

Organizing Survey Research To Support Military Manpower Policies

Zahava D. Doering

Rand

The research described in this report was sponsored by the Office of the Assistant Secretary of Defense/Manpower, Reserve Affairs and Logistics under Contract MDA903-80-C-0652.

Library of Congress Cataloging in Publication Data

Doering, Zahava D.

Organizing survey research to support military manpower policies.

"May 1982."

Bibliography: p.

"R-2859-MRAL."

I. United States--Armed Forces--Personnel management--Research--United States. 2. Manpower policy--United States--Research--United States. I. United States. Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics) II. Rand Corporation. III. Title. UB23.D63 355.6'1'072073 82-7637

ISBN 0-8330-0402-6

AACR2

The Rand Publications Series: The Report is the principal publication documenting and transmitting Rand's major research findings and final research results. The Rand Note reports other outputs of sponsored research for general distribution. Publications of The Rand Corporation do not necessarily reflect the opinions or policies of the sponsors of Rand research.

R-2859-MRAL

Organizing Survey Research To Support Military Manpower Policies

Zahava D. Doering

March 1982

Prepared for the
Office of the Assistant Secretary of Defense/
Manpower, Reserve Affairs and Logistics



PREFACE

This report documents a briefing of work conducted under Task Orders 78-V-1, 79-V-1, 80-V-1, and 81-V-1 as part of Rand's Manpower, Mobilization, and Readiness Program, sponsored by the Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics)--OASD(MRA&L). The Rand program seeks to develop broad strategies and specific solutions for dealing with present and future defense manpower problems. The achievement of these goals requires the development of new methodologies for examining broad classes of manpower problems, as well as specific problem-oriented research.

A key objective of the Rand program was the development of Department of Defense (DoD)-wide data bases that can support policy formulation and research on defense manpower problems. The data bases provide information about the demographic, economic, and social characteristics of military personnel and about their experiences, intentions, attitudes, and preferences. Particularly if collected periodically, these data will serve as a basis for assessing the response of military personnel to policy changes and for identifying areas for future policy action.

The Rand-DoD Survey Research Project has been responsible since FY 1978 for designing, developing the methodologies for, and collecting these data bases. This report describes the origin, functions, organizational structure, and accomplishments of the project. Because Rand's responsibilities for DoD survey research were intended to end after an experimental period, the report also includes an evaluation of the project's work to date and recommendations for the transfer of its responsibilities to the Department of Defense.

SUMMARY

The Rand-DoD Survey Research Project, a collaborative effort of the Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics)--OASD(MRA&L)--and The Rand Corporation to develop a survey research capability, has made available current survey-based statistical information to support the formulation of military manpower policy. Begun in FY 1978, the project is nearing the end of its experimental period, and decisions must be made about the future direction of DoD's survey research capabilities. This report documents a briefing describing the origins, functions, organizational structure, and accomplishments of this project and proposes an institutional framework for effectively meeting OASD(MRA&L)'s needs for policy-relevant survey data.

OASD(MRA&L) established the project at Rand in October 1977 as part of an effort to improve the quality of data used in military manpower research and policy formulation. Rand was charged with designing, developing, and institutionalizing an effective military manpower survey research program in OASD(MRA&L) and with demonstrating the applicability of survey data to military manpower policy formulation and research.

One of the major objectives of the Rand-DoD Survey Research Project was to provide policy-sensitive information about a military life cycle: enlistment decisions, career orientations, responses to policies that affect military personnel and their households, and decisions to leave the military. The project designed and conducted three surveys, each focusing on a different stage of a military life cycle. The *1979 DoD Survey of Personnel Entering Military Service* was administered to over 30,000 enlistees. The *1978/79 DoD Survey of Officers and Enlisted Personnel* collected data from over 54,000 men and women on active duty worldwide in the four Services. The *1979 Reserve Force Studies Surveys* were administered to over 30,000 reservists in approximately 400 Army Reserve and Army National Guard units.

A second project objective was to develop a capability to collect data related to specific topics of policy interest. The project supported the evaluations of several military experiments in Rand's Manpower, Mobilization, and Readiness Program. The *1978 Selected Reserve Reenlistment Bonus Test Survey* demonstrated the importance of survey data collected in conjunction with administrative data. The *1981 Survey of Applicants for Military Service* was conducted as part of Rand's evaluation of the 1981 Educational Benefits Assistance Test Program.

A third objective was to develop mechanisms for Department of Defense participation in studies of civilian populations that are of interest to military manpower policymakers. Project staff participated in coordinating the funding and developing the questionnaires for DoD and Service participation in the *National Longitudinal Survey of Youth Labor Force Behavior*, an effort funded primarily by the Department of Labor. In addition to extensive labor force and educational data, this continuing study also collects information about the decision to enlist in the military and the career implications of different civilian and military options selected by young men and women. In addition, the project made a substantive contribution to the National Center of Educational Statistics for its study of high school students, *High School and Beyond*, and to the Department of Health and Human Services for its forthcoming *longitudinal Survey of Income and Program Participation*.

A fourth objective was to provide technical support and assistance to data collection activities of operational interest to DoD. Data collection for the Variable Housing Allowance (VHA) program and the *Profile of American Youth* study used expertise developed by the project. The *Profile of American Youth* study entailed the administration of the Armed Services Vocational Aptitude Battery (ASVAB) to a national sample of young men and women.

Rand's assessment of MRA&L's policy, research, and informational data needs indicates that a survey research program should be reestablished in MRA&L. The following basic assumptions underlie this assessment and the Rand recommendations: (1) there is consensus that high-quality survey data can contribute to military manpower policy;

(2) although each of the military Services conducts and analyzes surveys of its own population, OSD will continue to collect survey data for cross-Service policy evaluation and research and to coordinate military input into government surveys of the civilian sector; (3) MRA&L requires a survey research program that meets the highest professional standards and that, to meet such standards, MRA&L management will support survey activities and procedures that might be at variance with current practices in the military Services. Finally, the project considers survey data in a broad framework of uses and includes in it descriptive economic, demographic, and behavioral information, as well as data about tastes, preferences, and projected behaviors.

Starting from the above assumptions, Rand recommends that the survey research program in MRA&L be able to meet the following basic requirements:

- o Design, execution, and analytic support of major (in-house) MRA&L surveys
 - Periodic life-cycle surveys of military personnel
 - Special surveys, including evaluations of experiments and such operational surveys as the VHA
- o Centralized information and support capability for manpower-related survey data
 - Interface with and/or furnish technical assistance to civilian government agencies, the inter-Service survey committee, and the manpower research community
 - Archiving and disseminating of current and historic DoD and Service surveys
 - Implementation of data requests based on survey data
- o Professional review capability for DoD-wide surveys
 - Technical assistance and consultation for all survey-related DoD-wide activities
 - Implementation of professional standards for DoD-wide surveys.

The success of a reestablished in-house program requires an efficient organization and adequate resources. Rand recommends the following organizational measures:

- o To execute analytic and survey design functions
 - Appoint an external survey advisory board
 - Create an internal coordinating body
 - Establish a design and analysis team for each major MRA&L survey
 - Use contractors to supplement in-house analytic expertise
- o To implement survey research functions
 - Reestablish a survey division at DMDC reporting administratively through DMDC to MRA&L and receiving substantive guidance directly from the proposed internal coordinating body and a policy and analysis office
 - Formalize links between the survey division and relevant offices of the deputy assistant secretaries of defense (MRA&L) and the proposed survey advisory board and internal coordinating body.

A professional survey research program in MRA&L can maintain the accomplishments of the present project if strong support is obtained from senior MRA&L officials in two areas:

- o Implementation of organizational recommendations
- o Allocation of sufficient resources.

ACKNOWLEDGMENTS

The efforts and ideas described in this report are the result of the work, interest, and dedication of many individuals in the Department of Defense, the Services, The Rand Corporation, academic institutions, and several government agencies. I welcome the opportunity to acknowledge some of them here.

Lieutenant Colonel John D. Johnston, formerly director, Research and Data, Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics)--OASD(MRA&L)--first suggested this project. Kenneth C. Scheflen, chief, Defense Manpower Data Center (DMDC), has been a patient and supportive project monitor, colleague, and friend. Richard Danzig, former principal deputy assistant secretary of defense (Manpower, Reserve Affairs and Logistics), provided policy guidance, administrative assistance, and a welcome touch of humor.

The project staff's understanding of defense manpower issues and the military population was facilitated by Albert J. Martin and Lieutenant Colonel Michael W. Bryant, formerly of the Office of the Deputy Assistant Secretary of Defense (Military Personnel Policy), MRA&L; John R. Brinkerhoff and Colonel John R. Lilley II, formerly of the Office of the Deputy Assistant Secretary of Defense (Reserve Affairs); and Thomas G. Sicilia, formerly director, Research and Data, OASD(MRA&L). Wayne S. Sellman, Office of the Deputy Assistant Secretary of Defense (Military Personnel and Force Management), and Lieutenant Colonel Ronald Quayle, Department of Defense Per Diem, Travel and Transportation Allowance Committee, have been exemplary team leaders for several projects.

The implementation of project surveys profited from the expertise of Gwen O'Neill, Helen Hagan, Zietta Ferris, Elsie Elster, Carolyn Stewart, and other members of the DMDC staff, and Dennis Dillon of the Intran Corporation.

Service personnel helped develop survey procedures and shouldered extensive data collection responsibility. I would particularly like to thank Donna Johnson, U.S. Army Military Personnel Center; Meryl

Malehorn, head, Research Development and Studies Branch (OP-115), Office of the Chief of Naval Operations; Major Daniel Kuhn, U.S. Marine Corps Manpower Management Information Systems Branch; Major Robert Rhame, Captain Melvin Gambrell, George Germadnik, and Jean Cruseturner, U.S. Air Force Manpower Personnel Center.

David Chu and his former staff at the Congressional Budget Office were welcome critics. Ellyn Sehgal, Employment and Training Administration, Department of Labor; Michael E. Borus, Center for Human Resource Research, Ohio State University; and Celia Homans, National Opinion Research Center, University of Chicago, facilitated DoD and Service participation in the *National Longitudinal Survey of Youth Labor Force Behavior*.

I would especially like to acknowledge the efforts of the following Rand Corporation colleagues, past and present: Sue Berryman, Burke K. Burright, Richard V. L. Cooper, James Hayes, Deborah Hensler, J. Michael Polich, Robert Roll, Jane Sachar, and Roberta Smith. D. M. Landi, Cheryl A. Cook, and James R. Hosek provided institutional and administrative insights as we developed the recommendations presented here. Technical expertise was provided by Maureen David, Barbara Eubank, Corazon Francisco, Sharon Matyskiela, Diane Reingold, Sally Rich, and Marie Sanchez.

Any major undertaking ultimately relies on a core group of individuals. Four Rand colleagues are responsible for the success of the Rand-DoD Survey Research Project: David W. Grissmer, Jennifer A. Hawes, William P. Hutzler, and Jane Morse. The surveys we completed in the past several years testify to their expertise and dedication.

CONTENTS

PREFACE	iii
SUMMARY	v
ACKNOWLEDGMENTS	ix
Section	
I. INTRODUCTION AND BACKGROUND	1
II. FUNCTIONS, ORGANIZATION, AND ACCOMPLISHMENTS	5
III. RECOMMENDATIONS	15
IV. CONCLUDING OBSERVATIONS	23

I. INTRODUCTION AND BACKGROUND

A collaborative effort of the Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics)--OASD(MRA&L)--and The Rand Corporation over the past four years to develop a survey research capability has led to the availability of current survey-based statistical information to support the formulation of military manpower policy. This effort, the Rand-DoD Survey Research Project, is nearing the end of its experimental period, and decisions must be made about the future direction of DoD's survey research capability. This report documents a briefing describing the origin, functions, organizational structure, and accomplishments of this project and proposes an institutional framework for effectively meeting OASD(MRA&L)'s needs for policy-relevant survey data (Chart 1).

Chart 1

OUTLINE OF BRIEFING

- o Background of DoD survey activities
 - o Functions and organization of Rand-DoD Survey Project
 - o Accomplishments of Rand-DoD Survey Project
 - o Recommendations for transfer of survey research to DoD
-

Before reviewing the recent history of survey research in the Department of Defense, I should like to state the basic assumptions underlying this briefing. Let us assume that there is consensus that high-quality survey data can contribute to military manpower policymaking.

Some of the uses of survey data are outlined in Chart 2, and a range of examples from the experience of the past several years can be provided in each of the areas listed. Second, although each of the military Services conducts and analyzes surveys of its own population, let us assume that OSD will continue to collect survey data for cross-Service policy evaluation and research and to coordinate military input into government surveys of the civilian sector. Third, let us assume that MRA&L is interested in a survey research program that meets the highest professional standards and that, to meet such standards, MRA&L management will support survey activities and procedures that might be at variance with current practices in the military Services.

I should emphasize also that the project views survey data in a broad framework of uses and includes in the definition of survey data descriptive economic, demographic, and behavioral information, as well as data about tastes, preferences, and projected behaviors.

Chart 2

USES OF SURVEY DATA

- o In policy research
 - To analyze a broad range of manpower policy issues
 - To provide data for specific research designs
 - o In issue responses
 - To support OSD-Service programming and planning
 - To respond to congressional requests and in testimony
 - To reply to civilian agency inquiries
 - o In compiling basic statistics
 - To enhance OSD-Service administrative data
 - To provide comparisons with civilian data
-

Between 1974 and 1977, meeting OSD's military manpower survey data requirements was the responsibility of a group at the Defense Manpower Data Center (DMDC). The group grew out of earlier survey-related activities conducted by the Air Force Human Resources Laboratory and by a private contractor, HumRRO. Concerned that the survey function, as organized and staffed, did not effectively meet the needs of policy-makers and analysts, the director of research and data, OASD(MRA&L), in July 1977 asked Rand to review the DMDC capability.

The Rand review, conducted during summer 1977, identified severe substantive and administrative deficiencies in prior surveys of personnel entering the military, on active duty, and in special groups, such as military retirees and reservists (Chart 3). The surveys were not

Chart 3

SHORTCOMINGS OF MRA&L SURVEY PROGRAM PRIOR TO 1977

- o Problems in major DoD surveys
 - Weak analytic designs
 - Flawed administrative procedures
 - Limited utilization of good data
 - o Lack of interface with civilian agencies (public and private) with respect to military-related survey data
 - o Minimal coordination of DoD surveys with Service survey activities
 - o Limited archiving of DoD and Service survey data
 - o Limited ability to support functional office survey data requests
 - o Limited review, modification, and approval of special MRA&L surveys
-

analytically designed to address specific manpower issues, contained flaws in question wording and format, and suffered from technical problems in questionnaire development and sample design. The procedures employed in data collection often led to low response rates and incomplete data with which to assess data quality. Good data were clearly underutilized by MRA&L staff.

In October 1977, Rand agreed to undertake the development of a more effective survey research capability, which, after several years, could be reestablished in the Department of Defense. The objectives of the Rand-DoD Survey Research Project are shown in Chart 4. The project did not, however, take over all of the responsibilities of the former survey group; rather, it focused primarily on designing and conducting major in-house surveys and on performing preliminary, overview data analyses. Other project activities were defined in the context of creating a structured program and demonstrating the applicability of survey data for policy analysis and research.

Chart 4

OBJECTIVES OF RAND-DOD SURVEY RESEARCH PROJECT
FY 1978 THROUGH FY 1981

- o Develop an effective survey research capability
 - o Design and conduct major MRA&L surveys for a limited period
 - o Demonstrate applicability of survey data to manpower policy and research
 - o Transfer new capability back to MRA&L
-

II. FUNCTIONS, ORGANIZATION, AND ACCOMPLISHMENTS

The Rand-DoD Survey Research Project, structured like most professional survey research organizations along functional lines, was divided into five major functional areas: analytic design, survey design, survey operations, survey support, and survey analysis. Rand and the appropriate DoD organizations shared the responsibility for these functions (Chart 5).

Chart 5

PROJECT STRATEGY

<u>Function</u>	<u>Responsibility</u>
Analytic design	Rand -- Rand analysts -- MRA&L functional office staff -- Military manpower community
Survey design	Rand
Survey operations	Rand-Services
Survey support	DMDC-Rand
Survey analysis	Rand-MRA&L - Services - Manpower researchers

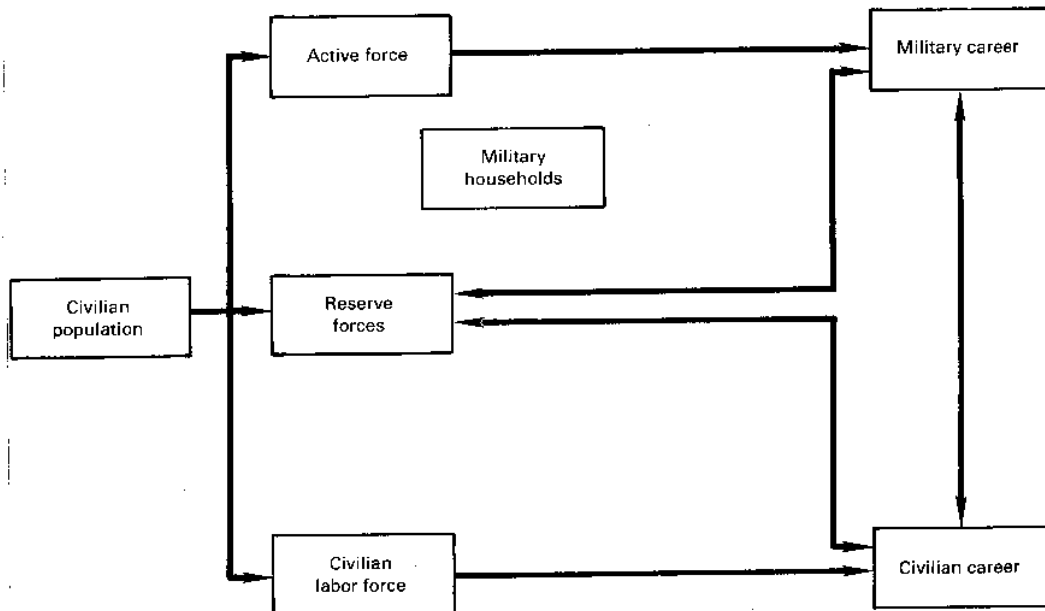
Analytic design was Rand's responsibility. Policy issues amenable to analysis with survey data were identified by Rand researchers, who then discussed them with MRA&L functional office staff and with the defense manpower community, including academic specialists and

Congressional Budget Office staff. The actual design of each survey, including specification of data requirements, questionnaire development, sample design, and data collection strategies was also Rand's responsibility. Survey operations, including implementing the sample design, actual data collection, monitoring participation rates, and strategies for improving data quality and response rates, were undertaken jointly by Rand and the Services. Survey support functions, such as procuring data-processing contractors, computer support, and clerical help were the joint responsibility of Rand and the Defense Manpower Data Center (DMDC). The data were analyzed primarily by analysts in Rand's Manpower, Mobilization, and Readiness Program and MRA&L, assisted by DMDC computer specialists. As the existence of the data has become more widely known, they are also being analyzed by the Services and the military manpower research community. In the past several years, researchers at the U.S. Naval Academy, the Congressional Budget Office, the Brookings Institution, and the Woodrow Wilson International Center for Scholars (Smithsonian Institution), among others, have utilized data collected by the Rand-DoD Survey Research Project. Because much of the work is iterative, it has required a great deal of coordination and cooperation on the part of individuals with different skills and in different organizations.

Early in the experimental period, the Rand-DoD Survey Research Project proposed a life-cycle model of military participation as an appropriate conceptual framework for organizing MRA&L's survey research program (Chart 6).

From the perspective of military manpower policy, let us assume for the sake of simplicity that individuals can be characterized as being in one of the major categories shown in Chart 6 and that clear transition junctures can be identified as individuals move from one category to another. For example, a man or woman may be in the Active Force, the Reserve Forces, or the civilian labor force, or may be in transition between any two. Although Chart 6 describes the life cycle of individuals, the project has been sensitive to the probability that military personnel policies have a greater effect on members' households than civilian employers' policies have on employees' households.

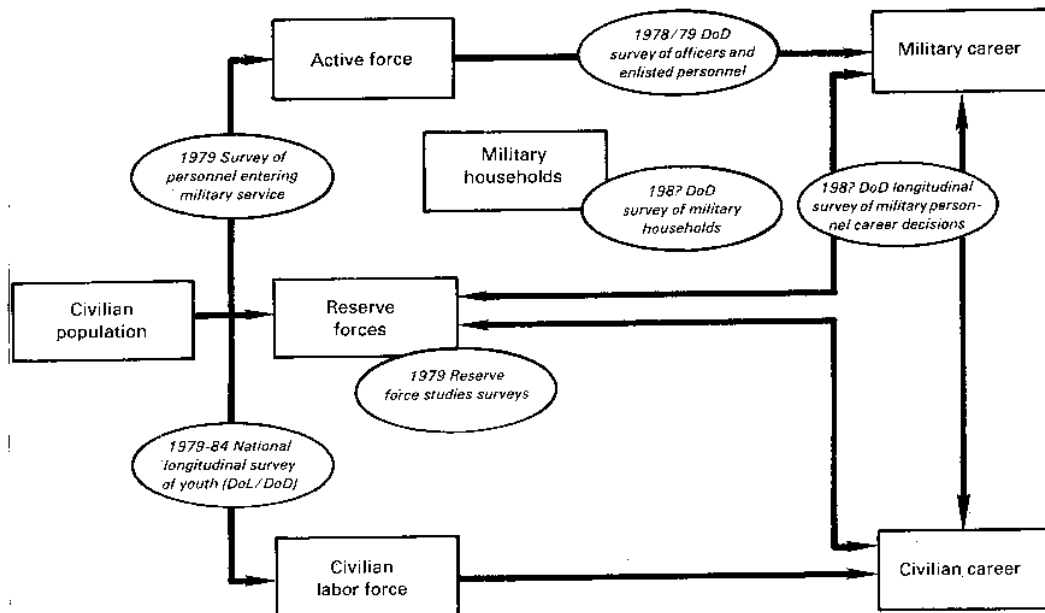
CHART 6
Conceptual framework: Life-cycle model of military participation



Studying the military life cycle requires information not only about military personnel, but also about the civilian population eligible for military service, the civilian lives of reservists, and the veteran population. A critical component of the program has been the linking of the information needs of military manpower policy research with major surveys of the civilian population sponsored by other government agencies.

Against this framework, the Rand-DoD project redesigned or developed a set of major surveys to be administered to military personnel and expanded surveys to be administered to civilian populations by other government agencies (Chart 7). The *1979 Survey of Personnel Entering Military Service*, which collected data from individuals in all four Services immediately after they enlisted, focused primarily on the enlistment process. In conjunction with the Department of Labor, the Department of Defense and the military Services are participating in the *National Longitudinal Survey of Youth Labor Force Behavior*. A

CHART 7
Life-cycle model of military participation: Completed and proposed surveys



sample of 13,200 young men and women, including 1200 in the military, who were 14 to 21 years old in 1979, are being personally interviewed each year as they attend institutions of higher education or participate in the military or civilian labor force.

Both the active and reserve military populations have been surveyed in the past several years. The *1978/79 DoD Survey of Officers and Enlisted Personnel* focused on the in-Service population in all four Services. The *1979 Reserve Force Studies Surveys* included junior and senior enlisted personnel, unit commanders, and management personnel in over 400 Army National Guard and Army Reserve units.

To complete the survey series, the Rand-DoD project recommends that DoD design and conduct a longitudinal survey of military personnel career decisions. At present, we do not have the information with which to disaggregate the various factors that push the individual out of military life or to assess whether the factors that pull an

individual into civilian life are realized. Understanding the push factors is critical if we are to manage the force more effectively; understanding the pull factors may become critical in developing policies for increasing prior service enlistments. Ideally, that survey would collect data at the reenlistment or separation point and conduct follow-up studies as individuals remain in the military or resume civilian lives. Finally, although the major surveys have always collected household and spouse information from the Service members, the project recommends that DoD conduct a special survey of military households. Reliable information about the experiences, educational and occupational plans, attitudes toward the military, and preferences of household members may be crucial in effectively designing programs which recognize that military members are part of family units.

While the life-cycle surveys have been the major focus of the Rand-DoD Survey Research Project, the scope of the survey effort has been considerably broader. Chart 8 lists the surveys in which the project participated, when each survey was conducted, the number of questionnaires available for analysis, and the number of instruments--or forms--that were designed for each survey.

In addition to the three life-cycle surveys, two surveys were designed to support Rand evaluations of MRA&L experiments. The first, the *1978 Selected Reserve Reenlistment Bonus Test Survey*, demonstrated the utility of survey data for evaluating a bonus program in the Army National Guard and Army Reserve. The second, the *1981 Survey of Applicants for Military Service*, yielded crucial information about the role of educational benefits in the enlistment decision process for use in the Educational Benefits Assistance Test Program evaluation.

For the first five surveys listed in Chart 8--i.e., the life-cycle surveys and the evaluation of experiments--Rand had complete analytic and survey design responsibility. The first two life-cycle surveys, the *1978/79 DoD Survey of Officers and Enlisted Personnel* and the *1979 DoD Survey of Personnel Entering Military Service*, represent major redesigns of surveys conducted intermittently prior to Rand's involvement. In addition to improving the policy-relevance and

Chart 8

SCOPE OF RAND-DOD SURVEY RESEARCH EFFORT

	Date Conducted	No. of Cases	No. of Forms
OSD Life-Cycle Surveys			
DoD Survey of Personnel Entering Military Service	1979	31,000	4
DoD Survey of Officers and Enlisted Personnel	1978-1979	54,600	4
1979 Reserve Force Studies Surveys	1979-1980	23,000	4
Surveys to Support Evaluations of Military Experiments for MRA&L			
1978 Selected Reserve Reenlistment Bonus Test Survey	1978	6,100	1
1981 Survey of Applicants for Military Service	1981	3,000	2
Surveys Linking DoD Information Needs with Civilian Surveys			
National Longitudinal Survey of Youth Labor Force Behavior (DoL/DoD/Services)	1979-1984	12,000 civilians 1,200 military	3
High School and Beyond (National Center for Education Statistics)	1980-	28,000 sophomores 28,000 seniors	1 1
Survey of Income and Program Participation (Dept of HHS)	1982-	40,000 civilians	1
Technical Support for Operational OSD Surveys			
Variable Housing Allowance Data Collection	1980	130,000	1
Profile of American Youth (ASVAB testing)	1980	12,000	-

quality of these surveys, Rand made an effort to ensure some substantive and technical comparability with prior surveys. The *1979 Reserve Force Studies*, which had no precedent, were designed to fill a serious policy and research data gap. For the *National Longitudinal Survey of Youth Labor Force Behavior*, Rand assisted in coordinating the funding between the participating civilian and military agencies and developed portions of the questionnaire specifically related to military policy issues. Rand also provided substantive input to a survey being conducted under the auspices of the National Center of Educational Statistics, *High School and Beyond*, and the forthcoming longitudinal *Survey of Income and Program Participation* under the auspices of the Social Security Administration, Department of Health and Human Services.

Finally, the project contributed to two other data collections of special interest to OSD, the *Variable Housing Allowance Data Collection* and the *Profile of American Youth*. An inter-Service task force was assembled in May 1980 to implement Variable Housing Allowance (VHA) payments in October 1980. Rand-DoD Survey Research project staff and DMDC personnel with survey data processing experience played key roles in all aspects of the data collection, processing, and analysis.

The last effort listed in Chart 8, *Profile of American Youth*, involved the administration of the Armed Forces Vocational Aptitude Battery (ASVAB) to the national sample of youth interviewed in the *National Longitudinal Survey of Youth Labor Force Behavior*. In this study, the project provided MRA&L with technical assistance in all phases of data collection and processing.

To summarize, the accomplishments of the past several years encompass military surveys and experiments, as well as civilian surveys of special interest to the defense manpower analytic and policymaking community (Chart 9).

In reflecting on the experience of the past several years, Rand can now discern the factors that led to the success of the cooperative Rand-MRA&L project (Chart 10).

First, three groups connected with the survey research--Rand and OASD(MRA&L) management and manpower analysts--fully supported the

Chart 9

SUMMARY OF RAND-DOD SURVEY RESEARCH ACCOMPLISHMENTS

- o Military Surveys
 - Developed effective methods for conducting surveys in military environments
 - Provided quality data bases for use in manpower policy analyses
 - Demonstrated policy relevance of data
 - o Military experiments
 - Demonstrated critical role of survey data in experimental evaluations
 - o Civilian surveys
 - Demonstrated advantages of cooperative efforts in civilian and military policy analysis
 - Developed mechanisms for coordinating funding and contents of cooperative efforts with civilian agencies
 - Expanded community of researchers interested in military manpower policy research
-

effort and protected the integrity of the analytic and survey designs of the project's activities. When MRA&L was solely responsible for surveys, some senior defense officials who considered themselves survey "experts" on topics that come under their functional areas had on occasion exerted pressures on survey professionals and may thus have compromised the quality and integrity of the end product. The Rand-DoD Survey Research Project consciously guarded against that sort of pressure. Rand management was strongly involved in the selection of professionals assigned to the project and supported their recommendations and judgments. Both the assistant secretary of defense (MRA&L) and the principal deputy assistant secretary of defense (MRA&L) gave

Chart 10

CRITICAL COMPONENTS OF RAND-DOD SURVEY RESEARCH PROJECT SUCCESS

- o Protection of analytic and survey design integrity
 - Rand management
 - OASD(MRA&L) management
 - Peer review
 - o Administrative support from DoD and military officials
 - Allocation of administrative resources
 - Utilization of military time for survey participation
 - o Application of state-of-the-art survey technology
-

the project firm support and personally adjudicated conflicts among senior officials. Finally, the survey professionals greatly profited from continuous review and advice from their peers, both in Rand and in the defense manpower community.

High-quality survey research is both time-consuming and expensive. To properly administer surveys, resources beyond those directly allocated to the project were required. The project could not have succeeded without these additional resources.

First, OSD and the Services seriously and visibly committed administrative and technical resources to ensure successful data collection. High-ranking military and civilian officials provided resources for survey implementation by assigning additional staff to the project for varying periods, tasking and coordinating requirements, sending letters and messages as required, arranging pretests with military members, resolving sampling problems, and assisting in monitoring the field administration.

Second, the use of military channels and duty time for survey data collection considerably improved survey response rates and Rand's

ability to monitor the various survey samples. In several instances, established survey channels were used for data collection; in others, the commanding officers of units with sampled respondents were asked to assume responsibility for data collection. The use of these channels, combined with the use of duty time for completing surveys, indicated to military personnel the importance of these activities and increased their participation.

Finally, the project tried innovatively to adapt state-of-the-art survey technology to the military environment. Most recently, in a survey designed to assist the OSD in evaluating the Educational Benefits Test, Rand used computer-assisted telephone interviewing.

III. RECOMMENDATIONS

Against this background of accomplishments and experience, I would like to discuss Rand's assessment of MRA&L's requirements for an in-house survey research program (Chart 11).

Chart 11

MRA&L SURVEY RESEARCH REQUIREMENTS

- o Design, execution, and analytic support of major (in-house) MRA&L surveys
 - Life-cycle surveys of military personnel
 - Special surveys
 - Evaluations of experiments
 - Operational surveys (e.g., VHA)
 - o Centralized information and support capability for manpower-related survey data
 - Interface and technical assistance
 - Civilian government agencies
 - Inter-Service survey committee
 - Manpower research community
 - Archiving and dissemination of current and historic DoD and Service surveys
 - Implementation of data requests based on survey data
 - o Professional review of other DoD-wide surveys
 - Technical assistance and consultation for all survey-related DoD-wide activities
 - Implementation of professional standards for DoD-wide surveys
-

Rand recommends, first, that the design, execution, and analytic support of major MRA&L surveys be conducted primarily within MRA&L. Furthermore, MRA&L should periodically modify and readminister the life-cycle surveys developed by the Rand project and expand the series to include a longitudinal study of career decisions (reenlistment/separation) and a survey of military households. In addition, MRA&L needs a capability to administer special surveys when an operational requirement, such as VHA, or an experimental evaluation, such as the Educational Benefits Test, clearly indicate the need for survey-based data.

Rand suggests, however, that MRA&L consider the use of contractor support for several types of survey-related activities. Prior to designing a totally new survey, e.g., a survey of households, MRA&L might ask contractors to develop a conceptual framework for the survey, preliminary questionnaires, and sampling and administrative designs. If a proposed survey touches on an area in which contractors have substantive expertise, or if the data can be used by the contractors as part of broader research programs, their involvement might be critical. MRA&L might also ask contractors to analyze existing data, even if the data are also analyzed by MRA&L analysts. Contractors should also be asked to coordinate their requirements for primary data collection closely with the in-house survey research program. Cooperative activities *as needed* would undoubtedly enrich the MRA&L survey data bases. In addition, contractors and other users of MRA&L survey data should provide input to the revision of existing MRA&L surveys.

Second, MRA&L should develop a centralized information and support capability for manpower-related survey data. The major activity in this category, the coordination of military input into surveys conducted by civilian agencies, should be continued. Military information needs have been linked in the past with surveys sponsored by the Department of Labor, Department of Education, Department of Health and Human Services, and U.S. Bureau of the Census. These links not only provide improved information for policymaking, but also expand the community of researchers who participate in military manpower research.

An existing inter-Service survey coordinating committee has been used in the past exclusively as a means of communicating information to the Services about MRA&L surveys and requesting cooperation in DoD data collection activities. In the future, MRA&L and the Services can, through the committee, capitalize on opportunities that arise in each other's survey efforts. Moreover, interaction should continue with the manpower research community in the use and interpretation of survey data. Mechanisms for archiving and retrieving manpower-related survey data from a wide variety of sources should be implemented, so that analyses can be conducted efficiently as policy issues arise. Also, analytic support in the use and interpretation of survey data should be readily available to MRA&L staff.

Finally, Rand recommends that MRA&L develop the capability to provide technical assistance and consultation to all surveys conducted under DoD auspices, independently of the organization that conducts them.

These extensive requirements demand an efficient organization and adequate resources to guarantee the future success of the effort. Specifically, in reestablishing a survey research organization, MRA&L should institutionalize the components--described in Chart 10--that ensured the success of the effort when it was based at Rand. Rand's major organizational recommendations are summarized in Chart 12.

To protect the integrity of analytic and survey designs, the ASD (MRA&L), or the DASD(MRA&L) with major responsibility for military personnel policies, should provide the policy and substantive guidance for MRA&L surveys. Two groups might be established to advise the ASD or DASD: an internal coordinating body and an external survey advisory board, the latter to consist of individuals in the private sector with expertise in both military manpower issues and survey research.

The internal coordinating body would be chosen to ensure that the interests and needs of all parties in OSD concerned with defense manpower were effectively met and that the survey program was compatible with the objectives of the MRA&L research and studies program. The establishment of such a body would prevent the dilution of effort

stemming from the inadequate internal coordination of multiple objectives. The proposed body might take the form of an internal panel or an internal survey policy council. Whatever its form, it should include representatives from the offices of the deputy assistant secretaries of defense (MRA&L)--including Military Personnel and Force Management, Reserve Affairs, Equal Opportunity and Safety Policy, and Program Integration--directly affected by the availability and quality of survey data, as well as the chiefs of the survey division and the Defense Manpower Data Center.

In an advisory capacity to the ASD(MRA&L) or responsible DASD (MRA&L), the internal coordinating body and external survey advisory board would jointly:

Chart 12

RAND RECOMMENDATIONS FOR AN MRA&L SURVEY RESEARCH ORGANIZATION

- o To execute analytic and survey design functions
 - Appoint an external survey advisory board
 - Create an internal coordinating body
 - Establish design and analysis teams for each major MRA&L survey
 - Use contractors to supplement in-house analytic expertise
 - o To implement survey research functions
 - Reestablish survey division at DMDC
 - Administrative reporting through DMDC to MRA&L
 - Substantive guidance through internal coordinating body and a policy and analysis office
 - Formalize links between the survey division and relevant offices of the deputy assistant secretaries of defense (MRA&L) and the proposed survey advisory board and coordinating body
-

- o Identify broad policy issues to be considered in the ongoing survey program
- o Identify policy issues that might necessitate special surveys
- o Develop options for the timing of life-cycle surveys
- o Estimate the resources needed to carry out different survey agendas.

Although in their roles as advisers to the ASD or DASD the internal and external advisory groups would have similar basic charters, they would bring different perspectives to the deliberations. The external survey advisory board would offer a broader perspective on MRA&L's needs, while the internal coordinating body would be more sensitive to OSD's operational requirements. Together, they would provide a balanced survey agenda to meet both short-term and long-term policy needs.

The two advisory groups would also serve the reestablished survey division in different ways. The external survey advisory board would:

- o Review proposed survey and sample designs *before* they were implemented
- o Help to solve special technical problems that might arise in the course of a specific survey.

The internal coordinating body would:

- o Make specific decisions about resource allocation *after* decisions were made on the basic survey agenda
- o Adjudicate problems of an institutional nature involving competing or conflicting priorities that might arise in the course of conducting the survey program.

Rand further recommends that a design and analysis team support each major in-house survey. To make up the team, the internal coordinating body would task the appropriate offices with the assignment of personnel for this purpose. For surveys having a broad-based user community, e.g., the *DoD Survey of Officers and Enlisted Personnel*, the

chief of the survey division should head the team. For special surveys, the team should be cochaired by the chief of the survey division and an expert with final analytic or implementation responsibility. The organizational structure developed for the *Variable Housing Allowance Data Collection*, discussed above, might serve as a prototype for the future collection of quality data for operational purposes. The head of that team had extensive analytic experience in military compensation. He was assisted by representatives from each of the Services with administrative authority and analytic skills. The expertise gained in the Rand-DoD Survey Research Project by both Rand and DMDC professionals was extensively utilized. The task force had the complete support of the ASD(MRA&L) in solving myriad resource and administrative problems. The survey division should not conduct surveys unless the functional offices that are the main users and consumers of the resultant data agree in advance to allocate personnel to the design and analysis team.

The design and analysis team would have the responsibility to:

- o Identify specific policy issues to be addressed through the data collection
- o Develop the analytic, survey, and sample designs and specify data requirements
- o Review and approve questionnaire contents, administrative procedures, and processing requirements
- o Coordinate requirements for actual data collection
- o Undertake overview analysis of the resultant data and assist in survey documentation.

In my view, the survey advisory board, the internal coordinating body, and the design and analysis teams together will ensure the long-term viability of the survey research program and protect its integrity.

Within this organizational framework, the survey division would logically have the responsibility for survey implementation and support functions. Its activities would include:

- o Developing and finalizing questionnaires, administrative procedures, and data processing requirements
- o Monitoring all aspects of data collection
- o Procuring contractors for additional administrative support (e.g., shipping and optical scanning)
- o Implementing sample selection, document control, and data processing.

MRA&L currently plans to reestablish the survey division at the Defense Manpower Data Center (DMDC) when the Rand project ends. Rand concurs with this plan and recommends that the organization for survey activities in MRA&L outlined above have its administrative and resource base at DMDC and receive broad policy guidance through the internal coordinating body.

Ensuring that the substantive guidance is consistent with MRA&L's broad research and data concerns will entail the formalization of the relationship between the survey division and the various organizational entities discussed above. MRA&L must first decide how to link the survey division and substantive offices in MRA&L. Rand recommends that this division report to an office or offices in MRA&L responsible for policy analysis and formulation *independently* of the administrative reporting of DMDC to MRA&L. An independent reporting arrangement is needed because of the important substantive links between survey research and policy analysis. The arrangement will also provide guidance to supplement that received from the internal coordinating body. The survey division should, however, be given independent representation on the internal coordinating body.

In addition, a formal memorandum of understanding must be drafted, coordinated, and approved by the survey division, the primary reporting office or offices, the proposed survey advisory board, the proposed internal coordinating body, and the relevant offices of the assistant secretaries of defense (MRA&L). The extent and limit of authority to be exercised by various groups requires specification. Formal memoranda provide this basis, but they are not a substitute for effective and

professional relationships among individuals in various organizations. If MRA&L wants to guarantee the long-range viability of a survey division, such memoranda are essential.

The implementation of the survey research program outlined above requires adequate resources, as shown in Chart 13.

Chart 13

RESOURCE REQUIREMENTS FOR MRA&L SURVEY RESEARCH CAPABILITY

- o Direct personnel allocations
 - Survey research division personnel
 - Survey advisory board
 - o Indirect personnel allocations
 - Internal coordinating body
 - Design and analysis teams
 - Duty-time survey administration activities
 - Respondents' duty-time participation in surveys
 - o Other resources
 - Contractor support for survey activities
 - Survey design
 - Survey analyses
 - Specialized data collection (e.g., personal interviewing, computer-assisted telephone interviewing)
 - Questionnaire processing (optical scanning)
 - Computer support
-

Staffing and other resource levels clearly depend on the extent of the survey agenda. These levels should be estimated under different assumptions.

IV. CONCLUDING OBSERVATIONS

Some observations based on the experience gained in the course of the Rand-DoD Survey Research Project are presented in Chart 14. I believe that this project has enhanced the role of survey research in policymaking in two ways. First, the data collected from military personnel or coordinated in civilian population surveys have made distinct contributions to analyses undertaken to solve manpower problems. These

Chart 14

CONCLUDING OBSERVATIONS BASED ON EXPERIENCE OF RAND-DOD SURVEY RESEARCH PROJECT

- o Project elevated role of survey research in the policy area through
 - Analytic contributions
 - Operational utility
 - o Aspects of the military environment have implications for survey research:
 - Limitations of administrative data imply a greater need for survey data
 - Credibility of survey data presents a general problem
 - Complexity of military organization and mission requires innovative survey research
 - Short planning horizon of DoD managers conflicts with long-term efforts
 - o To maintain accomplishments, MRA&L must support survey effort by
 - Implementing organizational recommendations
 - Allocating adequate resources
-

data have contributed to informed discussion of such issues as retention, supply of personnel to the All-Volunteer Force, comparisons of current accessions with the youth population, reserve bonuses, and educational incentives. Second, the operational utility of survey data has been shown in the implementation of the Variable Housing Allowance and, I believe, will be shown when the *Profile of American Youth* data are analyzed.

Special characteristics of the military environment have implications for a survey division in MRA&L. The limitations of administrative data available about military personnel portend greater reliance on survey data. With high-quality work, the survey division may dispel any remaining doubts about the credibility of survey data. The complex military organization and mission will continue to require innovative survey research. The short planning horizons of DoD managers often conflict with and could subvert long-term sustained efforts.

Finally, I firmly believe that strong support is needed from senior MRA&L management to maintain the momentum of the past several years. This can best be accomplished by implementing the organizational recommendations proposed here and allocating adequate resources.

BIBLIOGRAPHY

Doering, Zahava D., *Rand-Department of Defense Survey Research Program, Fiscal Years 1978-1979*, The Rand Corporation, N-1165-MRAL, December 1979.

Doering, Zahava D., David W. Grissmer, Jennifer A. Hawes, and William P. Hutzler, *1978 DoD Survey of Officers and Enlisted Personnel: Survey Design and Administrative Procedures*, The Rand Corporation, N-1458-MRAL, April 1980.

Doering, Zahava D., David W. Grissmer, and Jane S. Morse, *1979 DoD Survey of Personnel Entering Military Service: Wave 1 User's Manual and Codebook*, The Rand Corporation, N-1605-MRAL, November 1980.

Doering, Zahava D., David W. Grissmer, and Jane S. Morse, *1979 DoD Survey of Personnel Entering Military Service: Wave 2 User's Manual and Codebook*, The Rand Corporation, N-1606-MRAL, December 1980.

Doering, Zahava D., David W. Grissmer, Jennifer A. Hawes, and William P. Hutzler, *1978 DoD Survey of Officers and Enlisted Personnel: User's Manual and Codebook*, The Rand Corporation, N-1604-MRAL, January 1981.

Doering, Zahava D., David W. Grissmer, and Jennifer A. Hawes, *1979 Reserve Force Studies Surveys: Survey Design, Sample Design and Administrative Procedures*, The Rand Corporation, N-1749-MRAL, August 1981.

Doering, Zahava D., David W. Grissmer, and Jennifer A. Hawes, *1979 Reserve Force Studies Surveys: User's Manual and Codebooks*, The Rand Corporation, N-1755-MRAL, September 1981.

Doering, Zahava D., and William P. Hutzler, *Description of Officers and Enlisted Personnel in the U.S. Armed Forces: A Reference for Military Manpower Analysis*, R-2581-MRAL, forthcoming.

Hawes, Jennifer A., *1979 Reserve Force Studies Surveys: Description and Evaluation of Survey Procedures*, The Rand Corporation, N-1750-MRAL, September 1981.

Hutzler, W. P., and Z. D. Doering, *1978 DoD Survey of Officers and Enlisted Personnel: Sample Design and Selection*, The Rand Corporation, N-1453-MRAL, February 1980.

RAND/R-2859-MRAL

