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# Washington Statistical Society

CHAPTER • AMERICAN STATISTICAL ASSOCIATION



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## NEWSLETTER-NOVEMBER 1976

November 8 - An Elementary Probability Model in Polymer Chemistry  
November 10- Nonmetropolitan Population Growth Since 1976  
November 11- Surveying Public Attitudes and Shaping Public Policy  
November 12- Election Night Vote Projections-The Views of a Participant  
November 16- Plans for the Medical Care Expenditure Survey

### PHYSICAL SCIENCE AND ENGINEERING

Topic: An Elementary Probability Model in Polymer Chemistry

Speaker: Professor Douglas R. Miller, Dept. of Statistics, University of Maryland

Chairman: Professor Nozer D. Singpurwalla, The George Washington University

Polymers are large molecules. Polymeric materials include synthetic fibers, rubber and plastics. Macroscopic physical characteristics of a polymer are determined by its underlying microstructure which is often random in nature. In synthesizing polymers it is useful to be able to predict macroscopic properties (e.g. viscosity, elastic modulus) from the probability laws governing the polymerization reaction. Stochastic branching (cascade) processes have been applied toward this goal. In this talk a simpler probability model will be presented. This model is virtually as powerful yet much more elementary than the branching model. It uses only the laws of total probability and the recursive nature of the polymer molecule.

This talk has three facets which may appeal to three distinct audiences. The model should be useful to polymer scientists. Also, the model is a simple example using conditional probability and expectation and thus may have pedagogical value for teaching these concepts. Finally, some unsolved problems may suggest that polymer science is an inviting field for applied probability research: Brownian motion, random fields, point processes, etc. arise here.

When and Where: Monday, November 8, 1976, 12:30 - 2:00 p.m., Room 100, Buidling C, The George Washington University, 2201 G Street, Washington, D.C.

### AGRICULTURE PROGRAM

Topic: A Further Look at Nonmetropolitan Population Growth Since 1976  
Chairman: Meyer Zitter, Population Division, U.S. Bureau of the Census,  
 Department of Commerce.  
Speaker: Calvin L. Beale, Population Studies, Economic Research Service,  
 USDA.  
Discussant: Vern Renshaw, Regional Economic Analysis Division, BEA,  
 Department of Commerce.

In recent years, a marked change has occurred in the trend of the population distribution in the United States. This shift will be discussed, along with the factors that are associated with it, and the data sources on which our knowledge of the trend is based.

When and Where: Wednesday, November 10, 1976, 12:30 - 2:00 p.m.,  
 Basement of Tower Bldg., 1401 K St.N.W. Washington, D.C.

### SOCIAL AND DEMOGRAPHIC STATISTICS PROGRAM

Topic: Surveying Public Attitudes and Shaping Public Policy  
Speakers: Alfred Cantril, President, National Council on Public Polls  
 Donald Wortman, Director, Office of Regulatory Review, DHEW  
Chairperson: Alan Reich, Special Assistant to the Secretary of HEW  
Discussant: Robert Bower, President, Bureau of Social Science Research

Federal administrators are becoming increasingly concerned with enhancing the responsiveness of government in our democratic system. The obligation to be responsive extends beyond law making and requires a better understanding of the hopes, fears and aspirations of the American people. The discussion will examine the extent to which public desires and expectations can be determined and the feasibility and desirability of public opinion as a basis for governmental policy making.

When and Where: Thursday, November 11, 1976, 12:30 - 2:00 p.m.,  
 Room S-5215 (ABC) of the New Department of Labor  
 Building, 200 Constitution Ave., N.W. Washington, D.C.

### METHODOLOGY PROGRAM

Topic: Election Night Vote Projections - The Views of a Participants

Speaker: Jack Moshman, President of Moshman Associates, Inc.

Discussant: Joseph Waksberg, Westat, Inc.

Chairman: Richard C. Taeuber, Commission on Federal Paperwork

On election night, all three major television networks try to make election projections as early as possible. Dr. Moshman, who has been a consultant to ABC news for 12 years, in this regard, will discuss the estimation procedures that ABC news uses to make their election night projections.

When and Where: Friday, November 12, 1976, 12:30 - 2:00 p.m.,  
Basement of Tower Bldg., 1401 K St.N.W.Washington,D.C.

### PUBLIC HEALTH AND BIOSTATISTICS PROGRAM

Subject: Plans for the Medical Care Expenditure Survey

Chairperson: Dorothy P. Rice, Director, National Center for Health Statistics

Presenters: Robert R. Fuchsberg, Director, Division of Health Interview Statistics,  
National Center for Health Statistics.

Topic: Survey Design and Background

Gail Wilensky, Ph.D., Senior Researcher, National Center for Health Services Research.

Topic: Plans for Analysis of the Data.

As a result of the spiraling cost of medical care, there has been a growing need for comprehensive national data on health care utilization, health insurance coverage, and payments for the care and insurance. The National Center for Health Statistics and the National Center for Health Services Research will jointly field a national survey to collect such data beginning in January 1977. The discussion will deal with the background, pilot research study, and data collection and analysis plans for this new survey. Mr. Fuchsberg and Dr. Wilensky will report on the methodology to be applied and the rationale for selecting the techniques utilized in the survey.

When and Where: Tuesday, November 16, 1976, 12:30 - 2:00 p.m.,  
Basement of Tower Bldg., 1401 K St.N.W.Washington,D.C.

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Congratulations to the following Washington Chapter Members recently elected as ASA Fellows:

John Aiken, Executive Director, Federal Statistics Users Conference  
 Vincent P. Barabba, Former Director, U.S. Bureau of the Census  
 Manning Feinlieb, National Heart, Lung and Blood Institute, DHEW  
 Joseph Albert Greenwood, Department of Justice  
 Robert H. Hanson, Principal Researcher, U.S. Bureau of the Census  
 Anders S. Lunde, NCHS, DHEW  
 Paul W. McCracken, University of Michigan  
 Robert Parke, Social Science Research Council  
 Jeanne Claire Ridley, Georgetown University  
 Sally S. Ronk, Department of the Treasury  
 Richard M. Scammon, Director, Elections Research Center  
 Harry Weingarten, U.S. Department of Transportation

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The ASA National Headquarters in the District of Columbia prepares mailing labels for this newsletter. If there are errors on your listing, please contact the ASA, 806 15th St., N.W., Washington, D.C. 20005, (Tel.) 202-393-3253. Please pass this information along if you know of anyone who isn't receiving their newsletter regularly.

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Arrangements Committee Chairman Bob O'Keefe suggests bringing a copy of this newsletter with you to sessions where it is necessary to gain admittance to government buildings.