown, Professor of Marketing,<br>University of Chicago<br>Stanley Canter, Associate Director of Re-<br>search, McCann-Erickson, Inc.  | 4:00 P.M.<br>PALMER HOUSE<br>Room 9<br>(3rd Floor) | Local Statistics – The Philadelphia Story<br>American Statistical Association  |
|  | •   | Chairman:  | Leonard A. Drake, Chamber of Commerce of<br>Greater Philadelphia   |
| 4:00 P.M.<br>PALMER HOUSE<br>Room 8<br>(3rd Floor)                           | Labor Force and Employment Trends and<br>Projections: 1900-2000<br>Joint Session: AEA, ASA  | Papers:  | CITY AND AREA STATISTICS – CHAMBER OF<br>COMMERCE EXPERIENCE<br>Leonard A. Drake<br>BUYING HABITS OF PHILADELPHIA FAMILIES:  |
|  | Charles D. Stewart, Bureau of Labor Statistics  |  | AN EXAMPLE OF STUDENT RESEARCH<br>Myron Heidingsfield, Temple University   |
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Sunday

| Sunday   |   |     | Sunday   |   |
|--|---|-----|--|---|
|  | DEVELOPMENT, ANALYSIS AND USE MADE OF<br>LOCAL STATISTICS BY A CITY PLANNING COM-<br>MISSION<br>Harlin G. Loomer, City Planning Commis-<br>sion of Philadelphia |     | 5:00-6:00 P.M.<br>PALMER HOUSE<br>Red Lacquer Room<br>(4th Floor)                  | Business Meeting<br>American Statistical Association  |
| 4:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 1                | Individual Preference Functions<br>Joint Session: ES, IMS   |     | 5:30 P.M.<br>PALMER HOUSE<br>Room 14<br>(Club Floor)                               | Cocktails<br>American Marketing Association   |
| (3rd Floor)  |   | *   | 6:00 P.M.  | Dinney Duingston University Alumni and  |
| Chairman:<br>Papers:   | Oskar Morgenstern, Princeton University<br>THE INTRANSITIVITY OF INDIVIDUAL PREFER-<br>ENCES  |     | Place to be Announce   | Dinner – Princeton University Alumni and<br><sup>d</sup> Faculty  |
|  | Kenneth O. May, Carleton College<br>EXPERIMENTAL TESTING OF A POSTULATE IN<br>THE THEORY OF CHOICE<br>Andreas G. Papandreou, University of Min-<br>nesota       |     | 6:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 6<br>(3rd Floor) | Dinner – Members of the Editorial Board of<br>The American Économic Review<br>American Economic Association |
| Discussion:  | Ward Edwards, Johns Hopkins University<br>Milton Friedman, University of Chicago<br>H. S. Houthakker, Cowles Commission for Re-<br>search in Economics          |     | 7:00 P.M.<br>PALMER HOUSE<br>Grand Ballroom  | Banquet<br>American Marketing Association   |
| 4:00 P.M.<br>PALMER HOUSE<br>Crystal Room  | The New Consumers Price Index<br>Joint Session: ASA, ES   |     | (4th Floor)  | WHAT'S NEW ON MARKETING PROSPECTS AT HOME AND ABROAD?   |
| (3rd Floor)  | Adolph O. Berger, Bureau of Labor Statistics  |     | Speaker:   | Charles H. Sawyer, Secretary of Commerce of the United States   |
| Paper:   | THE NEW CONSUMERS PRICE INDEX<br>Edward Hollander, Bureau of Labor Statistics   |     |  | Tickets \$6.00, available at registration desk.   |
| Discussion:  | Robert A. Sayre, Association of American Rail-<br>roads<br>Lazare Teper, International Ladies Garment<br>Workers Union  |     | 7:30 P.M.<br>MORRISON HOTEL<br>Hollywood Room<br>(Mezzanine)                       | Registration; Informal Smoker<br>American Business Law Association  |
|  | Laura Mae Webb, Bureau of the Budget  |     | ()   | MEET YOUR TEXTBOOK AUTHORS  |
|  |   | l l | Chairman:  | Matthew P. Dogan, Indiana University  |
| 4:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 4<br>(3rd Floor) | Meeting – American Section of the Interna-<br>tional Institute of Public Finance  | ĺ   | 7:30 P.M.<br>PALMER HOUSE<br>Red Lacquer Room<br>(4th Floor)                       | Presidential Address<br>American Statistical Association  |
| 4:30 P.M.  | Meeting: Company Membership Advisory  |     | Chairman:  | Willard Thorp, U. S. Department of State  |
| PALMER HOUSE<br>Room 788   | •Council<br>American Marketing Association  |     | Speaker:   | Aryness Joy Wickens, Bureau of Labor Statistics   |
| (7th Floor)<br>5:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>North Ballroom               | Annual Business Meeting and Awarding of the<br>Francis A. Walker Medal<br>American Economic Association   |     | 8:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>Grand Ballroom<br>(2nd Floor)               | Harrold Adams Innis, 1894-1952<br>American Economic Association   |
| (3rd Floor)  |   |     | Chairman:  | Chester W. Wright, University of Chicago  |
|  | 40  |     |  | 41  |

Sunday of Natural Gas and Develop PRESIDENTIAL ADDRESS: BIAS IN ECONOMICS Introductory fragments to be read by the Labor chairman. SRDS) IN MEMORIAM Vincent W. Bladen, University of Toronto the W. T. Easterbrook, University of Toronto Utilization CONTRIBUTION TO SCHOLARSHIP Joseph H. Willits, Rockefeller Foundation Meeting 8:00 P.M. Meeting of the Council - Econometric Society CONRAD HILTON HOTEL **Private Dining Room** Susines No. 3 (3rd Floor) Smoker - Industrial Relations Research Asso-MEETINGS 9:00 P.M. **CONRAD HILTON** ciation HOTEL Agricultura U.S. (AEA ACNC South Ballroom (3rd Floor) **Reception and Informal Party – American** 9:30 P.M. PALMER HOUSE Statistical Association MONDAY **Red Lacquer Room** (4th Floor) Tickets \$1.00, available at Registration Desk. the Cu Canada OF **Ready Now!** SUMMARY the 3rd edition of Visual **Economic History** District of Europe by SHEPARD B. CLOUGH and CHARLES W. COLE

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## Monday, December 29, 1952

8:00 A.M. Breakfast Meeting – Chapter Secretaries and PALMER HOUSE **District Representatives** Room 11 American Statistical Association (3rd Floor)

SCHEDULE OF MEETINGS

Breakfast: Pi Gamma Mu, the National Social **CONRAD HILTON Science Honor Society** 

HOTEL **Private Dining Room** 

No. 8 (3rd Floor)

Chairman: Andrew J. Kress, Industrial College of the Armed Forces

8:00 A.M. PALMER HOUSE **Crystal Room** (3rd Floor)

8:00 A.M.

Chairman: J. Kiefer, Cornell University

**Contributed Papers II** 

Papers: (13) ADMISSIBILITY OF CERTAIN STATISTICAL TESTS

Institute of Mathematical Statistics

E. Lehmann, University of California, and C. Stein, University of Chicago

(14) SOME EXPERIMENTAL DESIGNS FOR COM-PARATIVE LIFE-TESTING

- Allan Birnbaum, Columbia University
- (15) EXISTENCE OF INVARIANT MINIMAX PRO-*<u>CEDURES</u>*

Herman Rubin, Stanford University (16) A SIMPLE SEQUENTIAL PROCEDURE FOR TESTING STATISTICAL HYPOTHESES (Preliminary Report)

C. K. Tsao, Wayne University

(17) ASYMPTOTIC PROPERTIES OF THE ROB-**BINS-MONRO PROCESS** 

J. L. Hodges, Jr., and E. L. Lehmann, University of California

(18) SOME NOTES ON THE APPLICATION OF SEQUENTIAL METHODS IN THE ANALYSIS OF VARIANCE

N. L. Johnson, University of North Carolina (19) THE COVARIANCES OF FREQUENCIES FROM A MULTINOMIAL DISTRIBUTION UNDER A SE-QUENTIAL SAMPLING RULE

M. C. K. Tweedie, Virginia Polytechnic Institute. Introduced by B. Harshbarger, Virginia **Polytechnic Institute** 

(20) THE GROUP OF TRANSFORMATIONS LEAV-ING A SET OF NORMAL DISTRIBUTIONS INVARI-ANT (By title)

E. Lehmann, University of California and C. Stein, University of Chicago

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|  | <ul> <li>(21) A NON-PARAMETRIC TWO SAMPLE LIFE<br/>TEST (By title)<br/>Benjamin Epstein, Wayne University</li> <li>(22) THE LARGE SAMPLE POWER OF A TEST<br/>BASED ON DICHOTOMIZATION (By title)<br/>C. K. Tsao, Wayne University</li> <li>(23) AN E-COMPLETE CLASS OF NON-SEQUENTIAL<br/>DECISION PROCEDURES IN THE FINITE CASE<br/>(By title)<br/>Lionel Weiss, University of Virginia</li> </ul> | 9:00 A.M.<br>PALMER HOUSE<br>Red Lacquer Room                      | <ul> <li>Delbert J. Duncan, University of California<br/>Arthur W. Einstein, Pennsylvania State College<br/>Donald K. Beckley, Simmons College, Prince<br/>School of Retailing</li> <li>Marketing Strategy<br/>American Marketing Association</li> </ul> |
|--|---|--|--|
|  | ,   | ( <b>4th Floor)</b><br>Chairman:                                   | Steuart H. Britt, Needham, Louis, & Brorby,  |
| 8:15-11:30 A.M.<br>PALMER HOUSE<br>Grand Ballroom<br>(4th Floor) | Reliability and Usability of Soviet Statistics<br>American Statistical Association  | Speaker:   | Inc.<br>WHERE SHOULD RESEARCH REALLY FIT INTO<br>MARKETING STRATEGY?<br>Harry V. Roberts, Assistant Professor, Univer-   |
|  | Stuart A. Rice, Bureau of the Budget  | speanerr   | sity of Chicago  |
|  | The Issues Formulated (By the Chairman)   |  | PUTTING PREJUDICES AND STEREOTYPES TO<br>WORK INTO YOUR ADVERTISING STRATEGY   |
|  | THE SOVIET STATISTICAL SYSTEM: (A Prelimi-<br>nary Examination)<br>Harry Schwartz, Syracuse University and New  | Speaker:   | Burleigh Gardner, Executive Director, Social<br>Research, Inc.   |
|  | York Times  |  | MARKETING NEW PRODUCTS – STRATEGY AND TACTICS  |
|  | CONCEPTIONS OF SOCIO-ECONOMIC DATA IN-<br>CORPORATED IN SOVIET CLASSIFICATION SYS-<br>TEMS  | Speaker:   | Cliff Samuelson, Advertising Manager, Grocery<br>Products, General Mills, Inc.   |
|  | Vladimir S. Kolesnikoff, Bureau of the Budget<br>THE RELIABILITY AND USABILITY OF POPULA-<br>TION AND VITAL STATISTICS<br>Frank Lorimer, American University<br>THE RELIABILITY AND USABILITY OF SOVIET<br>AGRICULTURAL STATISTICS  | 9:30 A.M.<br>MORRISON HOTEL<br>Hollywood Room<br>(Mezzanine)       | Morning Session<br>American Business Law Association   |
|  | Lazar Volin, Department of Agriculture<br>THE RELIABILITY AND USABILITY OF SOVIET<br>NATIONAL INCOME STATISTICS<br>Alexander Gerschenkron, Harvard University<br>SUMMARY APPRAISAL<br>Abram Bergson, Columbia University  |  | Essel R. Dillavou, University of Illinois<br>THE PRESIDENT SPEAKS<br>John F. Sembower, Northwestern University<br>BUSINESS LAW – A PART OF THE EDUCATIONAL<br>PROCESS<br>Joseph L. Frascona, University of Colorado                                      |
| 8:30 A.M.<br>PALMER HOUSE<br>Room 796<br>(7th Floor)             | Teaching of Retailing<br>American Marketing Association   | 9:30 A.M.<br>CONRAD HILTON<br>HOTEL<br>Upper Tower<br>(29th Floor) | Interregional Analysis and Regional Develop-<br>ment<br>American Economic Association  |
| Chairman:  | Donald K. Beckley, Simmons College, Prince<br>School of Retailing<br>EVALUATING THE MERCHANDISE EFFECTIVE-<br>NESS OF A STORE   |  | Ewald T. Grether, University of California<br>INTERREGIONAL COMMODITY FLOWS<br>Walter Isard, Harvard University<br>FUEL, POWER, AND INDUSTRIAL DEVELOPMENT   |
| Speaker:   | Arthur W. Einstein, Pennsylvania College<br>MAKING USE OF RETAIL TRADE ASSOCIATION<br>RESEARCH IN TEACHING RETAILING  |  | IN CANADA<br>John Dales, McGill University   |
| Speaker:   | Harry A. Lipson, University of Alabama  | Discussion:  | David Schwartzman, Dominion of Canada Bu-  |
|  | CONDUCTING SHORT COURSES IN RETAILING   |  | reau of Statistics<br>Penelope Hartland Thunberg, Council of Eco-  |
|  | Wenzil K. Dolva, Washington University  |  | nomic Advisers   |
|  | 46  |  | 47   |

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Volume II A SURVEY OF CONTEMPORARY ECO-NOMICS

Edited by Bernard F. Haley, Stanford University

We invite you to visit our display booths at the Conrad Hilton Hotel and the Palmer House.

Publishers for the American Economic Association

RICHARD D. IRWIN, INC., HOMEWOOD, ILL.

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| ):30 A.M.<br>CONRAD HILTON<br>HOTEL<br>North Ballroom<br>(3rd Floor) | The Theory of Income Distribution<br>American Economic Association   | 9:30 A.M.<br>CONRAD HILTON<br>HOTEL<br>North Ballroom<br>Assembly<br>(3rd Floor) | The Role of Government in Industrial Rela-<br>tions<br>Industrial Relations Research Association                                 |
|--|--|--|--|
| Chairman:  | Lloyd G. Reynolds, Yale University   |  | Eduin E Witte University of Wisconsin  |
|  | THE FRUITS OF PROGRESS AND THE DYNAMICS<br>OF DISTRIBUTION<br>Kenneth E. Boulding, University of Michigan<br>SIGNIFICANCE AND LIMITATIONS OF CONTEM- |  | Edwin E. Witte, University of Wisconsin<br>GOVERNMENT ATTITUDES AND POLICIES<br>TOWARD THE ORGANIZATION OF PUBLIC EM-<br>PLOYEES |
|  | PORARY DISTRIBUTION THEORY<br>William J. Fellner, Yale University  |  | Arnold S. Zander, American Federation of<br>State, County & Municipal Employees<br>THE PROBLEM OF THE SETTLEMENT OF EMER-        |
| Discussion:  | Harold M. Levinson, University of Michigan<br>Edward C. Budd, Yale University  |  | GENCY DISPUTES<br>John T. Dunlop, Harvard University   |
|  |  | Discussion:  | Sterling D. Spero, New York University<br>Peter Seitz, Liebmann Breweries, Inc.  |
| ):30 A.M.<br>Conrad Hilton   | Some Economic and Social Aspects of the Schuman Plan   | 0.90 4.57  |  |
| HOTEL<br>Private Dining Room<br>No. 2                                | Catholic Economic Association  | 9:30 A.M.<br>CONRAD HILTON<br>HOTEL<br>Lower Tower                               | Leadership and Communication in Companies<br>and Trade Unions<br>Industrial Relations Research Association                       |
| (3rd Floor)  | Dow Edward A Kunth Long College  | (28th Floor)   |  |
|  | Rev. Edmund A. Kurth, Loras College  |  | Vincent W. Bladen, University of Toronto   |
| •  | Cyril Zebot, Duquesne University<br>Rev. James J. McGinley, S.J., Fordham Uni-   |  | FACTORS IN COMPANY COMMUNICATIONS SYSTEMS  |
|  | versity<br>Sr. M. Adrian, R.S.M., Mount Mercy College  |  | Raymond W. Peters, Esso Standard Oil Company   |
|  |  |  | PROBLEMS IN COMMUNICATION BETWEEN<br>LEADERSHIP AND MEMBERSHIP IN TRADE<br>UNIONS  |
| 9:30 A.M.  | Production Models  |  | George J. Strauss, Cornell University<br>Leonard R. Sayles, Cornell University   |
| CONRAD HILTON<br>HOTEL<br>West Ballroom<br>(3rd Floor)               | Econometric Society  | Discussion:  | Joel Seidman, University of Chicago<br>William Gomberg, International Ladies' Gar-<br>ment Workers' Union                        |
|  | George B. Dantzig, The RAND Corporation<br>AN APPLICATION OF ACTIVITY ANALYSIS TO<br>THE THEORY OF THE FIRM  |  |  |
|  | Michael Farrell, Yale University<br>MATHEMATICAL MODELS OF INDUSTRIAL PRO-<br>DUCTION<br>James R. Jackson, University of California                  | 10:00 A.M.<br>MORRISON HOTEL<br>Venetian Room<br>(2nd Floor)                     | The Basic Survey Course in Insurance<br>American Association of University Teachers<br>of Insurance                              |
|  | at Los Angeles   | Moderator:   | Charles C. Center, University of Wisconsin   |
|  | SCHEDULING OF MANUFACTURED PRODUCTS<br>William W. Cooper and Abraham Charnes,<br>Carnegie Institute of Technology, and                               | Participants:  | William T. Beadles, Illinois Wesleyan Univer-<br>sity<br>John S. Bickley, Ohio State University                                  |
| Discussion:  | Donald Farr, Methods Engineering Council<br>Robert Mellon, Gulf Oil Corp.<br>Andrew Zazsonyi, Hughes Aircraft Corp.                                  |  | David A. Ivry, University of Connecticut<br>Ralph H. Wherry, The Pennsylvania State Col-<br>lege                                 |
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Monday

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## Monday

| 10:00 A.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 1<br>(3rd Floor) | Technical Aspects of Treasury Financing<br>American Finance Association  |   | ESTABLISHING DIAGNOSTIC CATEGORIES FOR<br>COUNSELING TYPES<br>Harold B. Pepinsky, Ohio State University<br>MEASURING OF UNCONSCIOUS ATTITUDES<br>Fred Fiedler, University of Illinois |
|---|--|---|---|
|   | John C. Clendenin, University of California<br>SAVINGS BONDS IN PERSONAL INVESTMENT<br>PROGRAMS  | 10:00 A.M.<br>PALMER HOUSE<br>Room 7                | Application of Statistics to Chemistry<br>American Statistical Association  |
|   | O. K. Burrell, University of Oregon<br>TREASURY BOND POLICY FROM THE INSTITU-<br>TIONAL POINT OF VIEW<br>George Conklin, Guardian Life Insurance |   | W. J. Youden, Bureau of Standards<br>CARBON-14 IN DATING<br>W. F. Libby, University of Chicago  |
|   | Company<br>MAJOR FACTORS AND TRENDS IN THE GOVERN-<br>MENT BOND MARKET   | Discussion  | PHILOSOPHY OF EXPERIMENTATION<br>G. E. Kimball, Columbia University<br>G. E. Albert, University of Tennessee  |
|   | Leroy M. Piser, Aubrey Lanston and Company   | Discussion.   | R. J. Monroe, University of North Carolina  |
| Discussion:   | Robert C. Holland, Federal Reserve Bank of<br>Chicago<br>Herbert Dougall, Stanford University  | 10:00 A.M.<br>PALMER HOUSE<br>Room 8                | Application of Statistics to Chemical Engineer-<br>ing  |
| 10:00 A.M.  | The Meaning of Statistics Classified by Industry   | (3rd Floor)   | American Statistical Association<br>J. C. Whitwell, Princeton University  |
| PALMER HOUSE<br>Foyer of Grand<br>Ballroom<br>(4th Floor)                           | American Statistical Association   |   | A FACTORIAL DESIGN APPLIED TO A SPECIFIC<br>CHEMICAL PROCESS AND DEVELOPMENT PROB-<br>LEM   |
|   | Walter F. Ryan, Bureau of the Budget<br>THE ELEMENTS OF AN INDUSTRIAL CLASSIFI-  |   | H. Grohskopf, American Cyanamid Company<br>F. Wilcoxon, American Cyanamid Company   |
|   | CATION SYSTEM<br>Walt R. Simmons, Bureau of Labor Statistics<br>REPORTING OF INFORMATION BY ESTABLISH-   |   | PHYSICAL PROPERTIES OF WOOL FIBERS DE-<br>PENDENCE UPON FIBER DIAMETER AND GRADE<br>T. F. Evans, Textile Research Institute   |
|   | MENT: THEORY AND PRACTICE<br>Maxwell R. Conklin, Bureau of the Census<br>William H. Cummins, Bureau of the Old-<br>Age and Survivors Insurance   | Discussions:  | Cuthbert Daniel<br>K. A. Brownlee, University of Chicago  |
| Discussions:  | Leonard A. Drake, Chamber of Commerce of<br>Greater Philadelphia<br>Hyman Bookbinder, Amalgamated Clothing                                       | 10:00 A.M.<br>PALMER HOUSE<br>Room 9<br>(3rd Floor) | General Review of Non-Parametric Methods<br>with Special Emphasis on Randomized Tests<br>Joint Session: ASA, BS   |
|   | Workers of America<br>Tillman Sogge, St. Olaf College  |   | John W. Tukey, Princeton University<br>GENERAL REVIEW OF NON-PARAMETRIC METH-<br>ODS, WITH SPECIAL EMPHASIS ON RANDOMIZED   |
| 10:00 A.M.<br>PALMER HOUSE<br>Room 6<br>(3rd Floor)                                 | Use of Statistical Techniques in Evaluating<br>the Effectiveness of Counseling Services<br>Joint Session: ASA, SWRG                              |   | TESTS<br>Lincoln E. Moses, Stanford University<br>RANK ANALYSIS IN THE ESTIMATION OF  |
| Chairman:   | Edwin W. Davis, University of Illinois<br>MEASURING EFFECTIVENESS OF PSYCHOTHER-<br>APY  |   | THRESHOLD VALUES<br>M. E. Terry, Bell Telephone Laboratories,<br>Murray Hill, New Jersey  |
|   | Carl Rogers, University of Chicago<br>EVALUATING COUNSELING IN SOCIAL WORK<br>Charles P. Gershenson, Jewish Children's                           | Discussions   | POWER OF NON-PARAMETRIC TESTS FOR NOR-<br>MAL ALTERNATIVES<br>W. J. Dixon, University of Oregon<br>A. M. Mood, RAND Corporation   |
|   | Bureau<br>52   | Dist assions.                                       | 53  |

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|   | W. H. Kruskal, University of Chicago<br>D. R. Whitney, Ohio State University   | 10:00 A.M.<br>PALMER HOUSE<br>Crystal Room<br>(3rd Floor)            |
|---|--|--|
| 10:00 A.M.<br>PALMER HOUSE<br>Room 14<br>(Club Floor) | Recent Developments in Occupational Mobility<br>Research<br>American Statistical Association   | Chairm<br>Pap  |
| Chairman:   | Gladys L. Palmer, University of Pennsylvania<br>RESEARCH DESIGN OF THE SURVEY OF PAT-<br>TERNS AND FACTORS IN MOBILITY OF SIX<br>CITIES<br>Margaret Gordon, University of California<br>A TECHNIQUE FOR ANALYZING THE INFLUENCE<br>OF ONE OR MORE FACTORS ON DIFFERENCES<br>IN CRUDE MOBILITY RATES<br>Evelyn M. Kitagawa, University of Chicago | Discuss  |
|   | TECHNIQUES FOR ANALYSIS OF VERTICAL MO-<br>BILITY<br>Albert J. Reiss, Jr., Vanderbilt University<br>RESEARCH DESIGN FOR STUDIES OF THE MO-<br>BILITY OF WORKERS IN CRITICAL OCCUPA-<br>TIONS<br>Harold Goldstein, Bureau of Labor Statistics   | 10:45-11:45 A.N<br>PALMER HOUSE<br>Room 796<br>(7th Floor)<br>Chairn |
|   | THE APPLICATION OF MOBILITY RESEARCH TO<br>LABOR SUPPLY MODELS<br>Robert Steffes, Bureau of the Budget   | Spea   |
| 10:00 A.M.<br>PALMER HOUSE<br>Room 17<br>(Club Floor) | Elementary Statistics Courses in Relation to<br>New Developments and Theory<br>American Statistical Association  | 11:45 A.M.<br>CHICAGO TITLI<br>AND TRUST CO<br>111 W. Washingto      |
|   | Rutledge Vining, University of Virginia<br>NON-PARAMETRIC METHODS IN THE ELEMEN-<br>TARY STATISTICS COURSE<br>Dr. Ralph Bradley, Virginia Polytechnic In-<br>stitute   | 12:00 M.<br>MORRISON HOT<br>Cotillion Room                           |
| Discussions:  | DECISION THEORY IN THE ELEMENTARY STA-<br>TISTICS COURSE<br>J. Kiefer, Cornell University<br>Max A. Woodbury, University of Pennsylvania   | 12:00 M.<br>PALMER HOUSI<br>Red Lacquer Roo                          |
| 10:00 A.M.<br>PALMER HOUSE<br>Room 18<br>(Club Elect) | Randomization Theory of Experimental In-<br>ference<br>Joint Session: ASA, BS  | ( <b>4th Floor)</b><br>Spea  |
|   | A. M. Mood, RAND Corporation, Santa Mon-<br>ica, California<br>RANDOMIZATION THEORY OF EXPERIMENTAL<br>INFERENCE   | 12:00 M.<br>PALMER HOUSI<br>Grand Ballroom<br>(4th Floor)<br>Chairn  |
| Discussion:   | O. Kempthorne, Iowa State College<br>W. G. Cochran, Johns Hopkins University   | Gharn  |
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| :00 A.M.<br>LMER HOUSE<br>/stal Room<br>d Floor)              | Social Choice Functions<br>Joint Session: ES, IMS  |
|---|--|
| Chairman:   | Howard R. Bowen, Williams College  |
| Papers:   | A SUGGESTED APPROACH TO PROBLEMS OF<br>GROUP CHOICE<br>Clifford C. Hildreth, Cowles Commission for<br>Research in Economics and University of<br>Chicago |
|   | SOME SOCIOLOGICAL OBSERVATIONS ON DE-<br>CISION-MAKING<br>Edward A. Shils and Edward C. Banfield,<br>University of Chicago                               |
| Discussion:   | Alexander Henderson, Carnegie Institute of<br>Technology<br>Abba P. Lerner, Rooscvelt College  |
| :45-11:45 A.M.<br>LMER HOUSE<br>om 796<br>h Floor)            | Visual Aids in Teaching<br>American Marketing Association  |
| Chairman:   | Hugh G. Wales, University of Illinois<br>USING VISUAL AIDS IN THE TEACHING OF<br>MARKETING   |
| Speaker:  | O. H. Coelln, Business Screen Magazine   |
| :45 A.M.<br>IICAGO TITLE<br>ID TRUST CO.<br>W. Washington St. | Luncheon; Tour of Chicago Title and Trust<br>Company<br>American Business Law Association  |
| :00 M.<br>DRRISON HOTEL<br>tillion Room                       | Luncheon: for Active Members of American<br>Association of University Teachers of Insur-<br>ance<br>Host: Western Underwriters Association               |
| :00 M.<br>LMER HOUSE<br>d Lacquer Room<br>h Floor)            | Luncheon: Marketing Research Today – Mile-<br>stone or Millstone?<br>American Marketing Association  |
| Speaker:  | John E. Jeuck, Dean of School of Business, Uni-<br>versity of Chicago<br>Tickets \$4.00, available at registration desk.                                 |
| :00 M.<br>LMER HOUSE<br>and Ballroom<br>h Floor)              | Luncheon: The Stock Market<br>American Statistical Association   |
| Chairman:   | J. Parker Hall, Investment Analysts Society of Chicago   |

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| Papers:   | THE RAILROAD OUTLOOK FOR 1953<br>Pierre R. Bretey, Baker, Weeks & Harden<br>PROJECTING CORPORATE EARNINGS<br>Jeremy C. Jenks, Cyrus J. Lawrence & Sons<br>THE OUTLOOK FOR THE STOCK MARKET<br>Richard W. Lambourne, Dodge & Cox | 12::<br>COI<br>HO'<br>Sout<br>(3rd |
|---|---|------------------------------------|
| Discussion:   | M. Dutton Morehouse, Brown Brothers, Harri-<br>man & Co.<br>Tickets \$3.25, available at registration desk.   | 1:45<br>COM<br>HO                  |
| 12:00 M.<br>PALMER HOUSE<br>Room 5<br>(3rd Floor)                                 | Luncheon: Incoming Council and Board of<br>Directors Meeting<br>American Statistical Association  | Roo<br>(4th                        |
| 12:00 M.<br>PALMER HOUSE<br>Room 11<br>(3rd Floor)                                | Luncheon: Biometrics Section – Business Meet-<br>ing<br>American Statistical Association  |                                    |
| 12:00 M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 2<br>(3rd Floor) | Luncheon: Papal Teaching and International<br>Economic Relations<br>Catholic Economic Association   |                                    |
|   | John H. Sheehan, University of Notre Dame   | 2:00                               |
|   | His Eminence, Samuel Cardinal Stritch, Arch-<br>bishop of Chicago   | MOI<br>Vene<br>(2nd                |
| Speaker:  | Rev. Raymond J. Miller, C.SS.R., President of<br>the Catholic Economic Association  |                                    |
| 12:00 M.<br>PALMER HOUSE<br>Crystal Room<br>(3rd Floor)                           | Special Invited Address<br>Institute of Mathematical Statistics   |                                    |
| Chairman:   | Herbert Solomon, Columbia University<br>ASYMPTOTIC ESTIMATION THEORY<br>Jacob Wolfowitz, Cornell University and the<br>University of California at Los Angeles  | 2:00<br>MOI<br>Holly<br>(Mez       |
| 12:15 P.M.<br>conrad hilton<br>hotel  | Luncheon Meeting: Canada's Postwar Finance<br>Joint Session: AEA, AFA, CACI   |                                    |
| Grand Ballroom<br>(2nd Floor)   |   | 2:00                               |
|   | Leverett S. Lyon, Chicago Association of Com-<br>merce and Industry   | CON<br>HOT<br>Priva                |
| Speaker:  |   | No. 1<br>(3rd                      |
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## Monday

| 12:30 P.M.<br>CONRAD HILTON<br>HOTEL<br>South Ballroom<br>(3rd Floor)              | Luncheon: Industrial Relations Research Asso-<br>ciation   |
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| (314 1100)   | PRESIDENTIAL ADDRESS<br>J. Douglas Brown, Princeton University   |
| 1:45 P.M.<br>CONRAD HILTON<br>HOTEL<br>Room 12<br>(4th Floor)                      | Selected Papers<br>Econometric Society   |
| Chairman:  | Martin Bronfenbrenner, University of Wiscon-<br>sin  |
| Papers:  | CLASSICAL THEORY, GRAHAM'S THEORY, AND<br>LINEAR PROGRAMMING IN INTERNATIONAL<br>TRADE   |
|  | Thomson M. Whitin, Princeton University<br>THE PROGRAMMING OF INDEPENDENT SOURCES<br>Lionel W. McKenzie, Duke University<br>A NOTE ON THE CONCEPTS OF CONSUMERS'<br>SURPLUS<br>Shinichi Ichimura, Massachusetts Institute of<br>Technology |
| 2:00-3:30 P.M.<br>MORRISON HOTEL<br>Venetian Room<br>(2nd Floor)                   | Panel I: The Revision of Section 213 – A Ma-<br>jor Life Insurance Problem<br>American Association of University Teachers<br>of Insurance  |
| Moderator:<br>Speakers:  | Robert I. Mehr, University of Illinois<br>Daniel J. Lyons, The Guardian Life Insurance<br>Company  |
|  | Spencer L. McCarty, New York State Associa-<br>tion of Life Underwriters   |
| 2:00 P.M.<br>MORRISON HOTEL<br>Hollywood Room<br>(Mezzanine)                       | The Scope of Business Law<br>American Business Law Association   |
|  | Harold Lusk, Indiana University  |
| Speaker:   | William Zelermyer, Utica College of Syracuse<br>University   |
| 2:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 1<br>(3rd Floor) | Critical Survey of Direct Federal Regulation<br>American Finance Association   |
| Chairman:  | Ernst Dauer, Household Finance Corporation 57  |

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| Papers:  | DIRECT REGULATION OF HOUSING CREDIT<br>Miles Colean, independent consultant<br>DIRECT REGULATION OF CONSUMER CREDIT<br>Robert Bartels, Ohio State University<br>COMPETITION AMONG INVESTMENT BANKERS<br>Paul Howell, New York University   | Discussions:   | A. D. H. Kaplan, Brookings Institution<br>A. J. Jaffe, Columbia University Representative,<br>Senate Committee on Small Business   |
|--|--|--|--|
| Discussion:  | T. Everett Ashley, Housing and Home Finance<br>Administration<br>Arthur R. Upgren, University of Minnesota   | 2:00 P.M.<br>PALMER HOUSE<br>Room 14<br>(Club Floor) | Problems and Activities of Experiment Station<br>Statisticians<br>Joint Session: ASA, BS   |
|  | Robert Shea, University of Maine   |  | H. W. Norton, University of Illinois   |
| 2:00 P.M.<br>PALMER HOUSE<br>Foyer of Grand<br>Ballroom<br>(4th Floor) | Researching the Salesman to Increase His<br>Productivity<br>American Marketing Association   |  | ORGANIZATIONAL AND STATISTICAL PROBLEMS<br>FACING THE NEOPHYTE STATION STATISTICIAN<br>J. G. Darroch, Washington State College<br>ORGANIZATION AND SCOPE OF ACTIVITIES OF<br>STATION STATISTICIANS<br>C. E. Marshall, Oklahoma A & M                   |
| Chairman:  | James F. Hawkinson, Professor of Marketing,<br>Northwestern University   | Discussions:   | Henry Tucker, Kansas State College   |
| Panel Members:   | <ul><li>Fred C. Akers, Assistant to Vice President of<br/>Industrial Sales, Crane Co.</li><li>John C. Harkness, Partner, A. T. Kearney &amp;</li></ul>   |  | V. L. Anderson, Purdue University<br>P. G. Homeyer, Iowa State College<br>R. J. Monroe, North Carolina State College   |
|  | Company<br>Gene L. Powers, Director of Sales Training and<br>Sales Personnel, Swift & Company  | 2:00 P.M.<br>PALMER HOUSE<br>Room 17<br>(Club Floor) | The Statistics of Industrial Relations<br>Joint Session: ASA, IRRA   |
| 2:00 P.M.<br>PALMER HOUSE<br>Room 8                                    | Application of Statistics to Physics<br>American Statistical Association   |  | Nelson M. Bortz, Railroad and Airlines Wage<br>Board<br>CONCENTRATION OF TRADE UNION MEMBER-   |
| (3rd Floor)  |  | Tupers.  | SHIP   |
| Papers:  | <ul> <li>W. E. Deming, Bureau of the Budget</li> <li>PRECISION MEASUREMENTS IN THERMOMETRY</li> <li>H. F. Stimson, Bureau of Standards</li> <li>COMPARISON OF STANDARD METER BARS</li> <li>W. J. Youden, National Bureau of Standards</li> <li>Lewis V. Judson, National Bureau of Standards</li> <li>ards</li> <li>Edgar P. King, National Bureau of Standards</li> </ul> | Discussions:   | Leo Wolman, National Bureau of Economic<br>Research<br>SCOPE AND EXTENT OF COLLECTIVE BARGAIN-<br>ING<br>Kirk R. Petchek, Bureau of Labor Statistics<br>Philip Taft, Brown University<br>Albert S. Epstein, International Association of<br>Machinists |
|  | David Votaw, Yale University   |  |  |
| 2:00 P.M.<br>PALMER HOUSE<br>Room 9                                    | Statistics for Small Business<br>American Statistical Association  | 2:00 P.M.<br>PALMER HOUSE<br>Room 18<br>(Club Floor) | Response Errors in Enumerative Surveys<br>American Statistical Association   |
| ( <b>3rd Floor)</b><br>Chairman:<br>Papers:                            | Alvin Mayne, National Production Authority<br>PROBLEMS OF SMALL BUSINESS IN A MOBILIZA-  |  | Rensis Likert, University of Michigan<br>CURRENT EXPERIENCE AND RESEARCH FIND-<br>INGS   |
|  | TION ECONOMY<br>Roderick Riley, Small Defense Plants Ad-<br>ministration<br>EMPLOYMENT TRENDS AMONG SMALL BUSI-<br>NESSES SINCE KOREA  | Presented By:  | Eli Marks, Bureau of the Census<br>Herbert Hyman, National Opinion Research<br>Center<br>Leslie Kish, University of Michigan   |
|  | Seymour Wolfbein, Bureau of Labor Statistics   |  | Fritz Kafka, Bureau of Labor Statistics  |
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Monday

#### Monday

| 2:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>Lower Tower<br>(28th Floor)   | Union Cooperation in Promoting the Marshall<br>Plan<br>Catholic Economic Association   | Pa  |
|--|--|---|
| Chairman:  | Bro. L. Robert Shannon, F.S.C., St. Mary's College   | Discus  |
| Speaker:   | Rev. George G. Higgins, National Catholic<br>Welfare Conference  |   |
| Discussion:  | Francis J. Brown, DePaul University<br>Edward Marciniak, Editor, WORK  |   |
| 2:00 P.M.<br>PALMER HOUSE<br>Crystal Room<br>(3rd Floor)             | Organized Decision-Making<br>Joint Session: ES, IMS  | 2:30 P.M.<br>CONRAD HILT<br>HOTEL<br>North Ballroom |
| Chairman:<br>Papers:   | Sebastian B. Littauer, Columbia University<br>BASIC PROBLEMS IN THE ECONOMIC THEORY<br>OF TEAMS<br>Jacob Marschak, Cowles Commission for<br>Research in Economics and University of<br>Chicago | Assembly<br>(3rd Floor)<br>Chair<br>Pa              |
|  | THE STUDY OF AN INFORMATION PROCESSING<br>CENTER<br>Allen Newell, The RAND Corporation   |   |
| Discussion:  | Daniel Gray, Massachusetts Institute of Tech-<br>nology<br>Nicolas Rashevsky, University of Chicago  | Discus  |
| 2:00-2:30 P.M.<br>PALMER HOUSE<br>Booth 28<br>Exhibition Hall        | Applications of Nielsen Index Services<br>A. C. Nielsen Company  | Dista   |
| Speakers:  | J. P. Napier<br>C. J. Weber<br>John Boesel   | 2:30 P.M.<br>Conrad Hilt<br>Hotel                   |
| 2:00 P.M.<br>First federal   | Tour of Offices and Discussion of Operating<br>Procedures  | Private Dining F<br>No. 2<br>(3rd Floor)            |
| <b>BUILDING</b><br>7 South Dearborn St.                              | First Federal Savings and Loan Association of Chicago  | Chair<br>Pa   |
|  | Limit of 15 persons on tour; information and<br>reservations at information desks and in Press<br>Room (CONRAD HILTON Room 19 on 4th<br>floor; PALMER HOUSE Room 2 on 3rd floor).              |   |
| 2:30 P.M.<br>CONRAD HILTON<br>HOTEL<br>North Ballroom<br>(3rd Floor) | Economics in the Curricula of Agricultural<br>Colleges in Canada and the United States<br>Joint Session: AEA, AFEA   | Discus  |
| •  | John D. Black, Harvard University  |   |

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Papers: ECONOMICS IN THE CURRICULA OF AGRICUL-TURAL COLLEGES IN CANADA Andrew Stewart, University of Alberta ECONOMICS IN THE CURRICULA OF AGRICUL-TURAL COLLEGES IN THE UNITED STATES T. K. Cowden, Michigan State College

Discussion: D. Gale Johnson, University of Chicago Frederick V. Waugh, U.S. Department of Agriculture

| 2:30 P.M.<br>CONRAD HILTON<br>HOTEL<br>North Ballroom<br>Assembly<br>(3rd Floor)                | Distribution and Utilization of Natural Gas<br>(program arranged by W. H. S. Stevens)<br>American Economic Association   |
|---|--|
| Chairman:   | Eli W. Clemens, University of Maryland   |
| Papers:   | THE ECONOMICS OF PRODUCTION, CONSERVA-<br>TION, AND DISTRIBUTION OF AN EXHAUSTIBLE<br>RESOURCE: THE NATURAL GAS PROBLEM<br>Dudley F. Pegrum, University of California<br>at Los Angeles  |
|   | THE INTRODUCTION AND UTILIZATION OF<br>NATURAL GAS: THE WISCONSIN EXPERIENCE<br>H. J. O'Leary, Wisconsin Public Service Com-<br>mission  |
| Discussion:   | Horace M. Gray, University of Illinois<br>Joseph R. Rose, University of Pennsylvania   |
| 2:30 P.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 2<br>(3rd Floor)<br>Chairman: | Studies in Trade Union History and Develop-<br>ment<br>Industrial Relations Research Association   |
|   |  |
| Papers:   | David A. McCabe, Princeton University<br>THE GROWTH OF THE NATIONAL UNION IN<br>THE U.S.<br>Lloyd Ulman, University of Minnesota<br>THE NATIONAL UNION OF MINEWORKERS IN<br>GREAT BRITAIN UNDER NATIONALIZATION<br>George B. Baldwin, Massachusetts Institute<br>of Technology |
| Papers:<br>Discussion:  | THE GROWTH OF THE NATIONAL UNION IN<br>THE U.S.<br>Lloyd Ulman, University of Minnesota<br>THE NATIONAL UNION OF MINEWORKERS IN<br>GREAT BRITAIN UNDER NATIONALIZATION<br>George B. Baldwin, Massachusetts Institute<br>of Technology  |

| Monday  |   | Monday  |  |
|---|---|---|--|
| 2:30 P.M.<br>CONRAD HILTON<br>HOTEL<br>West Ballroom<br>(3rd Floor) | The Effective Utilization of the Labor Force<br>Industrial Relations Research Association   | 3:45 P.M.<br>PALMER HOUSE<br>Foyer of Grand<br>Ballroom                           | Business Meeting<br>American Marketing Association   |
|   | Frederick H. Harbison, University of Chicago  | (4th Floor)   |  |
| Papers:   | THE SHIFTING PATTERNS IN THE AVAILABLE<br>LABOR FORCE IN THE U.S.A.<br>Charles D. Stewart, Bureau of Labor Statis-<br>tics, U.S. Department of Labor<br>THE ADJUSTMENT OF PATTERNS OF UTILIZA-<br>TION TO AVAILABLE LABOR SUPPLY<br>Robert L. Clark, National Security Resources<br>Board | 4:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>South Ballroom<br>(3rd Floor)<br>Chairman: | The Distribution of Government Burdens and<br>Benefits<br>Joint Session: AEA, ASA<br>Simcon E. Leland, Northwestern University<br>GENERAL EQUILIBRIUM ASPECTS OF INCIDENCE |
| Discussion:   | Meredith B. Givens, N.Y. State Division of<br>Placement & Unemployment Insurance<br>Dale Yoder, University of Minnesota   | Papers.   | THEORY<br>Richard A. Musgrave, University of Michigan<br>DISTRIBUTION OF GOVERNMENT BURDENS AND<br>BENEFITS BY INCOME CLASSES<br>Rufus S. Tucker, General Motors Corpora-  |
| 2:30-3:00 P.M.<br>PALMER HOUSE<br>Booth 32<br>Exhibition Hall       | How Much and How Many<br>Standard Rate and Data Service   | Discussion:   | tion<br>Harold M. Groves, University of Wisconsin<br>Earl R. Rolph, National Bureau of Economic<br>Research  |
| Speaker:  | Lyman Forbes  |   | Richard B. Goode, International Monetary<br>Fund   |
| 2:30 P.M.<br>FEDERAL RESERVE<br>BANK<br>230 South La Salle St.      | Tour of Operations<br>Federal Reserve Bank of Chicago<br>Discussion with Economists of the Bank<br>Register for tour with personnel of the Chicago<br>Bank at Exhibition Booth 13, CONRAD HIL-<br>TON Hotel.  | 4:00 P.M.<br>PALMER HOUSE<br>Red Lacquer Room<br>(4th Floor)<br>Chairman:         | Statistical Surveys as Legal Evidence<br>American Statistical Association<br>Leslic N. Jones, Illinois Bell Telephone Com-   |
| 3:00 P.M.<br>MORRISON HOTEL<br>Hollywood Room<br>(Mezzanine)        | Business Meeting<br>American Business Law Association   | Speakers:   | pany<br>Melvin F. Wingersky, DePaul University<br>W. Edwards Deming, Bureau of the Budget<br>and New York University   |
|   | John F. Sembower, President, ABLA   | Discussion:   | Frederick F. Stephan, Princeton University<br>Shelby Grey, U. S. Food and Drug Administra-<br>tion   |
| (2nd Floor)   | Panel II: Automobile Insurance – A Major<br>Property Insurance Problem<br>American Association of University Teachers<br>of Insurance   | 4:00 P.M.<br>PALMER HOUSE<br>Room 14<br>(Club Floor)                              | Determination of Means and Regression Co-<br>efficients<br>Joint Session: ASA, BS  |
| Moderator:  | Philip N. Snodgrass, General Casualty Company<br>of Wisconsin   |   | Forman S. Acton, Forrestal Research Center,<br>Princeton University  |
| Speakers:   | William Leslie, National Bureau of Casualty<br>Underwriters<br>John M. Breen, Mutual Insurance Institute,<br>Lumbermens Mutual Casualty Company   | Papers:   | COMPARISON OF THE MEANS OF TWO SAMPLES<br>David Wallace, Princeton, New Jersey<br>EXPOSITION OF STRAIGHT LINE FITTING<br>METHODS<br>Richard F. Link, Princeton, New Jersey |
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| 4:00 P.M.<br>PALMER HOUSE<br>Room 17<br>(Club Floor)               | The New Development in Vital Statistics<br>American Statistical Association   | 4:00 P.M.<br>PALMER HOUSE<br>Room 18<br>(Club Floor)                               | Econometric Methods<br>Econometric Society   |
|--|---|--|--|
| Chairman:  | Halbert L. Dunn, Office of Vital Statistics<br>PRODUCTION OF VITAL STATISTICS AS A COM-<br>BINED FEDERAL-STATE OPERATION  | Chairman:  | Tjalling C. Koopmans, Cowles Commission<br>for Research in Economics, and University<br>of Chicago   |
|  | O. K. Sagen, State Department of Public<br>Health, Illinois<br>BROADENING THE SIGNIFICANCE OF VITAL<br>STATISTICS THROUGH SPECIAL STUDIES<br>Paul M. Densen, University of Pittsburgh<br>IMPROVING MARRIAGE AND DIVORCE STATIS-<br>TICS | Papers:  | CONSISTENT ESTIMATORS OF STRUCTURAL<br>PARAMETERS<br>Jacob Wolfowitz, Cornell University and<br>University of California at Los Angeles<br>THE SPECIFICATION PROBLEM IN REGRESSION<br>ANALYSIS<br>H. S. Houthakker, Cowles Commission for<br>Research in Economics |
| Discussions:   | Hugh Carter, Office of Vital Statistics<br>Howard West, Office of Vital Statistics<br>Sam Shapiro, Office of Vital Statistics<br>Paul C. Glick, Bureau of the Census  | Discussion:  | John Gurland, Iowa State College<br>Guy H. Orcutt, Harvard University<br>Christopher Winston, Cowles Commission for<br>Research in Economics and Institute of Sta-<br>tistics, Oxford University   |
| 4:00 P.M.<br>HOTEL<br>CONRAD HILTON<br>Lower Tower<br>(28th Floor) | The Point IV Program and Our Responsibili-<br>ties to Underdeveloped Nations<br>Catholic Economic Association   | 4:00 P.M.<br>PALMER HOUSE<br>Crystal Room<br>(3rd Floor)                           | Multiple Comparison Methods in the Analysis<br>of Variance<br>Institute of Mathematical Statistics   |
|  | <ul> <li>Rev. Cletus F. Dirksen, C.PP.S., St. Joseph's<br/>College</li> <li>Rev. William J. Gibbons, S.J., National Catholic Rural Life Conference</li> </ul>   |  | W. G. Madow, University of Illinois<br>VARIOUS METHODS FROM A UNIFIED POINT OF<br>VIEW<br>J. W. Tukey, Princeton University  |
| Discussion:  | Rev. William J. Collins, St. Ambrose College<br>Helen C. Potter, University of California   |  | ON THE OPERATING CHARACTERISTIC OF A<br>METHOD BASED ON THE F-DISTRIBUTION<br>H. Scheffé, Columbia University  |
| 4:00 P.M.<br>Conrad Hilton<br>Hotel                                | History of Mathematical Economics<br>Econometric Society  | Discussion:  | J. Neyman, University of California<br>J. Cornfield, National Institute of Health  |
| Room 14<br>(Club Floor)<br>Chairman:                               | Harold T. Davis, Northwestern University<br>WICKSELL'S ROLE IN THE DEVELOPMENT OF<br>MATHEMATICAL ECONOMICS<br>Carl G. Uhr, California Study Commission<br>on Unemployment Insurance<br>AN EXTENSION OF PHILIP WICKSTEED'S THEORY       | 4:30 P.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 2<br>(3rd Floor) | Annual Business Meeting<br>American Finance Association  |
|  | OF DISTRIBUTION<br>Ralph W. Pfouts, University of North Caro-<br>lina<br>IRVING FISHER AND HIS TIME<br>Ross M. Robertson, University of Tennessee   | 5:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>Lower Tower<br>(28th Floor)                 | Business Meeting<br>Catholic Economic Association  |
|  | Informal Discussion<br>64   | Chairman:  | Rev. Raymond J. Miller, C.SS.R.<br>65  |

Monday

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| 5:15 P.M.<br>MORRISON HOTEL<br>Venetian Room<br>(2nd Floor)                        | Annual Business Meeting<br>American Association of University Teachers<br>of Insurance  |
|--|---|
| 6:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 6<br>(3rd Floor) | Dinner Meeting of the Executive Committee<br>American Economic Association  |
| 6:00 P.M.<br>PALMER HOUSE<br>Room 6<br>(3rd Floor)                                 | 1953 Council Meeting<br>Institute of Mathematical Statistics  |
| 6:30 P.M.<br>ELECTRIC CLUB<br>20 North Wacker<br>Drive                             | Banquet<br>American Business Law Association<br>Informal; for members, their wives and guests.  |
| 6:30 P.M.<br>CONRAD HILTON<br>HOTEL<br>Private Dining Room<br>No. 9<br>(3rd Floor) | Dinner for Past and Present Officers<br>American Finance Association  |
| 7:00 P.M.<br>MORRISON HOTEL<br>Cotillion Room                                      | Annual Banquet<br>American Association of University Teachers<br>of Insurance   |
| Speaker:<br>Topic:   | Dr. G. F. Tegtmeyer, Medical Director, North-<br>western Mutual Life Insurance Company<br>MORTALITY AND IMMORTALITY   |
|  | Tickets \$4.85, available at registration desk.   |
| 8:00 P.M.<br>CONRAD HILTON<br>HOTEL<br>Grand Ballroom<br>(2nd Floor)               | A Stock-taking of Bretton Woods Objectives<br>American Economic Association   |
| Chairman:  | Howard S. Ellis, University of California   |
| Papers:  | TRADE POLICY FOR THE FIFTIES<br>Clair Wilcox, Swarthmore College<br>STERLING CONVERTIBILITY AND SOME RE-<br>LATED PROBLEMS<br>William Adams Brown, Jr., Brookings Insti-<br>tution<br>INTERNATIONAL MONETARY ARRANGEMENTS<br>Gottfried Haberler, Harvard University |
| Discussion:  | Marcus Fleming, Columbia University<br>Herbert Furth, Board of Governors of the Fed-<br>eral Reserve System<br>John M. Letiche, University of California<br>66  |

## Monday

| 8:00 P.M.<br>PALMER HOUSE<br>Red Lacquer Room<br>(4th Floor) | What Is Actuarial Soundness in a Pension<br>Plan?<br>Joint Session: ASA AEA, AAUTI, IRRA   |
|--|--|
| Chairman:  | Henry W. Steinhaus, Equitable Life Assurance<br>Society  |
| Papers:  | THE CONCEPT OF ACTUARIAL SOUNDNESS<br>Dorrance C. Bronson, Wyatt Company   |
|  | ACTUARIAL SOUNDNESS IN GROUP ANNUITY<br>PLANS<br>Ray M. Peterson, Equitable Life Assurance<br>Society  |
|  | ACTUARIAL SOUNDNESS IN TRUSTEED AND<br>GOVERNMENTAL RETIREMENT PLANS<br>George B. Buck, Consulting Actuary   |
|  | LEGAL IMPLICATIONS OF ACTUARIAL SOUND-<br>NESS<br>Edwin S. Cohen, Hatch, Root, Barrett, Cohen  |
|  | & Кпарр  |
|  | LABOR'S VIEW OF ACTUARIAL REQUIREMENTS<br>IN PENSION PLANS<br>Solomon Barkin, Textile Workers, C.I.O.  |
|  |  |
| 8:00 P.M.<br>PALMER HOUSE<br>Grand Ballroom<br>(4th Floor)   | Recent Applications of Statistical Methods in<br>Various Countries<br>American Statistical Association   |
| Chairman:  | Dr. Stuart Rice, President, International Sta-<br>tistical Institute and Bureau of the Budget  |
| Papers:  | SOME RECENT APPLICATIONS OF STATISTICS<br>IN AUSTRALIA<br>Maurice H. Belz, Professor of Mathematics,<br>University of Melbourne  |
|  | SOME RECENT DEVELOPMENTS IN CANADIAN<br>STATISTICS<br>Herbert Marshall, Dominion Statistician,<br>Canada   |
|  | RECENT APPLICATIONS OF QUALITY CONTROL<br>IN JAPAN<br>Dr. N. Yamaki, Mitsubishi Electric Manu-<br>facturing Company  |
|  | facturing Company<br>RECENT SAMPLING SURVEYS OF POPULATION<br>AND AGRICULTURE IN BENGAL<br>N. Chakravarti, Director, State Satistical Bu-<br>reau, Government of West Bengal |
|  | RECENT APPLICATIONS OF STATISTICAL METH-<br>ODS ON NATIONAL INCOME<br>Dr. G. Findlay Shirras, Visiting Professor of<br>Economics, University of Illinois                     |
|  |  |

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**TUESDAY MEETINGS** OF SUMMARY

Breakfast: Officers (ABLA) 8:00 A.M.

(ABLA)

Members

Breakfast: Wives of

9:00 A.M

9:30 A.M.

Session (ABLA)

Morning

g Inspection in Public Assistance SWRG)

Management

E.

Engineering

Pre-Election Polls (ASA) ication of Statistics in

1952

Application (ASA) Sampling (ASA, S Statistical Discussion

A.M.

10:00

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Reporting (IMS)

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III –

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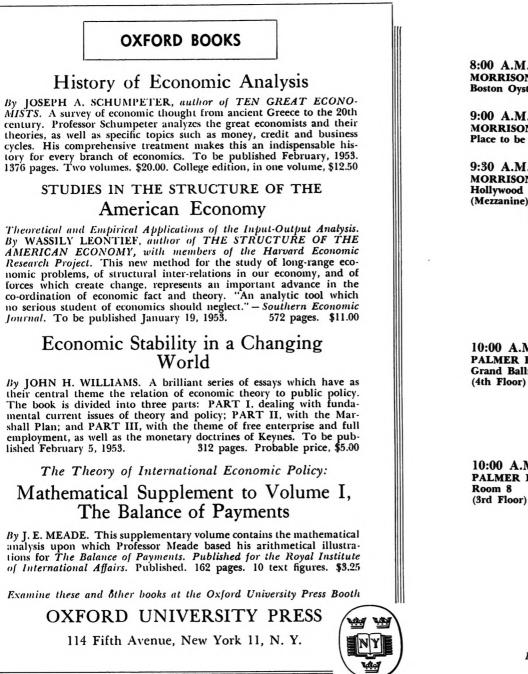
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(FRBC)

12:00 M. Tour (FNBC)

10:30 A.M.

Committee ces (ASA) Luncheon; Business Meeting – Co on Statistics in Social Sciences Invited Addresses (IMS)



### SCHEDULE OF MEETINGS

Tuesday, December 30, 1952

8:00 A.M. Breakfast for the Officers of the American **MORRISON HOTEL** Business Law Association **Boston Oyster House** 

9:00 A.M. Breakfast for the Wives of Members of the MORRISON HOTEL American Business Law Association Place to be announced.

9:30 A.M. **Morning Session MORRISON HOTEL** American Business Law Association Hollywood Room (Mezzanine)

> Chairman: Robert E. Stone, Syracuse University Papers: HOW TO MAKE BUSINESS LAW A PRACTICAL AND LIVE SUBJECT Louis O. Bergh, New York University THE IMPORTANCE OF REAL ESTATE LAW IN THE BUSINESS LAW CURRICULUM Wesley C. Harter, Florida State University Informal discussion. Introduction of new officers.

10:00 A.M. PALMER HOUSE **Grand Ballroom** (4th Floor)

#### **1952 Pre-Election Polls** American Statistical Association

Chairman: Philip M. Hauser, University of Chicago For the Crosley Poll: Archibald M. Crosley For the Gallup Poll: George Gallup For the Roper Poll: Louis Harris

10:00 A.M. Application of Statistics in Engineering PALMER HOUSE American Statistical Association Room 8

- Chairman: Boyd Harshbarger, Virginia Polytechnic Institute
- Papers: SOME APPLICATIONS OF STATISTICS TO TIME AND MOTION RESEARCH

Hale C. Sweeny, Virginia Polytechnic Institute

TESTING HOMOGENEITY OF TREATMENTS IN AN ANALYSIS OF VARIANCE OF ENGINEERING DATA David B. Duncan, Virginia Polytechnic Insti-

- tute
- Discussions: I. W. Burr, Purdue University John W. Tukey, Princeton University

Tuesday

## The Dryden Press TEXTS IN ECONOMICS

## **Economic Forces in American History**

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#### Sampling Inspection in Public Assistance Joint Session: ASA, SWRG

Chairman: David G. French, University of Michigan Papers: APPLICABILITY OF SAMPLING INSPECTION TECHNIQUES IN TESTING THE QUALITY OF THE JOB OF THE PUBLIC ASSISTANCE VISITOR Walter M. Perkins, Social Security Administration

Discussion: Myer Dwass, Northwestern University William E. Gordon, Washington University Willis M. Oosterhof, State Department of Public Welfare, Michigan Malcolm B. Stinson, University of Minnesota

10:00 A.M. PALMER HOUSE Room 17 (Club Floor)

### Statistical Techniques in Management American Statistical Association

Chairman: Holbrook Working, Stanford University Papers: MANAGEMENT'S AWAKENING TO THE VALUE OF STATISTICS

E. H. MacNiece, Johnson and Johnson USE OF STATISTICAL TECHNIQUES IN THE ACCOUNTING DEPARTMENT OF A LARGE FIRM Donald Livingston, Monsanto Chemical Company

STATISTICAL TECHNIQUES AS A NATIONAL RESOURCE

W. Edwards Deming, Bureau of the Budget and New York University

| 10:00 A.M.   |  |
|--------------|--|
| PALMER HOUSE |  |
| Room 18      |  |
| (Club Floor) |  |
|              |  |

Discussion of Congressional House Committee Report of the Investigation of the Federal Crop Reporting Service

Joint Ŝession: ASA; AFEA

Chairman: Charles F. Sarle, National Analysts

Papers: SUMMARY OF HOUSE COMMITTEE REPORT John J. Heimburger, Counsel, House Agricultural Committee

FORECASTING AND ESTIMATING THE COTTON CROP

Roger Wallace, Journal of Commerce

NEEDED IMPROVEMENTS IN ESTIMATING THE CORN CROP

Lauren Soth, Des Moines Register

EVALUATION OF FORECAST OF THE WHEAT CROP

John D. Baker, Longstreet, Abbott Company

#### Tuesday

| Discussions:  | Morris Hansen, Bureau of the Census<br>Ivan Lee, University of California                               |
|---|---|
| 10:00 A.M.<br>PALMER HOUSE<br>Crystal Room<br>(3rd Floor) | Contributed Papers III<br>Institute of Mathematical Statistics  |
| Chairman:   | C. I. Bliss, Connecticut Agricultural Experi-   |
| Papers:   | ment Station<br>(24) ESTIMATE OF THE INTERVAL RATE FOR<br>ACTUARIAL CALCULATION                         |
|   | J. Berkson, Mayo Clinic   |
|   | (25) SIMULTANEOUS CONFIDENCE INTERVAL<br>ESTIMATION   |
|   | R. C. Bose and S. N. Roy, University of North   |
|   | Carolina  |
|   | (26) ON A SET OF SIMULTANEOUS CONFIDENCE<br>INTERVAL STATEMENTS IN MULTIVARIATE<br>ANALYSIS OF VARIANCE |
|   | S. N. Roy and R. C. Bose, University of<br>North Carolina   |
|   | (27) ON A RELEVANT SET OF SIMULTANEOUS<br>CONFIDENCE INTERVAL STATEMENTS IN DIS-                        |
|   | CRIMINANT ANALYSIS (By title)   |
|   | S. N. Roy and R. C. Bose, University of   |
|   | North Carolina  |
|   | (28) THE SEPARATION OF PRODUCT ERROR AND<br>INSPECTION ERROR IN SAMPLING BY ATTRI-                      |
|   | BUTES   |

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C. C. Craig, University of Michigan (29) THE RELATION BETWEEN FISHER'S DISCRIM INANT FUNCTION AND WALD'S CLASSIFICATION STATISTIC

H. L. Harter, Wright-Patterson Air Force Base

(30) ON THE DISTRIBUTION OF THE RATIO OF THE i-th OBSERVATION IN AN ORDERED SAMPLE FROM A NORMAL POPULATION TO AN INDE PENDENT ESTIMATE OF THE STANDARD DEVI ATION

K. C. S. Pillai and K. V. Ramachandran University of North Carolina. Introduced by S. N. Roy, University of North Carolin:

(31) CYCLIC SOLUTIONS OF SYMMETRICAL **GROUP DIVISIBLE DESIGNS** 

S. S. Shrikhande, University of Kansas

(32) MEASURES OF ASSOCIATION IN CONTIN **GENCY TABLES** (By title) L. A. Goodman and W. H. Kruskal, Univer

sity of Chicago

10:00 A.M. FEDERAL RESERVE BANK 230 South La Salle St.

## **Tour of Operations**

Federal Reserve Bank of Chicago

Discussion with economists of the Bank. Register for tour with personnel of the Chicago Bank at Exhibition Booth 13. CONRAD HIL TON Hotel.

10:30 A.M. FIRST NATIONAL BANK

#### Tour of Offices and Discussion of Operating Procedures

#### First National Bank of Chicago

38 South Dearborn St. Tour will start from information desk at Clarl Street end of first floor. Information and reser vations at Press Room (CONRAD HILTON Room 19 on 4th floor; PALMER HOUSI Room 2 on 3rd floor) or at information desl in exhibition hall.

#### Tuesday

| 12:00 M.              | Luncheon; Business Meeting – Committee on |
|-----------------------|---|
| PALMER HOUSE          | Statistics in Social Sciences             |
| Room 6<br>(3rd Floor) | American Statistical Association          |

12:00 M. PALMER HOUSE Crystal Room (3rd Floor) Invited Addresses Institute of Mathematical Statistics

- Chairman: L. J. Savage, University of Chicago STOCHASTIC PROCESSES OCCURRING IN THE THEORY OF QUEUES AND THEIR ANALYSIS BY THE METHOD OF THE IMBEDDED MARKOV CHAIN
  - David G. Kendall, University of Oxford and Princeton University

SADDLE-POINT APPROXIMATIONS IN STATISTICS H. E. Daniels, University of Cambridge and University of Chicago

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Abramovitz, Mos Acton, Forman S Adelman, Morris Adler, John H. Adrian, M. Akers, Fred C. Albert, G. E. Alexander, Sidney Allen, Stephen G Alpert, Harry Altman, Isidore Anderson, Ira D. Anderson, R. L. Anderson, V. L. Aroian, Leo A. Arrow, Kenneth Ashley, T. Evere Ashmen, Roy Aspinwall, Leo V Auble, Arthur G Ayers, Clarence 1 Bach, G. L. Bagley, Eleanor S Bailey, A. L. Baker, John D. Baldwin, George Ball, Robert M. Bancroft, T. A. Banfield, Edward Barankin, Edwar Barkin, Solomon Bartels, Robert Bartky, Walter Bassie, V. Lewis Baumol, William Beach, Frank Beadles, William Bechhofer, R. E. Becker, Joseph A Beckley, Donald Bell, Daniel Bellman, Richard Belz, Maurice H. Bennett, Carl A. Bennett, W. R. Berger, Adolph ( Bergh, Louis O. Bergson, Abram Berkson, J. Bickley, John S. Birnbaum, Allan Birnbaum, Allan Bix, Ira Black, John D. Bladen, Vincent V Bliss, C. I. Boddy, Francis M Bocsel, John Bookbinder, Hym Borts, George H. Bortz, Nelson M. Bose, R. C. Boulding, Kennel Bowen, Howard Bowman, Mary J Bowman, Mary Jo Bowman, Raymon Bradley, Ralph Brady, Dorothy Breen, John M. Bretey, Pierre R. Britnell, G. E. Britt, Steuart H. Bronfenbrenner, Bronfenbrenner, Bronson, Dorranc Brown, Douglass Brown, Francis J. 60

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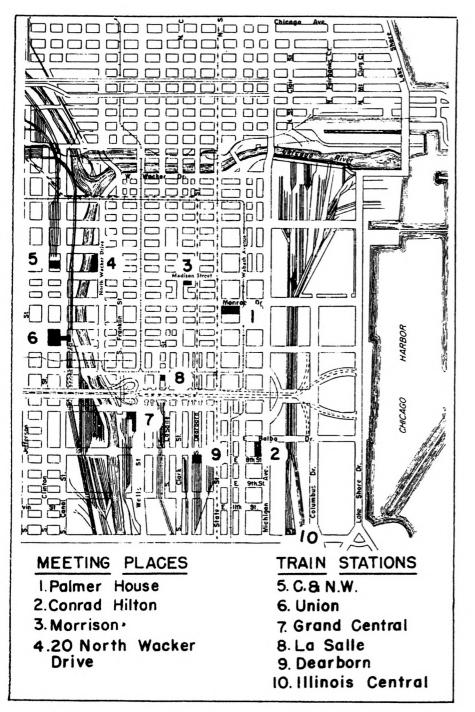
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