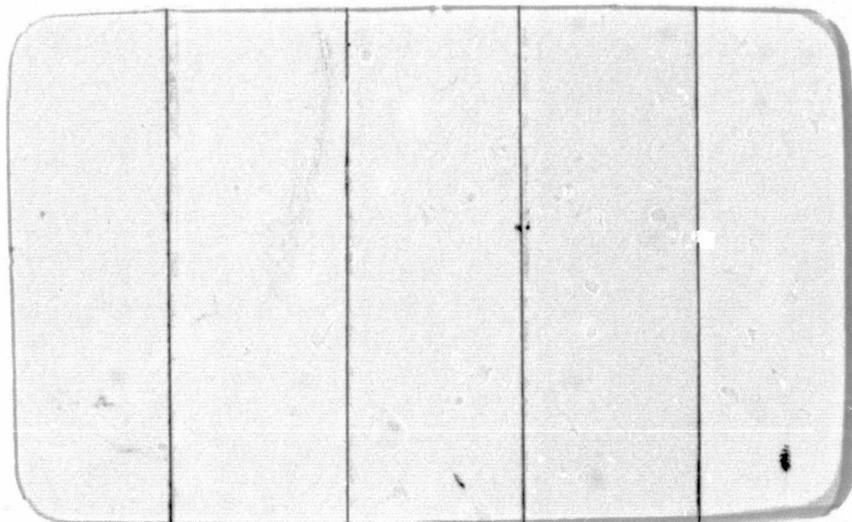


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PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY



The
George
Washington
University,
Washington, D.C.



(NASA-CR-145402) PROGRAM OF POLICY STUDIES
IN SCIENCE AND TECHNOLOGY, SUPPLEMENT TO
SEVEN YEAR REVIEW Review Report, 1 Sep.
1973 - 31 Aug. 1974 (George Washington
Univ.) 103 p HC \$5.25

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Unclas
CSCL 05B G3/88 39443

REVIEW

September 1, 1973 - August 31, 1974

SUPPLEMENT TO SEVEN YEAR REVIEW OF

PROGRAM OF POLICY STUDIES
IN SCIENCE AND TECHNOLOGY

January 14, 1975

Program of Policy Studies in Science and Technology
The George Washington University
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2130 H Street, N.W.
Washington, D.C. 20052
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Supplement to Final Report to the
National Aeronautics and Space
Administration by the Program of
Policy Studies in Science and Tech-
nology of The George Washington
University under NASA Institutional
Grant NGL 09-010-030.

Principal Investigator: Louis H. Mayo

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FOREWORD

The information contained herein represents a supplement to the Seven Year Review of the Program of Policy Studies in Science and Technology which was published in March, 1974. The two documents represent a summary of activities of the Program from the time of its establishment under a generous NASA institutional grant in September, 1966,* to the termination of the grant period, August 31, 1974. We again express our most sincere appreciation to the National Aeronautics and Space Administration and for the support and encouragement of various NASA officials and staff over the years in fulfillment of the obligations and challenges inherent in this award.

*NASA NGL 09-010-030



THE
GEORGE
WASHINGTON
UNIVERSITY

Program of Policy Studies in Science and Technology / Washington, D.C. 20006 / 202-676-7380

January 14, 1975

Mr. Jerome D. Morris, Chief
Management and Administration Research Branch
Office of University Affairs
National Aeronautics and Space Administration
Washington, D.C. 20546

Dear Mr. Morris:

This report is in response to your letter of August 28, 1974, pursuant to NASA Grant NGL 09-010-030 which provided substantial research support to the Program of Policy Studies in Science and Technology from September, 1966, through August, 1974.

It is the intent of this report to provide NASA, and in particular the Office of University Affairs, with a concluding description and evaluation of the activities of the Program of Policy Studies over the past eight years. We are therefore submitting to you, attached hereto and appended herein, the following documents:

- Seven Year Review of PPS - September 1, 1966 - August 31, 1973
- Review of PPS Activities - September 1, 1973 - August 31, 1974, including awards, seminars, publications; and appendices including 1974 Statement of Program Capability; Current Brochure of the Graduate Program in Science, Technology and Public Policy; PPS 714 News, Vol. 1, issues 1-15 Proposal Effort 1966-1974; and Student Researcher Profiles - 1969 (Illustrative)

In our Seven Year Review we covered a number of topics which are, no doubt, of interest to the Office of University Affairs. This review recorded the activities which have been carried on by the Program of Policy Studies, including studies, seminars and publications. It also presented a discussion of the organizational evolution of the PPS in responding to the needs of governmental agencies

Mr. Jerome D. Morris
January 14, 1975

for policy studies, and, more generally, to the research environment.

The Statement of the Director included the following sub-topics:

- Rationale of the Program of Policy Studies
- PPS Activities 1966-1973
- PPS Operations
- Changing Conditions Affecting PPS Activities
- The Evolving Policy Analysis Function
- Future Directions of the Program of Policy Studies

I consider it advisable in the fulfillment of our responsibility under the grant to make a few pertinent comments concerning the relevance of the grant to the activities of the Program.

First, let me express my most sincere appreciation to you and the NASA organization for the generous support afforded us pursuant to this grant. NASA assistance not only enabled The George Washington University to initiate this relatively unique policy analysis activity but gave us the encouragement needed to respond to a perceived need for a policy analysis organization located in a local university. This opportunity to establish and maintain a problem-oriented, interdisciplinary program independent of any particular School or Department was surely an unusual arrangement for any university as of the time it was instituted. I have the greatest confidence in assuring you that my colleagues and I over the past eight years have carried out the essential obligations imposed upon us by the NASA/GWU Memorandum of Understanding. I also state with satisfaction that we have been able to perform a most useful public service which is reflected in the assistance that we have been able to afford various governmental entities, including members of staffs of Executive departments, regulatory agencies, and congressional

Mr. Jerome D. Morris
January 14, 1975

committees through our policy analyses, seminars, and publications.

We have conducted nearly 100 professional seminars on problems concerning the impact of advancing technology on social/political systems. These seminars have been attended by representatives of governmental entities, universities (students, faculty, staff), R&D firms, industry, and numerous public interest-oriented organizations - averaging 30-35 persons per seminar. The Program of Policy Studies is now well-known throughout the U.S. academic community. Our publications have been sought by many other universities in the initiation of academic programs and policy research activities. Over the past few years, PPS publications have been in greater demand than those produced by any other unit of the University according to the Head of the GWU Library - Special Collections Department. Members of our staff have made numerous contributions to the on-going public policy process by presenting papers at seminars and professional association meetings, by advising with governmental agencies, and by testifying before Congressional committees. The Program has enabled over 150 GW faculty members to participate in some meaningful way in policy analysis activities. It has also afforded experience in problem-oriented research to over 300 students (mostly M.A. and Ph.D. candidates) which in all probability would not otherwise have been available (see Student Researcher Profiles - 1969 (Illustrative) appended). While precise records have not been kept, numerous students and other staff members have effectively transferred skills and experience acquired through PPS activities to professional positions later obtained. Indeed, many have gained positions mainly on the basis of their PPS experience. We have also had countless students, professors and governmental officials (both U.S. and foreign; in groups and as individuals) referred to us for advice or other assistance on policy analysis matters.

Mr. Jerome D. Morris
January 14, 1975

The Program of Policy Studies has received increasing numbers of applications from many persons seeking research positions - from referrals as noted above and by other means such as our publications, seminars and other activities. Many applicants are truly capable young people and extremely well-qualified senior staff professionals. Unfortunately, our lessening NASA discretionary funds have required us to reject these applications as we are now in position to engage new professionals only when a new contract or grant is awarded. We regret, of course, that some continued NASA institutional funding is no longer available since even the relatively modest amount expended over the past four years provided us a level of confidence and degree of flexibility not otherwise available. Let me assure you, however, that we have every intention of continuing the Program of Policy Studies although this task is not an easy one as you are well aware. We find it extremely difficult to compete with profit and non-profit R&D firms with larger permanent staffs, as well as university groups which have strong legislative resource support. The NASA grant provided us with a reasonable number of core professional staff. However, we are putting forth every conceivable effort to maintain our momentum so as to continue to contribute effectively to the on-going public policy process. Approximately 175 proposals for additional funding have been submitted from September, 1966, through August, 1974, 50 of which were submitted during the past fiscal year (see list appended).

With respect to our total funding during the NASA grant period 1966-1974, the following facts may be of interest: Our funding through the NASA institutional grant came to a total of \$1,725,000, of which \$150,000 was allocated to GW's School of Engineering and Applied Science. In accord with the obligations of PPS/GWU

Mr. Jerome D. Morris
January 14, 1975

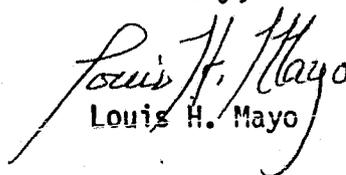
under the GWU/NASA Memorandum of Understanding, we have made a persistent, substantial effort to obtain grants and/or contracts from other sources to support our policy analysis activities in the area of technology and public policy. Through August 31, 1974, we have obtained 80 additional grants and contracts totalling \$4,385,458 broken down by fiscal years (September-August) as follows:

1966-67:	\$144,586
1967-68:	\$294,794
1968-69:	\$116,558
1969-70:	\$605,081
1970-71:	\$684,295
1971-72:	\$927,719
1972-73:	\$850,849
1973-74:	\$758,576

In view of the difficulties that other university-based programs similar to the Program have experienced, we feel we have been relatively successful with respect to the funding problem.

Personally, I wish to record the opportunity afforded me to develop certain notions concerning university policy research activities that I had been working on for fifteen years prior to the establishment of the Program of Policy Studies with the NASA institutional grant. I also wish to express my sincere thanks to you and to others who consistently have been generous in the totality of your attitudes, encouragement and advice. The Program staff will, of course, continue to be available to any NASA staff seeking advice or other assistance in our areas of mutual interest.

Sincerely,


Louis H. Mayo

AWARDS

September 1, 1973 - August 31, 1974

1. Oct. 1973 Fostering Urban Transportation Activities in
Jan. 1974 Universities: Recommendations to the Urban
(4 mos.) Mass Transportation Administration

This study developed recommendations to assist UMTA in its efforts to arrive at a new relationship with the academic community and to better serve both UMTA needs and those of the nation's urban transportation activities. The study team developed recommendations for possible revisions of the UMTA university program. The report of February 1974 (see Publications List) includes design and development work required to show how research and testing centers based at institutions of higher learning could be best organized, what they could do, and how their activities can be interfaced with urban transportation policy and program requirements.

Source of funds: DOT/Urban Mass Transportation Admin.

Principal Investigator: Wesley L. TENNANT

Research Staff: Vary T. Coates
Edward D. Studholme
Theodore Suranyi-Unger

Student Researcher: Rodney Frame

Consultants: Charlton Price
Darcia Bracken

Support Staff: Dana Friedman

2. Oct. 1973 Supplementary Funds
Dec. 1974
(3 mos.) Support for the President's National Advisory Council
on Supplementary Centers and Services

Description: Continuing Assessment of ESEA Title III
Projects

See page 25, #46 of PPS Seven Year Review

Principal Investigator: Gerald J. Kluempke

Source of Funds: HEW/Office of Education

3. Nov. 1973
Oct. 1974
(12 mos.)

Supplementary Funds

Citizen Group Uses of Scientific and Technological Information in the Nuclear Power Plant Controversy

Funds for preparation, publication, purchase and dissemination of the Final Report in the form of a book by the same title.

See p. 27, #34 of the PPS Seven Year Review

Source of Funds: NSF/Office of Exploratory Research and Problem Assessment

Principal Investigator: Steven Ebbin

4. Jan. 1974
Dec. 1974
(12 mos.)

Supplementary Funds

Innovation, Information and Analysis Project

Second year funding for this project.

See p. 29, #43 of PPS Seven Year Review

Source of Funds: NSF/Office of National R&D Assessment

Principal Investigator: Louis H. Mayo

Acting Project Manager: Vary T. Coates

Assistant Project Manager: Jerry Delli Priscoli

Chief Information Specialist: Natalie Hawley

Additional Staff not listed previously:

Research Assistants

Henry Hitchcock
Ann Langworthy

Support Staff

Nancy Dalzell
Mary Alice Carl
Mary Plunkett
Rosemary Eck

Consultants

Gordon Gayer

5. Jan. 1974 Southern Regional Workshop in Technology Assessment
Dec. 1974
(12 mos.)
Preparation and support for a three-day workshop in Technology Assessment held in Atlanta, Georgia, May 6-8 1974 under the joint sponsorship of the Program of Policy Studies and the Governor's Science Advisory Council of the State of Georgia, to provide an introduction to, and training in, the performance of technology assessment for state and local officials.

For description of program, see Seminars/Conferences infra.

Source of Funds: NSF/Office of Intergovernmental Relations and Research Utilization

Principal Investigator: Vary T. Coates

Student Researchers: James Lester
Wendy Schact
James Mahoney

Consultants: Walter A. Hahn
John E. Mock

Guest Lecturers: Marvin Cetron Wyatt Rogers
Andre Delbecq Jules Mirabal
Daniel DeSimone Joseph F. Coates
Vary T. Coates Melvin Kranzberg
John E. Mock Gene Willeke
Edward Kelley Ivan Smith
Dean Rusk Walter Hahn

6. Feb. 1974 Consumer Motivation and Participation in Planning
Jan. 1974 and Use of Transportation Services
(12 mos.)

Scope of work includes 1) behavioral science literature search re transportation behavior; 2) examination of transportation programs for consumer attitude and behavior principles; 3) derivation of factors and processes that influence decisions concerning transportation modes. Ultimate product of two-phase (two year) study is a manual of guidelines for transportation strategy organization.

Source of Funds: DOT/Program of University Research

Principal Investigator: Joseph B. Margolin

Research Staff: Marion R. Misch

Student Researchers: Constance Castle
Rosanne Sadosky
Rosemary Slowiak

Support Staff: Nancy Oshinsky

7. Apr. 1974 Modeling Adaptive Systems: Rudiments of a Normative
(1 mo.) Approach

Support for two primary areas of practical application of the system sciences: 1) education development of course materials designed to improve existing University offerings in interdisciplinary studies: 2) society-oriented development of practical techniques of normative efforts in on-going policy studies for the public sector.

Source of Funds: Olin Corporatin Charitable Trust

Principal Investigator: Milton C. Marney

8. Apr. 1974 Supplementary Funds
Mar. 1975
(12 mos.) Revitalization of Small Communities: Transportation
Options

Additional funds for second-year phase of project.

See p. 30, #45 of PPS Seven Year Review for description.

Source of Funds: DOT/Program of University Research

Principal Investigator : Vary T. Coates

Additional Staff not listed previously:

Student Researchers:

Jon Ellingson
James Lester
Ted d'Afflisio

Support Staff

Gertrude Delman
Celeste Goodridge
Flora Reimer

Consultants:

Frank Piovia
Charlton Price
John R. Reidelbach, Jr.
John Waring
Gordon Sessions

9. Apr. 1974 University Policy Study Group Support Activities and
Dec. 1975 Science Policy Seminars
(15 mos.)

This project, based in the Graduate Program of Science, Technology and Public Policy (see p. 28, #37 of the PPS Seven Year Review) provided for GW's hosting of four faculty/student research teams, plus a GW team to serve as a link between these non-Federal professionals and Federal and other Washington-based entities involved in issues of science and technology policy and improve the quality and quantity of information flow between and among them. The summer program also included a project assignment for each team plus some informal seminars.

During the Fall-Spring 1974-75 academic year, other professional seminars will be conducted, and during the summer of 1975 GW will host new faculty/student teams.

Project assignments for the Summer 1974 session included:

1. Study of Research and Development Needs for the Making of Social Policy Toward Young Children (Harvard team)
2. U.S. Food and Nutrition Policies: Their Relation to World Food Needs: An Exploratory Analysis (MIT/Harvard team)
3. Social Aspects of Transportation: Access for the Disadvantaged (State University of New York team)
4. Social Policy Analysis and Research and Social Policy-Making (University of Washington team)
5. International Technology Transfer: Development of a Framework of Processes and Issues (GWU/Program of Policy Studies team)

Source of Funds: NSF/Science and Technology Policy Office

Principal Investigator: John M. Logsdon

Faculty Members: James Austin (Harvard)(MIT/Harvard team)
Benhamin Chinitz (State U. of New York)
James Levinson (MIT)(MIT/Harvard team)
Fremond J. Leyden (U. of Washington)
James Levinson (MIT)(MIT/Harvard team)
David Mundel (Harvard)
Henry Nau (GWU/Program of Policy Studies)
Walter Williams (U. of Washington)
David Wise (Harvard)
Lorene Y.L. Yap (State U. of New York)

Graduate Students: Phil Abbot (MIT)(MIT/Harvard team)
Mary Allen (GWU/Program of Policy Studies)
Cathy Austin (Harvard)(MIT/Harvard team)
Daniel Badger (Harvard)

Graduate Students,
continued

Marcy Coburn (Harvard)(MIT/Harvard team)
Harold Federow (GWU/Policy Studies)
Steven Green (MIT)(Harvard/MIT team)
Eleanor Holmes (U. of Washington)
Sheri Kandel (State U. of New York)
Laura Kemp (U. of Washington)
Susan LaJoie (Harvard)
Harold Lemar (State U. of New York)
James Lester (GWU/Program of Policy Studies)
Judy McGuire (MIT)(MIT/Harvard team)
Carol Ulinski (GWU/Program of Policy Studies)
Jeannette Veasey (U. of Washington)
Martin Williams (State U. of New York)

Support Staff:

Barbara Claassen, Administrative Assistant
GWU Graduate Program in Science, Technology
and Public Policy

Margaret Lewis, Research Assistant (Harvard)

Secretaries: Naomi Baden (Harvard)
Carol Goss (GWU and U./Wash.)
Terri Gralnick (MIT/Harvard)
Miriam Gandell (GWU)
Rhea Shafitz (New York team)

10. May 1974
Oct. 1974
(6 mos.)

Models of Judicial Information Flow

A pilot study to develop the early stages of the descriptive model of information flow of public policy issues to the Supreme Court. Development of the model will require the use of traditional case analysis, model building, statistical analysis, and information/systems theory utilizing several lines of cases. The study will culminate in a draft working paper for discussion among lawyers, judges, political scientists and academicians during a one day session in early January, 1975.

Source of Funds: NSF/Law and Social Sciences Program

Principal Investigators: Arthur S. Miller
Jerome Barron

Research Staff: Charles M. Lamb.
Joseph Tasker

Support Staff: Pamela K. Brown

Supplementary Funds

11. May, 1974
(fixed
price)

Technology Assessment Implementation Project

Funds for publication and dissemination of final report for this project (see p. 21, #15 of PPS Seven Year Review). Prepared and edited by Raphaël Kasper, John M. Logsdon, Ellis R. Mottur, the report dated July, 1974, is titled Implementing Technology Assessments. The report consists of two parts: Part I contains a summary of each paper in the seminar series which was a central activity of the project. Part II contains several case studies of the assessment/acceptance/implementation process and a summary chapter discussing the overall findings of the project (270 pp.) The Appendix, printed as a separate volume consists of the texts of the seven papers presented to the seminar series (242 pages). Dissemination of the report includes copies to NSF and GWU for internal use; federal officials responsible for TA activities such as OTA, members of congressional committees involved with science/technology policy, selected staff of the Library of Congress, and R&D Policy Offices in executive agencies; state science policy advisors; science policy centers and institutes in universities and instructors of policy-related, interdisciplinary courses; public interest groups; selected libraries; participants at recent TA conferences not otherwise covered.

Source of Funds: NSF/Office of Exploratory Research
and Problem Assessment

Principal Investigator: John M. Logsdon

Support Staff: Barbara Claassen
Miriam Gandell

12. Jun. 1974
May 1975
(12 mos)

Study to Reevaluate the Rationale for National R&D
Policy Studies

The Science and Technology Policy Office of NSF, which supports the Director of the Foundation in his role as Presidential Science Adviser, is planning to conduct a University Policy Studies Program. This project, based in the GWU Graduate Program of Science, Technology and Public Policy (see p. 28, #37 of the PPS Seven Year Review) is participating in this program by undertaking a research effort to reevaluate the basic rationale and framework of discussion of national R&D strategies and policy issues.

A faculty/student team will conduct a multilevel research effort to 1) develop a general framework for defining and discussing policy issues raised by the new economic and social significance of R&D, 2) investigate specific policy issues as these become defined through #1 above, 3) provide short-term research support to the NSF STPO staff on matters arising during the course of daily administrative activities/identification of international aspects of R&D policy, and 4) identification and establishment of contact with other research efforts in government, universities, or non-profit research institutions seeking to contribute to the redefinition of R&D issues in the present context of growing domestic awareness of economic and social consequences of technology.

Source of Funds: NSF/Science and Technology Policy
Office

Principal Investigator: Henry R. Nau

Graduate Students: Mary Allen
Harlan Scott Finer
Howard Gobstein
James Lester
Carol Ulinski

Consultants: Harold Federow
Henry Resnikoff

Support Staff: Barbara Claassen
Miriam Gandell

13. Jul. 1974
Apr. 1975
(10 mos.)

Current Knowledge and Information Needs for Safe Driving Conformance Initiatives

The George Washington University team will perform the following under Task I: develop a logical analysis of the legal, enforcement, adjudicatory and sanctioning elements of the Traffic Law System as they relate to determining the information requirements of the legal influence mechanisms which impact on voluntary driving behaviors. In the course of the foregoing the team will identify the legal system countermeasures which relate to the general and detailed information questions developed in Task 1. Based on work in Tasks 1 and 2, the team will identify the law system elements of the research modules for which knowledge is lacking and research is required.

Source of Funds: Subcontract from Human Sciences Research, Inc., McLean, Va. (Their award by same title from DOT)

Principal Investigator: Louis H. Mayo

Project Manager: Vary T. Coates

Student Researchers: Stephen Hessler
Allen Jensen

Consultants : Ernest Weiss

Support Staff: Gertrude Delman
Celeste Goodridge

14. Jul. 1974
Aug. 1974
(2 mos.)

Analysis of Characteristics of Winners of Nobel Prizes in Physics, Chemistry, and Physiology/Medicine Before 1930

Information gathering as to: date of award of prize; brief description of work cited in prize; date of publication or announcement of major findings of award-winning work; national affiliation of laureate at time of award; national affiliation at time of findings; age of laureate at time of award; age of laureate at time of findings.

Source of funds: NSF/Science Resources Studies Div.

Principal Investigator: Marcy Canavan

15. Aug. 1974 Basic Ordering Agreement Award: Science Policy

"As a result of the March 12th (1974) solicitation for expert and consultant services in the fields of Science Policy, Science Information, and Energy Policy and Research, the following companies are being awarded BOA's (Basic Ordering Agreements) in Area I - Science Policy: Battelle, Pacific NW Labs, Charles River Associates, Econ, Inc., The Futures Group, GE, George Washington University, Harbride House, Inc., Arthur D. Little, National Planning Association, Research Triangle Institute, Systems Control, Inc., and Technical Audit Associates." Commerce Business Daily, Aug. 29, 1974. (Emphasis supplied.)

The science policy area covers all aspects of national and international civilian science and technology policy and includes but is not limited to international science and technology; world food, agricultural, industrial productivity; social sciences intergovernmental science and technology and urban problems; achievement of national goals through science and technology.

Following basic contractual arrangements between the George Washington University and the National Science Foundation, the Program of Policy Studies may submit unsolicited proposals to the Office of Science and Technology Policy of NSF or respond to requests for work tasks by NSF.

The agreement is for a period of 12 months with NSF's option to renew for an additional 24 months.

Source of Funds: National Science Foundation

Principal Investigator: As per proposals submitted.

21. Seminar Series on:

ARE SMALL TOWNS OBSOLETE IN POST-INDUSTRIAL SOCIETY?

Vary T. Coates and Betsy Amin-Arsala,
Coordinators

Presentations were as follows:

1. "The Future of the Small Town"

March 21, 1974 -- Calvin BEALE, Demographer
Rural Development Service
U.S. Department of Agriculture

2. "Possibilities for Improved Transportation in Small Towns"

April 25, 1974 -- Don MORIN, Chief
Transit and Traffic Engineering Branch
Federal Highway Administration
U.S. Department of Transportation

3. "Transportation and Rural Urbanization"

June 20, 1974 -- Presentation and Discussion of report:
Revitalization of Small Communities:
Transportation Options. Report to DOT/
Program of University Research by the
Program of Policy Studies.

Vary T. Coates, Principal Investigator

Participants:

Affiliation

Ted d'Afflisio	Program of Policy Studies
Betsy Amin-Arsala	Program of Policy Studies
Robert W. Anthony	Program of Policy Studies
Arnold Barach	Kiplinger Foundation, Inc.
Calvin Beale	Rural Development Service, USDA
Theodore S. Bloch	Rail Services Planning Office, ICC
James M. Brown	Program of Policy Studies
William A. Carlson	Office of Planning & Evaluation, USDA
Joseph F. Coates	Office of Exploratory Research, NSF
Vary T. Coates	Program of Policy Studies
Benjamin Cooper	Senate Interior Committee
John Engle	Nat'l Cong. for Community Economic Devel.
Joseph L. Fisher	Program of Policy Studies (Advisory Comm.)
Susan Fridy	Coalition for Rural Development
Gordon Gayer	Program of Policy Studies
Al Gonzalez	Migrant Legal Action Program
Raymond E. Goodson	Program of University Research, DOT
Walter Guntharp	Rural Development Service, USDA
Audrey Hassanein	Program of Policy Studies
James Hearn	Community Development Branch, OEO
Eric Herr	Council of Economic Advisors

Philip Johnson
James P. Kottenstette

Ronal Larson
Maury Lieberman
Lawson McKenzie
Joseph B. Margolin
Roy Marx
Louis H. Mayo
David O. Meeker, Jr.
Sumner Meyers
Mike Murphy
Patrick Murphy
Marion R. Misch.
Byron Nupp
Clair Olson
Robert Pfahler
Jerome Pickard
Kay Pollack
Alan Pulsipher
Lydia Pulsipher
Jack Rudlow
Lee Schoenecker
James Selvaggi
William Sorrentino
Shelby Southard
Charles T. Stewart
Kenneth Strobl
Edward Studholme
Michael Telson
Margaret Tuttle
Dick Wakefield
James E. Webb
Ray Weil
Ernest Weiss
N. Richard Werthamer
Leonard Wheat
Sheila Widnall
George Wright

Nat'l Cong. for Community Economic Devel.
Experimental Technology Incentives Program,
NBS
House Committee on Science & Astronautics
NIMH
Program of University Research, DOT
Program of Policy Studies
Program of Policy Studies
Program of Policy Studies (Director)
Ass't Secretary for Community Devel., HUD
Urban Systems Studies, Inst. of Pub.Admin.
Rural Division, ICMA
Bureau of Operating Rights, CAB
Program of Policy Studies
DOT
Amer. Ass'n. of Community & Junior Colleges
Bureau of Operations, ICC
Appalachian Regional Commission
United Farm Workers
Council of Economic Advisors
Cultural Geographer
Gulf Specimen Company
Management Analysis, OMB
New Communities Admin., HUD
New Communities Admin., HUD
Cooperative League
Dept. of Economics, Geo.Wash.University
Rail Services Planning Office, ICC
Program of Policy Studies
Senate Interior Committee
West Virginia "Trip"
Center for Metropolitan Studies
Urban Studies, Inc.
Policy & Planning Division, DOT
Program of Policy Studies
Office of Congressman Mosher
EDA, Dept. of Commerce
Program of University Research, DOT
Urban Program Coordination, HUD

22. Conference

THE SOUTHERN REGIONAL CONFERENCE
ON TECHNOLOGY ASSESSMENT

May 6-8, 1974

Co-Sponsored by:

Program of Policy Studies
in Science and Technology

The Governor's Science Advisory
Council, State of Georgia

Host

Georgia Institute of Technology
Atlanta, Georgia

PROGRAM

Keynote Address

Dan DE SIMONE, Associate Director
Office of Technology Assessment

Survey of Recent Federal Activity in TA

Vary T. COATES, Associate Director
Program of Policy Studies in Science & Technology

Counter-Intuitive Thinking and Its Place in TA

Marvin CETRON, President
Forecasting International

Luncheon Speaker

Dean RUSK, Professor of Law
University of Georgia

Overview of State and Local TA

Edward T. Kelly, Program Manager for State Government, Office
of Intergovernmental Science & Research Utilization, NSF

Technology Assessments Desired by the States

John E. Mock, Science Advisor
to the Governor of Georgia

Operation Ploughshare--Colorado

Wyatt ROGERS, Deputy Director
Western Interstate Nuclear Board

TA of Solid Waste Management

Jules MIRABAL, GE R&D Center

Report on Recent and Current Assessments

Joseph F. COATES, Office of Exploratory Research
and Problem Assessment (RANN), NSF

How to Organize a Comprehensive TA

Steven EBBIN, Sr. Staff Scientist
Program of Policy Studies in Science & Technology

How to do TA's of Less than \$5,000

Andre DELBECQ School of Business
University of Wisconsin

Luncheon Speaker

Melvin KRANZBERG Callaway Professor on
the History of Science
Georgia Institute of Technology

Afternoon Mini-Assessment Workshops

Joseph COATES, Andre DELBECQ, Steven EBBIN

How to Write an Environmental Impact Statement

Gene WILLEKE, Environmental Research Center
Georgia Institute of Technology

Agricultural Technology: Integration of Pig Farming

Ivan Smith, Principal Scientist
Midwest Research Institute, Kansas City. Mo.

Critique of TA

Walter HAHN, Senior Analyst
Science Policy Division
Congressional Research Service
Library of Congress

PARTICIPANTS

1. Dee Ashley Akers, Dean, Commonwealth and Community Services, University of Louisville
2. Robert L. Alston, State Highway Location Engineer, Georgia Department of Transportation
3. Preston T. Bankston, Director, Governor's Office of Science & Technology, State of Mississippi
4. Carlos G. Bell, Professor of Environmental and Nuclear Engineering, University of North Carolina at Charlotte
5. Noel Bobko, Intern, Governor's Science Advisory Council, Georgia
6. Rick Brown, Administration Section, Div. of State Planning and Community Affairs, Commonwealth of Virginia
7. James Carzoli, Intern, Governor's Science Advisory Council, Georgia
8. Marvin Cetron, President, Forecasting International, Inc.
9. Joseph F. Coates, Program Manager, Office of Exploratory Research and Problem Assessment, National Science Foundation
10. Vary T. Coates, Associate Director, Program of Policy Studies
11. Steve Day, Student, Industrial & Systems Engineering Dept., Georgia Institute of Technology
12. Robert Davis, Planner, Division of Planning Coordination, Office of the Governor, State of Texas
13. Andre Delbecq, Professor of Management, Graduate School of Business, University of Wisconsin
14. Daniel Di Simone, Associate Director, OTA
15. Jules Druyfuss, Student, Industrial & Systems Engineering, Georgia Institute of Technology
16. Steven Ebbin, Sr. Staff Scientist, Program of Policy Studies
17. Roland H. Ebel, Assoc. Prof. of Political Science, Tulane University
18. William N. Ellis, Science Advisor to the State of Maine (Southern MA)
19. Ardath H. Emmons, Vice President for Research, U. of Missouri
20. William F. Flanagan, Prof. of Engineering, Vanderbilt University
21. Thomas D. Fontaine, Associate Director, Div. of Sponsored Research, University of Florida
22. Robert S. Goodrich, Assoc. Prof. of Engineering, Vanderbilt Univ.
23. Jerry W. Gravander, Instructor of Philosophy, University of Tenn.
24. Robert J. Griffis, Assoc. Director, Finance Section, Div. of State Planning & Community Affairs
25. Walter A. Hahn, Specialist in Science and Technology, Congressional Research Service, Library of Congress
26. Patrick K. Hales, Student, Environmental Decision-Making, U. of Tenn.
27. William A. Hansell, Assistant Director, Physical Health Div., Dept. of Human Resources, State of Georgia
28. Robert W. Henningson, Assistant Dean of University Research, Clemson University, Clemson, South Carolina
29. Edward T. Kelly, Program Manager for State Government, Office of Intergovernmental Science and Research Utilization, NSF
30. Henry F. Hrubecky, Professor of Mechanical Engineering, Tulane
31. Henry M. Huckaby, Coordinator, Office of Planning and Budget Planning Division, State of Georgia
32. Ronn J. Hy, Assistant Prof. of Governmental Research, Bureau of Governmental Research, U. of Mississippi
33. James T. Jones, Div. of State Planning, State of Florida

34. Robert D. Kersten, Dean, College of Engineering, Florida Technological University
35. Roland R. Kessler, Manager, Battelle Regional Centers, Atlanta
36. James E. Kinard, Chief, Natural Resources and Energy Division, State of Louisiana
37. Jerome Kohl, Nuclear Engineering Extension Specialist, North Carolina State University
38. Melvin Kranzberg, Callaway Professor on the History of Science, Georgia Institute of Technology
39. Harry Kriemelmeyer, Executive Director, Governor's Science Advisory Council, State of Maryland
40. James P. Lester, Research Assistant, Program of Policy Studies
41. Barry D. Lichter, Prof. of Socio-Engineering, Vanderbilt University
42. Thomas L. Linton, Director, Office of Marine Affairs, State of North Carolina
43. Michael H. Lott, Industrial Representative, Department of Community Development, State of Georgia
44. James D. McEllhannon, Student, Industrial and Systems Engineering Georgia Institute of Technology
45. James D. Maloney, Fellow, Smithsonian Institution
46. Delmon Miller, Researcher, Legislative Research Commission, Commonwealth of Kentucky
47. Jules Mirabal, Manager, Mechanical Engineering Laboratory, Corporate R&D, GE Corp., Schenectady
48. Robert M. Mason, Research Scientist, Engineering Experiment Station Georgia Institute of Technology
49. John E. Mock, Science Advisor to the Governor of Georgia
50. Robert T. Nash, Associate Professor, Socio- and Electrical Engineering, Vanderbilt University
51. Samuel S. Neuner, Administrative Assistant, Office of the Governor's Science Advisory Council, State of Georgia
52. Warren V. Rock, Assistant Director for Research, Energy Division, Dept. of Military & Veterans Affairs, State of North Carolina
53. Frederick A. Rossini, Assistant Professor, Social Sciences, Georgia Institute of Technology
54. Mary Lou Rothove, Consultant, Local Assistance Office, Dept of Community Development, State of Georgia
55. Dean Rusk, Former Secretary of State, Professor of Law, U. of Ga.
56. Marvin W. Russell, Dean, Ogden College of Science and Technology, Western Kentucky University, Bowling Green
57. William D. Sandell, Dept. of Industrial Engineering, Texas Tech U.
58. Wendy Schact, Research Assistant, Program of Policy Studies
59. Ellis L. Scott, Professor of Management, U. of Georgia
60. Ivan C. Smith, Principal Scientist, Midwest Research Institute, Kansas City, Mo.
61. William K. Stair, Associate Dean for Research, College of Engineering, University of Tennessee
62. Eugene E. Stansbury, Professor of Metallurgical Engineering, Univ. of Tennessee
63. John B. Sutherland, Director, Industrial Research and Extension, University of Missouri
64. Gayden Thompson, Professor of Industrial Systems and Engineering, Georgia Institute of Technology
65. Richard E. Turley, State Science Advisor, State of Utah
66. Vishwa K. Varma, Assistant Director, Environmental Planning and Management Project, Office of the Mayor, City of Nashville

67. Damon Wall, Director, Engineering Experiment Station, University of Mississippi
68. Leon W. Zelby, Professor of Electrical Engineering, University of Oklahoma at Norman
69. Andrew Hjort, Intern, Office of the Science Advisor, State of Ga.

Proceedings of the Southern Regional Conference on Technology Assessment were published in October, 1974, and are available through NTIS (36 pp.)

#4 - "Level of Transportation Service Required to Sustain a Viable Community"

James Costantino, Executive Assistant to the
Under Secretary of Transportation, DOT --Moderator

#5 - "What Transportation Mechanisms Have Greatest Potential for Small Communities and Rural Areas?"

Barrs Lewis, Policy Analysis Division
Office of Transportation Policy Development
Office of Policy Plans & International Affairs, DOT--Moderator

#6 - "Potential of New Technology for Solution of Rural Transportation Problems"

Richard C. Hannon, Research and Development
Policy Analysis Division
Office of Systems Development and Technology, DOT--Moderator

In addition the following presentations were held:

#1 - The Rural Development Act

Walter A. Guntharp, Administrator
Rural Development Service, USDA -- Speaker

#2 - The Regional Railroad Reorganization Act - Its Effect on Rural Development

Henri F. Rush, Jr., Deputy Administrator
Federal Railroad Administration --Speaker

#3 - The Rural Highway Public Transportation Demonstration Program

Kevin E. Heanue, Chief
Urban Planning Division
Office of Highway Planning,
Federal Highway Administration --Speaker

The workshop closed with an Executive Summary of Workshop Conclusions:

R.E. Goodson, Chief Scientist
Office of Systems Development & Technology, DOT -- Moderator

WORKSHOP PARTICIPANTS AND OBSERVERS:

1. Betsy Amin-Arsala, Program of Policy Studies
2. Robert W. Anthony, Program of Policy Studies
3. Forrest Baker, Transportation Research and Marketing, Salt Lake City
4. Kenneth Brewer, Civil Engineering Dept., Iowa State U. at Ames

5. William Brown, Program of University Research, DOT
6. R.L. Carstens, Dept. of Civil Engineering, Iowa State U. at Ames
7. Robert H. Clement, Deputy Under Secretary of Transportation
8. Vary T. Coates, Assoc. Director, Program of Policy Studies
9. Robert Coltrane, Economic Research Service, USDA
10. James Costantino, Assistant to the Under Secretary of Transportation
11. Theodore d'Afflisio, Program of Policy Studies
12. John Dickey, Center for Urban & Regional Studies, VPI
13. Richard Dodge, School of Architecture, University of Texas at Austin
14. Robert Doucette, ESCO Economic Institute for Research and Advanced Study, U. of Maine at Portland
15. Samuel Eastman, Office of Policy Review, DOT
16. John R. Fowler, Committee on Transportation, Nat. Academy of Eng'r'g
17. J.O. Gerald, Economic Research Service, USDA
18. R.E. Goodson, Program of University Research DOT
19. Walter A. Guntharp, Rural Development Service, USDA
20. Thomas Hady, Economic Research Service, USDA
21. John Huddleston, University of Texas at Austin
22. James Kottenstette, Experimental Technology Incentives Program, NBS
23. Richard Hannon, Office of Systems Development & Technology, DOT
24. Kevin Heanue, Office of Highway Planning, FHWA, DOT
25. Joyce Johnson, Transportation Institute, North Carolina AT&T Univ.
26. James Kent, Michigan Technological University
27. Norman Knable, Transportation Systems Center, DOT, Cambridge, Mass.
28. Barrs Lewis, Office of Transportation and Policy Development
29. Nancy MacRae, Socio-Economic Research Coordination Staff, DOT
30. Tresa Matthews, Rural Development Service, USDA
31. Louis H. Mayo, Director, Program of Policy Studies
32. Jesse McKee, Dept. of Geography, Univ. of Southern Mississippi
33. Douglas McKelvey, Institute of Urban and Regional Research, University of Iowa at Ames
34. George Megerian, Transportation Systems Center, DOT, Cambridge, Mass
35. Arnim Meyberg, Dept. of Environmental Engineering, Cornell University
36. Katherine J. Mosley, Dept. of Sociology, Jackson State University
37. Nathaniel Ng, Dept. of Urban Studies, MIT
38. Deborah Pollock, Economic Research Service, USDA
39. Charlton Price, Program of Policy Studies
40. Edward Reinsel, Economic Research Service, USDA
41. Henri F. Rush, Federal Railroad Administration, DOT
42. William J. Rush, School of Business, Mississippi State University
43. Arthur Salzman, Transportation Institute, North Carolina AT&T
44. Rebecca Sammartino, Transportation Services Branch, USDA
45. Peter Schumaier, Office of Transportation and Policy Development, DOT
46. Zmarak Shalizi, Department of Urban Studies, MIT
47. Anne Story, Transportation Systems Center, DOT, Cambridge
48. Gregory Tasse, Experimental Technology Incentives Program, NBS
49. Morris Taylor, Extension Economics Dept., Utah State University
50. Michael Walton, Dept. of Civil Engineering, U. of Texas at Austin
51. Harry Waters, ESCO Economic Institute for Research and Advanced Study, University of Maine at Portland
52. Ernest Weiss, Program of Policy Studies
53. Eugene Wilson, Center for Transportation Studies, U. of Iowa
54. Charles Zlatkovitch, Bur. of Business Research, U. of Texas at Austin
55. Norbert Zucker, Federal Railroad Administration, DOT

24. Briefing on
TECHNOLOGY ASSESSMENT

June 27, 1974

Opening comments:

Dr. Louis H. Mayo, Director
Program of Policy Studies in Science and Technology

Dr. Vary T. Coates, Associate Director
Program of Policy Studies in Science and Technology

Presentation:

"Public Participation in Technology Assessment"

Ms. Sherri Arnstein, Consultant
Arthur D. Little, Inc.

Participants: Staffs of the Office of Technology Assessment;
the Program of Policy Studies in Science and Tech-
nology; and representatives of the Washington, D.C.,
area research community who have been involved in
the development of Technology Assessment over the
past seven years

David Anderson	Engineering Administration, GWU
Joe Annunziata	Assistant to Sen. Kennedy, OTA
Bob Anthony	Program of Policy Studies
Sherri Arnstein	Consultant, Arthur D. Little, Inc.
Jim Atkeson	Chief Counsel, OTA
Robert Ayres	Int'l Research and Technology Corp.
Sue Bachtel	Program of Policy Studies
Marvin Cetron	Forecasting International
Rosemary Chalk	Science Policy Div., Cong. Res. Serv.
Barbara Claassens	Program of Policy Studies
Joe Coates	Exploratory Res. and TA, NSF
Vary Coates	Program of Policy Studies
Ted d'Afflisio	Program of Policy Studies
Craig Decker	Spec. Assistant to Director, OTA
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Mark Frankel	Program of Policy Studies
Joanna Garver	Consultant, Program of Pol. Studies
Emilia Govan	Co-Chairperson, Arlington Coalition on Transportation

Harold P. Green
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Douglas Harvey
Audrey Hassenein
Dean Havram
Natalie Hawley
George Humphries
Jean Johnson
Pat Johnson
Myra Karstadt
David Kiefer
Jean Knezo
Gretchen Kolsrud
Ron Larson
Tom McGurn
Buford Macklin
Joe Margolin
Milton Marney
Eddie Martin
Louis H. Mayo
Marion Misch
Hank Nau
Charlton Price
Judy Russell
Norman Sandler
Z. J. Slouia
Anne Strauss
Carl Taylor
Wes Tennant
Louis Voils
Ernie Weiss
Phil Yeager

National Law Center, GWU
Science Policy Div., Cong.Res.Serv.
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Adv. Technology Mgt. Associates
NSF
Army Corps of Engineers
Staff-Biology Area, OTA
Chemical and Engineering News
Science Policy Div., Cong.Res.Serv.
Project Mgr. for Transp., OTA
Project Leader, Solar Energy, OTA
Business Manager, OTA
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Director, Program of Policy Studies
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Information Specialist, OTA
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Spec. Subcommittee on NSF
Project Area-Bioequivalency, OTA
Program of Policy Studies
Summer Intern, OTA
Program of Policy Studies
Counsel, House Committee on
Science and Astronautics

PUBLICATIONS

June, 1974 - August, 1974

1. Reports

a. Trends in Federal Land Use Law Relating to Inventories, Monitoring, and Evaluation

Charles M. LAMB. A report to the Office of User Affairs, NASA. April, 1974. 86 pages. Available from NTIS as PB229 613/AS.

b. Evaluation of the Effectiveness of Illustrated Print Media (Nonverbal) on Family Planning Attitudes Among Colombians

Joseph B. MARGOLIN and Marion R. MISCH. A Report to AID/U.S. Department of State. In-depth social/psychological study of the motivations of poor women in less developed countries about contraception and abortion, including their attitudes, actual practices, effectiveness of certain media in improving attitudes and behavior for family planning. 112 pages.

2. Special Innovation, Information and Analysis Group Series

Attached to the following page is a current description of publications of the IIAP group to date (ref. also p. 29 of the Seven Year Review of PPS for a description of the IIAP Project)

INNOVATION INFORMATION AND ANALYSIS PROJECT

Project Description

Program of Policy Studies in
Science and Technology
The George Washington University
2130 H Street, N.W.—Suite 714
Washington, D. C. 20052
202-676-6450

the need

The viability of industrial economies, the competitive position of industrial nations, and socio-economic progress are all dependent on processes which have come to be known as innovation. Innovation encompasses several event chains in the application of scientific knowledge to human needs. However, despite the importance of innovation and the quantity of material written on various aspects of the total subject, no generally shared perception of the concept or the processes has yet emerged.

There are many reasons for this lack of common understanding and agreement. For example: academic disciplines dealing with various aspects of innovation are diverse; institutions concerned with innovation are diverse; expectations concerning the ends of innovation are mixed; and, communications among interested parties are poor. Because of this lack of focus, there is a great need to organize and focus research and analysis of innovation.

meeting the need

The Innovation Information and Analysis Project (IIAP) in the Program of Policy Studies in Science and Technology, George Washington University, is designed to meet part of this need.

Founded in 1973, IIAP has been funded through the National Science Foundation R&D Assessment Program. It functions as a focus of information flow within a broadly based innovation community. This community consists of people in government, private business, trade associations, non-profit organizations, private individuals, and other interested parties.

The common bond is a shared interest in the process of innovation, which includes the processes of an idea to its significant application. Also included are active research and development, improved products, private and public use

a program outline

In fulfilling this need, the IIAP provides the following primary services to the community:

- It gathers and organizes resources on innovation.
- It provides literature reviews, own and outside, of relevance to the community.
- It engages in seminars, reviews, syntheses

Two closely coordinated services, the IIAP provide these services, collecting, organizing, and testing, are provided by the Innovation Information Center (IIC). Since its inception, the IIC has acquired a vast collection of articles and other documents on many aspects of innovation. It will become a series of special reports available to the public at an inexpensively per-

The analytical and synthesis function provided by another element of the IIAP, the analytical function group, is a process to produce critical reviews of specified topics within the community. Similarly, the IIAP is concerned with facilitating and organizing the interaction among researchers, scientists, and the public through its public

A list of current publications follows.

the need

The viability of industrial economies, the competitive position of industrial nations, and socio-economic progress are all dependent on processes which have come to be known as innovation. Innovation encompasses several event chains in the application of scientific knowledge to human needs. However, despite the importance of innovation and the quantity of material written on various aspects of the total subject, no generally shared perception of the concept or the processes has yet emerged.

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Founded in 1973, IIAP has been funded through the National Science Foundation R&D Assessment Program. It functions as a focus of information flow within a broadly based innovation community. This community consists of people in government, private business, trade associations, non-profit organizations, private individuals, and other interested parties.

The common bond of this diverse community is a shared interest in technological innovation. This includes the processes from conception or generation of an idea to its significant utilization by society. Also included are activities linked with the creation, research and development and diffusion of new and improved products, processes and services for private and public use.

a program outline

In fulfilling this need, IIAP provides three primary services to the community:

- **It gathers and disseminates information resources on innovation.**
- **It provides literature searches through its own and outside sources on specific topics of relevance to this community.**
- **It engages in special analytical literature reviews, syntheses and research.**

Two closely coordinated functional elements of the IIAP provide these services. The bibliographic services, collecting, organizing, abstracting, annotating and testing, are provided by an Innovation Information Center (IIC). Since its inception in 1973, the Center has acquired a vast collection of books, periodicals, articles and other documents which deal with the many aspects of innovation. From this collection has come a series of special bibliographic material which is available to the public. Upon request, the Center can inexpensively perform specific bibliographic tasks.

The analytical and dissemination services are provided by another element of the IIAP. The analytical function goes beyond the bibliographic process to produce critical syntheses and reviews of specified topics within the general study of innovation. Similarly, the IIAP is concerned with stimulating, facilitating and organizing the flow of communication among researchers, scholars, and practitioners. It does this through its publication and analytical activities.

A list of current bibliographies and analytical publications follows.

publications

1. Book Lists:

	Price
1.01 <i>Book List #1</i> : IIC Staff, March, 1974. A listing of more than 300 books and 40 dissertations pertaining to the field of innovation. (Available only in Xerox copy.) 100 pp.	\$6.00
1.02 <i>Book List #2</i> : IIC Staff, July, 1974. A listing of more than 125 books and 50 dissertations pertaining to the field of innovation. (Available only in Xerox copy.) 70 pp.	\$4.00
1.03 <i>Book List #3</i> : IIC Staff, October, 1974. An annotated listing of more than 175 books. 70 pp.	\$2.25

2. Cumulative Accession Lists:

2.01 <i>Cumulative Document Accession List #1</i> : IIC Staff, March, 1974. An index of articles and documents pertaining to innovation. Documents #1-999 listed by accession number. (Available only in Xerox copy.) 200 pp.	\$8.00
2.02 <i>Cumulative Document Accession List #2</i> : IIC Staff, October, 1974. An index of articles and documents pertaining to innovation. Documents #1000-1700 are listed by accession number. 150 pp.	\$3.50
2.03 <i>Cumulative Document Accession List #3</i> : IIC Staff, (Winter 1974-75). An index of articles and documents pertaining to innovation. Documents #1701-3000 are alphabetically listed with accession number included. 250 pp.	\$5.50

3. Special Bibliographic Searches:

3.01 <i>A Bibliography of Case Studies of Innovation</i> , by Gordon K. Gayer, 1974. A bibliography review with commentary. 40 pp.	\$1.75
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3.02 *Size of Firm in Relation to Inventive Activity: A Selected Bibliography—Part I*, IIC Staff, 1974. A compilation of document abstracts. 68 pp. \$1.90

3.03 *Behavioral Aspects of Innovation: A Selected Bibliography—Part I*, IIC Staff, 1974. A compilation of document abstracts. 66 pp. \$1.90

4. Special Analytical Reports

4.01 *Conferencing Via Computer*, by Charlton Price, 1974. A review of activity in computer conferencing. It discusses current types and techniques of conferencing via computer; the costs and benefits of this communications medium compared with others, and some potential applications. 38 pp. \$1.75

4.02 *Multi-Case Studies of Industrial Innovation: A Survey and State of the Art*, Gordon K. Gayer, 1974. A narrative survey of more than 20 multi-case studies of innovation. It deals with multi-case studies of the last 15-20 years, and reviews the state of the art. 96 pp. \$2.85

4.03 *Post-war Japanese Technological Growth and Innovation: A Comparative Review of the Literature*, by William Fischer, 1974. An analytical review of technological innovation in relation to postwar Japanese economic growth. Included are discussions of technological innovation in relation to: Industrial R & D, Japanese Management practices, technological entrepreneurship, government intervention and technological importation. It ends with a discussion of the "Japanese Innovation Cycle." 110 pp. \$3.60

5. Special Services

5.01 Special bibliographic searches and analytical studies are available on an individual basis. Please contact the IIAP office for further information regarding these services.

IIAP advisory group

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on to Inventive Activ-
ography—Part I, IIC
ilation of document
68 pp. \$1.90

of Innovation: A Se-
Part I, IIC Staff, 1974.
ument abstracts.
66 pp. \$1.90

omputer, by Charlton
w of activity in com-
It discusses current
of conferencing via
and benefits of this
edium compared with
potential applications.
38 pp. \$1.75

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d State of the Art,
1974. A narrative sur-
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Technological Growth
Comparative Review of
William Fischer, 1974.
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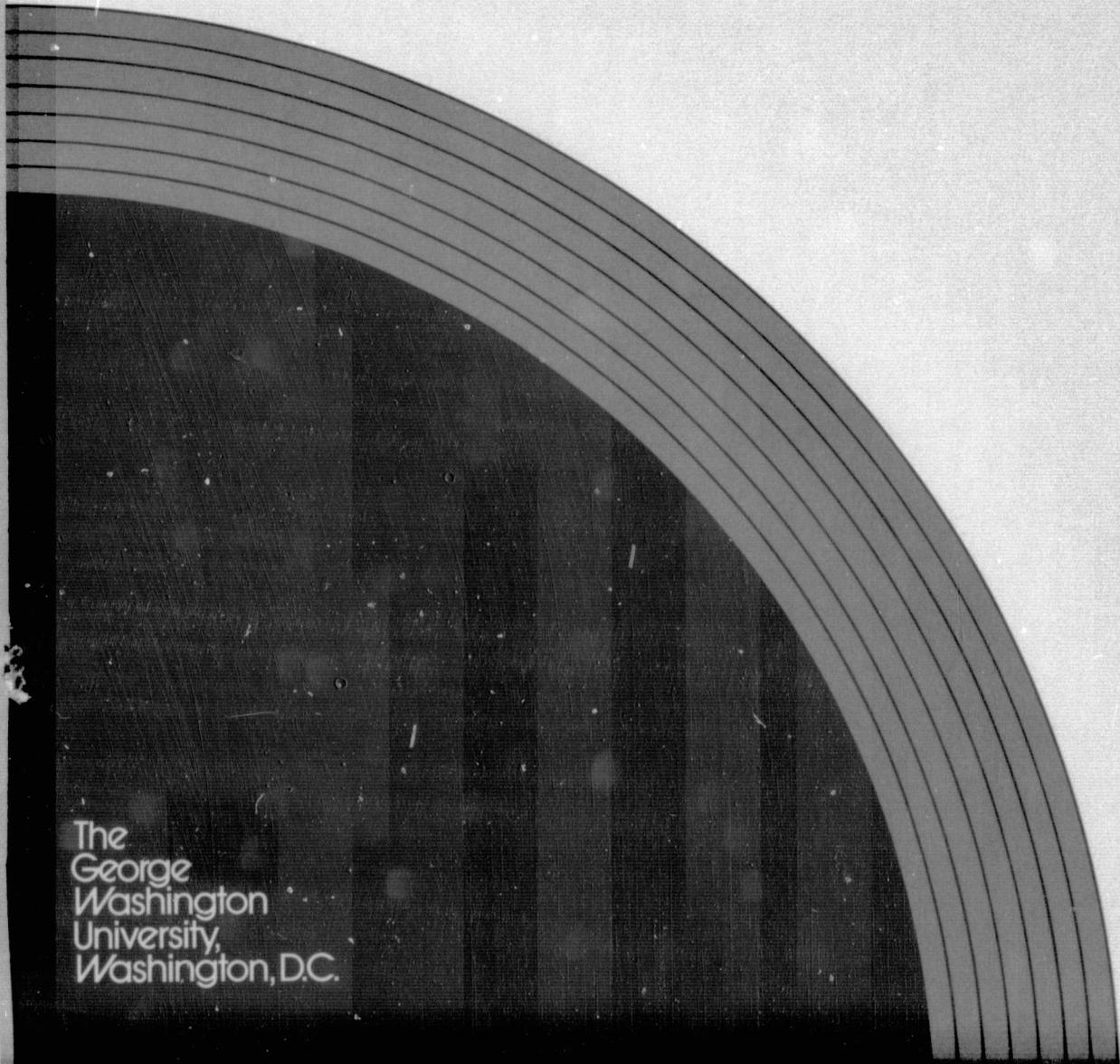
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PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY

Publications, Reports, Books, — May 1974



The
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Publications, Reports, Books

Program Publications

The publications listed herein have grown out of the Program's research from the Fall of 1966 through May 1974. The Program publishes four *groups* of documents: Monographs (Mon), Occasional Papers (OP), Reprints (R), and Staff Discussion Papers (SDP). Staff Discussion Papers fall in four *series*:

- 100 series—Urban
- 200 series—Technology Assessment
- 300 series—Economic Aspects of R&D
- 400 series—Institutional Responses to Advancing Technology

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A few *complimentary* copies of the most recent publications are available from the Program upon request. These items are starred. Xerox copies of Reprints and other out-of-print, otherwise unavailable Program papers may be ordered from Mrs. Annette Steiner, Special Collections Section, The George Washington University Library, Washington, D. C. 20006 (10¢/page + about 50¢ postage and handling). Such requests to Mrs. Steiner must be accompanied by your check in the required amount, *payable to* The George Washington University.

Program Series papers (except Reprints which may only be ordered from Mrs. Steiner) may be ordered from the *National Technical Information Service*, 5285 Port Royal Road, Springfield, Va. 22151 (microfiche—\$1.45, paper copies—\$3.00 or as listed) stating title, author and PB or N number of the document requested. All orders should be sent to *NTIS* accompanied by payment in the form of a check, money order or *NTIS* coupon.

Advocacy in Technology Assessment.

Ernest M. Jones. (Nov. 70) GWPS-SDP 209;
80 pp. PB 196-635.

Apollo Decision and Its Lessons for Policy Makers.

John M. LOGSDON. (Jan. 70) GWPS-OP 7;
38 pp. N70-23324.

Broadcast Satellites: Their Potential Use for Educational Purposes, and their Relationship to International Understanding and Cooperation.

John HANESSIAN, Jr. and Joseph B. MARGOLIN
(July 69) 21 pp. GWPS-OP 3;
PB 192-549.

"Business Gigantism and 'Technological Imperatives'."

Arthur S. MILLER. From the *Journal of Public Law*,
Vol. 18, #3, Fall 1969. Reprint #6
(Fall 69) 55 pp.

Congressional Debate on the Social Sciences.

Dennis W. BREZINA. (Dec. 68) GWPS-SDP 400;
22 pp. PB 192-556.

***Consideration of Environmental Noise Effects in Transportation Planning by Governmental Entities.**

Louis H. MAYO. (Dec. 72) GWPS-OP 15;
58 pp. N73-72515.
(Revision of remarks prepared for *TRANSPO '72 International Conference on Transportation and the Environment*, Session #7 on "Noise as a National Problem" held 5/31/72, Wash. D. C.)

Contextual Approach to Technology Assessment: Implications for "One Factor Fix" Solutions to Complex Social Problems.

Louis H. MAYO. (April 71) GWPS-MON 9;
92 pp. PB 199-162.

Control of Incinerator-Caused Air Pollution in New York City: 1946-1965.

Richard MYRICK and Barbara S. MARX.
(March 68) 65 pp. \$6.00 GWPS-SDP 202;
PB 182-874.

"Controlling the Potential Hazards of Government-Sponsored Technology."

Michael J. WOLLAN. From *The George Washington University Law Review*, Vol. 36, #6, July 1968.
Reprint #2
(Nov. 68) 36 pp.

Conversion of Scientific and Technical Resources: Economic Challenge—Social Opportunity.

Ellis R. MOTTUR. (March 71) GWPS-MON 8;
209 pp. COM 71-00605.

Decentralization of Urban Government: A Systems Approach.

Guy BLACK. (Aug. 68) 32 pp. GWPS-SDP 102;
\$6.00 PB 182-870.

***Design Evaluation in Technology Assessment.**

John F. HALLDANE. (May 72) GWPS-MON 12;
50 pp. \$4.75 N72-28970.

***Dialogues with Management on Research and Development.**

Guy BLACK (May 74) GWPS-MON 21;
82 pp. N 74-_____

Early Experiences with the Hazards of Medical Use of X-Rays: 1896-1906—A Technology Assessment Case Study.

Barbara S. MARX. (Fall 68) GWPS-SDP 205;
75 pp. \$6.00 PB 182-877.

****"Earth Resource Surveys: An International Framework Begins to Develop."**

John M. LOGSDON and John HANESSIAN, Jr.
From *Astronautics and Aeronautics*, September 1971.
Reprint #14
(Oct. 71) 6 pp.

****"Earth Resources Technology Satellite: Securing International Participation."**

John HANESSIAN, Jr. and John M. LOGSDON.
From *Astronautics and Aeronautics*, August 1970.
Reprint #10
(Sept. 70) 8 pp.

"Effect of Government Funding on Commercial R & D."

Guy BLACK. From *Factors in the Transfer of Technology*, Gruber & Marquis (ed.), M.I.T. Press, 1969.
Reprint #9
(July 70) 16 pp.

***Emerging Trends in Technology Assessment.**

Vary T. COATES (Apr. 74) GWPS-MON 19;
21 pp. N 74-_____

Energy, Air Quality and the Systems Approach.

Guy BLACK. (July 70) 93 pp. GWPS-SDP 104;
PB 195-797.

***Evaluation of Social Justice Outcomes of Anticipatory Project Assessments: A Succession of "Hypothetical Judgments."**

Louis H. MAYO. (Oct. 73) GWPS-MON 16;
30 pp. N74-_____

(Prepared for presentation at the Second International Conference on Unity of the Sciences, Tokyo, Japan, Nov. 18-21, 1973 under sponsorship of the International Cultural Foundation.)

Examples of Technology Assessments for the Federal Government.

Vary T. COATES. (Jan. 70) GWPS-SDP 208;
48 pp. PB 192-555.

Expanding Roles of Non-Profit Organizations as Contractors with Government: Some Research Needs.

Clarence H. DANHOF. (Mar. 68) GWPS-SDP 301;
19 pp. PB 182-879.

Federal Government and the Current Development of Technology Assessment.

Vary T. COATES. (June 71) GWPS-OP 11;
12 pp. PB 201-470.

***Federal Support of Civilian Technology: Theory versus Practice.**

George EADS. (March 73) GWPS-OP 16;
24 pp. N73-72514.

Financial Variables Associated with R & D Expenditures by Industry.

Guy BLACK. (Jan. 68) 12 pp. GWPS-SDP 300;
PB 182-878.

Forecasting in International Relations.

Stuart GREENBERG. (June 70) GWPS-SDP 407;
29 pp. PB 192-563.

***Generating Social Impact Scenarios: A Key Step in Making Technology Assessment Studies.**

Martin V. JONES. (April 72) GWPS-MON 11;
20 pp. \$3.25 N72-24978.

***Genetic Engineering.**

Dan S. MURRELL. (61 pp.) and

***Cyclamates.**

Robert B. STENSTROM. (87 pp.) April 71. Two selected student papers from a course, "Science and the Legal Process" at the National Law Center of The George Washington University, Spring term 1970. Available only from the Program of Policy Studies.

***Genetic Technology: Promises and Problems.**

Mark S. FRANKEL. (March 73) GWPS-MON 15;
104 pp. N73-72427.

Highlights from the Literature on Organization for Federal Programs in Science and Technology.

Fred R. BROWN and Stephen R. CHITWOOD.
(July 68) 140 pp. \$6.00 GWPS-MON 2;
PB 182-603.

Historical Aspects of Technology Assessment.

Melvin KRANZBERG. (Aug. 69) GWPS-OP 4;
23 pp. PB 192-550.

"Impact of Cybernetic Information Technology on Management Value Systems."

Richard F. ERICSON. From *Management Science*, Vol. 16, #2, October 1969.
Reprint #5
(Oct. 69) 24 pp.

Influence of Insurance on Technological Development.

Gordon B. FIELDS (Nov. 69) GWPS-SDP 405; 38 pp. PB 192-561.

"International Aspects of Earth Resources Survey Satellite Programs."

John HANESSIAN, Jr. From *The Journal of the British Interplanetary Society*, Vol. 23, Spring 1970. Reprint #8 (June 70) 22 pp.

***Law's Interface with Expanding Technology.**

Harold P. GREEN. (Aug. 72) GWPS-OP 13; 12 pp. (CR-129270); N73-12987.

"National Economic Conversion: Congressional Proposals and Prospective Action."

Ellis R. MOTTUR. From *Proceedings of the Midwest Regional Conference on Science, Technology, and State Governments: Achieving Environmental Quality in a Developing Economy*, held 17-19 November, 1970, Chicago, Illinois. Reprint #12 (Jan. 71) 13 pp.

New Technological Era: A View from the Law.

Harold P. GREEN. (Jan. 68) GWPS-MON 1; 9 pp. PB 182-868.

***On the Cost of Engineering Education.**

Guy BLACK. (Nov. 70) 174 pp. GWPS-MON 7; PB 196-639.

Organizational Cybernetics and Human Values.

Richard F. ERICSON. (Sept. 69) GWPS-MON 4; 31 pp. PB 192-545.

***Output Orientation in R & D—A Better Approach.**

Guy BLACK (May 74) GWPS-MON 22; 20 pp. N 74-_____

***Patterns of Association in Research and Development.**

Guy BLACK (May 74) GWPS-MON 26; 58 pp. N 74-_____

***Patterns of Impact and Response in R & D in Industry: Summary of a Study.**

Guy BLACK (May 74) GWPS-MON 27; 20 pp. N 74-_____

***Planning and Programming in the Soil Conservation Service.**

Roy M. GRAY. (June 72) GWPS-MON 13; 27 pp. \$3.50 N72-28347.

"Policy Analysis Role of the Contemporary University."

Richard F. ERICSON. From *Policy Sciences*, December 1970. Reprint #11 (Jan. 71) 15 pp.

***Potential for Congressional Use of Emergent Telecommunications: An Exploratory Assessment.**

Fred B. WOOD (May 74) GWPS-MON 20; 68 pp. N 74-_____

"Probing the Law and Beyond: A Quest for Public Protection from Hazardous Product Catastrophes."

James M. BROWN. (July 69) GWPS-SDP 402;

64 pp.

PB 192-558

[Became Reprint #7]

"Probing the Law and Beyond: A Quest for Public Protection from Hazardous Product Catastrophes."

James M. BROWN. From *The George Washington University Law Review*, Vol. 38, #3, March 1970. Reprint #7 (April 70) 36 pp.

Process of Setting Safety Standards in the Courts, Congress and Administrative Agencies.

Michael J. WOLLAN. (Feb. 68) GWPS-SDP 204; 126 pp. \$6.00 PB 182-876.

Promising Approaches Toward Understanding Technology Transfer.

James E. MAHONEY. (Dec. 67) GWPS-SDP 201; 10 pp. PB 182-873.

Public Health Service Guidelines Governing Research Involving Human Subjects: An Analysis of the Policy-Making Process.

Mark S. FRANKEL. (Feb. 72) GWPS-MON 10; 65 pp. \$5.50 N72-24093.

***Public Policy Dimensions of Artificial Insemination and Human-Semen Cryo-Banking.**

Mark S. FRANKEL (Dec. 73) GWPS-MON 18; 68 pp. N 74-_____

Public Policy for Genetic Manipulation: A View from the Law.

Harold P. GREEN. (March 69) GWPS-OP 1; 16 pp. PB 192-547.

"Relationship of Technology Assessment to 'Balanced Social Growth'."

Louis H. MAYO. From *Harmonizing Technological Developments and Social Policy in America*, Monograph No. 11 of the American Academy of Political and Social Science, and delivered at their meeting in December 1970, Philadelphia, Pa. Reprint #13 (May 71) 20 pp.

Relationship of Technology Assessment to Environmental Management.

Louis H. MAYO. (Oct. 69) GWPS-SDP 206; 30 pp. PB 192-554.

***Research, Development and Business Conditions, 1960-71.**

Guy BLACK (May 74) GWPS-MON 24; 31 pp. N 74-_____

***Research, Development and Financial Performance.**

Guy BLACK (May 74) GWPS-MON 23; 34 pp. N 74-_____

Rise and Demise of the Senate Subcommittee on Government Research.

Dennis W. BREZINA. (Nov. 69) GWPS-SDP 406; 31 pp. PB 192-562.

Role of Crusader-Triggered Controversy in Technology Assessment: An Analysis of the Mass Media Response to "Silent Spring" and "Unsafe at Any Speed."

Dennis W. BREZINA. (April 68) GWPS-SDP 203; 42 pp. \$6.00 PB 182-875.

"Safety Determinations in Nuclear Power Licensing: A Critical View."

Harold P. GREEN. From the *Notre Dame Lawyer*, Vol. 43, #5, June 1968. Reprint #1 (Aug. 68) 24 pp.

Science & Technology in the Theories of Social and Political Alienation.

Edward CHASZAR. (June 69) GWPS-SDP 401; 72 pp. PB 192-557.

Science Policy and Public Affairs in Europe.

Jean-Jacques SALOMON. GWPS-OP 2; (Dec. 68) 28 pp. PB 192-548.

Scientific Method, Adversarial System, and Technology Assessment.

Louis H. MAYO. (Nov. 70) GWPS-MON 5; 114 pp. PB 196-638.

***Sensitivity of Types of Research and Development to Business Conditions.**

Guy BLACK (May 74) GWPS-MON 25; 25 pp. N 74-_____

Social Change in the American Value System.

Seymour M. LIPSET. [Proceedings of a Seminar] John P. ROCHE, critique; Clarence C. MONDALE, Moderator and Editor. GWPS-MON 3. (Nov. 67) 76 pp.

Social Impact Analysis: 1970.

Louis H. MAYO. (March 71) GWPS-SDP 210; 49 pp. PB 199-163.

Social Impact Evaluation: Some Implications of the Specific Decisional Context Approach for Anticipatory Project Assessment with Special Reference to Available Alternatives and to Techniques of Evaluating the Social Impacts of the Anticipated Effects of Such Alternatives.

Louis H. MAYO. (Nov. 72) GWPS-OP 14; 56 pp. \$4.75 N73-14968.

Some Comments on Technology Assessment and the Environment.

Raphael G. KASPER. (Nov. 70) GWPS-OP 8; 13 pp. PB 196-640.

Some Effects of Federal Procurement of Research and Development on Industry.

Guy BLACK. (July 68) GWPS-SDP 302; 70 pp. \$6.00 PB 182-880.

Some Implications of the Technology Assessment Function for the Effective Public Decision-Making Process.

Louis H. MAYO. (May 71) GWPS-OP 12; 30 pp. PB 201-049.

Some Issues in Preparing Science Administration Leadership for Tomorrow.

Dwight WALDO. (Dec. 69) GWPS-OP 6; 23 pp. PB 192-551.

Some Legal, Jurisdictional, and Operational Implications of a Congressional Technology Assessment Component.

Louis H. MAYO. (Dec. 69) GWPS-SDP 207; 59 pp. N70-26454.

Some Research Approaches to Studying the Development and Functioning of Technology

Assessment-Control Processes.

Richard MYRICK and Barbara S. MARX. (Fall 67) 30 pp. \$6.00 GWPS-SDP 200; PB 182-872.

Space Program and the Urban Problem: Case Studies of the Components of National Consensus.

John V. MOESER. (Spring 69) GWPS-SDP 404; 48 pp. PB 192-560.

Systems Approach and the Urban Dilemma.

Robert G. SMITH. (July 68) GWPS-SDP 101; 49 pp. \$6.00 PB 182-869.

Systems Approaches to Multi-Variable Socio-Economic Problems: An Appraisal.

Ernest M. JONES. (Aug. 68) GWPS-SDP 103; 70 pp. PB 182-871.

[Became Reprint #4] \$6.00

"Systems Approaches to Socio-Economic Problems Confronting Governments: An Appraisal."

Ernest M. JONES. From the *Journal of Public Law*, Vol. 18, #1, June 1969. Reprint #4 (June 69) 60 pp.

Technology Assessment and Citizen Action.

Ellis R. MOTTUR. (March 71) GWPS-OP 10; 26 pp. PB 199-161.

Technology Assessment and Environmental Engineering.

Ellis R. MOTTUR. (Jan. 71) GWPS-OP 9; 19 pp. PB 197-687.

Technology Assessment of Space Stations.

Vary T. COATES. (May 71) GWPS-SDP 212; 65 pp. PB 201-073.

Technology Assessment: What Should It Be?

Guy BLACK. (June 71) 54 pp. GWPS-SDP 211; PB 201-471.

***Technology, the Evolution of the Transnational Corporation, and the Nation-State: A Speculative Essay.**

Arthur S. MILLER. (Oct. 72) GWPS-MON 14; 72 pp. \$6.00 N73-12988.

Technology Transfer by People Transfer.

Clarence H. DANHOF. (Aug. 69) GWPS-SDP 403; 20 pp. PB 192-559.

"Toward the 'Techno-Corporate' State: An Essay in American Constitutionalism."

Arthur S. MILLER. From the *Villanova Law Review*, Vol. 14, #1, Fall 1968. Reprint #3 (Dec. 68) 73 pp.

***Toward a New Federal Policy for Technology: The Outline Emerges.**

John M. LOGSDON. (Aug. 72) GWPS-SDP 408; 30 pp. \$3.75 N73-13987.

U.S. Technology: Trends and Policy Issues.

Michael BORETSKY. (Oct. 73) GWPS-MON 17; 175 pp. \$10.75 N74-13689

Urban Development Modeling.

George C. HEMMENS. GWPS-MON 6; (April 70) 38 pp. PB 192-546.

What's Happening to Small Business Research and Development?

Guy BLACK. (May 71) 17 pp. GWPS-SDP 303; PB 201-074.

Books and Project Reports

Listed here are Books written by staff members and published, and Project Reports (published and unpublished). At least one copy of the Final Report of each project is accessible for reading in the library of the Program, as well as in the Special Collections Section of the main University library. However, no copies are available for distribution. Sometimes copies of these reports are available from the sponsoring agency, and when possible, reference numbers for them are cited.

A Critical Review of the Marine Science Commission Report, 1969.

Thomas CLINGAN (ed.). A report. 144 pages. Available from Marine Technology Law Society, 1730 M St., N.W., Washington, D. C.

A National Criminal Justice Reference Service.

James E. MAHONEY and David WEEKS. A report. January 1971, 36 pages. Prepared for the Law Enforcement Assistance Administration, Department of Justice, Washington, D. C. The model for an information reference system recommended in this report was the basis for a system which is now national in scope and which is broadening into international application.

A Workbook on Alternative Future Life Styles Related to Energy Demand.

Vary T. COATES. A report. August 1973, 192 pages. Prepared for the Ford Foundation Energy Policy Project.

An Integrated Strategy for Aircraft/Airport Noise Abatement.

Louis H. MAYO. A report. September 1973, 264 pages. A Legal/Institutional Analysis of Section 7 of the Noise Control Act of 1972 and proposals based thereon. Prepared for the Environmental Protection Agency, Office of Noise Control Programs.

Analysis of the Need For and Feasibility of More Effective Distribution of Government-Supported Non-Written Material.

Joseph B. MARGOLIN and Educational Policy Group. A report. April 1970. Prepared for the U.S. Office of Education, this report was used as a basis for a book entitled "The Dissemination of Audio-Visual Materials: A Study of the Systems that Supply our Schools." The writing of the book is supported by a grant from the Ford Foundation. Publication is expected in 1974.

Application of Systems Analysis to Government Operations.

Guy BLACK. New York: Frederick A. Praeger, 1968, 186 pages (\$15). Library of Congress No. 68-18914. A book clarifying in a very short space a large number of difficult concepts and ideas surrounding the application of systems analysis.

Candidates and Priorities for Technology Assessments: A Survey of Federal Executive Agency Professionals.

Howard C. REESE with Peter R. Bankson, George E. HUMPHRIES, and Ben F. Sands, Jr. A report. July 1973, 119 pages. A survey by questionnaires

and interviews of middle-to-upper-level Federal officials to determine technological developments in need of technology assessment. Data from both modes resulted in 457 nominees and 367 candidates for technology assessment. Prepared for the National Science Foundation (RANN/ERPA).

Case Studies on the Evaluation of Health, Education and Welfare Programs

James G. ABERT (ed.) May 1974. A volume of twenty-one case studies with commentary, which the student and practitioner of evaluative research will find useful and interesting. About 500 pages. Prepared for the Russell Sage Foundation.

Citizen Group Uses of Scientific and Technological Information in Nuclear Power Cases.

Steven EBBIN and Raphael KASPER. A report. August 1973, 2 volumes, 343 pages. Prepared for the National Science Foundation. This report was used as a basis for a book, "Citizen Groups and the Nuclear Power Controversy: Uses of Scientific and Technological Information" published by MIT Press in January 1974.

Computers in the Classroom: An Interdisciplinary View of Trends and Alternatives.

Joseph B. MARGOLIN and Marion R. MISCH (editors). New York: Spartan Books, 1970. (\$14). A book concerning future computer uses in elementary and secondary education, this book is based on a report prepared for the U.S. Office of Education in the Autumn of 1967 entitled "Education in the 70's" (see below).

Decision to Go to the Moon: Project APOLLO and the National Interest.

John M. LOGSDON. Cambridge, Mass.: M.I.T. Press, 1970. LC 73-110230. A political scientist examines the influence of men and events on the decision-making process. A thorough historical record of this event.

Dissemination of Audio-Visual Materials: A Study of the Systems that Supply our Schools.

Joseph B. MARGOLIN and the Educational Policy Group. A book to be published in 1974, the writing of which is supported by a grant from the Ford Foundation. It is based on a report prepared for the U.S. Office of Education in April 1970 entitled "Analysis of the Need For and Feasibility of More Effective Distribution of Government-Supported Non-Written Material."

Education in the 70's.

Joseph B. MARGOLIN and Marion R. MISCH. A

report. Autumn 1967. Prepared for the U.S. Office of Education, this report was used as a basis for a book published by Spartan Books, New York in 1970 entitled "Computers in the Classroom: An Interdisciplinary View of Trends and Alternatives."

Effect of Changing Patterns and Levels of Federal Research and Development Funding on Industry.
Guy BLACK. A report. July 1973, 448 pages. Prepared for the National Science Foundation, Industry Studies Group.

Effects of Limited-Access Highways on Nearby Churches.

Joel GARNER with Joseph L. TROPEA. A report. October 1971, 25 pages. Prepared for the Federal Highway Administration.

Evaluation of Guidelines and Noise-Related Environmental Impact Statements

Louis H. MAYO and Study Team. Final report, March 1974, Two Parts, 3 vol. *Part One*: Vol. 1, "NEPA Section 102(2) (C) Environmental Impact Statements Relating to Potential Noise Impacts of Federally Funded Projects," 116 pp. *Part Two*: Vols. 2 (250 pp.), 3 (251 pp.), "A Legal/Institutional Analysis of the Public Health and Welfare Mandate of the Noise Control Act of 1972." Prepared for the Environmental Protection Agency, Office of Noise Control Programs.

Evaluative Jurisprudence: The Role of Legal System in the Maintenance of Control over the Direction and Rate of Value-Institutional Change in Modern Technological Society.

Louis H. MAYO. September 1972, 400 pages. Experimental Class Materials for use in the GWU National Law Center Course on Jurisprudence. Revised September 1973, 300 pages.

Evaluative Mechanisms for the Public Experimental Program of the National Endowment for the Humanities.

Guy BLACK and James E. MAHONEY. A report. September 1969, 3 large volumes. Prepared for the National Endowment for the Humanities, Washington, D. C.

Federal Contributions to Management: Effects on the Public and Private Sectors.

David S. BROWN (editor). New York: Praeger Publishers, 1971, 405 pages. This book was based on papers presented before a series of seminars on "Federal Contributions to Management" sponsored by the Program of Policy Studies in Science & Technology during the Spring and Fall of 1968.

Fostering Urban Transportation Activities in Universities: Recommendations to the Urban Mass Transportation Administration

Charlton R. PRICE and Study Team. Final Report. February 1974, 110 pages. NTIS PB 229-613/AS (\$8.75 hard copy, \$1.45 microfilm). Prepared for the Urban Mass Transportation Administration, U.S. Department of Transportation.

Homeowner's Title Registration Corporation: A Program to Reduce the Land-Related Costs of Housing.

James M. BROWN. A report. February 1972, 4 volumes, 900 pages. Prepared for the Office of Economic and Market Analysis, Department of Housing and Urban Development, Washington, D. C.

Innovation Information and Analysis Project.

Wesley L. TENNANT. First Quarterly Report. July 1973. Prepared for the National Science Foundation, National Research and Development Assessment Program (RDA).

International Participation in an Experimental Earth Resources Survey Satellite Program.

John HANESSIAN, Jr. and John M. LOGSDON. A report. April 1970, 114 pages. Prepared for the Office of International Affairs, NASA.

Inventory and Appraisal of George Washington University Activities in Urban Social/Minority Group Problem Areas.

Program of Policy Studies in Science & Technology. A report. May 1968, 70 pages. Prepared for the President of The George Washington University.

Laws and Regulatory Schemes for Noise Abatement.

Louis H. MAYO. A report. December 1971, 638 pages. (\$9). Prepared for the Office of Noise Abatement and Control, Environmental Protection Agency, Washington, D. C. EPA Report #NTID 300.4; available from NTIS as PB 206-719.

Legal, Economic, and Technical Aspects of Liability and Financial Responsibility as Related to Oil Pollution, Volume II: Study.

Erling ROSHOLDT. A report. December 1970, 347 pages. Prepared for the U.S. Coast Guard, Washington, D. C. Available from NTIS as PB 198-176. [Vol. I, "Oil Pollution Liability and Financial Responsibility: Report." December, 1970, was prepared by the U.S. Coast Guard. 25 pages.]

Political Economy of the Space Program.

Mary A. HOLMAN. Palo Alto, California: Pacific Books, 1973 (still in press).

Processes of Technological Innovation: A Conceptual Systems Model

Ellis R. MOTTUR. A report. January 1968, 297 pages. Prepared for the National Bureau of Standards Office of Invention & Innovation and the Arms Control & Disarmament Agency, this report covers the first phase of the Technological Innovation Policy Project. Internal Reference No. NBS 9689. [The final report, "Technological Innovation for Civilian, Social purposes," was submitted in July 1971. (553 pages)].

Revitalization of Small Communities: Transportation Options.

Vary T. COATES. First Phase Report. July 1973, 2 volumes, 240 pages. Volume 2 is a Bibliographic review of literature in this area. Prepared for Department of Transportation, Office of Urban Transportation Systems.

Social Impacts of Civil Aviation and Implications for R&D Policy.

Louis H. MAYO and Civil Aviation Study Group. A report. April 1971, 220 pages. Prepared for the Joint DOT/NASA Civil Aviation R&D Policy Study (TST-30), Washington, D. C. Published by NASA in September 1971 as NASA CR-1988.

Strategies for the Use of Mass Communications Media in the Technologically Developing Nations.

Joseph B. MARGOLIN and Educational Policy Group. A report. November 1971, 574 pages in five volumes. Prepared for the U.S. AID/AED, Washington, D. C.

Technology and Public Policy: The Process of Technology Assessment in the Federal Government.

Vary T. COATES. A report. July 1972, 650 pages. Available from NTIS as follows:

- Summary Report (50 pp.) PB-211455 \$3.75
- Vol. 1, Final Report (350 pp.) PB-211453 \$9.00
- Vol. 2, Appendices (250 pp.) PB-211454 \$6.75

Prepared and supported in part by the National Science Foundation's program of Research Applied to National Needs (RANN).

Technology Assessment Applied to Urban Solid Waste Management.

Henry BRADY and Betsy AMIN-ARSALA. A report. December 1971, 190 pages. Prepared for the National Science Foundation in cooperation with EcoSystems, Inc.

Technology Assessment Implementation Project.

Raphael KASPER and Ellis MOTTUR. A report. June 1973, 2 volumes, 522 pages. Prepared for the National Science Foundation (RANN/ERPA) to develop detailed plans for further, in-depth, interdisciplinary research projects on Society's Acceptance and Implementation of Technology Assessments.

Technology Assessment: The Proceedings of a Seminar Series.

Raphael G. KASPAR (editor). A report. July 1969, 164 pages. Available from NTIS under no. N69-40301. [A book based thereon was published by Praeger Publishers, New York in 1971 under Library of Congress—#LC 71-161909. (See below)].

Technology Assessment: Understanding the Social Consequences of Technological Applications.

Raphael G. KASPER (editor). New York: Praeger Publishers, 1971. (\$15). Library of Congress 71-161909. A book based on the July 1969 report of the discussions and proceedings of a seminar series on Technology Assessment.

Technological Innovation for Civilian, Social Purposes.

Ellis R. MOTTUR. Final report of a two-phase study. July 1971, 553 pages. Prepared for the Office of Invention and Innovation, National Bureau of Standards, and for the U.S. Arms Control and Disarmament Agency. [The first phase report, "The Processes of Technological Innovation: A Conceptual Systems Model" was submitted in January 1968 (297 pages)]. A separate volume of 47 pages is entitled "A Bibliography on Technological Innovation" which may be of benefit to other researchers in this area.

Trends in Western European Political and Economic Policies, 1969-1985.

Richard F. ERICSON. August 1969, 36 pages. A summary statement of the history and then current status of the Interdisciplinary Systems and Cybernetics Project.

Trends in Western European Political and Economic Policies, 1969-1985.

John HANESSIAN, Jr. and International Studies Group. A report. September 1970, 5 volumes, 516 pages. Prepared for Battelle Memorial Institute as part of a contract for the Office of Scientific Research, U.S.A.F.

PROPOSAL EFFORT
1966 - 1974

A substantial, time-consuming responsibility of all core professional staff members has always been the preparation of proposals for funding to supplement the basic NASA institutional grant. The following is a list of proposals generated from 1966 through the present time.

Of the 176 proposals listed during the period 9/1/66 - 8/31/74, 60 were funded (about 35%). The listing does not include numerous proposals which were submitted for supplemental funding to on-going projects or countless "ideas" in the form of talking papers or informal conferences which, for one reason or another, were never brought to the attention of a prospective funding source. As this Report is being submitted many of the proposals added for the period beyond 8/31/74 are still "in process." We would estimate the time lag from time of proposal submission to determination of award to be about 6 months on the average. This, of course, poses certain difficulties in retaining core staff and others assigned various tasks in proposals submitted.

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PROPOSALS SUBMITTED
FOR ADDITIONAL FUNDING

1966-1974

x = funded

1966-1967 (September - August)

1. Establishment of a Pilot Educational Policy Research Center
2. A Development Plan for a Multipurpose Community Facility
3. The Viability of Certain Non-Profit Organizations
4. The Continuing Appraisal of Environmental Quality Controls
5. The Non-Profit Corporation: Study of an American Institution
6. Educational Innovation as a Factor in Urban Planning
- x 7. Education in the 70's: A Study of Educational Technology
- x 8. Technological Innovation Policy
- x 9. Preparation and Dissemination of a Series of Papers for the Commission on Marine Science Engineering and Resources (COMSER)

1967-1968 (September - August)

1. Organ Transplantation: Policy Study of a New Technology
2. Establishment of a Center for Comparative Cybernetic Studies
3. U.S. Resource Transfer Programs to Thailand
4. Freeways and Airspace Utilization
5. Analysis of Meteorological Contributions to Air Quality
6. Comprehensive Review of Domestic Economic Impact Problems of Reduced Defense Expenditures
- x 7. Systems Approach: Potential Application for Model Cities Planning and Program Management (Phase 1 - Project Crossroads: Joint Industry, Government/Industry Conference on "The Urban Challenge: The Management and Institutional Response")
- x 8. Evaluative Mechanisms for the Public Experimental Program of the National Endowment for the Humanities
- x 9. Dissemination of Audio Visual Materials in American Education

10. Applicability of Communications Satellites for Educational Purposes in Developing Countries
11. Research Problem Areas in Science: Studies of the Relationship Between Their Social Organization and Productivity and Innovation

1968-1969

1. R&D Considerations as Criteria in Tariff Policies
2. Reorganization of the Public School Systems
3. Broadcast Satellites: Their Potential Use for Educational Purposes and Their Relationship to International Understanding and Cooperation
4. Policy Issues in the Advancement of Private, Market-Oriented Technology
5. Dynamic Response Model of Institutional Systems
6. Interdisciplinary Curriculum Development
- x 7. Behavioral Systems Approach to the Prevention and Control of Delinquency and Crime
- x 8. Trends in Western European Political, Economic, and Defense Policies, 1969-1985, and Implications for U.S. Security and Strategy (as subcontractor)

1969-1970

1. An Analysis of Interdisciplinary Study Groups in Major Universities
- x 2. Private-Federal Research and Development Relationships
3. Mental Health Implications of Organ Replacement Technology
4. Participation by Black Professionals in the Program of Policy Studies at The George Washington University
5. Development of a Legal Process to Facilitate the Acceptance of Innovations Under Existing and Proposed Building Codes
- x 6. Technology and Public Policy: The Process of Technology Assessment in the Federal Government

- x 7. A National Criminal Justice Reference System
- x 8. Social Impacts of Civil Aviation and Implications for R&D Policy
- x 9. Homeowner's Title Registration Corporation: A Program to Reduce the Land-Related Costs of Housing
- x 10. Technology Assessment Implementation Project
- x 11. Oil Spill Pollution: Liability and Financial Responsibility Aspects of Harm to the Social Environment

1970-1971

- x 1. Communications Technology and the Developing Nations
- 2. "Quick Response" System for Technology Assessments
- 3. Psychological and Social Implications of Technology for Education
- 4. Basic Institutional Support for PPS--Non-NASA
- 5. Use of COSMIC Software in Ground Transportation
- 6. Orientation/Training of Local or State Administrators in Community Health and Environmental Management
- x 7. Technology Assessment Applied to Solid Waste Disposal
- 8. Study of Criteria and Guidelines for Writing and Review of Environmental Impact Statements by Federal Agencies
- 9. Use of Scientific and Technical Information in State and Local Decision-Making
- 10. Environmental Noise Pollution Studies Capability Statement
- 11. Performance of Technology Assessments by State Governments
- 12. Performance of Technology Assessment Functions for Mission-Oriented Agencies
- 13. Exploration and Evaluation of a Different Indicator of Trends in Housing Quality
- 14. The Downtown Ban on the Automobile: A Technology Assessment
- 15. Social Impacts of General Aviation: 1985-1995
- 16. Economics and Sociology of Preserving Aerospace Teams for Future Needs

17. Issues in Manpower Programs for Ex-Aerospace Engineers and Scientists
- x 18. Graduate Program in Science, Technology and Public Policy at The George Washington University
19. Design of a New Capacity to Facilitate the Development of International Educational Communications and Technology
20. Development of an Improved Methodology for Assessing Requirements for U.S. Bases Overseas in the 1970's
21. Technology Assessment of the Impact of Existing and Currently Forecasted Technologies on the Operating Environment of the U.S. Postal Service and on Present U.S. Postal Service R&D and Engineering Goals, Policies and Programs
- x 22. Survey of Existing Federal, State, and Local Laws, Ordinances and Regulations Governing the Abatement and Control of Environmental Noise and Assessment of the Effectiveness of the Administration and Enforcement of Such Provisions
- x 23. Effect of Changing Patterns of and Levels of Federal R&D Funding on R&D Funding by Industry
24. Railroad Vandalism: A Study of Its Possible Causes and Possible Remedies
25. Continuing Support for a GW Graduate Instructional Program in Science, Technology and Public Policy
- x 26. Regional Seminars on Educational Problems
27. Technology Assessment of the Proposed Alaska Railroad/Highway Extension
- x 28. Highway Interchange Effects on Churches
29. A Program for Electrifying the Nation's Railroads
30. Assessment of Techno-Pharmacological Means of Controlling Youth
- x 31. Assessment of Elementary and Secondary Education Title III Projects (President's National Advisory Council on Supplementary Centers and Services)
32. A Bibliography: Implications of Organ Transplantation
- x 33. Facilities and Support Services for the U.S. Environmental Protection Agency 1971 Summer Employment Program - Seminar/Lecture Series
34. General Attitudes and Problems of Readjustment Among Various Types of Vietnam Veterans

- x 35. The Space Program During the 1970's: An Analysis of Policy-Making (to NASA - apart from institutional grant)
- x 36. Communications Technology and Developing Nations - Supplement
- x 37. HEW Case Studies on Evaluation
- x 38. Assessment of Elementary and Secondary Education Title III Projects - Supplement

1971-1972

- 1. Defining the Requirements for, and the Economics of, Port Facilities for the Reception and Disposal of Oily Wastes from Ships
- 2. Comprehensive Study to Formulate Goals for the Development of the DELMARVA Peninsula
- 3. Attitudes and Values of Youth in Selected Countries Regarding Foreign Affairs
- 4. Ecological Impacts of the METRO System
- x 5. Normative Systems Research: Integrative Basis for Urban Studies
- x 6. Implications of Soviet Marine Expansion
- 7. Impact of Likely International Political Developments (1971-1980) on Commodity Movement by Ships
- 8. Effects of Oil Spills Upon Populations of Organisms (Statement of Interest)
- 9. Stockholm Conference on the Environment (Pre-Seminar)
- 10. Continuing On-the-Job Training Systems for Family Planning Field Workers in Less Developed Nations: Feasibility Study and Field Testing
- x11. An Analysis of Voluntary Citizen Group Uses of Scientific and Technological Information in Nuclear Power Cases
- 12. Effects of Permanent Soviet Presence in the Middle East
- 13. Analysis of Community Military Assistance Programs
- 14. Development of Environmental Workshops on 1) Technology Assessment Applied to Solid Waste Management, and 2) Problems Relating to the Urban/Rural Interface in the Delmarva Peninsula and the Environmental Consequences on Human Ecology

- x15. Legal/Institutional Analysis of the "Public Health and Welfare" Mandate of the Noise Control Act of 1972
- 16. Urban Development in Rural Areas: Its Environmental Implications (Delmarva - Illustrative)
- 17. Development of Methodology for Assessment the Environmental Effects of Areawide Waste Treatment Management Plans - Statement of Capability
- 18. Development of Methodologies to Identify and Assess the Economic and Social Impacts Associated with the Implementation of Area-wide and Basin Water Quality Management Plans
- 19. Establishment of a National Center on Educational Media and Materials for the Handicapped
- 20. Handbook: Technology Assessment - A Tool for Solid Waste Mangement
- x21. Continuing Support for GW Graduate Program in Science, Technology, and Public Policy
- x22. Issues and Concerns in Career Education
- x23. Printing and Dissemination of Report: Technology and Public Policy: The Process of Technology Assessment in the Federal Government
- x24. Studies re the Interrelationship of Urban Governmental Functions to Those at the State, Regional, and Federal Level

- x25. Plan for Local Cooperation and Participation in the Measurement of Environmental Noise
- x26. Analytical Services Relating Communications Technology to Development

1972-1973

- 1. Evaluation of Effects of Family Planning Booklets in Colombia
- x 2. Interpretation of Energy Demand Scenarios into Life-Style Scenarios
- 3. Computer-Communications Technology for Congress: An Exploratory Assessment of Its Potential for the Representative-Constituent Communications Process
- x 4. Candidates and Priorities for Technology Assessments: A Survey of Federal Executive Agency Professionals

5. NEPA Implementation Guidelines for State and Local Transportation Officials
- x 6. Revitalization of Small Communities: Transportation Options
7. Evaluation of Future STOL/VTOL Alternatives
8. Review of Functions and Operations of Non-Federal Public Transportation Entities
9. Axiomatic Approach to the Study of Noise Effects (Preproposal Outline)
- x10. Southern Regional Workshop in Technology Assessment
11. Defining and Developing Policy Positions and New Research Subjects in Economics and the Social Sciences Relevant to Development Planning in Both Donor and Donee Countries in Africa, Asia, and Latin America
12. Further Support of Graduate Program Science, Technology and Public Policy: Extension of Project - "Changing National Priorities and Public Policy for Science and Technology: An Examination of Decision-Making Institutions and Processes" and New Project - "Foreign Policy Implications of Alternate Strategies for U.S. Science and Technology Policy" + support for professional seminar series in connection with new project
- x13. An Integrated Strategy for Aircraft/Airport Noise Abatement (Analysis of §7 of the Noise Control Act of 1972)
14. Planning Grant for Formation of Telecommunications Policy Research Group
15. Definition and Development of Policy Positions and New Economic and Social Science Research Areas
16. Technology Assessment of Geothermal Energy Resource Development (as subcontractor)
17. Status of Frozen Semen Banking in the U.S.: A National Survey
18. A Technology Assessment of Alternate Work Schedules (as subcontractor)
19. Teaching Technology Assessment
20. Human Values for Behavior and Policy
21. Planning for the History of the Origins of the RANN Program of NSF
22. Program of Evaluation for the International Division of the Population Reference Bureau
- x 23. Innovation Information and Analysis Project

1973-1974

1. Technology Assessment Covering an Expanded Production and Use of Coal (as subcontractor)
2. Program of Evaluation for the World Assembly of Youth Family Planning Information and Motivation Program
- x 3. Consumer Motivation and Participation in Transportation Planning and the Use of Transportation Services
4. General Energy Systems Study Approach and Methodology for Tasks Related to the Identification of Economic and/or Environmental Impacts Related to Energy Policies
5. Evaluation Design of the Educational Satellite Demonstration Program
- x 6. Innovation, Information and Analysis Project - Second Year
7. Evaluating the Organization of Service Delivery: Public Health (as subcontractor)
- x 8. Study of Information Flow to the Supreme Court
9. Advocacy Hearings for Controversial Water Resources Decisions: An Institutional Analysis - Phase I
10. The Future of Employment
11. Comparative International Study of Technology Assessment Based on Selected Case Studies
12. Analysis of Implications for Urban Transportation R&D of Selected Emerging Issues, Priorities and Trends Which Will Become Critical in the 1974-1980 Time Frame
- x13. Support to NSF Science and Technology Policy Office Research Program
14. Study of Benefit-Cost Methodology and Example of Application of Methodology
15. Electrotechnology Projection and Assessment
16. The Origin of Human Values
17. Basic Research and Technology: Pilot Study
18. Relationship Between Regulation and Technological Innovation (preproposal)

19. System of Continuing Monitoring and Evaluation of Environmental Noise Standards, Regulations and Programs (preproposal)
20. Social, Economic, Environmental Consequences of Not Constructing a Transportation Facility
- x 21. Modeling Adaptive Systems
22. National Educational Program for Sickle Cell Anemia
23. New Approaches to Understanding Travel Behavior
24. Consultant Services, Energy, to Dept. of Interior
- x 25. Basic Ordering Agreement Statement of Capability: Science Policy
26. Basic Ordering Agreement Statement of Capability: Science Information
27. Basic Ordering Agreement Statement of Capability: Energy Policy Research
- x 28. Survey and Evaluation of Women's Groups Among the Less-Developed Countries Rural Poor as Potential Change Agents in Development Programs
29. The Political Economy of Technology Support Programs
30. Teaching and Research Program on the History, Institutions, and International Context of American Foreign Policy in Science and Technology
31. Joint Statement of Capability on Energy Research to the Office of Technology Assessment (with Control Data Corporation)
32. Statement of Capability to FEA re Energy Policy, Energy Conservation and Assessment of Societal Impact of New Energy Technologies
- x 33. Current Knowledge and Information Needs for Safe Driving Conformance Initiatives
34. Community Transit Planning Technology Assessment - Statement of Capability
- x 35. Characteristics of Winners of Nobel Prizes in Physics, Chemistry, and Psysiology/Medicine Before 1930
- x 36. Technology Assessment Implementation Project Funds for Dissemination of Report
- x 37. Revitalization of Small Communities: Transportation Options (second year funding)(Module I)

38. Revitalization of Small Communities: Transportation Options
Module II re Railroad Abandonments
39. Basic Ordering Agreement: Applications of Adaptive Systems
Research to Analysis of Alternatives in Agricultural and Rural
Development
40. Governmental Institutions and Intergovernmental Relations in Land
Use Control (preproposal)
41. Antecedents, Dynamics and Sequelae of Repeated Abortions
42. Institutional and Policy Tasks of a Technology Assessment of
Earthquake Prediction (as subcontractor)
- x43. Study to Reevaluate the Rationale for National R&D Policies
- x44. Evaluation of a Criminal Justice Reference System's Effectiveness
- x45. Technology Assessment of Extraction of Coal by Underground Mining
Methods (as subcontractor)
46. Technology Assessment of the Effects of Proposed New Multiple Use
Demands on the Coastal Zone and Offshore Areas of New Jersey
and Delaware (joint statement of capability with Center for
Technology Assessment, Newark College of Engineering)
47. Legal Control Mechanisms for Man-Made and Natural Disasters
(preproposal)
- x48. Urban Transportation Research and Training Project
49. Development of a Methodology to Evaluate the U.S. Railway Ass'n.
Preliminary Systems Plan of the RR System in the Midwest and
Northeast Regions of the U.S.
- x50. Personnel Mobility Assignment to the Program of Policy Studies
for the Deputy Assistant Administrator for Water Planning
and Standards, Office of the Assistant Administrator for Water
and Hazardous Materials, EPA, for up to two years

1974-1975

- x 1. Preliminary Report - Annotated Outline of a Possible Future Study
of the Historical/Intellectual Basis for an "Exploration Ethic"
- x 2. Intellectual/Historical Basis for Explicit Recognition of an
"Exploration Ethic" as a Component of Western Culture
3. Technology Assessment Workshops

4. Seminars to Identify Important Research Projects Pertaining to Energy Supply, Demand, and Implementation of Relevant Energy Policies and Programs
5. Transportation-Related Decisionmaking in Rural Small Communities
6. Evaluation of the Energy Impact, Environmental Impact and Feasibility of Implementation of Various Energy Conservation Strategies in the Transportation Sector
7. Technology Assessment of the Potential for Congressional Use of Emergent Telecommunications
- x 8. Science and Technology Policy Research (Herman Pollack, P.I.)
9. Technology Assessment of Intercity Transportation Systems (as subcontractor)
10. Dissemination and Testing of a Set of Technology Assessment Games for Encouraging Public Participation in Technology Assessment
11. Retrospective Technology Assessment: Submarine Telegraphy
- x11. Innovation, Information and Analysis Project - Supplement
12. Impact of Technological Development on the American Constitutional System
13. Evaluation of a Technology Assessment of Modular Integrated Utility Systems
14. Support for Visiting Professorship of Francois Hetman of OECD, Paris, France
15. Social and Economic Consideration in Highway Planning and Design (as subcontractor to Bolt, Berenak & Newman)
16. Energy R&D Information (Category 6) of NSF Program Solicitation on Improved Dissemination and Use of Scientific and Technical Information
17. Tasks and Specified Services to the Office of International Programs/NSF, Under the U.S.-U.S.S.R. Agreement for Cooperation in Science and Technology of May 24, 1972

STUDENT RESEARCHER PROFILES - 1969 (ILLUSTRATIVE)

Appended are sixteen "student researcher" profiles" compiled in September, 1969, which provide a glimpse of student researcher attitudes re Program of Policy Studies experience, as well as a summary of their academic work as it related to PPS activities. Note that these profiles cover but a very few of the over 300 student researchers who have participated in PPS projects over the years. A comprehensive survey of PPS student researchers and other alumni would no doubt reveal a rich fabric of professional expertise and transfer of skills from the PPS experience to a wide variety of positions in the public and private sector.

Edward Chaszar became interested in PPS while attending GWU as a Teaching Fellow in Political Science and a doctoral candidate whose major fields of interest included the American Political Process, Modern Political Theory, and Comparative Government and Politics. A native of Hungary, 48 years old, Mr. Chaszar received his LL.B. from Pazmany University in Budapest and later came to the U.S. where he successfully competed with fellow students to win a number of awards, including fellowships and scholarships at Western Reserve University and Cornell University.

Mr. Chaszar submitted to the Director a Study Outline for a paper tentatively titled "Science, Technology and the Political System, or the Problem of Political Alienation" in the summer of 1968 and submitted a draft of the work later in the Fall. Because of his heavy load of teaching duties and Ph.D. requirements, Mr. Chaszar was not able to revise the paper till the Summer of 1969. The completed, revised paper titled Science and Technology in Theories of Political Alienation was published in June 1969 as Staff Discussion Paper #401.

Beginning in September 1969 Mr. Chaszar has accepted a position as Associate Professor of Political Science at Indiana University of Pennsylvania. He expects to receive his Ph.D. from GW in June of 1970.

Capt. Gordon B. Fields (Office of Army J.A.G.) became associated with the Program of Policy Studies as he pursued his LL.M. degree at GWU in the Law Science and Technology Program, under the Army Tuition Assistance Program. In the summer of 1968 under the direction of Harold P. Green, he fulfilled a course requirement for Research in Public Law with a paper titled "Influence of Insurance on Technological Development" which dealt with the relationship between reliability and insurance on the one hand and the rate of technological advance on the other. This paper required considerable amount of empirical work. The paper was sent to the Director of the Program of Policy Studies for his consideration. During the Academic Year 1968-69, Capt. Fields remained in the Law Science and Technology Program and was the first to receive this select LL.M. degree from GW in June of 1969. In the summer of 1969 he submitted a revision of his paper to the Program of Policy Studies for publication as a Staff Discussion Paper.

Capt. Fields has been with the Army for three years and intends to find a law teaching position or a government-related position in the area of Law, Science and Technology.

Ann Finkelstein (Her statement): Three and one-half years at the Program of Policy Studies has had a tremendous influence on my education and work. I came to the Program in January of 1966. At that time, my education, aborted nine years earlier when I dropped out of Bryn Mawr College to get married at the beginning of my senior year, was up in the air. My work at the Program where I was first a secretary, then an administrative assistant and finally research associate for information/librarian definitely stimulated my desire to further my education and continue in the field of sociology. My academic work, including courses in research methods, urban problems and public opinion and mass communication strengthened, I am sure, the contribution I was able to make to the Program. In turn, my work as Librarian and Information Specialist enriched my resources as a student. (It goes without saying that without the tuition benefits offered by the PPS-University alliance, going to school would have been impossible). In August 1969, I was offered a graduate teaching assistantship by the Sociology Department of GW which I turned down, having accepted another job. I shall continue in the Masters Degree Program while in my present position as Research Analyst at the Bureau of Social Science Research, Washington, D.C. (since July 1969) where I am working on an Office of Education project on "The University and the City." The project involves doing case studies of twelve "involved" universities, looking at the Federal funding aspect of university action programs and a literature search.

Director's Comment:

Miss Finkelstein performed in an excellent manner for the Program. I think it would be accurate to say that as a result of her experience with the Program she is one of the best (and one of the very few) Librarian/Information Specialists in the country concerning literature relevant to Technology/Society problem contexts. She is one of several who have definitely increased their professional competence through Program experience and have been sought by other organizations as a result thereof.

Bruce Hart was referred to the Program in January, 1969 to assist the Director in research relating to a study "The National Highway Program and Motor Freight Carrier Development: A Technology Assessment" which was published by the Program in March. At the time he was a senior at GW's Law School and became aware of the Program's activities through Professor James Brown's course in Land Development Law. In addition to regular class work he prepared a paper titled "Use of Government Laboratories for Purposes of Solving Urban Problems." He received his J.D. from GW in June of 1969.

Director's Comment:

Mr. Hart worked with Mr. Kramon and Prof. Mayo on the topic noted. This involved a careful study of the legislative (policy) process leading to the Congressional action on S. 2658 pertaining to a proposed increase in the maximum weight and size of motor freight carriers. Both Hart and Kramon expressed to me their appreciation of the opportunity to engage in this type of analysis which transcended the bounds of their formal legal training. Both found the experience both stimulating and useful in enlarging their understanding of the public policy process.

Activities of Mr. David R. Hendrick, LL.M. Candidate and Teaching Fellow at GWU National Law Center (Now Assistant Professor of Law, University of Arkansas at Little Rock).

Mr. Hendrick worked closely with Professor James M. Brown in planning for the series of PPS Seminars on The Application of Modern Technology to Urban Problems. In addition to the general planning, Mr. Hendrick did research work and concept planning for the two seminars held to date (Homesteading in the 70's and Technological Development as a Factor in Population Distribution).

Mr. Hendrick also worked as assistant to Professor Brown in planning the LL.M. Program in Natural Resources Law which the National Law Center initiated in the 1968-69 school year to provide special policy-oriented training for a group of lawyers who were employed by the U.S. Army Corps of Engineers and sent to GWU prior to being assigned to District Offices by the Corps of Engineers. Professor Brown's activities in planning and inaugurating this program were facilitated by his experience with the activities of the Program of Policy Studies.

Mr. Hendrick, partly as a consequence of these experiences, was elected by the National Law Center to teach Professor Brown's course in Land Development Law during the 1st summer session of 1969, thus freeing Professor Brown to work full time with the Program of Policy Studies in planning future seminars in the series.

Mr. Hendrick used many of the materials developed for the seminars and the information generated thereby (the discussions were put on magnetic tape for classroom use) in his Land Development Law Class.

Mr. Hendrick has now begun his teaching career on a full-time faculty basis at the University of Arkansas. As the result of his work at GW and with PPS he has been asked to inaugurate a new course on Natural Resources and Land Law. In this course he plans to use the urban seminar series materials. He also plans to use four PPS publications as assigned reading for this new course.

The experience Mr. Hendrick has had at GW and the exposure through the seminar meetings to representatives of government and industry who participate at the policy-making level in dealing with real world problems has given him a dimension that few students have had the opportunity to enjoy and his contribution to the University of Arkansas School of Law should be greater as a consequence.

Mr. Hendrick will continue his participation in Professor Brown's seminar series by preparing a paper for presentation at a future seminar.

William Kallon is a graduate student from Sierra Leone who has combined undergraduate training in economics with graduate study in international relations. His background in development economics especially has made it possible for him to contribute to the work of the program dealing with international implications of space activities.

Kallon joined the program in February, 1967, working half-time during the school year and full-time during the summer of 1968. He is currently completing his course work for the Ph.D. degree at George Washington University and intends to write his dissertation on "The Role of Science and Technology in Promoting International Development." His association with the Program has given him useful insights into those sciences and technologies most essential for adaption and application to problems of national development. As a program staff member, Kallon will be able to define his dissertation research topic more precisely and also locate useful sources for his work.

James Kramon, as a senior at GW Law School, took a course in Land Development Law in the Fall of 1968 which was taught by Professor James M. Brown, a faculty associate of the Program of Policy Studies. In addition to his regular course work, Mr. Kramon prepared a paper under the supervision of Professor Brown titled "The Optimum Size of Cities" and showed considerable interest in the activities of the Program of Policy Studies. In the early part of 1969 the Director of the Program hired Mr. Kramon and another senior law student to do part-time research relating to a study underway on "The National Highway Program and Motor Freight Carrier Development: A Technology Assessment."

Mr. Kramon also had a part time job with the Tax Division of the Department of Justice, he accepted an offer for a full time position with Justice after receiving his J.D. Degree from GW in June but then declined this position to pursue work in the area of Land Development Law as an LL.M. candidate at Harvard. Because of his direct and indirect association with the Program of Policy Studies through Professor Brown, Mr. Karmon has decided to shift his legal interest to the field instead of pursuing a career in tax law.

Alan Kreglow:

Mr. Kreglow provided valuable assistance to Jim Mahoney and Guy Black during the summer of 1968 in the areas of 1) reviewing the literature and structuring a review paper on the Delphi Technique of Technological Forecasting. 2) He also reviewed the marketing research literature looking for new modeling quantitative techniques and uncovered some interesting simulation research. 3) He spent a brief period of time reviewing the literature concerning the transfer of technology to the small business scene.

He worked full-time from May 29 through September 20, 1968. We would like to have continued his employment but the cut-back in NASA funds forced a reduction of support staff.

This was a most productive relationship and our research activities benefitted greatly. Mr. Kreglow indicated he had learned a great deal from our association and his work.

Phyllis McDonald became associated with the Program of Policy Studies in May 1967, when she wrote a consulting paper for the Educational Policy Group, directed by Dr. Joseph B. Margolin, Senior Staff Scientist. Referred to Dr. Margolin by the Department of Psychology at G.W., Mrs. McDonald was a Doctoral Fellow in Special Education with interest in research.

The Educational Policy Group had been formed in early 1967 under the direction of Dr. Margolin as a result of a contract between the Program of Policy Studies and the U.S. Office of Education. The contract called for OE's funding of a study of the policy issues that will affect the development of computer-assisted instruction in American education over the next twenty years. It was set up both as a study of the future of educational technology and as a pilot study in education. Mrs. McDonald contributed her paper, "Educational Administration and Computer Systems," to the Report, titled: "Education in the 70's: A Study of Problems and Issues Associated with the Effects of Computer Technology on Education." The lengthy Report was submitted to the Office of Education in August of 1968 and was well received. Spartan Books is under contract to publish the revised version with expected release within the next 6 months.

After her experience working as a consultant with the Educational Policy Group, Mrs. McDonald decided to focus on the interdisciplinary approach to policy research she found there, combining it with her Special Education interests. In August 1968 she left her part-time job at the SEIMC (the Special Education Instructional Materials Center at GW) to work full-time as a Research Associate with the Educational Policy Group. The Department of Special Education at GW waived restrictions in her case, allowing her to work full-time while still holding a doctoral fellowship.

Mrs. McDonald is writing her doctoral dissertation and expects to receive her Ed. D. in Special Education in 1970. Her minor fields include Clinical Psychology, Human Growth and Development, Statistics and Computer Programming and School Mental Health.

David E. Marwick completed his B.A. in Economics from GW in February of 1969 having come to the University as an alternate for a Trustee Scholarship. He began work on his M.A. in Economics in the Spring of 1969 and expects to complete his work in February of 1970. While an undergraduate senior he was enrolled in a class taught by Mr. Joseph Tropea, then an Instructor in Sociology working on a proposal to the Department of Justice under the direction of the Program of Policy Studies. In the summer of 1969 he sat in on a graduate course, General Systems Theory, taught by Mr. Tropea. During that time Mr. Tropea received the Department of Justice grant to undertake a study titled "Development and Implementation of a Behavioral Systems Approach to the Prevention and Control of Delinquency and Crime." In July 1969 Marwick was hired as a full-time research associate on the Project to analyze resource allocation among the various organizations being studied. As a result of his work with Mr. Tropea and experience on the Project, Marwick has become more interested in socio-economics, including the work of Boulding and Galbreath, and feels that continued applications of fragmented theories of economics, political science, sociology, and psychology, for example, will not total up to solving the social problems facing society. While working on the Project, Marwick will continue course work at GW.

John V. Moeser was associated with the Program of Policy Studies as a full-time research associate from June 1968-September 1968. Moeser was a Teaching Fellow and Ph.D. candidate (fields of International Relations, Political Theory, Comparative Government, American Political Process, and American Foreign Policy) since September of 1967. He heard about the Program through Dr. Benjamin Nimer, Chairman of the Department of Political Science, who referred him to the Director for a summer research position. Throughout the early months of 1968 John had continuing discussions with the Director about the possibilities of such a position and read several papers relevant to the Program's activities, including the Director's papers on Technology Assessment and Hanessian's study on "Economic Benefits and Implications of Space Station Operations." At the end of the academic year in June he commenced work on a paper relating to the development of a National Consensor around selected public programs.

He was greatly assisted in his work by Professor Hugh LeBlanc of the Political Science Department at GW. In August 1968 he submitted a first draft of his paper "The Space Program and the Urban Program: Case Studies of the Components of National Consensus" to the Publications Committee. The Committee made extensive suggestions for revision of the paper, but Moeser's heavy responsibilities as a Teaching Fellow precluded final revision of the paper until the Summer of 1969.

Moeser is now completing his final year as a Teaching Fellow in Political Science. In the introductory courses he teaches he has found use for the experience gained in his work with the Program.

Joe Pelton combined undergraduate training in physics with graduate study in international relations; this multidisciplinary background made it possible for him to contribute significantly to the work of the Program in project dealing with the international implications of space activities.

After serving as a summer intern with NASA, Pelton came to the Program in the fall of 1967, working part-time during the school year and full-time during the summer of 1968. He was then completing his course work for the Ph.D. at Georgetown University, and he intended to write his dissertation on "The Effects of Space Technology on International Relations." His work with the Program brought him into intimate contact with the space policy-making process, especially with respect to unmanned space applications programs. The insights gained from his research as a Program staff member helped Pelton to define his dissertation research topic more precisely and to locate useful sources for his own work. In October 1968 Pelton, as a direct result of his Program activities, accepted a full-time position in the International Division of the Communications Satellite Corporation, which is the manager of the International Telecommunications Satellite Corporation. Since that date Pelton has maintained a close relationship with the Program, and, on several occasions has been instrumental in arranging meetings between COMSAT and Program personnel.

David W. Radius worked part-time with the Program of Policy Studies during the Summer of 1969 assisting the Director with analyses of various aspects of the technology assessment problem. Radius gave particular attention to the Report on "Technical Information For Congress" and prepared several memoranda which focused on the application of such concepts as "technical issue" to the various case analyses in the Report.

An ecology major at Stanford University; Radius will resume his undergraduate studies there in the Fall of 1969.

Director's Comments: It is of particular interest to note that young Radius found his experience with the Program to be both frustrating (particularly at first in gaining a notion of the types of problems with which the Program is concerned) and enlightening (toward the end of his employment after he was able to probe deeply into a few questions). He did a lot of thinking about various modes of inquiry, i.e., the scientific method as contrasted with the political (adversary) process. Before he left he indicated a strong interest in keeping informed on the work of the Program and in continuing to perform further tasks on his own during the school year.

Jill Shuker was employed by the Program on two occasions. During the summer of 1967 she worked as a research associate to Dr. Norman Kaplan, Professor of Sociology and Senior Staff Scientist of the Program, on his NSF study on the Allocation of Science Resources. During the summer of 1968 she worked as a research assistant to Mr. Ellis Mottur, Senior Staff Scientist of the Program and Principal Investigator of a study funded by the National Bureau of Standards and the U.S. Arms Control and Disarmament Agency, "The Processes of Technological Innovation." She assisted in gathering data for the second phase of the project which is devoted to development of detailed analytical techniques for applying the model to specific policy issues in technological innovation. The focus of the current effort is on comparative analysis of the processes of innovation as they occur in different sectors of the economy, in different industries, and under different environmental conditions.

During 1967 and 1968 she was a candidate for a Master of Arts degree in Political Science at Tufts University. She has said that her experience here in the Program has helped impart a realistic understanding of the functioning of the Federal government, which has helped her in her graduate studies.

Harvey B. Silverstein worked for the Program as a research assistant from February - April 1969, while enrolled in GW's Graduate School of International Affairs. He is a June 1968 graduate of the University of Wisconsin with a B.S. degree in Political Science and International Relations (with honors) and a minor in social psychology.

Mr. Silverstein had done some past research work for Professor Nieburg at the University of Wisconsin, most of it in the areas of Science and International Affairs and The Role of Violence in Societies. He had written several unpublished papers on Space Science, Foreign Policy and the U.N., Functional Integration: Pathways for Europe Through the Atom, Above the Earth, and Beneath the Sea; Violence and Political Change in Developing Countries; and Dysfunctions of South African Society. In past summers he had attended the NSF Summer Institute at Oregon State University in Earth/Space (1962); the U.N. Summer Institute in New York City on International Affairs (Outer Space Affairs Group) (1966); and in the Fall of 1968 attended the Hebrew University in Jerusalem in an intensive language and cultural study program, thus revealing a wide variety of interests. Mr. Silverstein's work with the Program involved a Historical Survey of the Technology Assessment Function.

While working for the Program he participated in a Conference on the Atlantic Community (March 1969) co-sponsored by the Department of State and Georgetown University and a major continuing international student conference in the area of Atlantic Affairs (economic, social, political). Mr. Silverstein terminated his association with the Program in April because of personal illness, and he returned to Madison, Wisconsin. In a recent letter to the Director of the Program he indicates he will be attending graduate school at the University of Wisconsin in the Department of Urban Affairs in the Fall of 1969. The interaction between technology and society in the urban context will be his central interest.

John W. Snow (His Statement)

I began law school at George Washington University in September, 1964 while I was the Dissertation Fellow in Economics of the U. S. Department of Labor. In the spring term of 1965 I took a course under Professor Harold Green dealing with the relationship between law and science. Through this course I became interested in the question of the legal systems relationship to atomic energy and prepared a paper on this subject. Professor Green suggested that I might wish to pursue this study and suggested meeting with Vice President Mayo. Vice President Mayo encouraged me to continue my research through a part-time association with the program. I accepted this invitation and continued to work on this project for approximately a year when the Program published my research as a working paper.

This association with the Program of Policy Studies has a decisively broadening effect on my legal education on provided valuable opportunity to meet with scholars in other disciplines whose experience and knowledge was thereby brought to bear on my own work. As an outgrowth of my association with the Program, I participated in an NBC series on Law and Emerging Industries prepared by Professor Harold Green. In addition, the Program has provided an opportunity to attend various scholarly conferences and meetings which were exceedingly valuable to my legal education. Subsequent to my graduation from George Washington Law School, I have drawn on the knowledge and experience gained through association with the Program continuously both representing private litigants and in various scholarly pursuits. The Program has served as an intricate and important part of my legal training, and I am extremely grateful for the opportunities it has afforded me.

DIRECTOR'S COMMENT:

A past Assistant Professor of Economics, conducting courses at the graduate and undergraduate levels, (who received University of Maryland's highest recognition for teaching, The Excellence in Teaching Award, in the Fall of 1967), Mr. Snow is currently associated with the law offices of Wheeler and Wheeler in Washington, D.C. and is a lecturer in Economics at the University of Maryland.

The "714 News" is an unofficial staff newsletter which commenced January 31, 1974. The purpose of the newsletter is to summarize current Program activities for all staff of the Program. The 714 News, which takes its name from the Suite number of the Program office, is also sent to the GW Office of Public Relations and the Editor of TA Update, the newsletter of the International Society for Technology Assessment, as well as to various "alumni" of the Program upon request.

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PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, GWU, 2130 H Street, N.W., Room 714.
Phone (202) 676-7380

*** PPS turned out 6 formal proposals the past 2 weeks: abstracts are available.

- 1) 1974 Funding from NSF for the Innovation, Information, and Analysis Project (\$294,618 which includes their current extension thru 3/31) Go Group!
- 2) Evaluating the Organization of Service Delivery: Public Health (PPS to provide legal analysis assistance to this Control Data Corp. proposal to NSF). Mayo, Guttman and Coates are listed. Would start in July (Phase 1) continuing for 16 mos. Budget: \$97,024.
- 3) Professors Arthur S. Miller and Jerome Barron of GW's Law School submitted a proposal entitled A Study of Information Flow to the Supreme Court - they would plan to get a lot of help from Chuck Lamb on this one. It would start 4/1/74 if funded and end 9/30 with a whiz-bang symposium of top legal scholars in the field. ^{442, 828}
- 4) A GW Ph.D. candidate, Ms. Darcia Bracken, has applied thru PPS, on thru the Washington Technical Institute to the D.C. Office of Water Resources Research, to underwrite study on Advocacy Hearings for Controversial Water Resources Decisions: An Institutional Analysis. 12 mos. project for \$16,452. Vary Coates would monitor research.
- 5) In response to a request from DOT/UMTA, a proposal was prepared on Analysis of Implications for Urban Transportation R&D of Selected Emerging Issues, Priorities, and Trends which will become Critical in the 1974 - 1980 Time Frame. (\$71,700 for 6 mos. with resumes from Mayo, Coates, Hansen, Tennant, Rice, Hassanein, Brezina, Weiss, Fischer, and Price.) With a staff like that, how can we lose. Go team!
- 6) Charlton Price just knows people. He submitted a proposal for a cool \$5,000 to Manpower, Inc. to help them celebrate their 25th Anniversary by making a survey of trends and changes anticipated for the world of work during the next 25 years. Then he went home and listened to opera.

***** A lot more ideas and proposals are in the mill for processing the next few weeks, including: a) One to Ford Foundation (Mayo, Coates, Logsdon, and Martin V. Jones, consultant to PPS) on a Comparative International Study of Technology Assessment Methodology Based on Selected Case Studies - there will be lots of competition for the 3-year, \$150,000 studies, b) resubmission of the DOT-Office of University Programs proposal on Consumer Motivation and Participation in Transportation Planning and the Use of Transportation Services, c) Dan Guttman is working up a rough draft for a proposal to NSF on the Relationship Between Regulations and Technological Innovation, d) John Logsdon is working up a proposal for submission to NSF's new Science and Technology Policy Office which supports the work of the President's Science Advisor. His proposal would be in the area of the University Policy Studies Program supporting analysis of science policy issues among university faculty/students - GW would serve as joint sponsor of the program and as overall manager of its activities for the initial 5-7 schools selected, including GW.

***** Other "live" proposals include: TA Study Covering an Expanded Production and Use of Coal (PPS thru Mitre Corp. to NSF)(Coates)(\$115,000); Identification of Economic and/or Environmental Impacts Related to Energy Policy Studies on which PPS submitted a general capability statement for doing "quick responses" on future tasks in this area; the Educational Policy Group's proposal to NIE on Evaluation Design of the Educational Satellite Program Demonstration (\$39,641).

***** Other proposals being prepared include possible Technology Forecast and Assessment Project (Coates working with Institute of Electrical and Electronics Engineers for sub-contract work) Also, Martin Jones attended a pre-bidders conference on 1/25 re a NASA RFP on a Study of Benefit-Cost Methodology and Example of Application of Methodology. Coates has copy of RFP

*** RECENT AWARDS:

- 1) Innovation, Information and Analysis Project extension thru March 31, 1974 - \$68,983 (Wes Tennant)
- 2) Southern Regional Workshop in Technology Assessment (new)(Coates, P.I.) (\$20,000 from NSF - 1/1/74 - 7/31/74 - support of a 3-day workshop in TA, to be held in Atlanta, Georgia, during the spring/summer of 1974, under the joint sponsorship of PPS and the Georgia Governor's Science Advisory Council, to provide an introduction to, and training in, the performance of technology assessment for state and local officials.

***** JOHN LOGSDON has his Woodrow Wilson Fellowship office next to Elliott Richardson's.

***** Steve Ebbin and Raph Kasper's report to NSF on Citizen Group Uses of Scientific and Technological Information in Nuclear Power cases was written up on the front page of the GW Hatchet, Jan. 24, as well as in many other newspapers around the U.S. MIT will publish the book but the date is not yet known.

***** Got some news for the 714 NEWS? Pass it on to Sue B. or Vary T. for the next issue. The purpose of 714 NEWS is to keep PPS staff relatively up to date on current projects, new people, reports out, etc. Will try to publish at least every 2 weeks.

***** Professor James M. Brown is in Cafritz Hospital in traction to try to correct a herniated disk. His phone is 574-6246. This would happen to him just as he started sabbatical leave to finish his Ph.D. dissertation. We hope he has a speedy recovery.

***** Under the direction of Audrey Hassanein, Pam Brown is conducting a search of GW computer capability, including terminals (where located), who is buying what equipment (Med School, Law School, Business School, etc.) and what kind of time sharing is available, etc. When the survey is completed, the next step will be a survey of about 10 area information search facilities, including GW's ERIC Clearinghouse, NTIS, Science Information Exchange, NIH, etc. to see what kind of service is available from them. This work could eventually develop to the point of Pam's serving as a key person to assist PPS projects on literature searches at all stages of work.

- end for this issue -

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PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, GWU, 2130 H Street, N.W., Room 714.
Phone (202) 676-7380

***** PROPOSALS SUBMITTED:

1. 1/30/74: . To Ford Foundation's Common Problems Research Competition: A Comparative International Study of Technology Assessment Methodology Based on Selected Case Studies (Mayo, Coates, Martin Jones, John Logsdon) (3 years - \$150,000)
2. 2/4/74: To NSF's National R&D Assessment Program: Study of the Relationship between Regulations and Innovation. This was in the form of an informal letter (phase I of their outlined proposal submission process) stating scope of work, general time frame - 1 year - and cost - \$50,000). Budget as now stands includes Dan Guttman and Harold P. Green of the National Law Center.
3. 2/11/74: To NSF's Science and Technology Policy Office - from the Graduate Program in Science, Technology and Public Policy a proposal for support of NSF's new program in this area, both organizational and management services and also conducting a seminar series on the theme of U.S. Goals and National Strategy. (\$83,854 for activities over a 15 month period).

***** SPEAKING ENGAGEMENTS:

Joe Margolin was invited to speak at a meeting of State Department experts and a handful of external advisors on the development of policy for the free flow of information in outer space and satellite programs - Feb.. 8.

***** A NEW COUP FOR PPS:

Audrey reports that Annette Steiner, Curator in Charge of Special Collections of the GW Library, stated on 2/4/74 that the Program's publications are now in greater demand than those of any other component of this University. The leader was for a long while the Biological Sciences Communication Project (now the Science Communication Division of the Medical Center). PUBLISH OR PERISH, THAT'S WHAT THEY SAY. GO GROUP.

***** New Requests for Proposals (RFP's) - If you can help, please do!

1. Center for Population Research is interested in behavioral-social science aspects of population, family planning and reproductive behavior. Letter came to Roy Marx - see him for outline of RFP.

***** PERSONALS

1. Vary celebrated her 22nd wedding anniversary on Feb. 2 (she and Joe are lucky - they get all their wedding anniversary trips funded by all those conferences they are invited to)

***** Betsy Amin-Arsala is working with Vary to develop a two or three session seminar series on the overall topic of "The Role of Small Towns in the Post-Industrial Age." The first seminar will deal with the "Effect of the Energy Crisis on Small Towns and will be held in March. PPS staff who have an intense interest in attending should let VTC know. Others will be drafted.

***** NEW ADDRESSES AND PHONE NUMBERS:

Gerald J. Kluempke, Executive Secretary
President's National Advisory Council on Supplementary
Centers and Services

Phone: 963-3813

ORIGINAL PAGE IS
OF POOR QUALITY

***** RETRACTION:

John Logsdon says Elliott Richardson's office is next to his.
John's new phone at the Woodrow Wilson Center is 381-6241.

***** JANUARY BIRTHDAYS: Marion Misch and Rich Rice.

***** PERSISTENCY: Sue Bachtel has been with PPS 8 years as of 2/1/74.

***** ALUMNI NEWS:

The DOT/NASA Civil Aviation Study team can never maybe forget the hard work and antics of Philip A. Graham who was then GW getting his Ph.D. under the direction of Prof. Foa in the Engineering School. Phil came by to visit us from Texas last week to report on how it feels to be President of your own company which he now is (he is the employee). The company is Servo-Link and you will have to call Phil to find out what it does. He brought samples of his work - they look like gears in a fancy plastic watch. GO PHIL!

--- Sue Coady was married on Feb. 2.

***** URGENTLY SOUGHT:

2 books which are on reserve rush back to GW library:

1. The Year 2000: A Framework for Speculation (Kahn & Weiner)
2. Occupations and Values (Rosenberg)

Please search your shelves and return to Audrey:

***** THE PPS Annual Report is at last in galley proof form and getting a last quikie look from some of the senior staff who have been around before going back to the printers. 2,000 copies will be produced for select distribution. IT SAYS A LOT!

***** DOT/UMTA PROJECT WAS EXTENDED UNTIL FEB. 18 for final report. UMTA, UMTA UMTA!
(as in HUZZA)

***** GW CLINIC OFFERS A \$90 special on physical exams. Call 331-6732. They will: take an automated medical history; give a vision test, a hearing test, a urine analysis, electrocardiogram, chest x-ray, pap smear, glaucoma test, check your height & weight, blood chemistry, blood count & pressure. 1st session takes 2 hours; 2nd takes 1 hour (review by physician), YOU ARE PRONOUNCED IN GOOD HEALTH IF YOU SURVIVE THE PHYSICAL.

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PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, THE GEORGE WASHINGTON UNIVERSITY
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*****PROPOSALS SUBMITTED

1. TO NASA, LEWIS RESEARCH CENTER, CLEVELAND, OHIO ("HAND-FLOWN" (A PPS 'first') by Ellen WOLFF of the IIAP staff who used to live in Cleve. and will visit friends also.)

Study of Benefit-Cost Methodology and Example of Application of Methodology. (\$81,088 for 8 mos. commencing May 1, 1974, if funded) Personnel presently listed include: Dr. Martin Jones, P.I.; Dr. Barry Hyman (Engineering); Dr. Robert Anthony (Systems Analysis); Dr. Vary T. Coates (Public Policy); VP Mayo (Public Law); 350 hours of graduate research assistance. Also have 3 outstanding consultants to want to assist (demonstration of methodology application will be performed using data obtained from Hurricane Agnes which occurred in 1972: Prof. J. Eugene Haas (U. Colorado) and Prof. Benjamin F. McLuckie (U. Delaware); and Prof. James M. Brown of GW National Law Center. (all experts in "disaster research").

*****CONGRATULATIONS

Dr. Guy Black, PPS Sr. Staff Scientist, was selected by the GW Department of Business Administration, by election, to be Chairman of the Department for the period July 1, 1974 - June 30, 1976. PPS is getting into the "BiCentennial" swing!

*****DRAFT REPORTS OUT FOR SELECT REVIEW:

1. Preliminary draft of NASA-funded land use study: Trends in State and Federal Land Use Law Relating to Inventories, Monitoring and Evaluation (Charles Lamb, P.I., Feb. 13, 1974). Internal review by Weiss, Studholme, Mayo, and Brown; outside review by a few others. Final report due March 31, 1974.
2. Draft of 1st yr. report on Revitalization of Small Communities - Transportation Strategies in form of detailed sentence outline was forwarded to the Office of Urban Transportation Systems (DOT) (V. Coates, P.I., Feb. 13, 1974). Project staff included: Margolin (social psychology); Roy Marx (economics); Charles Stewart (economics); Ned Studholme (urban & regional planning); Ernest Weiss (transportation). Consultants: Robert Anthony, Rod Frame, Shelley Mastran. Research assistants: Mona Jaffe, James Lester, Judy Naimon, Wendy Schact, and Gigi Urow. The group will now proceed writing the 1st year report based on the outline and prepare outline for 2nd year of work. (2-year project - \$138,000 total funds)

*****SPEAKING ENGAGEMENTS

Fred B. Wood is Guest Lecturer on congressional information systems for the GW Division of Experimental Humanities course #198, an innovative course focusing this semester on "Informing the Public: Democratic Process & the Flow of Information."

***** FRED WOOD, CONT'D:

Special attention in the course is given to new communication media, freedom of information, and public access thereto. See Fred if you have an interest in these areas.

***** PPS PUBLICATIONS CATCH-UP:

1. U.S. Technology: Trends and Policy Issues, by Michael Boretsky, Mon. 17, Oct., 1973. This paper which is being control/distributed by Mark Frankel is a revised, but still preliminary version of a 3/28/73 seminar presentation for the U.S. National Goals and Technological Strategy Seminar Series sponsored by the PPS co-sponsored Graduate Program in Science, Technology and Public Policy. Boretsky is presently a senior policy analyst in the Office of the Secretary, Dept./Commerce. Phone Mark at 676-7292 for further information.
2. Vary T. Coates and Marvin Centron co-authored an article "Energy and Society," which was published in the Dec., 1973 Proceedings of the Academy of Political Science, Vol. 31, no. 2.

***** PPS LIBRARY HAS SPECIAL SERVICES AVAILABLE TO ANY PPS STAFF:

1. Audrey (don't ask how) has a way of getting PPS staff and GW students with special needs or qualifications into conferences without payment of fees. So far has been D.C. region - may extend to other cities. CHECK WITH HER.
2. CONFERENCE ATTENDEES: The library needs copies of papers and proceedings from conferences/meetings you attend. Please make it a habit to pick up an extra copy for the library. Don't throw any away - give to others. And, if you need to get extra copies, they will handle these requests via special pre-printed postcards.
3. ALSO ABOUT CONFERENCES: Audrey's office has a pillar which is devoted to upcoming conferences you may need to know about. In return, give her conference notices for posting.

***** SPECIAL OF THE WEEK: Jim Lester is growing a beard.

***** SPECIAL OF LAST WEEK: Chuck Hansen returned from a two-week trip to Colorado, his home state. Charlton Price returned from trip to New England.

***** SPECIAL, ALWAYS: To be sure, the night-owls of PPS are already aware: We have a very, very nice GW cleaning staff to keep us company in the wee hours: Evelyn Herbert and Hassie Porter are those we see most, but Helen Byrd and Edthel Medley work with them, too. Thanks to them, we aren't completely buried in paper.

***** COMPUTER TEST RUNS:

IIAP has 2 separate outside organizations comparing time and cost savings by using specially developed computer programs to turn out such products as subject & author indices, citation listings, and structured and published abstracts. Results to be available about March 1. Judy Russell is supervising this in-house project.

***** TWO NEW REQUESTS FOR PROPOSALS: (they are circulating - see Vary for details)

1. FHA: Conduct a study entitled: Social, Economic and Environmental Impacts and Land Use Planning Related to Urban Highway Tunnel Location. Due 3/27/74
2. "Economic Analysis Support" for the relatively new Consumer Products Safety Commission. HUGE MONEY TO BE AWARDED - PROPOSAL DUE THIS FRIDAY, FEB. 22. Need resumes of everyone who has any claim to being an economist, also need some engineers.

NUDDIES

"SPECIAL STREAKING ISSUE"

PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, THE GEORGE WASHINGTON UNIVERSITY,
ROOM 714 NEW LIBRARY, 2130 H STREET, N.W., 20006 (202) 676-7380

****PROPOSALS SUBMITTED:

1. Electrotechnology Projection and Assessment (subcontract to Institute of Electrical and Electronics Engineers - IEEE) on 3/1/74 to NSF (RANN)(\$124,854--27 mos.)(Bill Fischer named as P.I. for PPS effort). IEEE is committed to an extensive program of forecasting the electrical & electronic technologies - next 20 yrs. for career/training purposes for IEEE members; establish IEEE's role in analysis of public policy re electrotechnology; & open way for IEEE members to participate in the shaping of these policies. PPS will provide research assistance in effecting an integration of TA with the forecast effort.
2. The Origin of Human Values, to NSF/Central Processing Section - on to Computer Activities Section from there, perhaps. \$51,723 for 9 mos. to complete Part II & Part III of book of the same title. Dr. George Pugh (now of General Research Corp.) is P.I., with Chuck Hansen, Milton Marney, Dick Ericson, and William Griffith noted as possible consultants. Theoretical approach is based on recent practical experience w/computer-based artificial decision systems which utilize "values" as determinants of behavior. Fundamental system design principles are developed which seem to be applicable to both biological & artificial decision systems. Impact of these principles is analyzed to provide understanding of evolutionary forces leading to the present design of the human mind as a cybernetic system; the result being a clarification of existing theories of human behavior. The new conceptual framework based on concepts from decision science, provides a unifying theory which relates the fields of ethics & social policy to fundamental work in behavioral science.
3. Basic Research and Technology: Pilot Study to NSF, Science Indicators Unit (M.Marney, P.I.)(\$9,945 for 6 weeks w/option of 4-week extension to produce Final Report) Research Staff include Audrey Hassanein & Bob Anthony. Project objective is to develop quantitative indicators of the contributions of basic research to technological innovation. Start-up time is hopefully March 15, 1974. Congratulations to Marney who did this proposal a' by hisself. WOO-WOO.
4. Provisional Proposal to EPA/Office of Noise Control Programs for a System of Continuing Monitoring and Evaluation of Environmental Noise Standards/Regulations & Programs (Mayo, P.I.)(3 years)

*****REPORTS

1. Final Report on DOT/UMTA Project: Fostering Urban Transportation Activities in Universities: Recommendations to the Urban Mass Transit Administration, Feb., 1974. Study Team included Darcia Bracken, M.A.; Stephen Burks, Ph.D.; Vary Coates, Ph.D.; Rodney W. Frame; Dana E. Friedman; Steven Girtten, Ph.D.; Louis H. Mayo, S.J.D.; Charlton Price; Edward D. Studholme, M.U.R.P.; Theodore Suranyi-Unger, Ph.D.; Wesley L. Tennant; & other members of faculty and staff of GWU. Charlton gave a followup briefing on Thursday, March 7 - made a great impression we hear! He used Audrey's hand-lettered charts (which were subsequently used for a session on the future of women at Vary's house).
2. Final Report to EPA/Office of Noise Control Programs: Part I: NEPA §102(2)(C)

Environmental Impact Statements Relating to Potential Noise Impacts of Federally-Funded Projects. Part II: A Legal/Institutional Analysis of the Public Health and Welfare Mandate of the Noise Control Act of 1972 (Part I co-authored by Betsy Amin-Arsala; Part II co-authored by Louis H. Mayo, Principal Investigator (The Implementation of the Public Health & Welfare Mandate of the Noise Control Act of 1972: Some Regulatory Considerations); and Richard E. Rice & Blaine Yamagata, A Legal/Institutional Approach toward Definition of the Term "Public Health and Welfare" Pursuant to the Noise Control Act of 1972). This report tells it LOUD and clear. Congratulations to VP Mayo for surviving. Appreciation to Gertrude Delman who gave priority to the noise study over collecting old teeth for her son the dental student in New York City.

3. First Year's presentation to DOT/Office of University Programs on Revitalization of Small Communities Thru Transportation Options was held in their office on Tues., March 5. VTC reports did very well. (Note new revitalized small communities on your vacations, everyone!)

4. Annual Report 1973-74 of Guy Black, Chairman of Committee on University and Urban Affairs: "During the year the Committee held 1 meeting at which it reviewed material received from the committee of the previous year--a proposed questionnaire with respect to community service. No action was taken following this discussion. No matters have been called to the Committee's attention during the year." WAY TO GO.

****STREAKING ALONG WITH PPS:

Joe Margolin was appointed by the Montgomery County Council to serve on its Fiscal Affairs Committee for 1974-75 FY*Steve Ebbin will testify before the Subcommittee on Reorganization, Research, and International Organizations, Committee on Government Operations, U.S. Senate on hearings on S.2744, a bill to establish an Energy Research and Development Administration (ERDA) and a Nuclear Energy Commission (NEC). Steve has been invited by the Chairman, Abe Ribicoff, to testify on March 12 as part of a panel of experts on AEC licensing procedures.****Henry (Hank) Nau, Dep. Director of the Graduate Program in Science, Technology and Public Policy, was a panelist on a GWU Marvin Center Program Board session Jan. 25, titled: The Role of Intelligence in Foreign Affairs which also featured Ray S. Cline, former head of Intelligence & Research/Dept. of State, now with the Center for Strategic Studies at American U. Prof. Nau also was a co-panelist on another Program Board-sponsored session March 6 titled "Detente: Soviet Domestic & Foreign Policy."****John M. Logsdon was a discussant on Harvey Brooks panel at the recent AAAS meeting in San Francisco - "Implied New Directions for Science and Technology."****Vary T. Coates gave talk at same AAAS meeting on Feb. 28 - "Emerging Trends in Technology Assessment." Mark Frankel says "That's nothing - I lecture to my wife every night." (Big talk from a newly-married, wouldn't you say? We will interview Mrs. Frankel for the next newsletter.)****CATCHING UP: A daughter, Ayesha, was born to Betsy and Heydeyat Amin-Arsala, September 20, 1974.****Debbie Danhof, daughter of former PPS staffer, Prof. Clarence H. Danhof (who now teaches at Sangamon U., Springfield, Ill.) swung through Washington on spring vacation from college with a group of friends, Feb. 18.****Howard Reese is now with Concepts Analysis Agency, U.S. Dept. of the Army, Bethesda, Md.****Ernie Weiss attended 2-day meeting (at DOT's request) at U. of Texas, Austin, a review of university research projects at U. of Texas and U. of Iowa, including an LBJ-style barbecue. Y'all come back, Ernie, there's a proposal awaitin' on the reorganization of the railroads.

****COMING UP: Watch for Ebbin and Kasper's book this week. The preview was so quick I didn't get the title down.****Roy Marx and Bob Anthony are preparing a proposal for the National Cooperative Highway Research Program on Methodology of Evaluating the "No-Build" Option for Transportation Projects. Speaking of the No-Build Option, anyone who wants to help Stop I-66 thru Arlington see Sue Bachtel about making a financial contribution for the probable law suit on this issue; any amount will help.****PPS will co-sponsor a SOUTHERN REGIONAL CONFERENCE ON TECHNOLOGY ASSESSMENT with the Governor's Science Advisory Council of Georgia in Atlanta on May 6-8, 1974. See VTC for details.****Dinner seminar March 21 on "The Future of Small Towns." Calvin Beale, Demographer, Agriculture Dept. will be speaker. See VTC for details.****PPS and the International Society for Technology Assessment are co-sponsoring a course on Technology Assessment for the public, 8 weeks beginning March 12, at 8:00, Building C, Room 302. See VTC for details. AS A MATTER OF FACT, SEE VTC ABOUT ANY DETAILS!

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PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, THE GEORGE WASHINGTON UNIVERSITY
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GWU Scientist Lost in Crash



JOHN HANESSIAN

John Hanessian, 49, a George Washington University Political scientist on assignment with the National Science Foundation, was one of at least 23 Americans lost in Sunday's Turkish Airlines crash near Paris.

A total of 344 persons, mostly British, were aboard the London-bound plane when it fell from 13,000 feet, minutes after takeoff from Orly Airport, in history's worst air disaster.

MR. HANESSIAN was en route to the University of Sussex Science Policy Research Unit in connection with his Science Foundation work, after having attended an international conference in Italy and meetings in Paris, associates said.

For the last two years, he had been on leave from the university, where he was senior staff scientist on the

professional staff of the Program of Policy Studies in Science and Technology.

At the Science Foundation he worked as a program manager in the Office of Exploratory Research and Problem Assessment Research Applied to National Needs.

HE WAS responsible for developing a new program on transnational problems in science and technology, which operated through awarding grants through universities and research organizations.

Mr. Hanessian was a native of Syracuse, N.Y., and had lived in this area since joining the George Washington staff in 1967.

The program with which he was associated at George Washington studies the way in which government and technological developments are interrelated.

From 1970 to 1972, he was associate professor of international affairs at the university's School of Public and International Affairs. He taught part time as associate professorial lecturer in political science from 1967 to 1970.

During the time he held his faculty appointments, he was active as a research scientist, and from 1966 to 1967, he was senior research staff member and acting director of the Arms Control Study Group of the California Institute of Technology Jet Propulsion Laboratory in Pasadena.

At the same time, he was a lecturer in international relations at the California

State College in Los Angeles and California State College at Long Beach.

He was instrumental in forming the Armenian Assembly, a national organization to work toward preserving cultural values of the Armenians in this country.

Mr. Hanessian was married and the father of four sons, Bruce, Brian, Jonathan and Christopher. The family lives in Bethesda.

Washington Star-News,
March 6, 1974,

A memorial service for Professor Hanessian was held Sunday, March 10, at the Armenian Apostolic Church of St. Mary's, 5001 - 42d Street, N.W., Washington, D.C. 20016.

Mrs. Hanessian has requested that in lieu of flowers, contributions may be made to the church. Also, the Armenian Assembly Charitable Trust has set up a special John Hanessian, Jr., Scholarship Fund. Checks should be made payable to the Armenian Assembly Charitable Trust and sent to 522 Twenty-first Street, N.W., Washington, D.C. 20006.

For those wishing to write notes of sympathy Mrs. Hanessian resides at 7706 Hamilton Spring Road, Bethesda, Maryland 20034.

714 NEWS

Program of Policy Studies in Science and Technology, The George Washington University, Room 714
New Academic Library, 2130 H Street, N.W., Washington, D.C. 20006 (202) 676-7380

*** PROPOSALS SUBMITTED

1. 3/25/74 Social, Economic, Environmental Consequences of Not Constructing a Transportation Facility (to the National Academy of Sciences/Transportation Research Board - Phase I (12 mos.) (\$98,935)(Coates, P.I. + Roy T. Marx, 25%; Bob Anthony, 65%; Betsy Amin-Arsala, 33%)(Consultants: Barry I. Hyman, Steve Fuller, Charles S. Harris, Robert F. Baker, Martin V. Jones, Robert Berks. Proposed project would commence Sept. 1974 if funded.
2. 3/26/74 Support the Work of the Science and Technology Policy Office/NSF - (12 mos.)(Prof. Henry Nau, Acting Director of Graduate Program in Science, Technology and Public Policy)(\$91,627) This NSF Office supports the Director of NSF in his role as Presidential Science Advisor. The GWU proposal proposes to participate in this program by undertaking a research effort to reevaluate the basic rationale and framework of discussion of national R&D strategies and policy issues. (June 1, 1974 - May 31, 1975)
3. 3/26/74 National Educational Program for Sickle Cell Anemia. This proposal is for a subcontract to the Educational Policy Group (Margolin) from Westinghouse Health Systems as a part of their proposal to NIH on this subject. The objectives of the overall project, and the subcontract, are: 1) to improve the effectiveness of information about Sickle Cell Anemia (both genetic trait and disease manifestation) and about available programs, so as to increase the effectiveness of counseling and other therapeutic programs, 2) to reduce the harmful and negative psychological, social, economic and medical effects of improper or inadequate information about Sickle Cell Anemia. EPG will develop educational, and educational-communication strategies suited to the motivation and needs and learning characteristics of a variety of target groups, including a range of those whose decisions and activities affect sufferers and trait carriers: e.g., medical, insurance, employer, credit, labor, and other groups. The relevant national insurance, business, etc., systems will be analyzed, and gatekeepers identified. Suitable learning and motivational strategies will be designed for each, and effective messages prepared for testing. The EPG will collaborate with Westinghouse Health Systems in the overall project design & in the selection of site & approaches for a Regional Demonstration Pilot Program. (12 mos. - \$98,980).
4. 3/27/74 Modeling Adaptive Systems: Rudiments of a Normative Approach. Activities of this proposed project would support 2 primary areas of practical application of the System sciences: 1) education-oriented development of course materials designed to improve existing university offerings in interdisciplinary studies; 2) society-oriented development of practical techniques of normative systems analysis applicable to social problem solving efforts in on-going policy studies for the public sector. Results of the study will be presented in summary at the World Conference: Vers Un Plan D'Actions Pour L'Humanite, Institute de la Vie, Paris, Sept. 9-14, 1974. Subsequent reprinting of the Conference Proceedings in the General Systems Yearbook will also be sought in the interest of distribution to U.S. scholars and scientists. (Milton Marney)(4 weeks)(Olin Corp.) (\$3,430)

*****AWARDS

3/12/74 Consumer Motivation and Participation in Transportation Planning and Use of Transportation Services (2 Years: Feb. 1, 1974 - Jan. 31, 1976) (Total of \$116,563) (Phase I - 1st 12 mos. Scope of work under this phase includes 1) behavioral science literature search for research findings and principles relevant to transportation behavior; 2) examine transportation program successes and failures to extract useful principles concerning consumer attitude and behavior; 3) derive factors and processes that influence decisions concerning transportation modes; 4) report results. Students will participate in all phases of work. Ultimate product after Phase II is a manual of guidelines to transportation strategy organization. (Margolin, P.I., Misch, Research Scientist) (Phase I: \$52,746). (all it takes is free mass transit, you guys!)

*****SHOT DOWN: SOME VERY GOOD STUFF.

The following recent proposals did not fly for one reason or another: 1) The Future of Employment (to Manpower, Inc.); 2) Evaluation Design of the Educational Satellite Program Demonstration; 3) Selected Emerging Issues, Priorities, and Trends re Transportation Which Will Become Critical in the 1974-1980 Time Frame (to DOT/UMTA); 4) Study of Benefit-Cost Methodology and Example of Application of Methodology (to NASA/Lewis Research Center). THEIR LOSS, RIGHT?

*****PPS REPORT PUBLISHED

3/28/74 A Seven-Year Review of Activities of the Program of Policy Studies has just been released by the printers. We have a supply of 2,000 copies. Staff members are urged to provide names, organizations and correct address for suggested useful recipients of this comprehensive survey of PPS activities and capability. The very attractive cover design with a subtle reference to the 7 years of PPS existence was done by Dave Dickson of GW's Graphics and Printing Office. Many thanks to Bebita Reasoner for pulling the whole report together. It is a most valuable publication for all of us. Review copy can be seen in PPS library.

*****EBBIN/KASPER BOOK, CITIZEN GROUPS AND THE NUCLEAR POWER CONTROVERSY, PUBLISHED

It's now officially out: Published by MIT Press, listing at \$6.95. Look for it at your favorite newsstand, so they say. Congratulations. And champagne to Margo von Kaenel for all her assistance on this project (we know she did all the work).

*****ALUMNI PUBLICATION: Joe N. Pelton, former PPS Research Associate of 'way back, and GW Ph.D. (political science) has just published a book entitled Global Communications Satellite Policy: Intelsat, Politics and Functionalism which discusses establishment & operation of Intelsat and the likelihood of Intelsat serving as a model of international scientific cooperation & investigates the relationship of Intelsat to growing multi-national enterprises. Lomond Systems, Inc., Mt. Airy, Md. 21771 \$14.50 clothbound Microfiche \$11.50. Joe is now Manager of the Board of Governors Affairs Dept., Int. Systems Div. of COMSAT. OUR LIST OF DISTINGUISHED ALUMNI GROWS. Congratulations, Joe.

***** SEMINAR SOCIAL: PPS, with the use of Urban Studies, Inc. (James E. Webb) funds, hosted a professional seminar on Thursday, March 21, on the topic: "Are Small Towns Obsolete in Post-Industrial Society?" The speaker, Calvin Beale, Demographer, Rural Development Service, U.S. Dept. of Agriculture, was extremely well received. His address was on "The Future of the Small Town." Next seminar in this series is scheduled for Thursday, April 25 - session entitled "Possibilities for Improved Transportation in Small Towns." Interested PPSers are urged to contact VTC if desperately desire invite. Don Morin, Chief, Transit & Traffic Engineering Branch, FHWA, will present paper. (Ed. note: Small Towns May be Obsolete but the post-office-hours-pre-seminar cocktail hour is not!) (thanks to Betsy Amin-Arsafa, Gertrude Delman, and Vary for the seminar

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April 16, 1974

Program of Policy Studies in Science and Technology, The George Washington University, Room 714
New Academic Library, 2130 H Street, N.W., Washington, D.C. 20006 (202) 676-7380

*****PROPOSALS SUBMITTED:

1. 4/4/74 New Approaches to Understanding Travel Behavior (to National Academy of Sciences/Transportation Research Board, Joe Margolin, P.I.; Prof. Charles T. Stewart, Dept. of Economics, Co-P.I.) for 18 mos. (\$149,342).
2. 4/1/74 Consultant Services, Energy to Dept. of Interior/Office of R&D (under the Assistant Secretary for Energy and Minerals) in form of PPS Capability Statement. Category submitted: Technology Assessment. By means of a BOA (Basic Ordering Agreement) "quick response" tasks would be awarded selected qualified contractors. "The contractor will be required to provide quick response analyses to requests from the Office of R&D. Particularly, these projects will involve analysis of the impact of various R&D strategies and tactics, as well as R&D policy options, and will often include estimation of economic, social, and environmental impact, as well as manpower, regional, transportation and construction constraints. Such efforts will require work in the fields of economics, engineering, process development, operations research, etc., as it relates to various aspects of resource development from exploration to end-use of raw materials. Specific activities shall include: examination and assessment of impact of R&D options on the energy system of the country, estimation of the effect of manmade constraints on the economics of energy and minerals systems, development of understanding of technology transfer limitations in the minerals and energy industries, examination of aspects of alternative uses of minerals and substitution possibilities, understanding and identification of conflicts between energy and minerals requirements and environmental, health, safety, political and economic constraints."
3. 4/1/74 Three separate statements of PPS qualifications re I - Science Policy; II - Science Information; III - Energy Policy and Research to NSF's Contract Branch for a BOA (Basic Ordering Agreement) award. "Science policy - covers all aspects of national & international civilian S&T policy and includes but is not limited to int. S&T; world food, agricultural, industrial productivity; social sciences intergovernmental S&T & urban problems; achievement of nat. goals through S&T. Science Information - includes science information systems, sources of scient. & tech. info., science info. processing technology & procedures, sciences information services, bibliographic & data retrieval services; internat. exchanges of info, and user requirements for scientific & technical information. Energy Policy & Research included are: conventional & solar, geothermal & other nonconventional energy sources; programs related to energy R&D, including energy supply technologies, energy demand & conservation, & energy-related areas of environmental, economic, and sociological research." Vary Coates prepared these statements + #3 above. All relevant PPS staff resumes were submitted.
4. 4/5/74 Survey & Evaluation of Women's Groups Among the LDC Rural Poor as Potential Change Agents in Development Programs TO AID/Office of Education & Human Relations (Marion R. Misch, P.I., Joe Margolin, co-P.I.) (6 mos. - \$24,286). "The main objective of the proposed study is to assess the potential of such groups as change agents for program efforts which are designed to improve the quality of life of the rural poor and to assist in achieving national development goals: education, community development, family planning, nutrition, public health, etc."

*****PROPOSALS, CONTINUED:

5. 4/9/74 The Political Economy of Technology Support Programs, to NSF/National R&D Assessment Program (George Eads, Assoc. Prof. of Economics & Public Affairs, P.I., Prof. John M. Logsdon, co-P.I.) for 21 mos. - \$88,712. This study will examine the political & economic factors underlying governmental decisions on intervention in the process of technological innovation as it relates to products for sale in a market. Data will be drawn from case studies of government interventions in the major countries of Western Europe and Canada. Selection of cases for study & development of each case will be guided by an a priori set of hypotheses & research questions. Research will also include a comparative analysis of technology support programs - patterns emerging from the case studies will be related to similar U.S. situations. Research should provide a basis for in-depth understanding of the dynamics of foreign experience with technology support programs and the applicability of that experience to the U.S. context.

*****AWARDS: CONGRATULATIONS!

1. Modeling Adaptive Systems: Rudiments of a Normative Approach \$2,400 - 4 weeks, Milton C. Marney, P.I., from Olin Corporation Charitable Trust. For description, see last 714 News, Vol. I, No. 6, 4/1/74, p. 1.
2. University Policy Study Group Support Activities and Science Policy Seminars under the direction of Prof. John M. Logsdon. Approximately 15 mo. effort commencing April 1, 1974, expiring Dec. 31, 1975. NSF Grant No. ST-42625 - \$83,900. This project will engage up to 6 University faculty/student teams. Following selection of the Universities, GWU will facilitate contacts between these Universities & the Washington Federal Community as well as provide housing, and office space and logistical support for each University during a 10-week period in the summer when the faculty/student team comes to Washington, D.C. GWU will be responsible for conduct of a summer seminar program involving all the research teams. The GWU will also conduct a professional seminar series during the 1974-75 academic year serving to link federal and non-federal professionals in issues of science and technology policy & facilitate the improvement the quantity & quality flow of information between & among the various individual groups.

*****REPORTS INFORMATION

1. Fostering Urban Transportation Activities in Universities: Recommendations to the Urban Mass Transit Administration is avail. through NTIS. Accession No. PB229 613/AS. \$8.75 hard copy; \$1.45 microfiche.
2. Trends in State and Federal Land Use Law Relating to Inventories, Monitoring and Evaluation, report submitted to Mr. A.T. Christensen, Director, Office of User Affairs, NASA, by Charles M. Lamb. Prepared under NASA Grant NGL 09-010-030. This paper may be especially valuable to NASA in view of the fact that ERTS (Earth Resources Technology Satellite) has demonstrated a potential for conducting inventories and monitoring, on which systematic evaluation of land usage may be based. GWU staff who assisted include: Prof. James M. Brown, Prof. Louis H. Mayo, Prof. Dorn C. McGrath, Jr. Prof. Arnold W. Reitze, and Ernest Weiss. The paper examines statutory law of 15 states and 2 major federal statutes (Coastal Zone Management Act of 1972 & Rural Development Act of 1972 + the Land Use Policy & Planning Assistance proposal before the Congress. It was found that there are a few scattered provisions for inventories, monitoring & evaluation in land use legislation. But, by & large, both the States & the federal government have been negligent in passing laws promoting these activities - activities which may provide a solution to the "imminent national land use crisis." The study reflects the results of interviews of several State planning directors re degree of implementation, adequacy of funding for land use activities, effectiveness of land use control to date, and general views toward federal law, particularly degree to which it assists them in planning.

*****NEW STAFF: NANCY OSHINSKY, Secretary to Dr. Joseph Margolin and Marion Misch, native Washingtonian, graduated from Ohio State last year, plans to go to Temple U. law school this fall. MYRNA SUMMERS, Secretary to Wes Tennant, native Washingtonian, graduated from U./Md. in fine arts. Is professional gospel singer - appeared with Elvis Presley, Righteous Bros, & Sweet Inspiration Singers in Las Vegas, 1973. MARY ANN VROOM (ANN), Library Assistant to Aubrey Massancin, graduate student in Health Care Admin., ROSEMARY PLUNKET ECK, Consultant to Wes Tennant, graduate of Fla. State U. (mass communications), native of Miami, worked at Stanford Research Inst., then as Washington, D.C., rep. for Calif. State U. & Colleges (faculty research), Lives in Arlington, Va., with husband, Jack & daughter, Tatiana (3). WELCOME ALL,

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PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, THE GEORGE WASHINGTON UNIVERSITY,
ROOM 714 NEW LIBRARY, 2130 H Street, N.W., 20006 (202) 676-7380

*****PROPOSALS IN PROGRESS

1. Work statement to National Bureau of Standards/Experimental Technology Incentives Program (ETIPS) The ETIPS program is interested in making sure that results flowing from R&D are actually applied. They have asked PPS (during the course of the Small Towns/Transit Options Study to look at railroad abandonment in terms of solving the problems of small towns resulting from such abandonment. While investigating this problem, the PPS team is also requested to work out a methodology for actually applying the findings of the research, through R&D, to the solution of the small towns/ railroad abandonment problem. NBS has transferred funds of \$100,000 to the DOT/Office of University Programs; DOT will contract with PPS, based on the work statement (being prepared by Ernie Weiss and Vary Coates), in terms of adding a "module" to the Small Towns project. PPS is anticipating up to the \$100,000.
2. PPS plans to prepare a proposal to the Rail Services Planning Office of the Interstate Commerce Commission based on a 36 page ICC report released today. The ICC Report allegedly is critical of DOT's announced plan for railroad reorganization, urging greater attention be paid to the potential impacts of such reorganization. Ernie Weiss is heading up the proposal - any interested PPS staff are urged to see Ernie or Vary or Dean Mayo.
3. Henry Nau, Acting Director of the Graduate Program in Science, Technology and Public Policy, has prepared a preliminary proposal for submission to private foundations entitled "Teaching and Research Program on the History, Institutions, and International Context of American Foreign Policy in Science and Technology.
3. Statement of Qualifications to OTA on Energy (with Control Data Corp. at their request). Due 5/10/74.

***** PERSONS IN PROGRESS

1. DEAN MAYO and his wife are vacationing in Greece from May 2-13. While he is away, Vary Coates is authorized to act in his behalf on PPS matters.
2. But here's a catch: VARY will be directing the Southern Regional Conference on Technology Assessment in Atlanta and will be away from May 3-5 visiting her parents in Columbia, S.C. (803) 794-8595 and then to Georgia Tech in Atlanta for the Conference (404) 894-2000 staying in the Tech Motel (404) 881-6788. Please don't hesitate to call if necessary. "Just don't forget where she is when."
3. Other PPS'ers at the conference will be WENDY SCHACHT AND SUE BACHTEL as support staff; JIM LESTER and STEVE EBBIN as participants. They will be gone May 6-8 and can be reached if necessary at the same numbers as for VTC. (By the way, did you know Jim Lester is a Ph.D. candidate at GW? Political Sc.)
4. JUDY RUSSELL (alas!) is enroute to a very challenging job as Librarian for the newly-established Office of Technology Assessment. She will take on her new position June 1. This is a wonderful opportunity for Judy, but OTA is getting the best part of the deal, we think. We will surely miss her, especially those in the IIAP Project. Her new phone number is 225-3695 for keeping in touch.
5. First the bad news: ROSEMARY PLUNKETT ECK (noted in last issue of 714 News as "new staff") resigned from the IIAP project effective May 2, 1974. Her husband Jack has accepted a position in New York City with the firm of R.L. Polk & Co. as Assistant to the Marketing Manager. The Polk Firm deals in mail advertising. Next the good news: MRS. MARIE PLUNKETT, Rosemary's mother, is taking Rosemary's place on the project. She lives in Fairfax County and has worked previously at Tech-Built and previous to that for many years at Belcher Oil Co. in Miami, Florida. Welcome!

*****FRONT PAGE CONGRATULATIONS TO FRED WOOD (DR. FREDERICK BRUCE WOOD, IF YOU PLEASE) who was awarded the degree Doctor of Business Administration on Monday, April 29, 1974. Fred's Dissertation title is "Telecommunications Technology for Congress: An Exploratory Assessment of Its Potential for Congressional-Constituent Communication." Dean Mayo was a member of the Examining Committee and Professor Richard F. Ericson was Advocate. Fred, who is from Cambridge, Mass., also holds a B.S. in EE. from Oregon State and an M.B.A. from Harvard. It is now a matter of public record that he is free to beat the bushes for funding for PPS. Right, Fred? (Erica, Fred's wife, may have other ideas.)

*****MORE PEOPLE IN THE NEWS

JAY KIVITZ, who has been working with Sue B., graduated from George Washington this spring. Jay is a Political Science Major and hopes to go to law school this fall after working as a camp counselor this summer. Jay is from Jenkintown, Pa. and this ed. wants to say he was a great help.

*****SPEAKING OF ENERGY, JESSE GIBBS reports that the White Tower is participating in the nation's energy conservation program by not serving french fries between 3 p.m. and 10 p.m. There is a note on their door to this effect. Pitch in, everyone. Don't serve FF's at home during these hours. Thanks.

*****SEMINAR SERIES: "Are Small Towns Obsolete in Post-Industrial Society?" - Don Morin, Chief, Transit and Traffic Engineering Branch, FHA, spoke on "Possibilities for Improved Transportation in Small Towns" on Thursday, April 25, 1974. The 3rd and final seminar in the series will be scheduled for late May to present results of the Small Towns project to date. Speakers from the first two seminars will provide PPS with a paper to be published at a later date.

*****SQUIRTED DOWN: In a letter to VTC of 4/22/74, The Water Resources Research Center lamented that while they had approved Darcia Bracken's Ph.D. support proposal entitled "Advocacy Hearings for Controversial Water Resources Decisions: An Institutional Analysis" the Center will not receive any funding in FY 1975 from the D.C. Office of Water Resources Research Allotment Program. The Center is now looking for support for the proposal from other sources.

*****RECENT GUESTS

Dr. Michael Marien of Information for Policy Design, Lafayette, N.Y., briefed PPS staff on 4/12/74 on "Prospects for Future Development of Information for Policy Design."

Dr. Joseph B. Margolin and Marion Misch hosted Dr. Ovidio Ounjian, Head, National Academy of Sciences, Colombia, S.A. who had requested to visit the EPG on the advice of the Minister of Education of Colombia. The general topic of discussion was interest in working on national educational policy development and just plain old philosophy of education. Joe and Marion also received Mr. Abdol Rahim Ahmadi, Chancellor of the Free University of Iran and Mr. Hamid Nafley, Director of Audio-Visual Studies at the University which visit was arranged by the State Department.

Jane Lingo of Public Relations, working on a request from the Office of International Education, arranged for Dr. Joao Frasco da Silva, President-elect, and Dr. Maria Friere, Advisory Board of the newly-forming University of Lisbon, Portugal, to meet with some PPS staff on science policy matters, including university curricula, on April 9.

*****MORE ON PEOPLE

FRED WOOD submitted a written statement for Hearings on "Congress and Mass Communication" held by the Joint Committee on Congressional Operations, Wed., April 10, 1974, entitled: "Congress on the Cable: the Potential for Public Education and Participation."

MARK FRANKEL is presenting a paper at the annual meeting of the American Political Science Association to be held in Chicago in August entitled: "Political Responses to Controversial Issues in the Development of New Technologies in Biology and Medicine" (dealing with Sickle Cell Screening Programs).

NEW STAFF: BARBARA CLAASSEN is new Office Manager of John Logsdon's project for NSF. She is from Hoisington, Kansas; attended Kansas University; and graduated from GW in Feb., 1974 (political science). Before joining PPS Barbara has worked on Capitol Hill for Congressman Garner Shriver (R.-Kansas) since 1971. WELCOME!

CHUCK HANSEN is doing some consulting for Optimum Computer Systems, 2100 K St., N.W. (467-6450) for a few months.

JUST FOR FUN - "HOMETOWNS" OF SOME PPS STAFF (round #1): Ernie Weiss, Detroit, Mich.; Charles Lamb, Murfreesboro, Tenn.; Jesse Gibbs, Montgomery, Ala.; Vary Coates, Anderson, S.C.; Jim Lester, Houston, Tex.; Nancy Oshinsky, Chevy Chase; Myrna Summers, Washington, D.C.; Gertrude Delman, Brooklyn, N.Y.; Milton Marney, Harriman, Tenn.; Dean Mayo, Prestonsburg, Ky.; Wes Tennant, Desmoine, Iowa; Sue Bachtel, Massillon, Ohio; Audrey Hassanein, Leigh-on-Sea, Essex, England; Wendy Schacht, Roslyn, N.Y.; Pam Brown, 2 days in Bethesda Naval Hospital, then Washington, D.C.; Bebita Reasoner, born in Havana, Cuba, but raised in Paris, South America, New York, Washington, and elsewhere. A REAL "MULTIDISCIPLINARY GROUP," THAT'S PPS.

Vary had an article in the Aug., 1973 (printed in Spring, 1974) issue of Noise Control Engineering entitled "Experience of Local and State Governments in Control of Environmental Noise." She also presented a paper at the World Future Society Conference: Energy: Today's Sources, Tomorrow's Opportunities on "Energy and the Quality of Life" on April 25. In addition she spoke before the Montgomery County, Md., Chapter of the AAUW on The Role of Women in the Future on April 16 and on April 18 to the League of Women Voters of Annapolis, Md., on Technology and the Future. VARY, COME BACK, WE NEED YOU. She also is a contributor to a new book The National Energy Problem (ed. by R.Connelly, R.Gilmour, Acad./Pol.Sc., Lexington Books) with Marvin Cetron - chapter on "Energy and Society".

***** LOCATIONS OF VARIOUS "NOTICE" BOARDS - WHICH ARE ARRANGED BY AUDREY H. AND THE LIBRARY STAFF:

1. Current newsletters: Just inside main door of PPS.
2. Courses, meetings, fellowships, jobs, etc.: just inside main door.
3. Commerce Business Daily; Federal Register: outside main library door.
4. Bibliographies, Acquisitions, publications list: outside other library door.
5. Conferences - current month: inside library on concrete pillar.
6. Conferences - future: inside library main door.
7. Trivia, Beaux Arts, Lost & Found, etc.: corridor near Xerox Room. Please use 3x5 cards to post your own personals. Audrey wants advice on instituting a \$1 dating service for this notice board.

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PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, THE GEORGE WASHINGTON UNIVERSITY, ROOM 714 UNIVERSITY LIBRARY,
2130 H Street, N.W., Washington, D.C. 20006 (202) 676-7380

****PROPOSALS SUBMITTED

1. 4/23/74 VTC submitted a Statement of PPS and University Capabilities to the Procurement Office of the Federal Energy Administration, re research relevant to energy policy, energy conservation, and the assessment of societal impacts of new energy technologies. Wes Tennant is currently studying the FEA organizational structure to determine new sources of possible funding. Any staff with professional contacts in the FEA is urged to discuss them with Wes.
2. 5/8/74 Current Knowledge and Information Needs for Safe Driving Conformance Initiatives (Subcontract to Human Sciences Research, Inc., McLean, Va. for their Response to DOT RFP NHTSA-4-A586)(\$20,082 for 10 mos.) The GWU Team (Coates, Mayo, Lamb, Yamagata + transportation systems, economist, and legal analysis consultants) would under Task I: develop a logical analysis of the legal, enforcement, adjudicatory and sanctioning elements of the Traffic Law System as they relate to determining the information requirements of the legal influence mechanisms which impact on voluntary driving behaviors. In the course of the foregoing effort, GW would identify the legal system countermeasures which relate to the general and detailed information questions developed. In support of Task 2, GW would review existing literature, identify data and other studies which indicate what is known of the legal system aspects of the information questions developed in Task 1. Based on work in Tasks 1 and 2, GW would identify the law system elements of the research modules for which knowledge is lacking and research is required. (Mayo, P.I.)
3. 5/17/74 Statement of PPS Capability to the Office of Technology Assessment, U.S. Congress, to conduct research in Community Transit Planning Technology Assessment to assess the process by which communities select, plan and implement new or modernized rail rapid transit systems. The assessment would cover community participation, and local and regional planning; distribution of planning functions among various governmental, administrative and citizen groups; and the relationships among local, state and federal authorities, as well as assess the nature and adequacy of criteria employed in the planning and selection process, including the evaluation of alternative transportation technologies; direct and indirect costs; performance characteristics (such as safety, reliability, flexibility and security) and sociological considerations, such as public acceptance, impacts on the environment and land use. (Coates submitted.)
4. 5/28/74 Technology Assessment Implementation Project Supplement to print and disseminate 700 copies of final report. (NSF/Office of Exploratory Research and Problem Assessment). The report consists of 2 parts and a brief introduction. Part I contains summaries of the seminar presentations (a central activity of the project); Part II contains several case studies of the assessment - acceptance - implementation process and a summary chapter discussing the overall findings of the project (270 pp.) re the implementations and use of assessments and the utilization of scientific and technological information in decisionmaking and policy formulation in areas where public and private sectors overlap. The Appendix (242 pp.) consists of the full text of the 7 seminar presentations and would be available on request only. Dissemination would be 100 copies to NSF; 100 for PPS; c.150 to federal officials responsible for TA activities; 50 to state science policy advisors; 100 to science policy centers and institutes in universities and instructors of policy-related, interdisciplinary courses; 50 to public interest groups; 50 to selected libraries; 50 to participants of recent TA conferences (nat. and internat.); 20 required copies to NTIS; 30 misc. and add'l requests. \$4,050 for printing and mailing. (NOTE: This was awarded - see Awards later in the News.)
5. 6/5/74 Characteristics of Winners of Nobel Prizes in Physics, Chemistry, and Physiology/Medicine before 1930. To NSF/Science Resources Studies Div. (\$2,370 - 2 mos. July 1 - Aug. 31, 1974)(Mrs. Marcy C. Canavan, P.I.) Through PPS Graduate Program in Science, Technology, and Public Policy. Information as to: date of award of prize; brief description of work cited in the prize; date of publication or announcement of major findings of award-winning work; national affiliation of laureate at time of award; national affiliation at time of findings; age of laureate at time of award; age of laureate at time of findings.
6. 5/24/74 Revitalization of Small Communities: Transportation Options - 2nd Year Funds Supplement (request of Additional \$20,574 to supplement \$59,426 original 2nd year funds for a total of 2nd Year funds to \$80,000). (DOT/Office of University Research). Objectives for the 2nd year include: testing & validation of general findings on the basis of disaggregated regional data; comparison of growing and declining communities (within the same economic trade area) for more detailed analysis of the effect of transportation on viability; investigate applicability and relative potential of a set of general national policy options for rural development, for and in the context of specific representative communities; development of alternative transportation strategies, including implementation techniques for these communities; identification of institutions and parties potentially affected by changes in transportation strategies, or essential to the implementation of such changes (users, suppliers, fed., state, & local govts., managers, other pub. programs & services); subsection of proposed strategies to evaluation by groups identified under objective above; and guidelines for implementation strategies. (NOTE: This supplement was awarded - see Awards. This DOT funding has now become Module I for the 2nd year funding; Module II represents funding and tasks for the National Bureau of Standards/ Experimental Technology Incentives Program - which proposal and description follows immediately.)(Vary T. Coates, P.I.). /ETIPS/ (Period of Support 4/1/74 - 3/31/75).

*****PROPOSALS, CONTINUED:

7. 6/10/74 Revitalization of Small Communities: Transportation Options - Module II from NBS/ETIPS. (\$150,000 to be transferred from the National Bureau of Standards/Experimental Technology Incentives Program to the DOT/Office of University Research for award to PPS as Module II supplement to this project for 4/1/74 - 3/31/75. Additional work tasks specifically covered by the Module II funding (see Module I tasks on p. 1) include: developing conceptual guideline for identification of institutions and parties with latent or overt influence over the implementation process for the results which flow from government sponsored R&D; developing a methodology for delineating the decision-points with the implementation process, the institutional/economic/social factors which determine (and constrain) the range of alternative options at these decision points, and the scheduling of events which is necessary for implementation to occur; using rr abandonments as example, develop operational version of this methodology for relevant small communities. The funding has been transferred to DOT at this date - is in process of being awarded to PPS by DOT. (Vary T. Coates, P.I.)
8. 6/10/74 Antecedents, Dynamics & Sequelae of Repeated Abortion (to Nat. Inst. of Child Health & Human Development) (two years Jan. 1, 1975 - December 31, 1976)(\$164,716 total)(Dr. Joseph B. Margolin, Dir., PPS Behavioral Studies Group, P.I.; Marion R. Misch (Ph.D. pending 9/74), Research Coordinator; Benny Waxman, M.D., Assoc. Prof., Dept. of Obstetrics & Gyn., GWU, Sr. Clinical Invest.; Michael S. Burnhill, M.D., Med. Dir. & Clin. Assoc.Prof., GWU Dept. of OB&GYN, Preterm Clinic, Sr. Clinical Invest.) Proposed study of women obtaining repeated abortions at 4 sites in Wash., D.C. (pub.clinic, private OB/GYN service, HMD, and Preterm Clinic). Would include intrapsychic, interpersonal and broader social, economic elements of the antecedents, dynamics, and sequelae of repeated abortion. The research will include an exploratory phase for hypothesis refinement and research instrument development and a pilot study phase. Data will be collected on: 2 experimental (2-abortion & 3-plus abortion) and 2 control (non-abortion and 1-abortion) groups. Data will be gathered without disturbing patient service by interviewer counselors employed at the sites and through the standard medical self-report forms completed by patients.
9. 6/10/74 Applications of Adaptive Systems Research to Analysis of Alternatives in Agricultural and Rural Development (Basic Ordering Agreement [BOA]) for total of \$73,166 for several tasks over a period of 1 year commencing 6/24/74. to U.S. Dept. of Agriculture/Office of Planning and Evaluation (Milton C. Marney and Robert W. Anthony, Co-Principal Investigators). PPS staff would undertake applied projects in adaptive systems research, professional advisory services, and preparation of associated technical reports on request. Four task areas identified include: Ecosystems Analysis, Normative Systems Analysis, Strategic Management of Ecosystems Development. Specific tasks proposed for immediate authorization to execute are: 1) Applications of the Rank-Size Rule to Agricultural and Rural Development and 2) Configuration Studies to provide a rationale for decomposing the system of agriculture and rural development into "minimally significant configurations" related to selected functions of USDA and to evaluate various graphic syntaxes for their usefulness in assessing the questions in followon tasks. Resumes submitted include Marney (Adaptive Systems Theory), Anthony (Systems Ecology), Mayo (Policy Analysis & Public Law) and Coates (Technology Assessment). Task I general goals are determining the impact of farm policy and significant social, economic and natural events on the number and distribution of active farm units (6 mos.)
10. 6/5/74 Preliminary Proposal: Governmental Institutions and Intergovernmental Relations in Land Use Control (letter of Chuck Lamb to NSF/Div. of Environmental Systems and Resources) Chuck is looking into other funding sources also.

*****PROPOSALS UNDERWAY

Survey of Community Participation in Programs of Federal Executive Agencies, by Joanna D. Garver under direction of Vary T. Coates.

*****AWARDS

1. Models of Judicial Information Flow (Proposal title was "Study of Information Flow to the Supreme Court")(NSF/ Law and Social Sciences Program)(\$42,700 for 6 mos. - May 1, 1974 - Oct. 31, 1974) Professor Arthur S. Miller and Professor Jerome Barron of GWU National Law Center, Co-Principal Investigators; Charles M. Lamb, Research Associate; Joe Tasker, Research Assistant. Briefly, as noted in a GWU Public Relations News Release by PPS "liaison" Bob Berendt, the grant provides funding for a pilot study of the flow of information to the Supreme Court. The study will isolate and trace, through the development of a descriptive model, the various sources of information utilized by the Supreme Court, the means whereby information is communicated to the Court, and finally, the actual or possible effects of this information on Supreme Court decisions. Comments on this aspect of the judicial process by Miller and Barron are noted in the June 11 release in addition to a more detailed outline of the study. Copies of the release are available in the Office of Public Relations and from the Program of Policy Studies. Phone: Pub. Rel. 6460; PPS; 7380.
2. Technology Assessment Implementation Project Supplement for Publication and Dissemination of 900 copies of Final Report. Fixed Price Contract in Amount of \$4,250 from National Science Foundation/Office of Exploratory Research and Program Assessment. Project under direction of Dr. John M. Logsdon, Director, Graduate Program of Science, Technology, and Public Policy. See p. 1 of this issue of 714 News for description.
3. Revitalization of Small Communities: Transportation Options. 2ND Year Funds Supplement for Module I (\$20,574 from DOT/Office of University Research for 4/1/74 - 3/31/75 - Vary T. Coates, P.I.) See p. 1 #6 for description.
4. Revitalization of Small Communities: Transportation Options: 2nd Year Add-On Module II (project for National Bureau of Standards/Experimental Technology Incentives Program (ETIPS) for 4/1/74 - 3/31/75 - Vary T. Coates, Principal Investigator - \$150,000. See description above (#7 under Proposals, continued).)

*****BETTER LUCK NEXT TIME

Two proposals were not selected for funding: 1) Social, Economic, Environmental Consequences of Not Constructing a Transportation Facility (to NAS/Transportation Research Board on 3/25/74 for \$98,935) Description in Vol. I, No. 6 (April 1, 1974) 714 News. 2) Evaluating the Organization of Service Delivery: Public Health (subcontract to Control Data Corp. to NSF. PPS would have provided legal analysis assistance to Control Data. Budget was \$97,024 for Phase I. Now we ask: how many other research groups can lose \$195,959 in a couple of weeks? Only the BIG thinkers, right? That just gets the blood circulating.

*****PUBLICATIONS

Monograph Series: Limited no. of copies avail. at PPS; later through NTIS.

1. #20 - May, 1974.

The Potential for Congressional Use of Emergent Telecommunications: An Exploratory Assessment, by Fred B. Wood. (Excerpted from Telecommunications Technology for Congress: An Exploratory Assessment of Its Potential for Congressional-Constituent Communication [c] 1974 by Fred B. Wood). Summarizes results of inquiry of use of this technology for communication between congressment and their constituents. Methodologies included interdisciplinary systems model-building, technology analysis, a sample survey, and semi-structured interviews using sketches of representative emergent channels of communication: teleconference, videoconference, videophone, cable TV, cable TV polling, and info. retrieval. Provides overview of existing congress-constituency communication system.

2. #21 - #27 - all May, 1974. (total of 7 monographs)

This series of 7 monographs comprises a study commenced in Feb., 1970, funded by a grant from NSF, on Private-Federal R&D Relationships, under direction of Dr. Guy Black, PPS Senior Staff Scientist and GWU Professor of Business Economics, School of Gov. & Bus. Admin. Monograph #23 is co-authored by William B. "Bill" Fischer, former PPS Research Associate who received his Ph.D. from GW in 1974, and who has been Assistant Professor of Management, Clarkson College of Technology, Potsdam, N.Y., since the Fall of 1972.

NOTE: Abstracts of all the monographs appear in each monograph comprising this study.

- #21: Dialogues with Management on R&D
- #22: Output Orientation in R&D - A Better Approach
- #23: Research, Development, and Financial Performance (William A. Fischer, co-author)
- #24: Research, Development, and Business Conditions: 1960-1971
- #25: The Sensitivity of Types of R&D to Business Conditions
- #26: Patterns of Association in R&D
- #27: Patterns of Impact and Response in R&D in Industry: Summary of a Study

Special Report - May, 1974.

Conferencing Via Computer: Cost/Effective Communication for the Era of Forced Choice, by Charlton R. Price (a special PPS report disseminated by the Innovation, Information and Analysis Project of PPS). This report discusses: how much and what kinds of conferencing by computer are going on, the costs and benefits of this communications medium compared with others, and some potential applications. Cost of the Report is \$7.00. Copies may be obtained from the Innovation, Information and Analysis Project; checks should be made payable to The George Washington University.

PPS Publications List

An updated list of PPS publications from 9/66 - 5/74 is now available from the PPS office. Ext. 7380.

*****RECENT VISITORS, among others

Jim Lester met with Mrs. Mohini Bhussry, Office of Finance Ministry, Government of India. Mrs. Bhussry was a 1973-74 Woodrow Wilson Fellow at Princeton and is interested in technology transfer and the developing countries, especially regulatory concerns, including patents, licenses, etc. She is willing to send PPS relevant material from India as requested. Address: Q4.1, MultiStory Flats, R.K. Puran, New Delhi, 22 India.

*****Professor James M. Brown has been appointed to the Panel on Public Policy Implications of Earthquake Predictions of the Advisory Committee on Emergency Planning of the National Research Council of the National Academy of Sciences, a 3-year appointment. Jim also serves on the Senior Advisory Committee to the Panel on Transportation of Hazardous Materials which is a National Research Council Advisory Group to the U.S. Coast Guard. He has served on the latter Committee since 1970 and was Chairman his first year on the Committee.

*****ESTABLISHMENT OF A COURSE SEQUENCE ON TECHNOLOGY ASSESSMENT

On an experimental basis, the Dept. of Management science will offer a 2-semester technology assessment sequence commencing with the Fall of 1974. The first semester of the sequence is designed so that it can be taken by itself and serve as an effective introduction to the theory and current status of TA. The course will be taught jointly by Vary T. Coates and Joseph F. Coates. Funding for the course would come from an NSF grant to the Graduate Program in Science, Technology and Public Policy. The first semester will consist of lectures, covering the concept, rationale, history and current status of TA and its relationship to objectives and other aspects of science policy analysis. On-going and recently completed assessment projects will be examined, in some cases with the assistance of directors or participants of these projects. Tools and techniques of TA will be demonstrated and special attention given to the organization and management of assessment projects within agencies and within all types of research organizations. The second semester students will carry out assessments.

testing and utilizing skills learned in the first semester, working individually or in small teams. As there are at present no adequate textbooks on TA courses, bibliographic material will consist of research reports and other documents including government documents, and excerpts from the current literature on TA. It is hoped that the development of a useful text on TA will be a by-product of the course and that some material prepared by the students will be included in this text.

*****CONFERENCES AND SEMINARS - PPSST

1. On May 30-31, 1974 PPS hosted a DOT/Office of University Research "Workshop on Transportation and the Rural Community." The purpose of the workshop was to encourage an exchange of ideas among various DOT funded University Programs and to establish a forum on the subject of how transportation techniques and policy can be used for development of the rural community. Representatives from VPI, MIT, GWU, U. of Maine, U. of Texas at Austin, North Carolina A&T State U., Mich. Technological U., U. of So. Mississippi, U. of Iowa, Cornell U., Jackson State U., Mississippi State U., Utah State U., and Iowa State participated (they were housed in Thurston Hall and raved about the accommodations being so spacious and clean!). Also in attendance were observers from DOT and the U.S. Dept. of Agriculture for a total attendance of about 50. Conference format included 6 panel discussions on 1) Definition of Rural/Small Community and State of Transportation in Rural and Small Communities; 2) Relationship of Trans. to Rural Devel.; 3) Abandonment of Services...Rail, Truck, Bus, Other.; 4) Level of Transportation Service Required to Sustain a Viable Community; 5) What Transportation Mechanisms have Greatest Potential for Small Communities and Rural Areas?, and 6) Potential of New Technology for Solution of Rural Transportation Problems. In addition there were presentations on The Rural Development Act; the Regional Railroad Reorganization Act; the Rural Highway Public Transportation Demonstration Program, and an Executive Summary of the Conference. PPS hosted a cocktail party on Thursday evening of the conference.

2. COMING UP:

June 20 - Third Seminar in Series "Are Small Towns Obsolete in Post-Industrial Society" will be Transportation and Rural Urbanization which will discuss first year report of project on Revitalization of Small Communities: Transportation Options. PPS staff with interest in attending should let Gertrude Delman know re reserving space for this dinner seminar. A summary is provided and comments and critiques will be solicited from participants.

June 27: Still in planning stage is a PPS-Office of Technology Assessment informal briefing. Tentative plans for a cocktail buffet/discussion are being firmed up. Conference Room 729 has been reserved for 6:30 - 9:30 for Thursday evening, June 27. All interested PPS staff will be invited to this session. Keep in touch with Vary Coates or Sue Bachtel for details. Hope everyone likes chili and hot ideas. OTA's suggestion is to have a few people make 5 minute presentations and then have free-flowing discussion or perhaps small groups. Suggestions for topics include: The generally accepted view of what TA is and how this compares with what OTA has initiated so far; the results of TA's which have been completed as compared to idealized expectations; methodologies; public participation in TA; GWU/PPS studies (Ebbin, Mayo, Coates, etc.).

*****RELATED ACTIVITIES/PUBLICATIONS FOR PPS'ers.

1. Policy Briefs, a new bulletin of the Policy Analysis Service of the American Council on Education. The PAS will bring to the attention of the education community current items of information on public policy in post secondary education. Policy Briefs will highlight legislative concerns, policy questions, and administrative initiatives. April issue includes "Higher Education Among National Priorities;" "The Atypical Student: New Challenge to Higher Educ.;" and "Federal Support for Energy R&D."
2. TA Update, new publication newsletter of the International Society for Technology Assessment with former PPS Consultant, and GW Ph.D. candidate George Humphries as Editor-in-Chief (George is also President of Advanced Technology Management Associates) ISTA's purpose is to further knowledge and understanding of TA and to further the exchange of TA info. TA Update will disseminate timely info about who, what, when and where and how of people, organizations and events impacting on TA. ISTA's address is Suite 305, 1140 Conn. Ave., Wash.D.C. 20036.
3. Policy Analysis is a new quarterly to be published by the Graduate School of Public Policy, U. of So. Calif., at Berkely. Unlike other journals Policy Analysis will have space for lengthy studies as well as for concise ones. First issue is expected out in January, 1975. Each issue will contain 1-2 major analyses of future policy alternatives or evaluations of present policies. Other features include research on analysis, the policy analyst at work, the teaching of policy analysis, policy ideas, evaluative reviews, the client's perspective, and news and notes. Policy Analysis welcomes lively articles on the above. Write Arnold J. Meltsner, Editor, Policy Analysis, Grad. Sch. of Pub.Pol., 2607 Hearst Ave., U. of Cal., Berkeley, Ca. 94720 (415) 642-4512. Sue B. has more details.
4. Energy R&D Conference and Project Independence Management Briefing - June 20-21, Statler-Hilton Hotel. VTC is representing PPS. Presentations by top scientific officials of FEA, AEC, Interior, NSF, EPA, DOD + industry reps. and will detail what the Fed. Gov. & key industries will be doing in the future to make the US energy self-sufficient. Will provide info. on new opportunities in gov. grants and contracts.
5. Briefing for Public Interest Groups on Technology Assessment, June 20, 9 a.m. in Ballroom of Nat. Press Club. Sen. Kennedy, Rep. Charles Mosher (R-Ohio); and Emilio Daddario, Director of OTA will participate. Briefing is being sponsored by the National Council for the Public Assessment of Technology, a new non-profit which has evolved from a coalition of nat., state, and local citizen and consumer groups. The participants will be quizzed by a citizens panel and questions from the floor will be invited. Briefing is open to public. All PPS staffers are urged to attend if possible.

*****Vary Coates participated on the Technology Committee of the National Association of Manufacturers "Panel on Technology Assessment" on June 13. She made remarks on "Technology Assessment within the Corporate Structure."

*****REPORT ON UNIVERSITY RESEARCH TEAMS PARTICIPATING IN THE SUMMER activities of the PPS/SPIA Graduate Program of Science, Technology, and Public Policy. Prof. John M. Logsdon, Director; Professor Henry Nau, Dep. Director. As noted on p. 2 of the 4/16/74 issue of the 714 News, GW will (with NSF funding support) facilitate contacts between selected University research teams and the Washington Federal community, as well as provide housing, office space, and logistical support for a 10 week period commencing June 17. Purpose is to link federal and non-federal professionals in issues of science and technology policy and facilitate the improvement of quantity and quality flow of information between and among various individual groups.

The roster of teams who will be arriving on Monday, June 17 includes: (and we welcome them most cordially!)

1. HARVARD UNIVERSITY: Project: A Study of Research and Development Needs for the Making of Social Policy Toward Young Children
Faculty: Dr. David Mundel Office: 405 F Lisner Hall, Ext. 7251 Lisner Hall is at 2023 G Street
Dr. David Wise (former University Library Building)
Students: Daniel Badger, Susan LaJoie 401 Lisner Hall, Ext. 7251
Research Assistant: Margaret Lewis Secretary: Naomi Baden
2. MIT/HARVARD: Project: U.S. Food and Nutrition Policies: Their Relation to World Food Needs, An Exploratory Analysis
Faculty: Dr. James Levinson (MIT) 405G Lisner Hall, Ext. 7251
Dr. James Austin (Harvard) 403 Lisner Hall, Ext. 7251
Students: Phil Abbott, MIT; Cathy Austin, Harvard; Marcy Coburn, Harvard; Steven Green, MIT; Judy McGuire, MIT
Secretary: Terri Gralnick
3. STATE UNIVERSITY OF NEW YORK AT BINGHAMPTON: Project: Social Aspects of Transportation: Access for the Disadvantaged
Faculty: Dr. Benhamin Chinitz 405G Lisner Hall, Ext. 7251
Dr. Lorene Y.L. Yap
Students: Sheri Kandel, Harold Lemar, Martin Williams 403 Lisner Hall, Ext 7251
Secretary: Rhea Shafitz
4. UNIVERSITY OF WASHINGTON: Project: Social Policy Analysis and Research and Social Policy-Making
Faculty: Dr. Walter Williams 610 New University Library, Ext. 6942
Dr. Fremond J. Leyden
Students: Eleanor Holmes, Laura Kemp, Jeanette Veasey 612 New University Library, Ext. 6942
Secretary: Carol Goss

The GWU Team Project will be: International Technology Transfer: Development of a Framework of Processes and Issues

Faculty: Dr. Henry Nau 709 New University Library, Ext. 7292
Students: Mary Allen, Harold Federow, Jim Lester, Carol Ulinski Secretary: Carol Gross

Many thanks are extended to Barbara G. Claassen, Assistant to the Director of the Graduate Program in Science, Technology and Public Policy, for assembling and providing this detailed info. on the University Research Teams to the Editor.

*****NEW PPS STAFF REGULARS:

1. Natalie Hawley, Chief Info. Specialist for the Innovation, Information and Analysis Project. Mrs. Hawley has a BA in Pol. Sc. and an M.A. in History, as well as an M.S. in Library Science. She is former Deputy Librarian for The Chartered Insurance Institute, London, England.
2. The Behavioral Studies Group of PPS has three new research assistants working on the project "Consumer Motivation and Participation in Transportation Planning and Use of Transportation Services." They are: (and Nancy Oshinsky provided this "hot scoop for Sue"): Connie Castle, a native Washingtonian, a GW grad student in Urban and Regional Planning (moonlighting as a waitress at the Roma Restaurant); Rosanne ("Ro") Sadosky, of Morristown, N.J., a recent GW grad., now enrolled at GW in International Studies. Ro is also moonlighting, but at "Mr. Smith's;" Rosemary ("Romi") Slowiak, "self-proclaimed Navy brat," who hailed from Bethesda, and who has lived in Hawai'i, the West Coast and Australia. She is a GW grad student in Urban and Regional Planning.
3. Miriam Gandell, Secretary, Graduate Program in Science, Technology and Public Policy. Graduate of Northeastern Illinois U. (Chicago) with a B.A. in Russian. Working on her MA in Russian literature (or maybe linguistics) part-time at GW through the Dept. of Slavic Languages in Literature (right here in the new library building). Miriam and her husband Jeff (student at N.Va. Com.Coll.) live near Glebe Rd. & Lee Highway in Arlington and share the editor's views on I-66.
4. Celeste Goodridge is a GW undergrad studying English and American Literature - will be a senior this Fall. Celeste lives in the District of Columbia and has worked previously for the Continuing Engineering Education Program. She has been assisting Sue Bachtel with a variety of duties and will be working for the Small Communities project later in the summer.
5. Flora Reimer, student clerical assistant for Mr. Weiss on Small Towns project. High school friend of VTC's daughter, Anna. Flora has been working so diligently since she arrived I do not have much info. on her yet.
6. Ted D'Afflisio, ditto for Ted - who is new researcher for Small Towns project. Details later.

*****LAST BUT VERY URGENT: PPS needs a new refrigerator to provide space for food and beverage for seminars + expanded staff as the many brownbaggers will attest. Current model was purchased in 1966 for \$5 from Barbara Marx. Any staff with knowledge of good used refrigerator, please see Sue B.

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VOL. I, No. 10
July 19, 1974

PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, THE GEORGE WASHINGTON UNIVERSITY, ROOM 714 UNIVERSITY LIBRARY,
2130 H STREET, N.W., WASHINGTON, D.C. 20006 (202) 676-7390

*****NOTICE OF PPS STAFF MEETING

A meeting for review of procedures, current projects, and prospects will be held in Seminar Room 730 of the University Library next Thursday, July 25, commencing at 3:30 p.m. All staff are invited to attend - encouraged to attend

*****PROPOSALS SUBMITTED

1. 7/9/74 No-Cost Extension for Southern Regional Workshop Project Grant from NSF (from July 30, 1974 to September 30, 1974, to provide for final draft of report + printing and mailing. (Coates)
2. 7/9/74 Institutional and Policy Tasks of a Technology Assessment of Earthquake Prediction (asking for subgrant or subcontract from Stanford Research Institute, Menlo Park, Cal.)(Ward C. Stoneman, Principal Investigator - presently legal analyst at SRI)(7/15/74 - 4/30/74)(\$46,408)

SRI has been awarded a grant from NSF to perform a TA of Earthquake Prediction. A substantive element of SRI's assessment includes development and integration of the legal, institutional, and public policy aspects of earthquake prediction and the delineation of policy alternatives. PPS would carry out the legal, institutional, and public policy tasks of the assessment + additional planning and integration assistance.

3. 7/21/74 No-Cost Extension for Citizen Group Uses of Science and Technology (USTI) Study (from May 31, 1974 to 8/30/74 to cover printing and distribution of report. (Ebbin)

*****AWARDS

1. 6/24/74 Analysis of Characteristics of Winners of Nobel Prizes in Physics, Chemistry, and Physiology/Medicine Before 1930 (6/24/74 - August 30, 1974)(\$2,369.75)(Marcy C. Canavan, Principal Investigator)(see June 14, 1974, 714 News for description)
2. 6/1/74 Study to Reevaluate the Rationale for National R&D Policies (commonly called Hank Nau's Project)(Professor Henry R. Nau, Principal Investigator) from NSF (\$91,600 grant)(6/1/74 - November 30, 1975 - includes 6 mo. flexibility period beyond May 31, 1975)(Grant ST-44205. Description in April 1, 1974 issue of 714 News.

*****REPORTS SUBMITTED

1. 7/18/74 Evaluation of the Effectiveness of Illustrated Print Media (Nonverbal) on Family Planning Attitudes Among Colombians (Joseph B. Margolin, P.I.) Culmination of 2 1/2 year effort. Not the first survey in this area, but the first in-depth social/psychological study of the motivations of poor women in the less-developed countries about contraception and abortion, including their attitudes, actual practice, effectiveness of certain media in improving their attitudes and behavior for family planning and why. Others who worked on the project are Marion Misch, Judith Naiman, Karen Bell, Sherri Wolff, and Margery Kemper.

*****PEOPLE IN THE NEWS

Joseph Coates (related to Vary Coates) has accepted a position with the Office of Technology Assessment Sept. 1. Just when we got things going at NSF! We don't know his new job - neither does Joe.

Fred Wood's doctoral research summary is going to be included in the Appendix of the Hearings Record on Congress and Mass Communications conducted by the Joint Committee on Same. In case you have forgotten, Fred's dissertation is entitled: The Potential for Congressional Use of Emergent Telecommunications: An Exploratory Assessment.

Mark Frankel has accepted a faculty position with Wayne State University commencing with the January 1975 semester. He will be Assistant Professor of Political Science, teaching science policy - a first at Wayne State. Congratulations.

John Logsdon will appear on Walter Cronkite's CBS REPORTS "Space: A Report to the Stockholders" on Monday, July 22 from 10:00 - 11:00 p.m., EDT. (on the CBS Network, of course - Channel 9)(John will wear blue.)(The spacemen wear white.)

VP Louis Mayo attended an NSF-funded Research Management Workshop in the area of interdisciplinary research at universities. The conference was held at the University of Southern California July 9-10, hosted by the University's Office of Interdisciplinary Program Development - located within the Office of the VP, Academic Administration & Research. The workshop is designed to provide an opportunity for persons active in interdisc. research or its management to discuss management policies, practices and structures which facilitate the conduct of such research at universities. Topics discussed include: Tradeoffs in the Interdisciplinary Environment; Development of Incentives for Interdisc.R.; Development of Core Organization; Identification & Assessment of Capabilities; Managerial Controls; Departmental Cooperation; Researcher Interaction; and Review and Evaluation Criteria.

*****ALUMNI

Wendy Schacht is working for the Program of University Research, DOT; Dan Guttman is reported to be working for CBS TV on an upcoming documentary (don't know what);

****BROWN BAG RELIEF: A new used refrigerator should be delivered to the new "Audrey's Restaurant" next Thursday, July 25, 1974.

****INNOVATION INFORMATION CENTER (IIC) has advertised its wares to the GW faculty: cumulative accession lists and abstracts. Visiting Date in July is July 24 from 2:00-5:00 for those interested in a "tour" of the facility. Ways of making other services available (special bibliographic searches, special abstracting, etc.) are being explored. Call Natalie Hawley, Chief Info. Specialist Ext. 6635; or Vary Coates, Ext. 7576 for details.

****OPPORTUNITY

Dr. Paul Polishuk, Acting Deputy Director, Office of Telecommunications, U.S. Dept. of Commerce, is the governmental liaison for solicitation of papers for a SPECIAL ISSUE OF IEEE TRANSACTIONS PERIODICAL on "SOCIAL IMPACT OF COMMUNICATIONS." Deadline for papers is Jan. 1, 1975. Target date for publication: October 1975. papers to be 15-20 pages in length. Combination of invited and contributed papers. Fred Wood has details.

****OFFICE OF TECHNOLOGY ASSESSMENT BRIEFING

PPS Staff hosted a dinner conference in Seminar Room 729 on June 27, 1974, for about 55 OTA staff members and invited guests. Vice President Mayo and Associate PPS Director Vary Coates provided opening comments. Speaker for the session was Sherri Arnstein, Consultant, Arthur D. Little, Inc., whose topic was "Public Participation in Technology Assessment." After dinner, participants divided into two groups for further discussion.

****SPINES (UNESCO) PRESENTATION

Friday, June 21, PPS Staff attended a briefing here on "An International Science Policy Information Exchange System ("SPINES"). Dr. Y. de Hemptinne, Director, Division of Science and Technology Policies, UNESCO, Paris, France presented the UNESCO program for setting up such a system. Discussion focused on the scope, coverage, input, and users of the system; the establishment of a Central Processing Group for the system; and participation of volunteer countries in the system (organizational and financial aspects).

*****AWARDS TO OTHER ORGANIZATIONS NOTED IN THE COMMERCE BUSINESS DAILY

Summaries of recent awards relevant to PPS as noted in the Commerce Business Daily will be provided from time to time - as possible sources of subcontracts or jobs for PPS'ers.

****AWARDS TO OTHER GWU ENTITIES

Each month the GWU Office of Sponsored Research publishes a summary of awards to GW departments, individuals, etc. Those of possible interest to PPS'ers will be itemized and distributed to staff. The full list is available from Sue.

**** ESCORT SERVICE

Anyone working late who wants an escort to his or her car or other building on campus may call Campus Security for same.

**** ONE THAT GOT AWAY

Basic Ordering Agreement to U.S. Dept. of Agriculture on "Applications of Adaptive Systems Research of Analysis of Alternatives in Agricultural and Rural Development" noted in the June 14, 1974 issue of 714 News.

**** BUT LOOK WHAT WE GAINED (NEW STAFF)

SHELLY MASTRAN, researcher on Small Communities Project. Working on MA in Geography from GW/w supplemental course work in statistics. Stanford Graduate School work in English and Education. BA from Vassar. Phi Beta Kappa. Has taught English & History in Falls Church and San Antonio, Tex. Will be teaching Cultural Geog. at GW 2 days this fall.

GORDON GAYER, Consultant researcher on IIAP project - doing a survey of the State of the Art in Case Studies of Technological Innovation. He characterizes himself as a humanist and educationist working in a field dominated by scientific-oriented analytical thinking and has suffered a bit of "culture shock." Gordon has a BA/History for Northeastern U; a Harvard MA in History. He has taught high school classes in Mass. and Va. and taught 2 1/2 yrs. at Vermont College in Montpelier, and 2 years at Norwich Jr. College in Northfield, Vt. - a "humanist in the woodpile."

BOB GORMAN is on the IIAP end of the IIAP/IIC project this year - has been working on the "professional outreach" for IIAP. Bob is an undergraduate at the University of Virginia (Government)(2nd year); is a Navy brat raised essentially in McLean, Va. Has been with IIAP since May - worked for Judy Russell last summer.

ANN JABINE, assisting Sue Bachtel this summer, graduated in June, 1974 from Sandy Spring Friends School which she says is "way the H-- out in Maryland." She is the artist who painted the Superman in the xerox center, among other notable projects. Ann has been accepted at Reed College in Portland, Oregon "THE" academic school out there. She keeps telling herself that anthropology will probably be her field of study. She reports that LAURA SCOTT was last seen driving away in a car to visit friends.

FRANK PIOVIA, JERRY DELLI PERSCOLI, WARD STONEMAN, JOANNA GARVER, AND TED D'AFFLISIO are other new staff working on Small Towns Project, IIAP Project, DOT Traffic Safety Project, Citizen Participation in TA proposal and Small Communities project respectively. More on them in next issue.

BILL JOHNSON is a former Federal Energy Administration official who is in a "holding pattern" at PPS awaiting an NSF grant for research in energy policy problems. He will have an office in the GW Economics Dept. about Aug. 1, after they solve their "space crisis."

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August 12, 1974

PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, THE GEORGE WASHINGTON UNIVERSITY, ROOM 714 UNIVERSITY LIBRARY, 2130 H STREET, N.W., WASHINGTON, D.C. 20006 - TELEPHONE (202) 676-7382

*****PROPOSALS SUBMITTED

1. 8/12/74 - Evaluation of a Criminal Justice Reference System's Effectiveness to LEAA (Law Enforcement Assistance Administration) for Grant of \$10,000. Vary T. Coates, Princ. investigator for this 4 mos. study to begin September 1, 1974. The National Criminal Justice Reference Service (set up as a result of a former PPS study by Jim Mahoney and Dave Weeks) is approaching two major milestones; 1) expansion of its mission as an international clearinghouse and 2) determination as to whether to keep present contractor or hold bidding for a new contractor. Taken together, these 2 milestones mark a period during which it is appropriate and desirable for LEAS to undertake a critical review of the effectiveness of NCJRS. PPS/GWU has proposed to undertake such an evaluation, not just as a contractor performance review, but the extent to which the System services the needs of the criminal justice community in a timely, cost-effective and efficient fashion --- evaluation of overall costs in relation to actual and potential number of users, services provided, unit costs of comparable services, allocation of resources among functions and turn-around time for services. Staffing includes a research assistant - Jehuda Kirchinboim who is a D.B.A. candidate at GW, majoring in Investment Analysis-Finance, International Business Finance-International Trade, Managerial Economics. He holds an MBA from GW (Operations Research) and a BSc from U. Md. (Statistics & Information Systems).
2. 7/74 Named as subcontractor in proposal by Hittman Associates, Columbia, Md. to the Electric Power Research Institute in response to RFP No. RP251-4-0 on a Technology Assessment of Extraction of Coal by Underground Mining Methods GWU as a subcontractor would direct a team effort defining the role of interested parties in underground mining. The team would also provide assistance in evaluating the societal impacts of expanding underground mining activities. Penn State University is also named as a subcontractor with expertise in underground mining technology, logistics and restrictions. No formal GW commitment has been offered pending receipt of an award by Hittman. However, the subcontract would be an estimated \$12,500 for a two-months effort by Coates and three months effort by research assistants. Briefly, Hittman Associates was formed in 11/72 as a private entity to "provide scientific, engineering and management services to government and industry. With a current staff of about 70, Hittman is now concentrating its activities in energy and environmental areas. Located in Columbia, its offices are equipped with testing laboratories, a library, publications dept., lecture facilities, and data processing facilities. PPS is pleased to be associated with this organization in performance of this research.
3. 8/13/74 Statement of Capability to U.S. Office of Technology Assessment: Undertake a Technology Assessment of the Effects of Proposed New Multiple Use Demands on the Coastal Zone and Offshore Areas of New Jersey and Delaware. This Statement is a joint statement with the Center for Technology Assessment of the Newark College of Engineering, Newark, N.J. in response to OTA's 7/29/74 notice in the Commerce Business Daily. Both PPS and the CTA are university-based, interdisciplinary research groups with extensive capab. & exper. in TA; both are near the study area. PPS offers special strength in law, social sciences, economics and institutional analysis. CTA offers complementing strength in physical sciences & engineering.

*****PROPOSALS IN PREPARATION

Legal Control Mechanisms for Man-made and Natural Disasters (legal provision to allow easier remedies as consequences of disasters) (Chuck Lamb, Joyce Kling, Jim Brown); Development of a methodology to evaluate the U.S. Railway Ass'n's Preliminary Systems Plan of the railroad system in the Midwest and Northeast regions of the U.S. (Marney/Mayo); Study of the historical/ethical basis for an "exploration ethic" (Marney/Mayo/Anthony).

*****INCHING TOWARD AN AWARD

GWU and Human Sciences Research, Inc. (Westgate Research Park, McLean) have signed a subcontract for PPS to undertake tasks in connection with HSR's award from DOT entitled: Current Knowledge and Information Needs for Safe Driving Conformance Initiatives for \$20,082 (July 8-April 30, 1975). The description of PPS portion of study is noted in the June 14, 1974, issue of 714 News. The papers are now at DOT awaiting approval - thus, we are inching (and itching) toward this award. In the meantime three law students are already involved on the project: Steve Hessler; John E. son, and Sue du Val.

*****NO COST EXTENSION AWARDED - SUPPLEMENTARY FUNDS ALSO REQUESTED FOR NSF "USTI" GRANT

Steve Ebbin's project, Citizen Group Uses of Scientific and Technological Information in Nuclear Power Cases, has been awarded no-cost exten. from May 31, 1974 to October 31, 1974. On 7/22/74 Ebbin then requested a new grant extension with funding of \$82,515 to undertake an implementation phase of the TA recommendation included in the book produced during the first phase of the project (MIT Press, March/1974 - see 4/1/74 issue of 714 News) which would study the range of impacts on the physical and social ecology of the nuclear power plants in areas where they are to be located. To date, no such study has been undertaken by independent interdisciplinary teams of scientists from the physical, ecological, life, social, behavioral sciences, engineering and the law, according to Ebbin. The 6-month feasibility study requested

(to begin ASAP) would develop a comprehensive and detailed project design for the TA. The TA would include a case study of 4 existing plants and the proposed Montague, Mass. twin nuclear power plants (for which additional funds would be necessary). The ultimate TA report would be disseminated through a series of public meetings with citizens, utilities, state, local, and federal government officials - for explanation of findings and response to inquiries. Ebbin feels the issue is a vital one and judging from the response to the book, of wide public interest.

*****PPS STAFF MEETING

On July 25, 1974, at 4:00 p.m., a PPS general staff meeting was held in Seminar Room 730 of the Library. All staff were invited to attend for a progress report on studies/projects underway and discussion of new opportunities for PPS funding which had developed recently. This editor was not present during the entire meeting and failed to take extensive notes - but nearly all staff were present. Those who were not should get briefed by their own particular special source, right? The meeting concluded with the once-in-eight years staff photo and some candid shots by Marvin Icko of the Law Alumni Office (who will make proofs available for those who want pictures- Sue B. will announce) and some liquid and other refreshment. Vice President Mayo noted that PPS has more opportunities now for continuing funding than at any other time since the Program's inception in 1966 in terms of those seeking assistance from PPS. This is a fine recommendation, and challenge, for all PPS staff.

*****IIAP ADVISORY GROUP ESTABLISHED

An informal, and distinguished Advisory Group for the Innovation, Information and Analysis Group + the Innovation Information Center was announced on July 30 by Vary Coates, Acting Director of the Project; Those who have accepted are: Walter Hahn, Science Policy Div., Cong. Res. Service; Dr. Wm. J. Harris, Jr., VP (Research) Ass'n of Amer. RR's; Dr. Joel Goldhar, Sciences Information Services, NSF; Mr. Robert Stern, Xerox Corp., Stamford, Conn.; Mr. Robert Chartrand, Science Policy Div., Cong. Res. Service. The first meeting of the Advisory Group was held on Aug. 8, 1974, in the PPS Conference Room, followed by cocktails and dinner at the GWU Club.

*****TA BRIEFING SUMMARIES SENT TO PARTICIPANTS

On 6/27/74 PPS sponsored a TA briefing for the OTA staff and a large number of Washington area people involved with the development of TA over the past 7 years. About 50 people attended the briefing and cocktails and buffet supper which preceded it (see 7/19/74 issue of 714 News). 3 persons voluntarily later provided PPS with summaries as a record/interpretation of the briefing: Richard DiCicco of Control Data Corp. who summarized the comments of the guest speaker; and Mr. Jim Duda and Mr. Ted D'Afflisio who summarized discussions re priorities for TA (chaired by Prof. Vernon Ferwerda). These reports were duplicated and sent to each participant on July 31. Requests for additional reports should be addressed to Vary Coates.

***** PPS CREDENTIALS

On August 11, 1974, Mr. Charles Lamb became Dr. Charles Lamb at the University of Alabama. Congratulations Ch (and a note of appreciation to his wife Candi for seeing him through). Dr. Lamb's dissertation title is: Warren Bu Lower Court Experience: "Strict" Construction, "Conservatism," and Conflict in Selected Criminal Issues.

Dr. Louis H. Mayo was reappointed as a member of the National Academy of Sciences-National Research Council Committee on Hearing, Bioacoustics, and Biomechanics by the President of NAS-NRC - effective until 7/1/75.

*****ALUMNI

Blaine Yamagata has accepted a position as Staff Attorney, U.S. Postal Rate Commission, effective Aug. 12. Blaine has assisted Dr. Mayo on several EPA/Office of Noise Abatement contracts; finished GW law school in June, 1974, and recently took the Va. Bar in Roanoke. We hope to see him around once in awhile; his office is not too far away.

Darcia Bracken is not exactly a former PPS staff - her grant came in after she accepted a position as Program Analyst for the National Commission on Water Quality, - but we hope to see her again, too. Have already received a nice phone call from her.

*****TRIPPING WITH PPS STAFF

Dr. Joseph B. Margolin, Director of PPS's Educational Policy Group, has been invited to attend the International Broadcast Institute Annual Meeting of the Trustees and Members in Mexico City, Sept. 5, 1974, as an active participant especially in Working Committee No. 4: "Technological Change in Communications: Educational and Cultural Aspects," to be chaired by the Director of the National Centre for the Performing Arts in Bombay (India).

Dr. Vary T. Coates will accompany her husband on a lecture tour in California during Aug. 17-Sept. 3. En route, Dr. VTC will address the Amer.Soci. of Chemical Engineers in Salt Lake City on "Dissemination of Scientific Information to the Public."

Nancy Oshinsky was hosted at a "going-away to Temple University Law School Party" by her Educational Policy Group staff associates. A cheerful time was had by all - the home cooked delicacies were most delicious. Thank you! Dr. Margolin and Dr. Misch presented Nancy with a very timely and thoughtful gift (on suggestion of the best lawyer on our staff --guess who?) - Black's Law Dictionary. Best wishes, and study hard.

*****THE SUN HAS RISEN ON PPS

We are most fortunate to have a guest with us during August. Miss Sumie Okusawa, who is Secretary/Assistant to Dr. Toru Yoshimura, Director of Saitama University's Research Institute for Behavioral and Policy Sciences, is a houseguest of Vary and Joe Coates while "interning" at PPS - work and study re English and administrative/writing technique. Our good friend from several visits and conferences, Professor Yoshimura, hopes that she will not meet too many nice American boys here and not want to return. Sumie is a 1972 graduate in English and American Lit. from a private Japan university - Aoyama Gakuin. She has worked for National Cash Register Co. in Tokyo. She has one younger sister who is attending a junior college. The Coates family is "liberating" Sumie, but she is already quite independent - having traveled downtown D.C. on the bus by herself already. She hopes to travel in the U.S. in Sept. before returning to Japan.

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Vol I, No. 12
September 26, 1974

PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, THE GEORGE WASHINGTON UNIVERSITY, ROOM 714 LIBRARY,
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*****PROPOSALS SUBMITTED:

- 9/5/74
1. Preliminary Report - Annotated Outline of a Possible Future Study of the Historical/Intellectual Basis for an "Exploration Ethic" - to NASA (Goddard Space Flight Center Procurement Office) for a Purchase Order in the amount of \$7,550 for a one month effort by Milton Marney, Jerry Delli Priscoli (co-PI's), Audrey Hassanein. This effort comprises Phase I of a Four Phase Overall study noted immediately below. Submitted 9/9/74
9/18/74
 2. Intellectual/Historical Basis for Explicit Recognition of an "Exploration Ethic" as a Component of Western Culture (Milton Marney and Jerry Delli Priscoli, Co-Principal Investigators) Follow on Phases II, III, and IV of a scholarly study and basic research, with subsequent open publication of results, aimed at examination of an "exploration ethic" as a component of Western culture. General objectives of the overall study include: 1) improved understanding of the personal motivations and the public rationale of risks and benefits which have moved men, institutions, nations, or civilizations to historic efforts of physical discovery; 2) test of two widely held conjectures: (a) that the willingness of individual men and the capability of societies to mount sustained projects of exploration are vital signs of social viability; and b) that physical risk-ventures, in turn, contribute opportunities for direct satisfaction of intrinsic human needs; and 3) examination of (a) the factual status of the "exploration ethic" and (b) assessment of its capability--as a recognized norm--to assure a range of new opportunities for contemporary social development. The study will be concerned primarily with the question of the extent to which the "exploration ethic" can be conceptually established and historically documented. Phase 2 includes delimitation of the concept of "exploration" (for restriction to the context of physical discovery), Phase 3 - historical documentation of the weight and effect that the exploration ethic may have had factually, as a determinant of individual and social enterprise; and Phase 4 - conceptual analysis of the contribution of such an ethic to multivalued measures of societal adaptability. Submitted to NASA Goddard Space Flight Center through the NASA Headquarters Office of University Research - 6 month study - \$29,113.00 (10/9/74 - 4/8/75 - with 60 days additional for critique, abridgements, and/or revision of the draft Final Report. The lucky, lucky people named to do the tasks include: Marney and Delli Priscoli above, Dean Mayo (10% effort), Vary Coates (10% effort), and Marie Plunket, Admin. Assist. (50% effort).
 3. 9/3/74 Technology Assessment Workshops to U.S. Office of Technology Assessment; U.S. Congress for 6 workshops during Fall and Spring Semesters, 1974-75 (total of \$9,192) Objectives are: To build and maintain understanding and cooperative relationships between the OTA staff and the larger TA community; provide a neutral forum in which the complex issues and problems confronting TA performers and sponsored can be worked through; to disseminate information about, and provide a mechanism for evaluation of, both new and existing methodologies and techniques; to provide the TA community at large with information about and understanding of the activities of OTA; to provide a mechanism whereby OTA can, when it desired, secure the insights and counsel of researchers and assessors from universities, independent research organizations, and Federal agencies; to provide a platform for presenting the results of completed TA's; and provide OTA a mechanism for interfacing with the International Society for TA and also the National Council for Public Assessment of Technology. (Vary Coates, P.I.)
 4. Statement of willingness to subcontract to Management Systems Division of Applied Management Sciences (Silver Spring) if they were awarded an HEW contract on "Relation of Technological Advance in Health Services to Health Planning" GW would have provided Task 5 (a-c) - provide TA capability for preliminary assessment of potential impacts of emerging health care technologies (about \$10,000 effort). As it turned out, such proposal was not submitted by Applied Management Sciences, but future association with this group is a possibility.

*****AWARDS

- 9/6/74:
1. No. 1 above: Preliminary Report - Annotated Outline of a Possible Future Study of the Historical/Intellectual Basis for an "Exploration Ethic" \$7,550 Purchase Order for one month effort (9/9/74 - 10/8/74)
Note: This Exploration Ethic proposal had been divided for purposes of expediting a contract through a Purchase Order for \$10,000 or less. Follow-on proposal No. 2 above is designed to commence the day after the Purchase Order task (Phase 1) is completed.
 2. 9/18/74 Basic Ordering Agreement (BOA) - Science Policy. As noted in the August 29, 1974 issue of Commerce Business Daily (GW Policy Studies was the only University group named!) "As a result of the March 12th solicitation for expert and consultant services in the fields of Science Policy, Science Information and Energy Policy and Research, the following companies are being awarded BOA's in Area I - Science Policy: Batelle, Pacific NW Labs, Charles River Associates, Econ, Inc., The Futures Group, GE, George Washington University, Harbride House, Inc., Arthur D. Little, National Planning Association, Research Triangle Institute, Systems Control, Inc., and Technical Audit Associates. We had submitted a PPS Statement of Capability on all three areas on 4/1/74 as noted in the April 16, 1974, issue of 714 news. We did not get the Energy Policy and Research - but no word has been released on the Science Information Area yet - so presumably we are still in the running. PPS may now submit unsolicited proposals to the Science and Technology Policy of NSF or respond to their requests - and if accepted, the work can be undertaken immediately - all contractual details having been worked out in advance through the BOA agreement.

3. No-cost extension for Southern Regional Workshop on Technology Assessment (V.Coates, P.I.) - in order to prepare publish and disseminate final report which has been delayed because "the tapes were stolen." (Sound familiar?) At any rate, the extension puts the project ending date from July 31 to December 31, 1974. (8/22/74)
4. Effective 9/23/74: Survey and Evaluation of Women's Groups Among the LDC (Lesser Developed Countries) Rural Poor as Potential Change Agents in Development Programs (Marion R. Misch and Joseph B. Margolin, Co-Principal Investigators) AIU - Office of Education and Human Relations (six month study - \$24,286). See April 16, 1974, issue of 714 News for description. CONGRATULATIONS!

*****AWARD - BUT NOT TO PPS - SIGH...

1. PPS had submitted statement of capability to OTA to undertake a TA of the Effects of Proposed New Multiple Use Demands on the Coastal Zone and Offshore Areas of New Jersey and Delaware - but we were not among those to receive the RFP. Now if DELMARVA is ruined, you will know why, right?

*****MANY THANKS to George Humphries, Editor of TA Update, the official newsletter of the International Society for Technology Assessment (ISTA) for including PPS activities in this national news sheet. Note: Vary Coates was recently elected Vice President of the organization. (and, of course, George is a former PPS staffer.)

***** PROPOSALS IN THE WINGS: SEE STAFF MEMBERS LISTED IF YOU HAVE INPUT/INTEREST

1. Follow on supplement for IIAP project - draft due NSF Oct. 1. More later.
2. Supplement for Revitalization of Small Communities project for Module II. This Supplement was previously listed as an award in the June 14, 1974 issue of 714 News. Through administrative error, however, PPS must resubmit a proposal under DOT's formal competition for their Program of University Research - due Oct. 1. More later. \$150,000 is earmarked for PPS through channelization of funds through DOT from NBS - but proper procedures are order, and there is no guarantee. Keep fingers crossed.
3. Dissemination and Testing of A Set of TA Games for Encouraging Public Participation in TA (Craig Decker of OTA would joint PPS if this were to be funded by OTA Jan. 15). More later after formal submission.
4. Sem.Series to ident. imp. research projects re energy supply, demand & implementation of relevant projects (Mayo/N)

***** PRELIMINARY PROPOSALS - SEE STAFF MEMBERS LISTED IF YOU HAVE INTEREST/INPUT

1. "Feas.Conditions of World Crisis Mgt." to Rockefeller Found. new prog. Reduction of Internat.Conflict (Marney)
2. Major Disasters: Preventive Intervention and Remedial Proposal. Preliminary discussion paper has gone to NSF -- but NSF is in stage of reorganization and it is not known yet where this paper will be critiqued re a formal proposal. Should hear in a couple of weeks. (J.Brown, Lamb, Mayo)
3. Impact of Scientific and Technological Development on the American Constitutional System - letter proposal submitted to NSF and Nat.Endowment for the Humanities for this Bicentennial-Related Study by Louis H. Mayo. The broad theme encompasses both the influence of our governmental system on scientific and technological development and also the impact of S&T on the social value-institutional processes of the country, particularly those having Constitutional implications.
4. Interstate Arrangements for Regional WaterResource Planning (Delli Priscoli)
Evaluation of Technology Assessment of Modular Integrated Utility Systems (ORNL) 9/11/74 to HUD. Oak Ridge National Lab has performed this TA under a HUD grant. GW would evaluate this assessment from the perspective of HUD's followon decision responsibilities. (Mayo, Marney)
5. Grant for support of Francois Hetman of OECD as Visiting Professor and PPS staff member at GWU. (Logsdon, Coates)

***** MILESTONE:

August 31, 1974, signalled the termination of the basic NASA institutional grant awarded GW Sept. 1, 1966, which formed the base for PPS activities over the past 8 years. The step-funded grant was in the amount of \$750,000 to develop a GW capability for assisting government officials in defining and analyzing important policy issues. Named to direct the program was Professor Louis H. Mayo who was simultaneously appointed Vice President for Policy Studies by President Lloyd H. Elliott. Dr. Mayo had served GW the previous 6 years as Dean of the Graduate School of Public Law. The legacy of the grant award has been over \$3 million in additional grants and contracts, the involvement of several hundred University faculty and graduate students, nearly 100 professional seminars held on various topics, well over 100 publications in addition to project reports, creation of new courses and programs for graduate and undergraduates, and informal briefings for countless foreign visitors to the Nation's Capital over the years. It can safely be said that the Program of Policy Studies has gained for GW national visibility and prominence in the fields of science policy and technology assessment - and this editor is not biased! Congratulations to "Dean" Mayo and all the PPS Staff. And many thanks to the NASA Office of University Research staff for their encouragement and support through the past 8 years.

***** MILESTONE #2:

On Sunday evening between 5:00 and 6:30 p.m. someone came a knocking at the PPS door - and finding no one around, mac off with 4 of our Bowmar Brains (almost as good as ours) calculators + a desk print-out calculator. They almost got Marion Misch's high intensity lamp and radio and about 4 typewriters, but Chuck Hansen came back from dinner and they sneaked away into the evening dusk. Our loss was about \$1,000 and a lot of inconvenience - so we all need to take better care - lock that front door and hide your valuables! Make the first time the last, or our losses will exceed our funded income!
And if that isn't bad enough the GW Physical Plant Dept. X-rayed the roof above us during mid-August on a Sunday night. You know what they say about radiation. Hope no one from PPS passed through the warning area. At any rate, Sunday is getting to be a busy day. (P.S. they were trying to locate the structural steel in the building. Ooops!)

*****RECENT FOREIGN VISITORS TO PPS INCLUDE: 1) Prof. Alfonso Caracciolo di Furino, Prof. of Programming Theory, Unive d'Aquila and member of CERD (European Committee of R&D), EEC, and Vice Chairman of the International Institute for the Management of Technology, Milan, ITALY, 2) Professor Anne Jaumin, Assoc. Professor, Dept. of Political Science, University of Louvain, Louvain, BELGIUM, 3) Prof. Toru Yoshimura, Saitama University, Tokyo (and Dir., Research Inst for Behavioral and Policy Sciences), Norma Suarez, Information Officer, Science Office, Embassy of Mexico.

*****PPS STAFF TEACHING ASSIGNMENTS, FALL SEMESTER, 1974

1. LOUIS H. MAYO, Jurisprudence 335B, National Law Center
2. VARY T. COATES, Technology Assessment, Dept. of Management Sciences (MA Program in Science, Tech. & Pub. Pol.)
3. JOHN M. LOGSDON, Pol.Sc. 108, Science, Technology and Politics; and Pol.Sc.205, Government Science & Technology
4. HENRY NAU, Pol.Sc. 171, International Politics; Pol. Sc. 172, International Organizations
5. TED d'AFFLISIO, Po. Sc. - Introduction to Political Science
6. FREDERICK B. WOOD, Mgt. 224 - Theory of Management Systems

*****AUTUMN IN NEW ENGLAND: Vary Coates and Ernie Weiss will be in Montpelier, Vt. next week interviewing state and planning and transportation officials - re Small Towns project

*****AUTUMN IN PARIS: Bob Behrendt (Public Relations liaison) was married Saturday, Sept. 21 to Leslie Buhler - they are honeymooning in Paris for 3 weeks - without benefit of project travel funds, too!

*****SEMINAR TO BE HELD ON "SCIENCE AND TECHNOLOGY IN PRESIDENTIAL POLICYMAKING"

The PPS/SPIA Graduate Program in Science, Technology, and Public Policy commences a new seminar series this Fall on Wed., Oct. 9, for invited representatives from government, private industry, and academia. The seminar is funded by NSF's Science and Technology Policy Office award (John Logsdon, P.I.). The seminar speaker will be Donald B. Rice, President of the RAND Corporation, formerly Associate Director of the Office of Management and Budget. He is a member of the NAS ad hoc Committee on Science and Technology that recently prepared a widely-discussed report on the seminar topic.

*****PPS PUBLICATIONS DISPLAY IN THE SPECIAL COLLECTIONS ROOM OF THE LIBRARY BUILDING.

Thanks to the initiative of Mrs. Annette Steiner; an exhibit re various GW Research Groups is on display through the end of October. Policy Studies is amply represented thanks to Pam Brown. All staff are encouraged to take time to review the display and to compliment Mrs. Steiner and her staff for taking such an interest in such a great organization as PPS!

*****MILLER, BARRON AND LAMB "ON DISPLAY" in RECENT ISSUE OF THE LAW SCHOOL ADVOCATE, STUDENT NEWSPAPER (Vol. 6, no. 2).

The Supreme Court study got a front page spread complete with pictures of Professors Miller and Barron. Chuck was obviously taking the picture. The description of the study and its implications was well covered by the news staffer, Cindy Ludvigsen. Thanks for the publicity:

*****The First Year Report of the Small Communities was noted in the September, 1974, issue of AirTran News magazine.

*****STAFF PROFESSIONAL ACTIVITIES - COMING AND GOING

FRED WOOD AND PROF. RICHARD ERICSON participated in the Third Annual Conference of the Middle Atlantic Division of the Society for General Systems Research held at the U. of Md. 9/21/74 on "Interdisciplinary Aspects of General Systems Theory." Ericson, as Vice President and Manager of SGSR presented the Message on the State of the Society; Wood presented a paper "The Congressional Office and Constituent Communication"

JERRY DELLI PRISCOLI has completed a consulting report for the Water Resources Council, Washington, D.C. entitled: "Public Participation in Level B Regional Water Resources Planning: A Preliminary View." This is part of a more general dissertation work which is expected to be forthcoming this Fall - Public Participation and Intergovernmental Relations in Regional Water Resource Planning: Comparative Case Studies and Conceptual Frameworks.

CHUCK LAMB will have an article in the next issue of the American University Law Review - "Warren Burger and the Insanity Defense--Judicial Philosophy and Voting Behavior on U.S. Court of Appeals (Maybe Nov. or Dec.) The abstract of the article is available from Sue.

JOHN M. LOGSDON will participate in the NASA "OUTLOOK FOR SPACE PROGRAM" (ALSO SEE PPS PROJECT ON THE EXPLORATION ETHIC, p. 1 - Proposals) by attending the NASA central staffing group at a week long meeting at the Auchincloss Cottage, Hammersmith Farm (summer White House during Kennedy Admin.), Newport, R.I. On Oct. 4, he and Daniel Boorstin will engage in a dialogue on "Space in the Context of American History." WOULD YOU BELIEVE CHARLTON PRICE is RAPPORTEUR for the meeting. Logsdon says Princeton types obviously organized the meeting, right? LOGSDON will then participate in the 15th Ann. Strategies for Peace Conf. at Airlie House Oct 17-20 sponsored by the Stanley Found., as a discussant on "International Cooperation in Space."

***** STAFF "PERSONAL" ACTIVITIES

Joe Margolin is recuperating in Walter Reed Hospital where he was taken as an emergency patient last weekend. Turned out to be an ulcer problem - But Joe, you just got back from relaxing at the big conference in Mexico! We are very sorry to hear about it, and hope you recover quickly. Hope you also had a happy birthday last Thursday.

Vary T. Coates celebrated her birthday Sunday, September 22. Ted d'Afflisio just got his driver's license (???) Betsy Amin-Arsala just returned from an extended trip to Afghanistan with Heydeyat and her two daughters.

*****NATIONAL TECHNICAL INFORMATION SERVICE PROCEDURES RE PPS PUBLICATIONS, INCLUDING FINAL REPORTS, ETC.

Pam Brown has summarized these important procedures in a one page memo dated 9/26/74.

It turns out (thanks to Fred Wood's detective work) that NTIS charges requestors varying prices for publications based on our input - such as no. of copies, etc.). ALL PRINCIPAL INVESTIGATORS WILL BE PROVIDED A COPY FOR HANDY REFERENCE. Responding to an EPA Req. for Proposal on "Eval. of Energy Impact, Env. Impact, & Feasibil. of Imple. of Var. Energy Conserva. Strategies in the Trans. Sector"

*****HOT FLASH: Barry Hyman & Prof. J. Foa are

NOTE: Speaking of references, it is hoped to have a PPS Guidelines Manual outlining various university policies relevant to PPS + misc. PPS "policies" ready before Jan. 1. Depends on how many proposals we have to turn out and how many projects start, to be quite honest.

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PS ON PPS: We have two new law-types on our staff: John Ellingson & Steve Hessler + a political scientist, Henry Hitchcock. More on them later

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*****PROPOSALS SUBMITTED

1. Preliminary Statement: Proposal for a Series of Seminars to Identify Important Research Projects Pertaining to Energy Supply, Demand, and Implementation of Relevant Energy Policies and Programs. (Mayo to NSF, Division of Environmental Services). 9/30/74
2. Transportation-Related Decision-making in Rural Small Communities (Coates)(To DOT/Program of University Research for the Oct. 1, 1974 Solicitation)(\$150,000) This proposal is essentially a restatement of a proposal on 6/10/74 to DOT to effect funding from the National Bureau of Standards Experimental Technology Incentives Program (ETIPS). After the 1st proposal was submitted to DOT, it was decided in DOT that the Program of Policy Studies would have to compete for the funds set aside in a regular DOT/Program of University Research Solicitation. The Oct. 1 proposal is in compliance with this decision. The proposed research builds on two years of research: Revitalization of Small Communities: Transportation Options (also a DOT/Program of University Research project). The research is designed to map the local decisionmaking process within 8-10 representative communities, to identify both leverage points in the process and the segments of the community significantly impacted by the resulting decisions ("affected parties"), and to determine the utility and appropriateness of Federal government sponsored research for assisting local decisionmakers in carrying out their responsibilities. (Coates, Weiss, d'Afflisio, Ellingson are listed as core research staff.)
3. 10/4/74 Proposal to EPA, Special Projects Procurement Section in response to RFP No. WA-75X-027, Evaluation of the Energy Impact, Environmental Impact, and Feasibility of Implementation of Various Energy Conservation Strategies in the Transportation Sector (Barry I. Human, Assoc. Prof. of Civil, Mechanical, and Environmental Engineering of the School of Engineering and Applied Sciences, Co-Principal Investigator + Vary Coates, Co-Principal Investigator) This 15-week effort would commence Jan. 6, 1975 and terminate April 18, 1975. Funds in the amount of \$30,347.94 are requested. Others listed as possible staff include: William A. Johnson (Res.Prof. of Economics)(10%); Roger Lang, Assoc. Prof. of Electrical Engineering; 3 graduate assistants (computer sciences). Consultants include Dr. Salvatore Bellomo, Assoc.Prof. Lecturer, Dept. of Urban and Regional Planning; Dr. Joseph Foa, Prof. of Engineering; Dr. Martin V. Jones (economics); and Dr. Alfred Wells (urban planning & design). Objectives of the proposed effort will be to: a) develop a computer model for predicting the energy consumed for transportation purposes in the U.S. during any given year; and measuring the environmental impact associated with such activities. Computations will be carried out specifically for each of the target years identified in the RFP: 1977, 1980, 1985, and 1990, b) examine a variety of technological and nontechnological changes intended to promote energy conservation in transportation; and to utilize the model developed in (a) above to assess the effect of each such change, or any combination of such changes, on the transportation energy consumption and associated environmental impact, c) to explore options for implementing the most promising of the changes examined in (b) above and to analyze the social, political, institutional, and economic factors related to each implementation option, and d) to compare the options explored in (c) above and identify those which are most effective and most feasible.
4. 10/14/74 Technology Assessment of the Potential for Congressional Use of Emergent Telecommunications (Fred Wood and Louis Mayo, Co-Pr.Inv. (12 month effort commencing on Jan. 1, 1975, for \$149,993)(To the John and Mary R. Markle Foundation, New York, N.Y.). This formal proposal is a followon to a preliminary proposal of July 22, 1974 and contains mainly management plan revisions. Other members of the interdisciplinary team include Prof. Jerome Barron Prof. of Law; Vary Coates; Prof. Richard Ericson, Prof. of Management Science; Dr. Charles Lamb, PPS; Dr. Joseph B. Margolin, PPS; Marion Misch, PPS; and Prof. R.L. Pickholtz, Prof. of Engineering and Applied Science. Six basic stages in the proposed technology assessment include: 1) Description of current congressional communication system, 2) Forecast of Emergent Telecommunications Technology and Channel Configurations, 3) Projection of Future Baseline Congressional Communication System, 4) Projection of Potential Future Role for Telecommunications, 5) Identification and Analysis of Effects, and 6) Clarification of Alternatives/Options.

*****AWARDS

1. 7/8/74: Current Knowledge and Information Needs for Safe Driving Conformance Initiatives, a subcontract from Human Sciences Research, Inc. in the amount of \$20,082. Details of this contract can be found in the June 14, 1974, issue of 714 News (p. 1 - Proposals Submitted, #2). Coates is P.I. on this 10 month effort from 7/8/74 - 4/30/75.
This award has been known for some time but it was inadvertently omitted in the last 714 News.

*****REPORTS SUBMITTED

1. 10/8/74 Preliminary Report: The Historical-Intellectual Basis for an "Exploration Ethic" to NASA Goddard Space Flight Center in fulfillment of Purchase Order S-537448. Jerry Delli Priscoli and Milton Marney were Co-Principal Investigators on this 30 day "quick response" effort to NASA. "Early results of special

significance" a generally accepted belief that man has a psychological need to explore. Also, the recent era of exploration competition between the U.S. and the U.S.S.R. has initiated a new epoch of exploration. The basis for this claim is the shift from an individual commitment to exploration to a societal commitment.

A proposal for a followon study has been submitted to NASA. See last issue of 714 News.

*****THE OCTOBER CELEBRATION:

On 10/15/74 at about 1:30 p.m. when the editor was passing Suite 709, it was noted that a celebration was about to happen. Wishing to report on any such occasion, the editor stuck around. Well, it turned out that Hank Nau's book was just today published by the Johns Hopkins Press: National Politics and International Technology: Nuclear Reactor Development in Western Europe. (Hardback \$12.50). PPS has already purchased a copy; movie rights have been sold to MGM. As the champagne corks were popping, Barbara Claassen was negotiating tenure for Hank with SPIA. Congratulations to our man in baby blue!

*****ANOTHER AUTHOR:

Vary Coates wrote a chapter for a just-published book entitled Futurism in Education. Her article chapter was "Technology Assessment in Education." The book (Stephen Hencley and James R. Yates, eds.) was published by McCutchan Publishing Corp., Berkeley, California.

*****PPS SPONSORS WASHINGTON STUDY PROGRAM, COLGATE UNIVERSITY

PPS is providing temporary office space for program director Professor Edgar L. Shor of the Washington Study Program (Public Policy Studies Group) of Colgate University for about 8 weeks. This Colgate off-campus program is a multidisciplinary project open to high-level undergraduates. Twelve students who have been selected for the Fall, 1974 program will be engaged in the systematic study of policy options, constraints, priorities, and impact. Two seminars, an internship in a government agency or policy organization, and a research project comprise the format for the program, with each student specializing in a particular policy area. Prof. Shor is situated in Office MM of Suite 714. His phone is 7380, 81, or 83.

*****HANK NAU'S OTHER RECENT ACTIVITIES

1. Presented a paper in August at the Annual Political Science Association entitled: R&D Issues in Western Europe: Perceptions, Capabilities and Responses.
2. Presented a paper in September at the Workshop on Transatlantic Cooperation in Energy entitled: U.S. Foreign Policy in the Energy Crisis: Global Interdependence and Project Independence."

*****EMPIRE BUILDING

Take note of new IIAP "reception area" - thanks to Jerry Delli Priscoli and Hank Hitchcock.

*****CELESTE GOODRIDGE OFFERS THIS QUOTE SHE DISCOVERED IN AN OLD BOOK:

Voltaire's Candide made the point that the Enlightenment could put to right all things in general, but nothing in particular....The hubris of rationality has shown itself in the contemporary university in the expectation that anything in particular can be put right by making it the subject of a well-funded research project.

*****NEW STAFF:

STEVE HESSLER, 3rd Year GW Law Student, is working on the Traffic Safety Project (to prepare legal countermeasures to bad acts of drivers) on the literature search - studying administrative, judicial, and enforcement mechanisms and existing and possible laws, programs, incentives, etc. Steve is from Shillington, Pa. (near Redding) and graduated from Muhlenberg College, Allentown, Pa. in 1972 (Political Science). He lives in the DuPont Circle area.

FALL EXCURSION

Barbara Claassens and Sue Bachtel are trying to get info. on the Harper's Ferry Excursion Trains for a possible PPS staff get together for a week from Sunday.(10/27) The train passes through areas with great fall color & beats the traffic problem. Train leaves about 11:30 a.m. and returns about 6:30 p.m. Many things to do in Harper's Ferry including hiking, visiting historical areas, shopping, etc. We are hoping to get a block of seats in the same car - cost is about \$3.00 per ticket (don't know if that is one-way or round trip). If you are interested, let Barb or Sue know for reservations if we can get them. Bring your family and/or a friend if we can get it set up.

714 NEWS

VOL. 1, No. 14
November 22, 1974

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PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, THE GEORGE WASHINGTON UNIVERSITY, 714 LIBRARY BUILDING,
2130 H STREET, N.W., WASHINGTON, D.C. 20052 ----- (202) 676-7380

*****PROPOSALS SUBMITTED

1. 10/31/74 - Science and Technology Policy Research, submitted to NSF/Science & Technology Policy Office, 12 mos. effort for 1) reassessment of the Federal Council of Science and Technology and of FCST committees in terms of the current and emerging needs for the coordination of Federal science and technology policy; and 2) preparation of analyses related to selected issues (to be chosen in close consultation with STPO office) related to the role of science and technology in the development process - to assist the STPO office in its role as staff support to the Director of NSF in his role as Science Advisor to the President. Herman Pollack would be P.I. if proposal funded. He recently retired from a long and distinguished career of government service with the State Department. Since 1964 he had been in charge of the Bureau of International and Scientific and Technological Affairs, with responsibility for policy formulation and management of international relations in science and technology. John Logsdon would be project director. Budget: \$27,409.
2. 11/1/74 - Subcontract proposal to The Futures Group, Glastonbury, Conn., re NASA RFP2-25273(HK-53) Study of Technology Assessment of Intercity Transportation Systems. \$83,955 for 12 mos. to beg. Jan., 1975. The GW team, headed by Vary Coates, P.I., would perform task 1.5.2 - provide that section of the information base related to regulation of, and legal/institutional structure related to, transportation, building on work done in a current two-year research effort on rural transportation policy., and task 1.5.3.4 - take the lead role in scenario integration. NASA and DOT, together with the GW/Futures Group team would assess the technical, economic, environmental and socio-political issues associated with intercity transportation system options and will determine those courses of action impacting transportation research and technology. The effort will emphasize intercity transportation but will include the interdependence of the intercity transportation system on the intra-urban transportation system and associated urban structures. Emphasis will be on passenger transportation, although freight will be included. The TA performed would provide a foundation for the planning and conduct of future activities. NASA primary concern relates to the aeronautical elements of the transportation system, whereas DOT is concerned with the entire system. The air transportation system will be considered an integral element of a total system in which the various modes effectively complement one another. The considerations of future systems must also include thorough assessment of societal impact. The TA would 1) define, compare and evaluate baseline options for future transportation system; 2) define critical issues associated with future integrated transportation options; 3) highlight uncertainties and potential risks associated with the more promising transportation options; 4) identify possible modifications to the baseline option to maximize benefits and minimize adverse impacts; and 5) evaluate presently projected research and technology directions in the light of the assessment findings.
3. 11/7/74 - Dissemination and Testing of a Set of Technology Assessment Games for Encouraging Public Participation in Technology Assessment to NSF/RANN--Office of Exploratory Research and Problem Assessment for 7 mos. commencing 1/15/75 (\$11,779.81) The purpose of the research is to complete the development of a set of games which model the TA and science policy formulation process and to test and evaluate the games with the ultimate objective of 1) providing the interested public with holistic models of the TA process, and 2) encouraging productive participation in TA and science policy formulation. Mr. Craig Decker, who would serve as the project coordinator, has spent 2½ years developing the games. Craig is currently special assistant to the Director of OTA, but would join PPS for the duration of the project. The BREAKTHROUGH games contain four related games at various stages of complexity: "The Energy Crisis Game," "Technology Assessment," "R&D," and "Breakthrough" (a combination of "TA" and "R&D"). Steps in the project include playing of the game in turn by a select advisory group, a public interest group, and a university class. A director's manual will be developed, followed by a 2nd playing by the advisory group. 300 copies of the manual will be sent to interested groups accompanied by an evaluation questionnaire prepared by Academic Games, Inc. (consultants on the study). A telephone evaluation and one day evaluation workshop will be held and a report of results prepared.
4. 11/15/74 Retrospective Technology Assessment: Submarine Telegraphy Proposal to NSF/RANN in response to Program Solicitation No. 74-34 - Technology Assessments in Selective Areas. Budget of \$99,718 for 15 month effort to commence Jan. 1, 1975. Vary Coates, P.I., Bernard S. Finn, Curator (Electricity) of National Museum of History and Technology, Smithsonian Institution, Co-Princ. Investigator. Bob Anthony also named (experimental physics) + assorted graduate research assistants (history and technology assessment expertise). A report in two separable sections is anticipated: an analytical report useful to TA performers, sponsors and methodologists; and a popular version to educate the interested public about societal impacts of submarine telegraphy as an example of technological development and about the potential contributions of TA to decisionmaking and policy formulation. A variety of experts will be used as consultants and participants in a workshop on Hypothetical (Retrospective) Technology Assessment.

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*****PRELIMINARY PROPOSALS

1. 11/8/74 Third year funding for Innovation, Information, and Analysis Project - to NSF/Office of National R&D Assessment (\$90,300 for Management & Research; \$211,500 for Innovation Information Center (IIC)). Vary Coates, P.I., Jerry Delli Priscoli, Project Manager; Natalie Hawley, Chief Info. Specialist. Objectives for 1975 include: acquiring a broad range of users in industry as well as government; providing users with special bibliographic reports, special studies and other useful publications at cost; performing analytical tasks to meet sponsor & user needs on a) a quick-action basis not appropriate for longterm grants or contracts to other organizations, and b) on the basis of perceived deficiencies in available literature and knowledge; developing, testing and publishing one issue of a projected publication modeled after the Battelle Newsnotes (now defunct); initiating a cooperative network among information centers with interests related to innovation; expanding the base of funding; hosting a workshop related to RDA's interests.
2. 11/18/74 Impact of Technological Development on the American Constitutional System (to NSF/Office of Government and Public Programs and NEH's Science, Technology and Human Values Program for a jointly-funded study). Louis H. Mayo, P.I. (9 mos. effort - \$65,016.00). Charles Lamb named as Assoc. Project Director. Revised version of earlier preliminary proposal for First Phase only of Two Phase project. The initial phase would undertake the following tasks: collection and selection of relevant readings; commentaries and "bridging statements" as necessary to illuminate the various themes that have evolved over the past 200 years with respect to the area of inquiry; and an annotated bibliography of the principal sources. The First Phase inquiry will be essentially retrospective in that it will attempt to trace through the interactions between technological advance and governmental structure/processes in order to provide useful insights into how we have arrived at our present condition. It is hoped that the Second Phase would provide a component for a major prospective study of where evolving trends and/or contingent developments are likely to lead. The theme of the project raises some of the most fundamental questions concerning the response of our governmental institutions and decisional processes both to new opportunities and social dislocations which have arisen as a result of scientific and technological advance.

*****AWARDS

1. 10/15/74 Technology Assessment of Extraction of Coal by Underground Mining Methods (subcontract from Hittman, Associates, Columbia, Md., under their contract with the Electric Power Research Institute) \$12,500 for 3 mos. effort. Vary Coates, P.I. Description of work can be found in Vol. I, No. 11 issue of 714 News, Aug. 12, 1974. One could say we are getting "deep into technology assessment," right?
2. 12/1/74 Evaluation of a Criminal Justice Reference System's Effectiveness (\$10,000 purchase order from the Law Enforcement Assistance Administration (LEAA) for 4 mos effort.) Vary Coates, P.I. with a good deal of assistance from Jehuda Kirchinboim (D.B.A. cand. at GW). See description in Aug. 12, issue of 714 News.

*****REPORTS SUBMITTED

1. 10/28/74 Consumer Motivation and Participation in Planning and Use of Transportation Services - draft of 1st year report combined with preproposal for 2nd year funding submitted by Joseph B. Margolin and Marion B. Misch, Director and Deputy Director respectively of PPS's Educational Policy Group to DOT's Special Projects Division under DOT-TST-75-16. See April 1, 1974 issue of 714 News, p. 2.

*****NEW BROCHURE-----A brochure describing the IIAP project, including list of publications has just been printed. Project Manager Jerry Delli Priscoli intends to get the brochure out to 7,000 individuals in the R&D community. The brochure offers various IIAP publications for sale at modest prices.

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Photo left. Vice President Louis H. Mayo, Director of the Program of Policy Studies in Science and Technology, with Mrs. Annette Steiner, Head of the Special Collections Department of the University Library, before display of PPS publications arranged by the Special Collections Dept. The exhibit, which included samples of GWU Group Research, was on display from Sept. 16-Oct. 31. To repeat a quote, PPS publications are now in demand more than any other GW research publications. Thanks to Mrs. Steiner for arranging the very fine display.

A letter dated Nov. 1, 1974 from the Lehman Library at Columbia University adds a note of qualitative evaluation: "The Program was kind enough to send us recently a selection of monographs and papers we chose from the listing in the back of your "seven-year review." This collection (ephemera dealing with the social and humanistic aspects and impacts of science and technology) is being built up on a nucleus inherited from Mr. Christopher Wright who directed the now defunct Institute for the Study of Science in Human Affairs, which already contained a number of PPS materials predating 1972. We consider these papers one of the more valuable parts of our collection, and wonder if any arrangement could be made whereby the documentation Center of this Library could receive the Program's papers regularly.

A nice compliment well deserved to the "pioneering" professionals of PPS.

*****LILLIAN D. REGELSON, Deputy Assistant Administrator for Water Planning and Standards, Office of the Assistant Administrator for Water and Hazardous Materials, will be joining the Program of Policy Studies as Senior Staff Scientist for a period of up to two years commencing January, 1974. Mrs. Regelson will advise on research studies concerning governmental policies and programs. She will also be involving in developing criteria for the evaluation of both existing and proposed governmental projects or other actions. She may also be assigned to specific program research projects. The arrangement is possible through a Personnel Mobility Assignment under the authority of the Intergovernmental Personnel Act of 1970 which provides for the temporary assignment of employees from one governmental jurisdiction to another. According to Mrs. Regelson, she feels "this assignment would permit me to broaden my perspective and to become more familiar with recent advances in analytical techniques and research methodology. I expect to return to the Federal government with experience that will enhance my capacity to formulate and implement national policies." Another nice compliment to PPS, and we look forward to having Mrs. Regelson join our staff.

*****SPECIAL HONORS to Dr. Joseph B. Margolin, who has been elected to membership by the American Boards in Professional Psychology, in September, 1974. This award is in recognition of professionals who on a post-doctoral level are regarded as senior professionals - in Dr. Margolin's category, as a practicing clinician.

*****MARK FRANKEL's article, "Role of Semen Cryobanking in American Medicine," has been reprinted in the Sept. 7 issue of the British Medical Journal. A summary is noted in the article: In the U.S. there is little public policy regulating the activities of semen cryobanks. The medical profession has also been conspicuously silent on this aspect of medical practice. The potential benefits of semen cryobanking are enormous, yet like all other technologies its application (particularly commercially) may produce unexpected and unwanted consequences. It is suggested that a cooperative effort is needed between public officials and the medical profession to establish standards and guidelines which would maximize the benefits of this technique. By the way, Mark celebrated his own birthday Nov. 6, and he ain't artificial!

*****TRAVEL....IN THE U.S. AND ABROAD

MARIE PLUNKETT participated in the National Convention of the American Business Women's Association held in Denver, Colorado, Oct. 12-20. Marie is a member of the Lady Fairfax Chapter of this organization which is an educational, non-profit group whose proceeds go to various scholarships for education.

VARY COATES recently returned from Tokyo, Japan, where she was a participant (only woman in a group of 199 men!) in the International Symposium of Technology Assessment: Tokyo, 1974, which was co-sponsored by the U.S. based International Society for Technology Assessment and the Japan Techno-Economics Society. Vary reported to the world the "Status of TA in the United States." Also attending the conference were 5 other Americans, including former PPS staff member George Humphries, Editor of TA Update, the ISTA newsletter, and Walter Hahn, President of ISTA. Ted Gordon, President of the Futures Group also participated (see p. 1 for descrip. of PPS proposal with the Group). Coates is now VP and Chief Exec. Officer of ISTA.

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Vol. I, No. 16¹⁵
December 19, 1974

PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, THE GEORGE WASHINGTON UNIVERSITY, 714 LIBRARY,
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*****PROPOSALS

1. Letter of 12/16/74, from Vary Coates to Bolt, Beranek, and Newman, Inc., providing assistance to BBN in performance of any future contract arising from their proposal to the Federal Highway Administration in response to RFP 117, "Social and Economic Consideration in Highway Planning and Design." (2 man-months effort is anticipated.)
2. 12/9/74 Supplementary Funding for Innovation Information and Analysis Project to NSF/Office of National R&D Assessment (4 mos. funding from NSF at level of \$58,516 is requested, additional 2 mos. anticipated from individual sponsors and users of Project services. Vary Coates, Principal Investigator; Jerry Delli Priscoli, Project Manager; Natalie Hawley, Chief Information Specialist.
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4. 12/16/74 Energy R&D Information Category 6, of NSF/Office of Science Information Program Solicitation 74-38 on Improved Dissemination and Use of Scientific and Technical Information. Vary Coates, P.I., on 12 mos. \$161,313 effort. Goals and objectives of the study include: 1) to identify the people commonly known as scientific troubadours or technological gatekeepers in conjunction with sets of critical events (break-throughs) in the nuclear and solar energy fields, 2) by identifying these critical technical event/information agent pairs, to provide a basis for the organizational and managerial functions which will facilitate the development and use of critical energy R&D information, and 3) delineate parameters within which a group of technological gatekeepers might be linked. It is anticipated that identification of agent pairs will provide a rational basis for allocation of information transfer resources on a priority basis; provide a means of early warning of scientific and technical developments, and serve as a basis for cross-fertilization and as a means to spur innovation and creativity. Linkage of individuals will then permit acceleration of the R&D process, a means to bridge federal and private information systems, and a factual basis for timely reordering of energy priorities. The study will hopefully develop a model applicable to crisis information management.

*****AWARDS

1. 11/22/74 Intellectual-Historical Basis for Explicit Recognition of an "Exploration Ethic" as a Component of Western Culture (\$25,000 for 6 mos. effort 11/22/74 - May 21, 1975). Jerry Delli Priscoli and Milton Marney, Co-Principal Investigators; Henry Hitchcock, Research Assistant; Marie Plunket, Administration; Audrey Hassanein, Information Specialist. For description see 9/26/74 issue of 714 News. Award is from NASA Goddard Space Flight Center - part of Outlook for Space Program.
2. 12/1/74 Science and Technology Research Grant from NSF's Science and Technology Policy Office from 12/1/74 - 11/31/74. Principal Investigator, John M. Logsdon; Project Manager, Herman Pollack. \$27,400 award for the 12 mo. period. For description see 11/22/74 issue of 714 News.

*****PUBLICATIONS

1. 12/74 POLITICAL ECONOMY OF THE SPACE PROGRAM (Pacific Books, \$24.95) by Professor Mary A. Holman. This project was completed under sponsorship of the Program of Policy Studies basic NASA institutional grant nearly 5 years ago. It will be on sale at the GW bookstore in the future. We congratulate Mary on her outstanding dual achievement: 1. writing the book 2. getting Pacific Books to finally publish it. More on this book later.
2. 12/74 Summary of a Conference: The Southern Regional Workshop on Technology Assessment, Vary T. Coates and John E. Mock, Co-Chairmen. Under Contract ERP73-05807 A01/NSF's Office of Intergovernmental Science and Research Utilization. The document is a summary of a 3-day conference for State and local decisionmakers and researchers. Technology assessment is applied, problem-oriented, interdisciplinary research designed to anticipate and evaluate the full range of consequences of a technological development or project, in support of policy formulation and decisionmaking. Topics covered by invited speakers include: concepts and rationale of TA; history of development in Federal Legislative and Executive Branches and in State and local governments; organization, management, and methodologies; relationship to Env. Impact Statements; & presentations on recent assessments. An introductory essay discusses State and local government experience with Technology Assessment. Free from PPS office: 676-7576.

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4. 12/16/74 Energy R&D Information Category 6, of NSF/Office of Science Information Program Solicitation 74-38 on Improved Dissemination and Use of Scientific and Technical Information. Vary Coates, P.I., on 12 mos. \$161,313 effort. Goals and objectives of the study include: 1) to identify the people commonly known as scientific troubadours or technological gatekeepers in conjunction with sets of critical events (break-throughs) in the nuclear and solar energy fields, 2) by identifying these critical technical event/information agent pairs, to provide a basis for the organizational and managerial functions which will facilitate the development and use of critical energy R&D information, and 3) delineate parameters within which a group of technological gatekeepers might be linked. It is anticipated that identification of agent pairs will provide a rational basis for allocation of information transfer resources on a priority basis; provide a means of early warning of scientific and technical developments, and serve as a basis for cross-fertilization and as a means to spur innovation and creativity. Linkage of individuals will then permit acceleration of the R&D process, a means to bridge federal and private information systems, and a factual basis for timely reordering of energy priorities. The study will hopefully develop a model applicable to crisis information management.

*****AWARDS

1. 11/22/74 Intellectual-Historical Basis for Explicit Recognition of an "Exploration Ethic" as a Component of Western Culture (\$25,000 for 6 mos. effort 11/22/74 - May 21, 1975). Jerry Delli Priscoli and Milton Marney, Co-Principal Investigators; Henry Hitchcock, Research Assistant; Marie Plunket, Administration; Audrey Hassanein, Information Specialist. For description see 9/26/74 issue of 714 News. Award is from NASA Goddard Space Flight Center - part of Outlook for Space Program.
2. 12/1/74 Science and Technology Research Grant from NSF's Science and Technology Policy Office from 12/1/74 - 11/31/74. Principal Investigator, John M. Logsdon; Project Manager, Herman Pollack. \$27,400 award for the 12 mo. period. For description see 11/22/74 issue of 714 News.

*****PUBLICATIONS

1. 12/74 POLITICAL ECONOMY OF THE SPACE PROGRAM (Pacific Books, \$24.95) by Professor Mary A. Holman. This project was completed under sponsorship of the Program of Policy Studies basic NASA institutional grant nearly 5 years ago. It will be on sale at the GW bookstore in the future. We congratulate Mary on her outstanding dual achievement: 1. writing the book 2. getting Pacific Books to finally publish it. More on this book later.
2. 12/74 Summary of a Conference: The Southern Regional Workshop on Technology Assessment, Vary T. Coates and John E. Mock, Co-Chairmen. Under Contract ERP73-05807 A01/NSF's Office of Intergovernmental Science and Research Utilization. The document is a summary of a 3-day conference for State and local decisionmakers and researchers. Technology assessment is applied, problem-oriented, interdisciplinary research designed to anticipate and evaluate the full range of consequences of a technological development or project, in support of policy formulation and decisionmaking. Topics covered by invited speakers include: concepts and rationale of TA; history of development in Federal Legislative and Executive Branches and in State and local governments; organization, management, and methodologies; relationship to Env. Impact Statements; & presentations on recent assessments. An introductory essay discusses State and local government experience with Technology Assessment. Free from PPS office: 676-7576.

*****FUTURE SEMINARS SPONSORED BY PPS:

1. 1/8/74 "Science, Technology and Detente," sponsored by the PPS Graduate Program in Science, Technology and Public Policy. Seminar speaker to this dinner seminar will be Dr. Lewis Branscomb, Vice President and Chief Scientist of IBM. The seminar is being held on conjunction with the Science and Technology Policy Office of NSF; Professor John M. Logsdon is in charge.
2. 1/10/74 "Models of Judicial Information Flow," one day seminar to discuss draft study report prepared by Profs. Arthur S. Miller and Jerome Barron of the National Law Center (Co-Principal Investigators) and Dr. Charles M. Lamb. 20 legal scholars have been invited to participate; the 111 page report + 60 pp. appendices is being forwarded to the participants prior to the conference. Tentative title of the report is "The Supreme Court, The Adversary System, and the Flow of Information to the Justices: A Preliminary Inquiry."

*****ALUMNI

Wes Tennant is now associated with the Washington office of the Denver Research Institute as of Nov. 1, 1974.

*****STAFF PUBLICATIONS

Fred Wood's Monograph #20 on "The Potential for Congressional Use of Emergent Telecommunications" has come out in reprinted form in the Appendix to U.S. Congress, Joint Committee on Congressional Operations, Congress and Mass Communications, Hearings, 93rd Congress, 2nd Session (Washington, D.C. : Government Printing Office, April 10, 1974), pp. 664-733. Copies are avail. from Joint Comm. on Congressional Operations, 1628 Longworth Building, Washington, D.C. 20515.
Fred's statement on "Congress and the Cable: The Potential for Public Education and Participation" was also included on pp. 434-440.

*****JUST RELEASED

Book ----- Clout: Womanpower and Politics by Susan and Martin Tolchin as noted in the 12/19/74 issue of the New York Times. Susan Tolchin is associated with Drew University; her husband Martin is a correspondent with the Times. She occupied an office in the PPS suite last year while working on the book; she will be back in January, 1975 in connection with her Drew University program - a summary of which will be provided in a later issue of 714 News.

About the book:

Gloria Steinem says: "A landmark study of women in search of power over their own lives. It couldn't have been written ten or even five years ago, or by journalists of less talent or seriousness than the Tolchins."

New York Times Book Review says: "Susan and Martin Tolchin describe the growing liberation of the ballot box in a lively, well-documented and often revealing narrative."

Chicago Sun-Times says: "An enlightening and entertaining account of a major change in American political life."

Publishers Weekly says: "Well-timed for an election year, this up-to-the-minute perspective on women's potential role in American politics by the authors of *To The Victor* is a highly readable, stamp-licking and envelope-stuffing book that will make a few waves." \$10.00



*****VISITORS---Fumio Kodama, Associate Professor, Institute for Behavioral Sciences, Saitama University, 10/17/74. Vary Coates and Betsy Amin-Arsala became acquainted with Prof. Kodama in Tokyo as participants in the 1st Int. Conference on the Unity of the Sciences sponsored by the International Cultural Foundation.

*****Fred Wood is giving a presentation at the Annual National Meeting of the Society for General Systems Research (being held in conjunction with the AAAS meeting in New York City) on the Meeting theme of "Communications Systems Thinking and the Quality of Political Life." On Jan. 28, Fred will introduce the 7:00 p.m. session with comments on "Systems Thinking and the Technology Assessment of Political Communication Channels." At the AAAS meeting Fred is a discussant in a Jan. 30 session on Telecommunications and the Congress. The October, 1974, issue of Cablelines featured an article by Fred titled "The Potential for Congressional Use of Emergent Telecommunications: An Exploratory Assessment." We hope that Fred gets to watch a little TV over the holiday

*****MERRY CHRISTMAS AND A HAPPY NEW YEAR -- all staff and friends are most cordially invited to a PPS "at home" holiday gathering in the PPS office from 3 to 5 today. We hope you can all join us.

NEW AND CURRENT PROGRAMS*

GRADUATE PROGRAM IN SCIENCE,
TECHNOLOGY, AND PUBLIC POLICY,
GEORGE WASHINGTON UNIVERSITY

*Contributed by the Program
offices.

Science policy teaching and research at George Washington University is centered in two complementary activities. One is the Program of Policy Studies in Science and Technology; this research-oriented group is well known for its work in technology assessment and other areas of the technology/policy interface. The other activity is the graduate program in science, technology, and public policy--one of the few in the United States to offer a specific M.A. degree in science, technology, and public policy. It was established in 1970 under the joint sponsorship of GW's School of Public and International Affairs and the Program of Policy Studies. In its four years of existence, over fifty students have enrolled as degree candidates; ten M.A.'s have been awarded, and 35 students are in a degree program. In addition, a number of Ph.D. candidates in the university have made science and public policy one focus of their course work and/or dissertation.

Faculty directly involved in the graduate program include its director, John Logsdon (political science); its deputy director, Henry Nau (political science); and George Eads (economics). At its inception, the program was directed by John Hanessian. During the past 1½ years, the development of the program has been supported by a grant from the National Science Foundation. Student support has also come from the Cogar Foundation, the National Air and Space Museum of the Smithsonian Institution, and NASA.

Professor Logsdon currently teaches one undergraduate and two graduate courses each year in science policy; his graduate courses are a general overview of public policy issues related to science and technology and a research seminar on domestic science policy issues. Professor Nau gives a graduate seminar on science, technology, and world order, this year focusing on international energy policy and the U.S.-U.S.S.R. scientific and technological agreements. Professor Eads introduced a new course last fall on the economics of technological change.

Students in the degree program, in addition to their specific course work in science policy, can draw upon the total resources of the university in constructing a program of studies. This has enabled students to do course work in fields such as environmental law, ocean policy organizational change, and urban transportation, in addition to fields in political science and economics.

The program has drawn students from a variety of disciplinary backgrounds ranging from physics and chemistry to political science and psychology. In addition to recent undergraduates, the program has enrolled many part-time students

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already at work in related employment locally. The program's students have also been very successful in finding related jobs, including positions in several NSF offices, the Science Policy Research Division of the Library of Congress, the U.N.'s Science, Technology, and Development Office, and the Brazilian space agency.

The Washington location is uniquely favorable in providing students with access to individuals active in shaping science and technology policy. Visitors to GW under program sponsorship have included Edward David, Philip Handler, James Webb, Russell Train, and Murray Weidenbaum, among many others. Students also have the Washington science policy community as a research resource for their term papers and theses.

Current research emphasis of the program's faculty are: Logsdon--changing institutional structures for federal management of science and technology and comparative technology policies of industrialized nations; Nau--technological aspects of contemporary international relations; Eads--government involvement in the stimulation of commercial technology in the U.S. and Europe. In addition to this faculty research, one doctoral student, Mark Frankel, has been particularly active in the area of biomedical policy research; Frankel has also served as the assistant to the program's director for the past two years.

During the 1972-1973 academic year, the program sponsored a professional seminar series on the topic, "U.S. National Goals and Technological Strategy." These evening seminars provided an occasion for those professionally involved in science and technology policy in the Washington area to meet on an informal basis for the discussion of issues of common interest. The program's students also were invited to attend the seminars. The seminar series will probably be resumed in September 1974.

For further information on the program or copies of its course syllabi, contact John Logsdon, Graduate Program in Science, Technology, and Public Policy, George Washington University, Washington, D.C. 20006.

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The George Washington University Washington, D.C.

SCIENCE, TECHNOLOGY, AND PUBLIC POLICY AS A FIELD OF STUDY

In the years since World War II it has become increasingly evident that the public policies of the United States and most other countries of the world and the relationships among these countries have been strongly conditioned by results of scientific research and technological developments. In fact, many students of the process of societal change are convinced that the most crucial set of interactions influencing the character and performance of contemporary society and the nature of future social change are those between science and technology on one hand and public policy on the other. Technological innovation, in their view, both provides opportunities for solving many of the pressing problems of our time and poses severe threats to the quality of human life.

There is an evident need in government, in the universities, and in industry for individuals able to understand the public policy issues posed by science and technology. As one effort to develop such individuals, the School of Public and International Affairs of George Washington University inaugurated in September 1970 a program of studies leading to a Master of Arts degree in the field of Science, Technology, and Public Policy.

THE UNIVERSITY

The George Washington University is a private, nonsectarian institution located in mid-Washington, four blocks from the White House and close to many other government agencies. The University was founded in 1821 to realize the aspirations of Washington, Jefferson, and Madison for the erection of a university at the seat of the Federal Government.

The University currently enrolls over 15,000 students from every state in the Union and over 99 other countries; its full-time faculty numbers over 700. In addition to the University's library and

various collections, students have access to the many excellent reference libraries in the nation's capital.

The School of Public and International Affairs was established in 1966; the School's programs are multidisciplinary and emphasize governmental policy, both domestic and foreign. The School currently offers programs leading to the Master of Arts degree in the fields of International Affairs, Public Affairs, and Russian Studies in addition to the field of Science, Technology, and Public Policy.

PROGRAM DIRECTION AND FACULTY

Any study of the relationships between science, technology, and public policy must be by its nature interdisciplinary. The School of Public and International Affairs draws its faculty and courses from several departments of the University, especially political science, economics, history, and psychology. In addition, the graduate program in Science, Technology, and Public Policy functions in coordination with several other schools of the university, including the National Law Center, the School of Engineering and Applied Science, and the School of Government and Business Administration. An interdepartmental Science, Technology, and Public Policy Studies Committee furnishes academic guidance. The program is under the direction of John M. Logsdon, Assistant Professor of Public Affairs and Political Science.

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To obtain the degree of Master of Arts, each candidate completes either a 30 semester hour program of study, including a Master's thesis, or a 36 semester hour program without a thesis. A reading knowledge of one modern foreign language or competence in statistics as well as a Master's Comprehensive Examination are required.

All degree candidates will complete at least two courses in science, technology, and public policy and one course in policy analysis.

Each student selects his remaining courses (from any of the participating schools) in close consultation with one of the program's faculty advisers. Students have the opportunity to concentrate in their program of studies on either domestic or international aspects of science, technology, and public policy. In every

instance, the goal of the program is to utilize the total resources of George Washington University to develop a course of studies that meets the individual student's preferences.

Students in the degree program are encouraged to complement their course of study with work experience as an intern with a government agency or research organization. Such experiences are arranged on an individual basis, either during the summer or during the academic year. Many of our students often have the opportunity to be directly involved in the work of the University's Science and Technology Policy Studies in Science and Technology, an oriented, multidisciplinary research program.

This degree program is thus a unique one with unparalleled potential for the study of public policy and science and technology, one which combines practical experience, and frequent contact with individuals in policy-making.

CAREER OPPORTUNITIES

Students who complete the program are well qualified for research and development work related to science and technology with government agencies. Students in the program now hold positions with the Environmental Foundation, the Environmental Department of Labor, the Science and Technology Division of the Library of Congress, the Department of State. Also, many students in the program already hold jobs in research and development at such agencies as NASA, the military, and professional offices, and COMSAT; they bring a practitioner's viewpoint to their studies. Students may proceed in a doctoral program, work in industry, and public policy as an area of

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need in government, in the industry for individuals able to address policy issues posed by science and technology. The effort to develop such a program of Public and International Affairs at Washington University inaugurated a program of studies leading to a degree in the field of Science, Technology, and Public Policy.

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Students who complete the degree program are well qualified for research and administrative positions related to science and technology policy, particularly with government agencies. Students from the program now hold positions with the National Science Foundation, the Environmental Protection Agency, the Department of Labor, the Science Policy Research Division of the Library of Congress, and the Department of State. Also, many of the students in the program already hold jobs in related policy areas at such agencies as NASA, the military services, congressional offices, and COMSAT; these students bring a practitioner's viewpoint to the program as they continue with their own studies. Students can also elect to proceed in a doctoral program, with science, technology, and public policy as an area of concentration.

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FINANCIAL ASSISTANCE RESEARCH FELLOWSHIPS

In addition to the fellowships and assistantships available to all applicants to the School of Public and International Affairs, a limited number of full or partial research assistantships may be awarded to students applying for admission to this program. A full assistantship is equivalent to a stipend of \$4,000 for an academic year, from which tuition and fees must be paid. Another potential source of financial support is paid internships for program students. The availability of research assistantships or internships is contingent on research grants and on the agreement of specific agencies to provide internship opportunities.

Further information and applications for admission and financial support may be requested from

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appendix to various Program
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