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NORC

NORC, A Social Science Research Center, was founded in 1941 and has been affiliated with the University of Chicago since 1947. NORC is committed to conducting and promoting social science, social policy, and survey research on topics of importance. The collection, analysis, and dissemination of data on such central subjects as education, the labor force, the family, health, and society are the means by which NORC accomplishes its mission.

REPORT 1983-1984

a social science research center
university of chicago
NORC

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REPORT FROM THE DIRECTOR

Robert T. Michael

NORC was founded in 1941 to do social research in the public interest. In the four decades since that time, the social sciences in general and survey research in particular have greatly increased their capacity to inform us all about attitudes and behavior in our society. NORC has been a principal contributor to that progress, in both the methods and the substance of social science research.

The progress in survey methodology and in techniques of analysis in the social sciences make this an intellectually exciting time. The pressing need to know more about the behavior, attitudes, and expectations of the American people and their institutions makes this a stimulating time. The uncertainties of funding for surveys and analysis through the federal government make this a challenging time.

Through all of this, NORC remains committed to conducting and to promoting useful survey, social science, and social policy research on topics of importance. We see the strength of the social sciences in their inductive base, and we see, as an essential part of NORC's mission, the fostering of inductive inquiry through data collection and dissemination and through use of data in social science and social policy research.

NORC: 1983-84

NORC began the two-year period 1983-84 by changing its name—that is, by going from its original name to one by which it has become widely known. The National Opinion Research Center became NORC, A Social Science Research Center, not just for ease of reference, however, but to accommodate the fact that the organization had outgrown its name. Though NORC continues to do research on public opinion concerning a wide range of social issues, the scope of the organization's work has grown to encompass not just attitudes but, increasingly, behavior as well. Thus, the issues addressed include, for example, both the attitudes of Americans toward abortion and the pricing practices of physicians.

As NORC's work has expanded on one dimension, it has become more integrated on others. This report takes as its organizing principle the topics around which NORC's work has clustered in recent years. As the following pages illustrate, NORC has developed substantial programs of research in six central areas: education, the labor force, the family, health, society, and the methodology of research. And even these six areas are far more intertwined than their treatment in the pages of this report might imply. Indeed, one can see the six areas as essentially one: the study of determinants of well-being. The state and the family are primary decision makers; schools, hospitals, and other firms are important institutional actors in producing well-being; knowledge, health, occupation, and earnings are aspects of well-being. NORC's five substantive programs of research, plus the advancement of methods used to study them, are at the heart of the social sciences. This is as it should be for an institution that for four decades has been so intimately involved with these sciences.

The importance of these topics would alone justify their choice as focuses for NORC's research efforts, but they were chosen as well because of the experience and expertise of the staff NORC has developed over the years. NORC's work has been, and continues to be, accomplished by an outstanding staff of experts in the technical aspects of survey research and in survey management and an interdisciplinary research staff of economists, historians, political scientists, psychologists, sociologists, statisticians, and social policy analysts. The integration of the efforts of this staff in survey operations and analysis of social problems is seen throughout the body of this report. The six major areas of NORC activity all involve both data collection and analysis.

This integrative approach to inquiry is one of NORC's most attractive features. Consider a few of the subjects currently under study, as described in later chapters, and notice how each can benefit from scrutiny from several social science disciplines and from both theoretical and applied perspectives: the effectiveness of Catholic schools in America or of bilingual education in secondary schools; the role of an urban neighborhood or of an extended family network in promoting schooling, employment, and health; the role of training programs in the military; the study of drug abuse, of technology in medical care, of the health status of adolescents in Harlem, or of the incidence and consequences of adolescent parenthood in Illinois; the influence of changes in public opinion on congressional voting patterns. There is a remarkably wide range of important social topics under investigation at NORC at any point in time, by a highly skilled and dedicated staff. This rich intellectual environment for research fosters balance in inquiry. It is one of NORC's great strengths.

Plans for the Future

While this report features the events of the past two years, 1983 and 1984, following the format of our earlier *NORC: Report 1981-82,* it is fitting that it include as well at least some mention of plans for the near future.

We hope to establish a Methodology Research Center that will house ongoing statistical projects that span the lifecycle of a survey from sampling to questionnaire construction to public use tape to analytical techniques for studying social interventions or for studying longitudinal data in general. NORC has, for years, been a leader in survey methodology. Our new center will give that aspect of our research more prominence and potential.

Continued development of the computer technology of survey research is another goal. In 1983-84, NORC made major commitments to new technology, using the ever expanding capabilities of the micro computers, in both telephone and face-to-face interviewing. CATI (computer-assisted telephone interviewing) and CADE (computer-assisted data entry) systems are now in operation and plans for their expansion are underway. These systems minimize opportunities for error and reduce the costs associated with preventing it. They can also offer powerful assistance in survey management. In sum, NORC is currently engaged in a systematic investment in its data processing capabilities, an investment expected to yield good returns over the next few years.

1985 will see NORC move to new quarters. We will relocate to a far larger building just a few blocks from our current location and still on The University of Chicago campus. Our new home has several desirable attributes in addition to its greater size. In fact, one of these is a direct outcome of its size: We will share the larger quarters with several University groups that have interests complementary to those of NORC. These include a number of smaller research centers from the University's Division of the Social Sciences and also the University's Computation Center, which houses and manages the University's mainframe computer. These associations should further strengthen NORC's research environment and capability. Furthermore, the move will permit us to consolidate our survey operations in our home office. Thus, while NORC will maintain a presence in New York City, we will no longer have to maintain a survey operations capability in our office there.

NORC's Social Policy Research Center will be superseded in 1985 by a new center, the Chapin Hall Center for Children, directed by Harold A. Richman, the current director of our existing social policy center. Made possible by the generosity of Chapin Hall for Children, a private organization in Chicago devoted to the needs of Illinois children since its founding in 1860, the new center will conduct research on issues of policy relevance to children.

Another collaborative effort began to bear fruit in 1983-84—NORC's association with the Institut für Demoskopie at Allensbach, West Germany, and plans are being made for an increasingly active relationship between the two survey organizations in the years ahead. As described in the ***Corporate Report*** section of this volume, the two have shared interests in survey methods and comparative social behavior. Exchanges of staff visits and plans for cooperative surveys encourage optimism about fulfillment of the relationship's potential.

NORC plays an important role in the infrastructure of social science research. That it has prospered for over four decades is a great credit to its staff, management, and board of trustees, and to The University of Chicago, which has stepped forward to provide a helping hand at crucial times. Yet, in a financial environment in which a vast majority of its funding comes in the form of project-specific support, generally on a cost-reimbursement basis, the organization tends to have very little in flexible funds for exploratory research, for staff career development, or as a hedge against periods of temporarily slow funding. It would be extremely useful to NORC's long-term well-being if the organization had a small endowment to provide some protection against the inevitable shortfalls in funding and to provide a capability for the organization to initiate a few research ventures from its own resources. To this end, we expect to mount an endowment campaign in 1985.

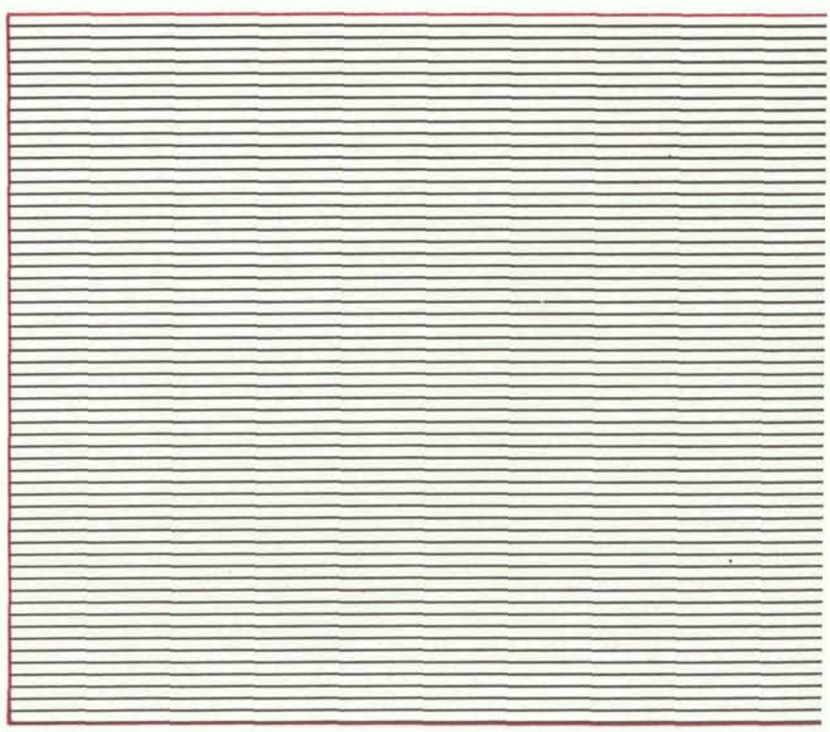
A Personal Note

As a report on the past two years, the strengths of the organization and the product of the research evidenced in this volume are the results of hard work by a tremendously talented and devoted staff. NORC is an unusual organization: academic in its psyche and corporate in its fiscal makeup. Its strengths come from its staff and their commitment to its goals. As a new director of NORC, effective in the fall of 1984, I should not take credit for the accomplishments of the past two years. NORC's management and research staff were ably and effectively led during most of that period by my predecessor, Norman M. Bradburn, who has since become Provost of The University of Chicago.

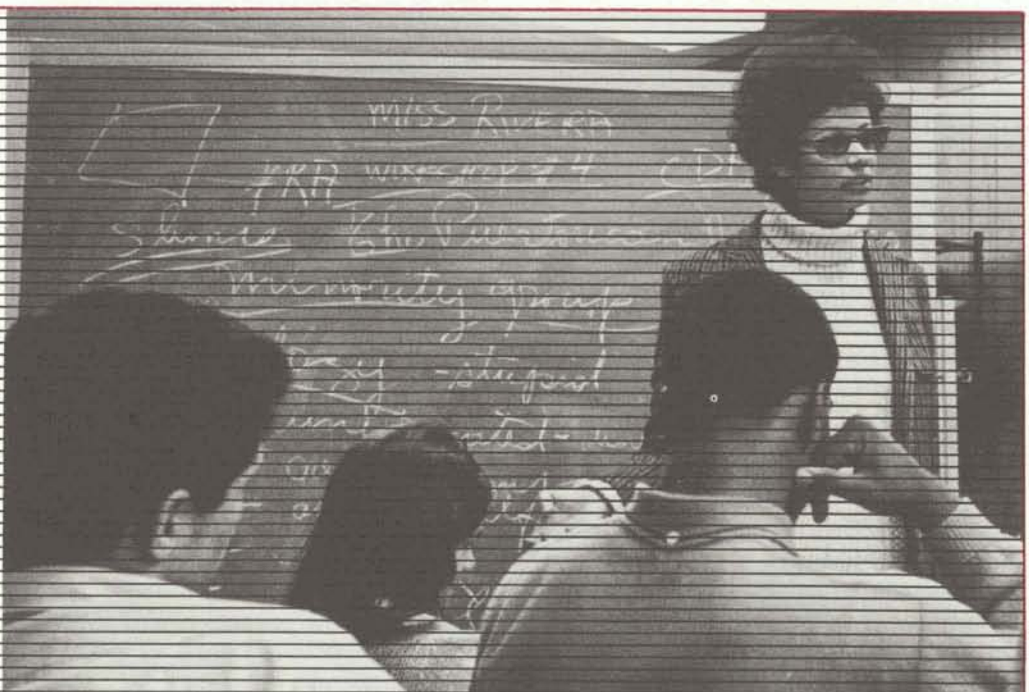
It is with pride and enthusiasm that I undertake my new duties at NORC. This organization has an enviable history of intellectual and financial success in survey research. As if to emphasize the interdisciplinary character of NORC, over the past two decades NORC has been directed by two sociologists, a psychologist (twice), and a political scientist, followed now by an economist. I hope that I can represent my discipline in this job as well and as beneficially for the organization as have my predecessors.

Robert T. Michael

REPORT ON RECENT AND CURRENT ACTIVITIES



education



In 1957 the Soviets did more than launch a satellite. They also generated an American crisis of confidence and a major public debate about the effectiveness of American educational systems. The 1983 publication of *A Nation at Risk: The Imperative for Educational Reform* by the National Commission on Excellence in Education generated a new sense of crisis and a new debate. This was presaged by annual reports of test score decline and followed by the publication of additional—and sometimes contradictory—reports, issued by the Carnegie Foundation for the Advancement of Teaching, the Twentieth Century Fund, and others. Not since Sputnik has this country seen its educational institutions so thoroughly questioned, criticized, doubted. There is, as the recent Commission report notes, a "widespread public perception that something is seriously remiss in our educational system."

The merits of this charge have been challenged, and even when the existence of a serious problem is conceded, its causes have been the subject of controversy. But few would challenge this country's need to know more about the state of education within its borders. It is to this end that education research at NORC is pointed.

Secondary Education: The Pivotal Point

Much attention, and concern, have been directed toward secondary education in the United States. High school is the last educational experience shared by nearly all American youth. High school is the setting in which the effects of elementary education come to light and in which plans are made for postsecondary education and careers. Moreover, high school is the arena in which students' preparation and performance can make or break these plans.

The high school experience, and its effects on later life, are a major research focus at NORC. The Education Longitudinal Studies group (ELS) was established at NORC in 1983 to ensure that an increasingly complex group of projects funded by the National Center for Education Statistics (NCES) would benefit from focus in direction and efficiency in management.

At the heart of this work are two large studies of young people—The National Longitudinal Study of the High School Class of 1972 (NLS-72) and High School and Beyond, a National Longitudinal Study for the 1980s (HS&B)—both funded by NCES. These projects are at once similar and complementary.

The earlier study began in 1972, when both students and their environments were under the influence of the decade just closed. The later study began with the current decade, with its different circumstances and concerns, and it encompasses two groups—the high school classes of 1980 and 1982. At the same time, the two studies have important things in common. Both take as their starting point the high school years of the youth under study; this focus allows analysts to examine the critical transition to adulthood with its myriad choices concerning education, work, personal development, and family formation. Both studies are also longitudinal, following their subjects over time; this allows analysts to examine effects of high school on those choices, and of earlier choices on later ones. While the separate studies offer the opportunity to track the progress and problems of the birth cohorts they focus on—roughly, the birth cohorts of 1954, 1962, and 1964—the two taken together offer the added opportunity to analyze differences between and the effects of public policies upon groups born before and after the peak of the baby boom, and thus to sort out the effects of maturation and period.

The two-cohort design of HS&B serves several purposes. First, the questionnaires and tests administered to 1980 seniors were designed to replicate the data collected from the class of 1972 in NLS-72, thus supporting a complete range of cohort comparisons with data bracketing important Federal policy changes. The younger cohort was added to the HS&B design to provide the capacity to study the effects of school environment and individual characteristics on achievement and other educational activities during the last two years of high school. Finally, beginning the longitudinal study with tenth, rather than twelfth, graders provides the opportunity to study those who reach the tenth grade but who decide to leave school before graduating. The younger HS&B cohort includes a probability sample of 2,600 high school dropouts.

Though NLS-72 is the earlier project,

NORC was first involved with HS&B. NORC has been the prime contractor for the study since its inception in 1978, responsible for the planning and development of the project and conducting the baseline survey and testing of nearly 60,000 students in 1980, and the biennial followup surveys since that time. In 1983-84, NORC conducted the second followup of more than 30,000 members of the original sample and began work on the third followup.

The core of HS&B is test and interview data from this large sample over a period of four years. This core has been enhanced by numerous supplements, covering special populations and issues and greatly enriching the database. Among these supplements have been a survey of teachers and administrators conducted with special supplemental funding from the National Institute of Education, a survey of students in Department of Defense schools for the dependents of military personnel stationed overseas sponsored by DoD, a survey of parents on their willingness and ability to offer financial assistance for their children's postsecondary education, and the collection of transcripts from both secondary and postsecondary schools attended by the sample students.

In 1983-84 NORC added NLS-72 to its responsibilities. NLS-72 began with a survey in 1972 of over 23,000 persons who were high school seniors in that year. They have since been followed up four more times, in 1973, 1974, 1976, and 1979. NORC's involvement with NLS-72 began with an NCES contract to participate in designing and planning for supplemental funding of the Fifth Followup Survey of the Class of '72, and to collect postsecondary school transcripts for members of this cohort.

In 1984, NCES decided to schedule the next followup surveys for both HS&B and NLS-72 in the same year (1986), and to house them with a single contractor in order to increase the efficiency with which the two studies are conducted and the comparability of the data they produce. NORC was the successful bidder for this contract and is at work on both of these projects.

One of the major responsibilities of contractors on large longitudinal studies with significance for policy is maintaining a database that is high in quality and accessible to all interested parties. Possibilities in Education Research: Inside a Major Database, by

Calvin C. Jones

NORC Senior Survey Director Calvin Jones, who has served as Project Director of the ELS studies since 1982, presents a view of the wealth of information accumulated by the NCES Education Longitudinal Studies Program to date and of the uses to which this can be and sometimes has been put.

The Shapes of Schools and Their Effects on Students

Most of the work described above has been accomplished under the aegis of NORC's Survey Group, which has had primary responsibility for the design and execution of the surveys and for the creation of the public-use databases that result. NORC Research Associates have also been active in the project, with James S. Coleman chief among them. Coleman was Principal Investigator for HS&B in its early stages, in which capacity he contributed to the design of the study and led the initial analytic effort. Other NORC analysts have since accessed these databases, with NCES or private foundation support, to investigate schools, students, and the interactions between them.

The organizational and social structures present in the school setting and their effects on educational outcomes have been one focus of research. NORC Research Associates, supported by grants from The Spencer Foundation, have examined this subject from a number of angles.

Possibilities in Education Research: Inside a Major Database

NORC's responsibilities as contractor to NCES for the conduct of the Fifth Followup Survey of the National Longitudinal Study of the High School Class of 1972 (NLS-72) and the Third Followup Survey of High School and Beyond (HS&B) include the maintenance of all data files related to the Longitudinal Studies Program of the National Center for Education Statistics (NCES). These files constitute a database of extraordinary breadth and depth for the investigation of both theoretical and policy-relevant research on educational processes. Their management and further development are the principal focus of NORC's Educational Longitudinal Studies (ELS) group.

Questionnaire and test data from over 80,000 young men and women are the core elements. For varying subsamples within this pool, the data have been supplemented by records data including high school transcripts, postsecondary school transcripts and financial aid records, SAT scores, and military service records. Contextual data about the secondary and postsecondary schools attended have been gathered directly from school administrators and teachers, and from other Department of Education surveys. NORC surveys of parents have added detailed information about the economic status of students' families, especially their ability to support postsecondary educational activities. Employer surveys have added rich data on workplace characteristics. County-level demographic and economic data from the Census and Bureau of Labor Statistics add further detail about the environments within which the transition from high school to adult roles occurs. Many of these supplementary datasets provide the means to shift the level of analysis away from individual behavior to a larger aggregate, such as community types, school types or categories of a policy or process typology, within which the core student data contributes to the construction of elusive summary or composite measures for the unit of interest.

Besides supporting research at multiple levels, NORC's ELS program has provided a valuable mechanism for the economical study of special subpopulations via sample supplementation and "piggybacking" of data collection and extraction activities. To date, the Office of Bilingual Education and Minority Language Affairs, the Office for Civil Rights, the Office of Student Financial Assistance, the U.S. Army Recruiting Command, the Defense Manpower Data Center, the Department of Defense Overseas Dependents Schools, and the States of Illinois and Washington have sponsored supplements to the core NCES samples of schools and students. Furthermore, the agencies named above have been joined by the State of Ohio, a consortium of research centers funded by the National Institute of Education, the National Science Foundation, and the National Institute for Child Health and Human Development in supporting the addition of questionnaire items or data collection procedures. Although the power of this complex and expanding data structure is only beginning to be realized, a few examples will illustrate its potential to answer pressing social and political questions.

Among the strongest recommendations offered by the National Commission on Excellence in Education was that secondary schools require all students to take increased numbers of courses in basic subjects (English, mathematics, science, social studies, foreign languages and computing) in order to graduate. Using questionnaire responses, test scores and complete high school transcripts for over 10,000 members of the younger HS&B cohort, NCES staff investigated the extent to which current school standards failed to meet the Commission's guidelines. They found that although a majority of students satisfied the course requirements in any one subject area, fewer than 2 percent of the class of 1982 satisfied the distributional requirements recommended by the Commission (NCES "Bulletin"). Moreover, NCES found that the percentage did not markedly increase even when the Commission's recommended requirements were greatly reduced (cutting up to a year off the requirements for all subjects and eliminating the half semester of computer training),

Research Associate Noah Lewin-Epstein of the University of Tel Aviv evaluated the impact of organizational structures on the educational experience of students in two types of schools, the comprehensive and the differentiated. The comprehensive school setting, dominant in the United States since the inception of public schooling, is characterized by a commitment to offer students a general education, keeping their options for postsecondary activities open for as long as is possible. In the differentiated setting, long dominant in Europe, the goal is to prepare students for particular postsecondary activities in either higher education or employment.

Noting trends toward increased internal differentiation within comprehensive schools in the U.S. (the college preparatory, general, and vocational tracks) and toward the establishment of comprehensive schools in some

European countries, Lewin-Epstein stresses the importance of understanding the effects of these organizational types on students. Based on the different missions of the two school types, Lewin-Epstein hypothesized that comprehensive schools would offer their students access to a broader and richer curriculum than would schools of the differentiated type, with their focus on specialized preparation for either postsecondary education or immediate employment.

But some of Lewin-Epstein's findings run counter to expectations and his own hypotheses. He found, for example, that the well-rounded education promised by the comprehensive school is not equally available to all enrolled students. Students outside the college preparatory track in comprehensive schools do not get more exposure to academic subjects than their peers in segmented settings, and in fact, vocational

suggesting that broad education in basic skills has become an extremely rare outcome in American schools.

For over a decade, concern about the apparent decline in scores on standardized tests (such as the Scholastic Aptitude Test or SAT) has prompted a variety of speculations about the relative effects of changes in the population of test takers versus changes in the roles and responsibilities imposed upon educational institutions. In an effort to address this and many other questions associated with educational achievement, NCES awarded a major analysis contract to the Educational Testing Service (developers of the NLS-72 and HS&B cognitive tests) to be based upon several components of the ELS database. The closely matching designs for the NLS-72 and HS&B elder cohort samples, questionnaires and test batteries provide an exceptionally powerful tool for disentangling the effects of population and process change. The research design for the younger HS&B cohort, which included collection of student questionnaire and test data, transcript data, and a variety of school level data during both tenth and twelfth grades, makes possible highly sophisticated decomposition of the effects of student and school characteristics upon cognitive growth during the last two years of high school. In the process of completing this contract, ETS will carry out a thorough psychometric evaluation of the HS&B test batteries as well as extensive analyses of the impact of course exposure upon test performance and other measures of achievement.

Finally, as the "era of the national report" on secondary schools begins to move from problem identification to policy implementation, we may anticipate that the attention of education researchers will begin to focus on issues affecting postsecondary institutions. The ELS database will support research into a wide range of relevant issues. By merging data from postsecondary transcripts with questionnaire data on employment and career histories for members of the NLS-72 and HS&B senior cohorts, researchers will soon be addressing vexing but urgent questions such as the impact of postgraduate vocational or technical schooling upon individual career goals, the short and long term returns—both financial and nonmonetary—of increments of postsecondary education, and issues associated with equality of access by all subpopulations to various types of postsecondary educational experiences. The addition of financial aid data from both institutional records and from Federal government files such as Pell Grant and Guaranteed Student Loan databanks will permit the study of the effects of spiraling school costs, especially within the private school sector. These data will be especially valuable in the immediate future to assist in the evaluation of the sweeping changes recommended by the current administration in Federal policy concerning student financial assistance.

The ELS database will expand further during the 1980s, and possibly into the next decade. All three student cohorts will be resurveyed in the spring of 1986. Also in 1986 and 1987, both postsecondary transcripts and student financial aid records will be added for the younger HS&B cohort. Under the current plan, the latter cohort will be resurveyed once more in 1990, closing data collection for High School and Beyond. In addition, NORC has embarked on an effort to identify sources of support for the construction of a fully integrated Education Longitudinal Studies Database, with the purposes of increasing the efficiency and reducing the processing costs associated with large-scale, complex longitudinal data systems, and expanding the availability of these powerful research tools to educational researchers and practitioners who are often locked out by financial and technical barriers. While success in this venture is far from certain, we believe that these efforts typify NORC's committment not only to the collection of social research data of the highest quality, but also to the dissemination of those data in a manner that contributes to broad-based, pluralistic approaches to both pure and applied research.

Calvin C. Jones

track students in comprehensive schools receive significantly less academic instruction than their peers in specialized vocational schools. Lewin-Epstein found that students in general programs in comprehensive schools get less exposure to both academic subjects and vocational training and thus may be at a great disadvantage in postsecondary planning and activities.

James S. Coleman and Thomas Hoffer are taking another view of school structures in Educational Outcomes from the School as a Social Unit. While they do not ignore the formal aspects of school organization such as curriculum grouping and school specialization, their explicit and novel focus is the school's social organization—specifically, the informal hierarchies and groupings that arise as schools pursue their formal goals and students confront the problems of their personal development. These include the prestige hierarchies that develop according to students' differing academic and athletic abilities, student friendship networks, and student conflict groups that emerge in reaction to the authority of the school.

The working hypothesis of the study is that the social organization of the school generates a social distribution of outcomes, or, to put it more specifically, that a given student's relative position in the various social structures will affect that student's performance in school. The research will distinguish between the effects of social organization and those of other variables, such as differing individual student inputs and the general "quality" of the school. The outcomes of interest include academic achievement, dropping out, and postsecondary educational attainments. Also to be examined are the distributional aspects (central tendency and variance) of these outcomes at the school level.

Coleman and Hoffer hope that the increased understanding of how the high school's social system affects educational outcomes afforded by their work will lead to the development of school policies that, instead of being thwarted by the social system of the high school, will make use of its forces in achieving the school's goals. A monograph is expected in 1985.

In another collaboration with support from The Spencer Foundation, Coleman and Hoffer are examining the workings of public and private schools and their effects on children who attend them. This study builds on work begun four years ago with the HS&B base year data. NORC's initial proposal to conduct High School and Beyond included a number of suggested analyses with analytical reports as products. NCES funded five such analytical reports, one of which was a comparison of public and private schools by Coleman. Working with Hoffer and Sally Kilgore, Coleman produced a report that found that private schools produce higher achievement than public schools for comparable students. This report subsequently became a book (*High School Achievement,* Basic Books, 1982) and a subject of considerable controversy.

In Public and Private Schools, Coleman—University Professor in the Departments of Sociology and Education and in the School of Social Service Administration, University of Chicago—discusses the issues in the debate and presents findings from the continuing research. Additional analyses of the HS&B data by NORC Research Associates are presented later in this section and elsewhere in the report.

Parents and Students in the Educational Enterprise

The effects of parents on the high school achievement of their children was the focus of a study by Research Associate Thomas A. DiPrete of The University of Chicago, working with the assistance of Harry E. Gallaher and support from The Spencer Foundation. Using data on white male sophomores from the baseyear interviews of High School and Beyond, DiPrete and Gallaher examined the relative influence of socioeconomic status and socialization style—including the values parents transmit to their child and such aspects of the parent-child relationship as the amount of emotional support the parents provide and their interest in the child's academic career—on academic performance.

Many analysts assume that the effects of parents on their children's academic performance can be explained entirely by their socioeconomic status. DiPrete and Gallaher, however, found that socialization style of parents has a strong separate and positive effect on their children's commitment to education, that a substantial amount of paren-

James S. Coleman

tal influence on a child's success does not derive from socioeconomic status. Though they recognize that socioeconomic status and socialization style are correlated, they argue that the relationship is not sufficiently strong to justify the omission of socialization in explanations of the achievement of children, and they urge that the two be conceptually distinguished.

The involvement of parents in their children's educations after high school—specifically their knowledge of college costs and willingness to assume responsibilities for costs through a loan—was the subject of an inquiry by Research Associate Rachel Rosenfeld of the University of North Carolina and Lorayne Olson. The study, supported by The Spencer Foundation, used data from the baseyear student interviews of High School and Beyond and from the associated survey of over 6,500 parents of these students.

In examining the differences between parents and students in knowledge of the costs of higher education, Rosenfeld and Olson found that parents, though not very knowledgeable, were more knowledgeable than their children. But they also found that students who were closer to college—the seniors in the sample— were more likely than the sophomores to be knowledgeable, whereas the parents of seniors knew no more than the parents of sophomores. Looking at differences by socioeconomic status, the researchers found differences not only in knowledge of costs (those with higher incomes knew more), but also on several items concerning financial aid. Parents with lower socioeconomic status were less likely to know about financial aid programs, less willing to accept loans as part of a financial aid package, and more likely to see the paperwork associated with applying for financial aid as burdensome and intimidating. Rosenfeld and Olson note that this difference may mean that student aid programs will be less able to achieve their goal of equalizing opportunity and choice.

Issues for Educational Systems: Equity and Organization

The role of the federal government in the education of young Americans has been a subject of debate for decades. Local control of education is an American tradition. But the call for greater attention to matters of social justice in the schools and to the needs of the educationally disadvantaged in the 1960s led to a significant increase in the federal role. The Great Society programs of Lyndon Johnson's administration were barely in place, however, when a different call could be heard—a demand by local school systems and their advocates for an end to what they perceived to be federal meddling. This position has received support from the inclinations and policies of the Reagan administration, but the debate goes on.

Federalism, Equity, and Educational Policy was a study designed to shed light on the effects of federal intervention in local school matters. This research was conducted by Paul E. Peterson, then an NORC Research Associate and now Director of Governmental Studies at The Brookings Institution. His NORC research was conducted with colleagues Barry G. Rabe and Kenneth Wong and supported by the National Institute of Education. It examined the functioning of six federal education programs in four large cities. At the time the research began, the Reconciliation Act of 1981 had just been passed, with the result that the federal role in education was soon to be reduced. The programs chosen for study, legacies of the Great Society, were still intact but faced major cuts and reorganization.

Do federal education programs merely

serve to perpetuate their own bureaucracies while getting in the way of local attempts to improve the quality of education? Peterson's research suggests that this charge is invalid. His case studies found programs that were working effectively and efficiently and partnerships between federal and local program officials that were characterized by cooperation and mutual accommodation. Moreover, he found that federal involvement did not subvert local control. While local agencies acquiesced readily to federal regulations, those regulations were written and revised so as to allow local officials to retain control of the federal programs in their areas. Peterson also found that major federal programs were directed toward areas not traditionally covered by the states, including aid for the educationally deprived and the handicapped and for such special programs as school desegregation.

Because their findings were so unexpected in light of the conventional wisdom, the researchers were moved to examine federal programs in two other prominent areas of domestic policy, health care and housing. Their findings in these areas were similar: "Whether engaged in special education, prepaid group medical practice, or community development, federal categorical programs did not necessarily prove to be sources of intergovernmental conflict and local chaos after all." The report from the project, *When Federalism Works,* submitted to NIE, includes findings from the initial and expanded research areas, as well as a theory of federalism developed from the empirical research.

Organizing Schools in Pluralist America, another project directed by Peterson, was a study of the history of urban education in America. Peterson found that America's educational system, far from reinforcing existing patterns of stratification, seems to have contributed substantially to openness of social structure, to social change and social mobility. And he concludes that this is as it should, and even must, be in a pluralistic society, where public institutions are shaped by a plurality of political forces. This research was supported by the National Institute of Education. The results will be published in 1985 by the University of Chicago Press under the title *The Politics of School Reform.*

Public and Private Schools

One of the central arguments used to support policies against private schools is that private schooling contributes to segregation—racial, religious, and economic. One of the central arguments used by supporters of private schooling is that private schools do a better job of generating educational achievement than do public schools. Our analysis of High School & Beyond data from 1980 examined these questions and found some unexpected answers.

Private schooling does increase religious segregation, primarily because most private schools are organized by religious groups. (Most of these are Catholic schools, but even the majority of the non-Catholic private schools are organized by religious groups.)

The effect on economic segregation is in the same direction, but to a much lesser de-

Special Populations, Special Issues

The problems faced by handicapped students in American elementary and secondary schools have been a focus of increasing public concern over the past decade. This results, in part, from the debate surrounding passage of Public Law 94-412, which required the mainstreaming of handicapped students in regular classrooms. One of the major concerns about handicapped students is how they fare after leaving high school, how they manage the transition to the world of work or institutions of higher education. The data from High School & Beyond, which follows its respondents over time, appeared to be ideal for addressing these questions, and NCES funded a policy analysis by NORC Senior Study Director Carol B. Stocking and Jeff Owings of the National Center for Education Statistics. However, their inquiry soon encountered a methodological issue that led to a refocusing of the research.

Finding that the students' reports about their own handicaps were not stable over the two points at which they were interviewed, Stocking and Owings turned to an exploration of the causes of this phenomenon. Were the discrepancies simply error in the data? Are students incapable of correctly reporting their own conditions? Are the data therefore of little utility in studying handicapped students? The researchers found an alternative explanation: Students view themselves as handicapped or limited depending on many other factors in their lives. Some have gree. Again, the reason is principally that most private schools are organized by religious groups, leaving only a small minority of the private school population in the upper middle class "independent" schools. Many of the religiously organized schools, with Catholic schools as the best example, have had as their clientele a largely working-class population. An additional reason for the small effect of private schools on economic segregation is that American public schools are also rather highly segregated along economic lines, and most of the well-to-do in America use public suburban schools rather than private schools (as is done in England and some parts of the eastern United States).

Matters are more complex on the question of racial segregation: the private sector enrolls fewer blacks than the public sector and thus contributes to racial segregation; but there is less black-white segregation within the private sector than within the public, an effect in the other direction. Taken together, these two effects balance almost exactly. It is true that some white parents use private schools to escape integration. But, on balance and over the country as a whole, the private sector seems not to contribute to segregation despite this fact, probably because most escapes from integration are not to private schools at all but to white suburban schools in the public sector.

On the question of achievement, the analysis showed a small but distinct achievement increment associated with the private sector, an increment that was resistant to various analytical techniques designed to eliminate apparent effects that are actually due to selection. The Catholic sector and the other private schools were studied separately, and both appeared to show a similar positive effect: between one and two grade equivalents, in both verbal and mathematical skills. (The sample of non-Catholic private schools is, however, too small and too heterogeneous to allow us to make statements about them with confidence.) Our analysis indicated that the private-sector policies most responsible for the achievement increment were greater academic demands (more homework; more academic courses, though not in science subjects; less likelihood of being put in a general or vocational track) and greater disciplinary demands.

Our approach to the study of public and private schools was informed by our belief that the principal justification of such research is its value as an aid for policy. Thus, we began our work by outlining a set of arguments for the encouragement of private schooling and a set of arguments for its discouragement. Each argument was one on which analysis of the High School & Beyond data might shed some light. There is no doubt in my mind that this kind of explicit introduction of policy questions is important for social-scientific analysis if it is to shed light on questions relevant to social policy rather than merely be "interesting" to social scientists. But it was precisely this explicit introduction of policy-relevant questions which, after the report was released, roused the ire of many and prompted numerous reanalyses of the data by persons aiming to show we were in error. Furthermore, as the results suggest, the conclusions of the report on balance gave more support to the arguments in favor of private schools than to the opposing arguments, and this has generated extensive controversy in the educational journals.

In response to this, and to the availability of data from the first followup of the HS&B sample in 1982, Hoffer and I have embarked on additional analytic work to attempt to confirm and extend our earlier work. In our work to date, we have found strong confirmation of our central finding: private schools appear to be substantially more effective in promoting students' achievement than are public schools. The most important explanatory mechanisms for the private-sector advantage revealed to date are, first, the tendency for private schools to place students in academic programs (including students who, our analysis shows, would be placed in non-academic programs in the public sector), and, second, the greater amounts of coursework in mathematics and science that private school students take.

As the study progresses, we will continue to investigate explanatory mechanisms for the private-sector advantage, and we will extend our analysis. We plan, for example, to examine the effects of private schools on more educational outcomes than were covered in our initial analysis. The additional outcomes of interest include dropping out of school, execution of postsecondary plans, success in the first two years of college, and attitudes, including self-concept.

The aim throughout this phase of our work will be to evaluate both the performance of the public schools and of American education policy generally. Private schools are especially valuable for this purpose because they allow the evaluation both of policies and practices within a school and of such broader issues as homogeneity and diversity among schools, assignment of students to schools, and the effects of providing choice in education.

James S. Coleman

conditions that they will consistently report as handicaps—for example, deafness. Others have conditions that they may or may not view as handicaps, such as minor orthopedic anomalies. Thus, to be "handicapped" is for many students a transitory state (i.e., a condition that is dependent on various factors and thus subject to change) rather than a permanent trait.

To explore this insight further, Stocking and Owings analyzed reports of handicaps in relation to other characteristics and conditions of the student, such measures as achievement test scores, persistence in school, the student's reports of their grades, and their scores on three psychological scales. In all cases, the analyses revealed that students who think of themselves as handicapped report having other problems as well—for example, lower self-esteem. From this, Stocking and Owings conclude that student self-identification as handicapped, a variable previously thought to be of dubious value, is in fact useful. This both validates the utility of the HS&B database for analyses of the handicapped and points to the importance of attention to the special needs of handicapped students.

The educational experiences of minority students were the focus of a study by Andrew M. Greeley. In a project related to Coleman and Hoffer's, Greeley used HS&B data from the 1980 survey to examine the role of Catholic schools in the education of black and Hispanic children. Like Coleman and Hoffer, Greeley found that enrollment at private schools had a positive effect on students' achievement. But, looking only at Catholic schools and minority students, Greeley found that the effect was even stronger. The results of this research are reported in *Catholic High Schools and Minority Students* (Transaction, 1982).

Greeley's work, like that of Coleman and Hoffer, was the subject of heated debate, and, like them, he has taken the opportunity afforded by the longitudinal design of High School and Beyond to test the conclusions of his initial efforts using data from the 1982 survey. In this second analysis, Greeley found confirmation of his earlier work. One charge heard frequently is that Catholic schools appear more successful than public schools only because they serve the most able students and those from homes where there is the strongest motivation and support for academic achievement. Greeley's analysis shows that Catholic schools in fact have the greatest effect on those who are disadvantaged—minorities, those from lower socioeconomic backgrounds, those who think themselves unattractive, and those who had low achievement test scores. Greeley finds that the positive effects of Catholic school attendance can be accounted for by dynamics of the school itself—demands for more homework, requirements that students take more advanced courses, and greater disciplinary stability. Greeley finds substantiation for these claims in the fact that public schools that impose similar environments, requirements, and demands have comparable academic outcomes.

The Parish Education Evaluation Project, directed by Research Associate William C. McCready of The University of Chicago, will examine the non-school aspect of religious education in Roman Catholic parishes. A national sample of Directors of Religious Education will be asked to nominate particularly successful parish programs. Directors of and students in all nominated programs will be surveyed, and a sample of the programs will be the subject of intensive study. The research, scheduled for completion in 1985, is supported by the McGivney Fund of the National Catholic Educational Association.

The relationship between being Spanish-English bilingual and high school achievement was the subject of an inquiry by François Nielsen, conducted with support from The Spencer Foundation. The research used data from the senior sample of the High School and Beyond (HS&B) study. Though the results of the study must be interpreted with caution because the sample of high school seniors cannot be said to be representative of the whole population of bilingual youth—specifically, it does not include those who dropped out of high school—there are findings of interest concerning those who remain in school.

Nielsen compared the students' linguistic Hispanicity, as measured by proficiency in Spanish and frequency of use of Spanish in the home, and the results of cognitive tests taken by the HS&B sample. He found that Hispanicity is almost uncorrelated with English proficiency once background factors are taken into account, suggesting that Spanish speakers do achieve high fluency in English during their school careers. Using interview and other data from the study, Nielsen concludes that, controlling for English proficiency and other factors, bilingualism constitutes an advantage with respect to school achievement, having a positive effect on both educational expectations and grade point average.

Testing and Measurement

In 1983-84, NORC undertook several projects that involve advances in testing and measurement of school outcomes in the form of student achievement. These studies are under the direction of Research Associate R. Darrell Bock of The University of Chicago. Two major testing programs—the California Assessment Program (CAP) and the Armed Services Vocational Aptitude Battery (ASVAB)—were the focus of Bock's attention.

Under a contract with the Department of Education of the State of California, Bock is responsible for the psychometric activities—item calibration and scale-score evaluation—of the California Assessment Program. This project employs a unique system of school-level scoring that enables CAP to work with school-level summary data from its multiple-matrix samples of item responses, rather than from pupil-level data. The approach was initiated in 1979-80 at the third-grade level, extended in 1981-82 to the sixth-grade level, and extended in 1984 to the eighth-grade level.

Over the last two years, Bock completed one ASVAB project and began another. Using data from the "Profile of American Youth," a 1980 project in which NORC administered a version of the ASVAB to nearly 12,000 young people, Bock contributed to the computerization of adaptive testing in a project sponsored by the U.S. Navy. Among the developments were psychometric models appropriate to item analysis, calibration, and test scoring and new models for reading comprehension tests. Bock also did an estimation of the abilities in the mobilization population. In a related project, under a contract with the Educational Testing Service, Bock developed and compared four methods of online item calibration for the adaptive ASVAB.

The Foundation for Teaching Economics, a nonprofit organization established to promote understanding of basic economic principles and knowledge of the U.S. economic system among young people, sponsored the development of a textbook, *Our Economy,* for its target group. Wishing to assess the effect of this text on economic values and attitudes, the Foundation contracted with NORC to perform a two-part study.

The result of the first part of the research is an original, easy-to-administer measure of economic values and attitudes toward economic issues—the Economic Values Inventory, developed by Senior Survey Director Mary Utne O'Brien and Assistant Survey Director Steven Ingels. The EVI is made up of eight scales of moderate reliability (Cronbach's alpha ranging from .5 to .8) that cover a range of economic topics and show evidence of strong construct validity. It is suitable for use in experimental evaluations of group changes in economic attitudes and values, as well as in other settings in which young people's economic perspectives are of interest. It is currently being used by researchers in Great Britain, Canada, and the United States in studies of attitudinal impacts of different forms of instruction and in studies of factors related to the development of economic attitudes and differences among them.

In the second and ongoing stage of the research, the EVI is being used to evaluate the impact of *Our Economy* on the economic views of ninth grade students. The effects of other factors, including students' economic knowledge, socioeconomic background, and political beliefs, are also being measured; and the teachers of the students in the study are responding to the EVI and to a series of questions about their political beliefs, training in economics, and reactions to the textbook.

the labor force

Work is a central fact of human existence. For most people work is essential to survival; and many spend the lion's share of their waking hours throughout their adult lives on the job. Beyond these facts are the feelings associated with working—or not—feelings of self-worth, engagement, well-being. And, ultimately, there is the dependence of societies on the functioning of their labor forces for goods and services.

The centrality and complexities of labor force participation create numerous research issues of vital interest. The timing and circumstances of entry into the labor force; unemployment; and mobility, productivity, and compensation for the employed—these are some of the issues addressed in NORC's research on the labor force. In 1983-84, this work was accomplished largely through a major continuing survey and a number of analytic studies by NORC economists, for whom the labor force is a focus of interest.

Getting Started: The National Longitudinal Survey of Labor Force Behavior, Youth Cohort

The National Longitudinal Survey of Labor Force Behavior, Youth Cohort is an annual national survey of 12,686 young people throughout the United States. The youth cohort is the latest addition to the National Longitudinal Surveys begun in 1965 by the Center for Human Resource Research (CHRR) at the Ohio State University for the Office of Manpower Policy, Evaluation and Research of the U.S. Department of Labor. Many researchers recognize these data as the Parnes data, after their originator, Dr. Herbert Parnes, of Ohio State; to others, this study is the DoL/NLS.

NORC has a subcontract with the Center for Human Resource Research to conduct the survey component of the project. A one-hour personal interview is conducted each year between January and May. Data collection began in 1979. In 1983-84, NORC conducted the fifth and sixth rounds of interviewing and began preparations for the seventh.

These surveys have as their base the 12,686 youth who completed a baseline interview in 1979. In all there are three independent probability samples. Two of these samples were designed to cover the noninstitutionalized civilian population aged 14 to 21 as of January 1, 1979. The third sample was designed to cover those 17 to 21 years of age as of January 1, 1979, and serving in the military as of September 30, 1978.

The first of the two civilian samples is a cross-sectional sample designed to yield the proper population proportions of various racial, ethnic, and income groups in the 14 to 21 age cohort. The second is a supplemental sample designed to increase the representation of Hispanics, blacks, and economically disadvantaged youth who are neither black nor Hispanic. The military sample is a clustered probability sample of the 17 to 21 age cohort, stratified by branch of service (Army, Navy, Air Force, and Marine Corps) and by geographic location (Eastern United States, Western United States, Europe, the Far East, and other), in which women were oversampled at approximately six times the rate for men. These samples and oversamples were created to allow analyses of the contemporary youth population as a whole and of special subpopulations with particular importance for policy research.

NORC has collaborated with CHRR and the DoL/NLS Principal Investigators, Michael Borus and Kenneth Wolpin, over the life of the project in developing and maintaining this survey. After six years of interviewing, the response rate stands at 95 percent of the baseyear interviews, an exceptionally high response rate for a population as mobile as this one.

The coverage afforded by the samples, the character and quantity of the data collected in the six annual interviews, and the quality ensured by the response rates achieved combine to make the DoL/NLS an important resource for research. In The DoL/NLS: A Cooperative, Cost-Effective Venture, Mary C. Burich, who has served as NORC's NLS Project Director for over five years, describes how shared sponsorship of the project and use of the data by many agencies and individuals have fostered the creation of this resource at reduced cost.

In the Labor Market: Compensation, Productivity, Unemployment

Research Associates James Heckman and Guilherme Sedlacek have undertaken a large project to study determinants of real wages in the U.S. labor market. They build a theoretical model stressing "comparative advantages" of workers in different demographic groups and in different industries, and they model explicitly both the supply and demand side of the labor market. One of the most important aspects of their study is the light they shed on the "aggregation bias" that causes wages to appear to be not very flexible over the business cycle. The essence of the "bias" is that in economic downturns, while wages fall somewhat, and those at the bottom of the economic ladder are disproportionately laid off, the measured average wage of those still working declines very little because the bottom of the distribution is eliminated. Thus, the fact that aggregate or average wages do not appear to fall very much in economic downturns reflects these disproportional layoffs at the bottom of the distribution, not any fundamental wage rigidity.

The Heckman-Sedlacek project uses a carefully crafted model of the labor market and sophisticated statistical procedures and finds strong evidence of this aggregation bias within the manufacturing sector of the U.S. economy over the period 1968-1981 for white males. But they also find just the opposite effect for the economy as a whole.

The reason seems to be "comparative advantages." Consider the oil price increase of the 1970s, an event that affected the manufacturing sector disproportionately. The white male workers displaced from the manufacturing sector by that event were indeed lower skilled than the average worker in that sector, according to the Heckman-Sedlacek study, but some of these displaced workers found employment in the non-manufacturing sector, where their relative skill level was lower, causing a bigger decline in the aggregate wages in that sector. On balance, Heckman and Sedlacek contend, the effect of this "aggregation bias" is to exaggerate, not mitigate, the aggregate decline in real wages, compared to what they would have been if task skills had been held fixed over the 1970s.

Sherwin Rosen, NORC Research Associate and Professor of Economics at The University of Chicago, has spent several years studying incentives and rewards, particularly as they relate to the structure of organizations and to understanding the upper tail of the income distribution. This work, begun in collaboration with Edward Lazear, developed from a study of the issues involved in setting compensation for high-level government employees and elected officials. Rosen and Lazear discovered that the competitive nature of elections was a central factor in this area. Furthermore, they found many parallels between these public employees and those in the private sector in attainment and promotion to high-level positions that did not yield to standard modes of economic thinking. The outright competition involved in these types of labor market activities did not at all fit into the economist's vocabulary. This early work is reported in a paper entitled "Rank Order Tournaments as Optimum Labor Contracts" (*Journal of Political Economy*, 1981).

Rosen continued work in this and several other areas in 1983-84 with support from the National Science Foundation. "The Economics of Superstars," published in both the *American Economic Review* and *The American Scholar*, investigates the upper tail of the income distribution, exploring how it is that a small number of people in several of the professions and the arts and entertainment industries earn enormous amounts of money and appear to dominate their trades. In a related project, Rosen analyzed the relationship between the distribution of earnings and the distribution of firm sizes. He summarizes some of his results in Authority, Control, and the Distribution of Earnings.

The productivity of American workers has been a cause of debate and concern in recent years. In 1983-84, the relationship between employee compensation and productivity was studied by Research Associates Edward Lazear and Robert Michael with support from the U.S. Department of Labor. Beginning with theory, Lazear wrote "Salaries and Piece Rates," in which he examines organizational decisions about whether to pay employees by salary or piece rate. Piece-rate compensation is often associated with lower level workers, but Lazear—who includes in the definition of piece rate any compensation scheme, such as commissions, that is based on output rather than time worked—demonstrates that hierarchy is not the determining factor. There is no relationship between the form of pay and the level of a job in the firm's hierarchy; top executives, middle managers, and the lowest level workers might all be paid by either salary or piece rate. The

The DoL/NLS: A Cooperative, Cost-Effective Venture

The main support for the National Longitudinal Survey of Labor Force Behavior has always been provided by the U.S. Department of Labor, but other governmental departments and agencies have also made contributions to support for the youth cohort of the NLS. These include the U.S. Department of Defense, the National Institute of Child Health and Human Development, the National Institute on Alcoholism and Alcohol Abuse, the National Institute of Education, and the National Institute on Drug Abuse. This collaboration has resulted in large overall efficiencies in data collection costs throughout the government. The supporting departments and agencies have been able to secure data on a variety of issues without incurring the costs associated with developing unique samples of youth to address their individual research agendas. In addition, this collaboration has resulted in a decrease in burden on the responding public. Furthermore, longitudinal data collected in prior years can be brought to bear on a particular topic in any given year, yielding richer analyses than could be obtained from a single survey.

The questionnaire for the youth survey centers on work experiences, job training and education, and basic demographic information such as marital status, household composition, and income. These topics form the Department of Labor's core questionnaire. The resulting data have been used to study such questions as teenage unemployment and labor force participation and the willingness of youth to work below the minimum wage.

A second major portion of the study, supported by the National Institute of Child Health and Human Development, focuses on fertility, contraception, child care, prenatal care, and infant health and nutrition.

Over the last four years of the survey, the National Institute on Alcoholism and Alcohol Abuse has funded measurements of alcohol consumption and problem drinking. The youth cohort is a particularly useful data set for this agency because it permits the capture of drinking behavior at its start and allows researchers to measure the effect of drinking on participation in the labor force and childbearing.

The U.S. Department of Defense, in addition to its support of an independent sample of youth in the military, has funded related projects. In the largest of these, the NLS sample was used by DoD to develop new norms for the Armed Services Vocational Aptitude Battery, the series of tests used to screen and place applicants to the Armed Services. DoD made arrangements to "borrow" the NLS youth sample from the Department of Labor and contracted with NORC for the test administration. This approach saved the several

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deciding factors are, instead, things like whether the output from a job can be easily and accurately measured, whether workers at a given level are homogeneous or heterogeneous in skill or diligence, and whether the workers at that level have good alternative job opportunities.

Lazear and Michael, working with staff of NORC's Survey Group, developed a small pilot survey to test first the feasibility and then the best methods of obtaining compensation and productivity data from firms. Department stores and manufacturing firms ranging in size from under 100 to over 10,000 employees were the subjects of the study. The chief areas of concern in the pilot were the procedures to be employed in gaining cooperation for the interviews, the time each firm would contribute to the interview, and the amount and kind of information about the firm that could be obtained readily from public sources. The pilot demonstrated both the feasibility and the difficulty of the undertaking.

The small size of the sample from the pilot survey limits the possibilities for data analysis, but findings in one area—the views of managers concerning government regulation of employee compensation schemes—are surprising and worthy of note. Large public firms felt that government regulations diminished the productivity of their firms; smaller private firms were much less critical.

The differences in labor force status and compensation for work among blacks, whites, and Hispanics was the focus of recent work by Research Associate John Abowd and his colleague Mark R. Killingsworth. They developed a model of labor force status that incorporates both supply and demand factors in the determination of employment, unemployment, and labor force participation. The model is estimated separately for geographically matched national samples of Hispanics, blacks, and white non-Hispanics. The estimated model is used to study how employment, unemployment, and labor force participation rates of males and females would change if the race/ethnicity of each group were changed.

Mary C. Burich

million dollars that would have been required to construct an independent sample of youth for the norming procedures. It also added excellent data on the youth's aptitude to the database, further enhancing its general usefulness.

But the power of shared sponsorship to enhance the content of a database cost effectively is only part of the story. The NLS sponsors have been joined by many others both in and outside of government in making use of these data. Findings from the NLS surveys have been used by the U.S. Commission on Civil Rights, the Vice President's Task Force on Youth Employment, the Bureau of Labor Statistics, the Congressional Budget Office, the Federal Trade Commission, the Department of Commerce, the National Commission for Employment Policy, and the Minimum Wage Study Commission, as well as by state and local governments and numerous academic research institutions. At NORC, researchers have used the NLS data to address such diverse topics as youth unemployment and the effects of early employment on later participation in the labor force; household formation, marriage, childbearing; and enlistment, training, and manpower use in the Armed Services. The widespread use of these data in the first few years of their availability is impressive evidence of their social value.

In addition to the data collected by the annual surveys, the public use files include the ASVAB scores and high school transcripts. State and local labor force statistics are also added to the files. These are made available at minimal cost through the Center for Human Resource Research at the Ohio State University.

Mary C. Burich

When black males and females are compared to whites, substantial differences remain. This indicates that measured characteristics do not account for all of the differences between black and white labor force status statistics. In contrast, there are relatively small differences remaining for Hispanic males and females compared to whites. Most, indeed almost all, of the observed white-Hispanic difference in labor force status is related to white-Hispanic differences in measured characteristics such as schooling, age, marital status, and the like, rather than to unexplained "discrimination."

A related effort analyzed ethnic pay differentials among men. Using two large data sets, The Survey of Income and Education and the Federal Government Central Personnel Data File, Abowd and Killingsworth, with colleague Anthony Abowd, confirmed the findings noted above. They found that black-white wage and earnings differentials are not explained by schooling, job experience, place of residence, and other measured variables but that most of the pay differences between Hispanic and white non-Hispanic males do appear to arise from measured human capital differences. They also examine the differences between the federal government and private employers in black-white and Hispanic-white wage differentials. Their analysis indicates that, for blacks, wage discrimination is greater in the federal sector, whereas earnings discrimination is smaller in that sector. This may seem contradictory. If the non-federal sector is better than the federal sector as regards wage discrimination, why isn't it also better as regards earnings discrimination? Abowd, Abowd, and Killingsworth suggest that the answer lies in the greater stability of the federal sector, and the disproportionate effects of the relatively greater employment instability in the non-federal sector. Evidence that discrimination within the federal sector may be substantial is not new, but it is not always observed. One important reason seems to be related to the fact that minorities are generally overrepresented in federal employment, and much federal employment is concentrated in urban areas in particular states. The way in which a study controls for the purely geographic effects on pay (i.e., the higher pay in cities to compensate for higher living costs) can affect the conclusions about federal or non-federal wage policies.

Unemployment is a fact of life in capitalist societies. But it is not a fact readily accepted by those who experience it, nor even by those who observe the suffering and waste it can cause, especially during periods of very high unemployment, such as the recent recession. Work done in 1983-84 by Research Associate Robert H. Topel addressed several aspects of this problem.

In an analysis using data for 76,000 prime-aged male labor force participants from the pooled 1977-80 Current Population Surveys conducted by the U.S. Bureau of the Census, Topel found that the major risk of unemployment is employer-initiated separations. In an important departure from previous work, Topel's study distinguishes between permanent separations and temporary ones, in which the person laid off expects to be rehired by the original employer after some period. One of the differences between these types of unemployment is the proportion of unemployment each accounts for in Topel's sample: 62 percent permanent, 38 percent temporary.

Turning from the nature of unemployment to its causes, Topel found what might seem an unlikely culprit—unemployment insurance. Unemployment insurance increases both the frequency and duration of unemployment spells, according to Topel, and accounts for 20 percent of temporary layoffs in an average year and perhaps as much as 30 percent during a general economic slump. Employers are assessed for unemployment insurance at a rate that is meant to reflect the frequency with which they lay off workers, but those in high-layoff industries, though they pay the maximum rates, still do not pay enough to cover the costs of benefits to workers. Thus, laying off workers imposes no extra cost on those paying the maximum, and unemployment benefits can become wage subsidies. Based on his research, Topel recommends changes in the structure of payroll taxes for unemployment insurance, placing increased emphasis on the experience rating and thereby reducing the incentive to move too quickly to a subsidized layoff of employees.

Authority, Control, and the Distribution of Earnings

The distributions of earnings and of firm sizes show remarkable similarities, with heavy concentration of mass in their upper tails. It is possible to link these two distributions together with a model based on the interactions between two forces: the indivisibilities of decision-making on the one hand and the problem of control of large organizations on the other. Good top-level decisions are more valuable in large organizations than in small ones because they affect the economic efficiency of larger numbers of workers. A worker's labor is not very productive if management has decided to produce the wrong product, and having many workers expending effort in the wrong direction is clearly a more serious inefficiency. On this account alone it is efficient to assign more talented managers to larger enterprises and allow them to control more resources. However, there is a problem of loss of control as organizations grow very large. This is why the market supports firms of diverse sizes. An organization must somehow monitor its workers to make sure that management directives are carried out and that the organization stays on course. This problem is partially solved by subordinating control through a longer chain-of-command in large firms compared with small ones. Competitive labor markets assign more talented persons to higher level positions in larger firms with a deeper hierarchical structure. These persons reside at the top of large pyramidal organizations where they control many more resources and earn very large incomes through a multiplicative effect of their talents on the productivity of other people.

Sherwin Rosen

The Armed Services: A Major Employer

The U.S. Armed Services are usually thought of as the nation's defense. But they also play a significant role in the economy, drawing their support from the public purse and offering employment and training to many. Taken together, the Armed Services are the second largest employer in the nation, second only to the U.S. government as a whole. As of December 31, 1983, there were over two million persons in the several branches of the military.

In the absence of conscription, the

Armed Services, like other employers, must attract workers to meet their needs and, having done so, must create conditions that will foster their successful functioning and induce them to stay. Enlistment behavior and an important aspect of the work environment—training—were the focus of three Department of Defense studies at NORC during 1983-84.

Using the Department of Labor's National Longitudinal Survey of Labor Force Behavior, Youth Cohort (the DoL/NLS, see above), Research Associate Christopher Winship and his colleague Robert Mare of the University of Wisconsin are analyzing the enlistment decisions of male youth. The major focus of their effort has been the ways in which other possibilities compete with enlistment when young men make choices about their lives after high school. Winship and Mare conceptualize the enlistment process as involving a short-run choice by an individual among three activities—military service, full-time civilian employment, and full-time schooling—a choice affected by the opportunities available to the individual. If the individual chooses to work, how difficult will it be for him to find work and what level of wages will he receive? If the individual chooses to continue with schooling, what type of financial support will he be able to get, from parents or the government? If he chooses to enlist, what opportunities will be available to him—in branch of service, training, job, and wages?

Clearly, the ability of a given individual is a critical factor in the answers he will get to these questions, and thus in the choice he will make. For this reason, Winship and Mare's study, unlike most previous research on the supply of manpower to the military, looks not at youth as an aggregate, but at differences in the decision-making process among young men of different abilities, as measured by the Armed Services Vocational Aptitude Battery. The analysis in progress will yield information that can be used in evaluating the effects of changes in government enlistment, employment, and educational policies on enlistment decisions. In The Paradox of Lessening Racial Inequality and Joblessness Among Black Youth: Enrollment, Enlistment, and Employment, 1964-1981, Winship summarizes some of his work in this area.

In a related effort, Robert H. Topel is examining the power of survey data for predicting enlistment behavior. It is well known that a host of personal, background, and labor market variables are important determinants of career choices, of which enlistment behavior is one dimension. What is not known is the relative contribution of each. Also unknown is the power of expressed plans to enlist in predicting enlistment behavior. Using data from the DoL/NLS, Topel is isolating the contribution of these elements and evaluating the utility of survey questions about enlistment plans. The NLS is ideally suited for this research not only because it affords a wealth of information on personal and family characteristics and preenlistment attitudes toward the military, but also because it includes in each survey year a question about whether the respondent "expects to attempt enlistment in the armed forces in the future." Topel is also taking advantage of the longitudinal nature of the NLS to examine how changes in an individual's labor market experience (such as losing a job) affect both intentions to enlist and actual enlistment.

Training, as an incentive for enlistment and reenlistment, is a key factor in securing military manpower that is adequate in quantity and quality for the purposes of the Services. To the degree that training raises skill levels, it is also a key factor in efficient use of existing manpower. Research Associate Charles E. Bidwell is analyzing data from the military sample of the DoL/NLS to determine the separate and joint effects of three prime elements of training—cognitive capacity, motivation, and quality of instruction—on the skills and commitment of military personnel. The results of the research will be suitable for informing several of the central issues in military manpower policy, including how to foster such desirable outcomes as high rates of retention among the most able and committed personnel and how to fit training to personnel who have different cognitive capacities and motivations to continue in the service.

Military personnel were also the focus of a major survey effort in 1983-84. The House Armed Services Committee (HASC) has required that the U.S. Air Force review the means by which it determines the number of women to enlist each year. The results of this analysis, according to HASC, are to be an assessment of the Air Force's capabil-

The Paradox of Lessening Racial Inequality and Joblessness Among Black Youth: Enrollment, Enlistment, and Employment, 1964-1981

An important exception to improvements in the relative socioeconomic status of blacks during recent decades is increased levels of joblessness among black youths relative to whites. Since World War II there has been convergence between blacks and whites in grades of school completed, the proportion of workers in managerial and professional occupations, the quality of schools attended, economic returns to schooling, and numbers of elected officials. There has been no convergence, however, in youth employment. As an example, in 1954 black and white unemployment rates for 16 to 24 year olds were 15.8 and 9.9 percent, respectively, a difference of 5.9 percentage points. In 1980 the rates were 26.4 and 12.0, respectively, a difference of 14.4 percentage points.

In recent research my colleague Robert Mare and I have attempted to explain this paradox by understanding how employment fits in with other life cycle statuses in the transition from youth to adulthood. Using annual files from the March Current Population Survey for the years from 1964 to 1981 we have examined the relationship between increases in joblessness and increases in school enrollment and military enlistments for young blacks. Three mechanisms that relate these trends are: (1) increased substitution of schooling and military service for employment by young blacks; (2) reduced work experience and disrupted employment for young blacks at older ages as a result of later average ages of leaving school and the armed forces; (3) "creaming" from the civilian out-of-school population of young blacks with above average educational attainment and employment prospects as a result of higher school enrollments and military enlistments.

Our analyses of the 1964-1981 March CPS's indicate that about half of the relative increase in black joblessness for males between the ages of 16 and 29 can be explained by these mechanisms. Of this, approximately 40 percent is due to changes in enrollment and enlistment rates and another fifteen percent is due to "creaming" and reduced work experience, giving a total of 55 percent. These effects, however, are partially offset by the effects of increased black educational attainment on employment, which reduces the total to 50 percent.

This suggests that at least in part the growing race difference in employment is a consequence of otherwise salutary changes in the lives of young blacks, especially increased school enrollment and educational attainment. In this sense, broadening race differences in youth employment are consistent with diminished differences on other indicators of socioeconomic achievement. We argue that labor statistics from the 1950s and early 1960s conceal important racial differentials in employment. Before the recent relative rise in black schooling and military service, young blacks had a "head start" in the labor market because their white counterparts elected to seek full-time employment at much later ages. As a result, black youth employment rates were close to parity with those of whites. Now that blacks and whites are more equal in their timing of movement out of school and the military, the true racial difference in employment is revealed.

All of this is not to argue that widening race differences in youth employment are an acceptable development or a necessary byproduct of otherwise favorable socioeconomic change. If joblessness in youth hurts later socioeconomic achievement, then persistently high youth unemployment for blacks will prevent full equality in the adult labor market. Moreover, if good opportunities are now available to blacks with high levels of education, then inequalities within the black population are likely to grow.

Christopher Winship

Christopher Winship

ity to utilize women and an accession methodology based on that capability.

In response to this mandate, the Air Force commissioned an organizational impact assessment, and NORC, under a subcontract with Systems Research and Applications (SRA), conducted a major survey of Air Force personnel. Nearly 12,000 enlisted personnel on 30 Air Force bases completed survey questionnaires in less than a month under NORC management. The main survey was accomplished by having enlisted personnel fill out questionnaires in group sessions run by NORC interviewers; this data collection effort was supplemented in a number of ways, including individual in-depth interviews with a subsample of enlisted persons and with senior officers on the bases from which enlisted personnel were sampled.

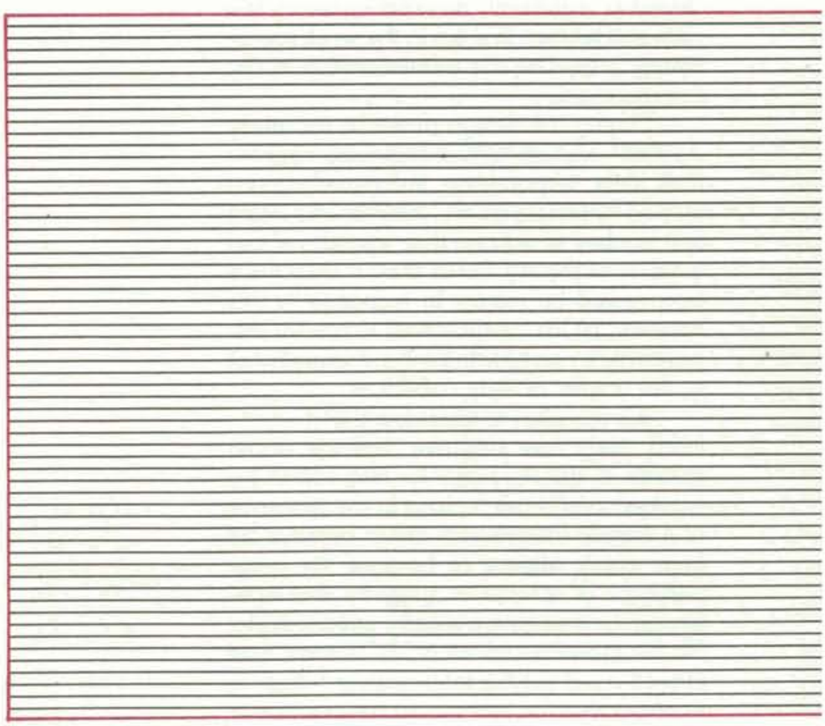
The goal of the survey was to gather data that would lead to findings and recommendations firmly grounded in the experiences of enlisted personnel in the units that carry out the day-to-day work of the Air Force. For this reason, relatively few of the questionnaire items sought information about attitudes toward women or responses to hypothetical increases in the number of women in the Air Force. Instead, the focus of the questionnaire was the working conditions in these units as experienced by the men and women in them in the week immediately preceding the administration of the questionnaire.

During the design phase of the study Air Force representatives expressed concern that male respondents individually interviewed by female NORC interviewers might feel less free to express their attitudes about women in the Air Force than if they were interviewed by males. In response to this concern, NORC volunteered to test for this possibility by conducting a quasi-experiment in the course of data collection.

It is plausible to speculate that if an enlisted man has negative feelings about women in the Air Force he may soften his expression of those feelings in the presence of a female interviewer, either because he fears giving offense or because the mere presence of a woman suggests that anti-female sentiments are socially unacceptable. Yet the model on which NORC's work, and indeed most survey interviewing is based, assumes that the interviewer functions as a neutral stimulus, a conveyor and clarifier of question content and recorder of responses, but does nothing to affect the direction or intensity of the responses given.

However, while considerable research has examined effects of various interviewer characteristics, there have been relatively few systematic studies of effects of sex of interviewer. The results of the research done to date show that under certain circumstances the sex of the interviewer can influence response. Accordingly, NORC volunteered to test for this possibility, especially important in a survey on sex-related topics.

In an analysis comparing responses given to male and female interviewers, Senior Survey Director Mary Utne O'Brien found no statistically significant differences or systematic variation in survey responses by sex of interviewer. This indicates that the Air Force need exercise no special caution related to a sex of interviewer/sex of respondent interaction in interpreting the findings from the personal interviews. It also argues for the efficacy of trained and experienced interviewers in implementing the survey research model.



the family

Change has come with a vengeance to the American family, change that has perhaps been faster, deeper, and more far-reaching than that experienced by any other major social institution. There are at this moment more households of one, persons living alone by choice or necessity, than at any other time in history. There are more single persons, most of them female and many of them young, heading households with children. More women are working outside the home now than ever before. Marriages are fewer and later, divorces more frequent. The state has become more involved in the care of children with special needs, taking the place first of parents and then of voluntary agencies.

Change has come as well to research on the family. A renewed sense of the family's importance and a growing sense of urgency about the effects of change on it have moved both researchers and sponsors to devote attention and resources to this area. Recent decades have seen substantial growth in the research literature on the family and the development of new approaches to understanding the family.

NORC's research on the family participates in these changes. Studies focus on issues of current, and enduring, importance. These include the distribution of wealth in and among families, adolescent pregnancy, and the care of children by parents and the state. The research approaches include application of the principles of economics to the family and the development of databases on children in the custody of the state.

The Economics of the Family

The changes in the family in recent decades—in fertility, family formation and dissolution, female labor supply, schooling attainment, living arrangements, and mortality rates—have been accompanied by major changes in the role of the family in providing old-age economic security, in providing for the care and early education of children, in promoting the traditional sex-specific functions of wage-earner and homemaker. These changes in social patterns have taken place in an economic context of growth in real income and continued shift toward a service-intensive composition of national output, and in a political context of first growth and now retrenchment in the role of government in social and economic behavior. NORC's research in this area investigates the relationship between the demographic changes and the changing functions of the family, and uses the family as an integrative, key element in understanding recent social patterns. In a group of projects funded largely by the National Institute of Child Health and Human Development and also by the National Science Foundation, The Hewlett Foundation, and others, NORC economists have addressed these issues.

The publication in 1981 of *A Treatise on the Family* by Research Associate Gary S. Becker (Harvard University Press) was both the culmination of over two decades of research on the family by Becker and a starting point for further research. The landmark book develops an economic approach to the study of the family. Becker's goal was much broader than analysis of the material aspects of family behavior; he set out instead to develop a theoretical framework for analyzing many aspects of family life—marriage, births, and divorce, for example—using the economic tools developed for the study of material behavior.

In 1983-84 Becker continued his research on aspects of the economics of the family. A paper entitled "Human Capital and the Rise and Fall of Families," is the result of one inquiry, by Becker and Research Associate Nigel S. Tomes of the University of Western Ontario. Becker and Tomes have developed a model of the transmission of earnings, assets, and consumption from parents to children and later descendants. The model is based on utility maximizing by parents concerned about the welfare of their children. The degree of intergenerational mobility, or the rise and fall of families, is determined by the interaction of utility maximizing behavior with investment and consumption opportunities in different generations, with the number of children in different families, and with different kinds of luck. Having examined a dozen empirical studies relating the earnings, income, and assets of parents and children, Becker and Tomes conclude that, excepting families victimized by discrimination, regression to the mean in earnings in the United States and other rich countries appears to be rapid, and wipes out in three generations almost all the advantages or disadvantages of ancestors.

In another recent paper, "Human Capital, Effort, and the Sexual Division of Labor," Becker discusses the causes of the recent-decade increases in the labor force participation rates of married women and provides a theoretical model of the sexual division of labor. Becker summarizes this work in The Sexual Division of Labor.

Economists, in their models and policy pronouncements, often act as if all household members are in the same boat economically. But experience suggests otherwise. A relatively extreme example is supplied by the family in which all of the members make sacrifices for the education or career of one. These, and more commonly observed household behaviors, demonstrate that households allocate their resources among members in some nonrandom and not necessarily equal manner.

In their monograph-in-progress, "Allocation of Income Within the Household," Research Associates Edward P. Lazear and Robert T. Michael investigate the allocation of household resources among members, asking theoretically and empirically what can be learned about this allocation from expenditure survey data. They believe that understanding this aspect of family behavior may be important for understanding all kinds of mechanisms that affect behavior—for example, whether the allocation of space for quiet study within the home helps explain the differences in school performance.

Lazear and Michael analyzed data from Bureau of Labor Statistics Consumer Expenditure Surveys for 1960-61 and 1972-73. They found that for large composite goods such as clothing and housing many characteristics of the family affect spending patterns. The family's level of income leads the list of influential characteristics, but many other factors play a part, including the size of the family, the education of the head of the household, the employment status of the husband and wife, the location of the residence, and the race of the members. The characteristics of the family's children—specifically, their sex, age, and employment status—appear to affect spending as well.

Having established these preliminary findings about spending, Lazear and Michael move on to their essential question: How is household income allocated between adults on the one hand and children on the other? They found that, overall, households spend an average of $38 per child for every $100 spent per adult. Looking at specific types of households, Lazear and Michael discovered that households with higher levels of education and those with two employed adults spend more money on children, even when income is held constant. They found that black households spend a little less on children relative to adults than white households do, but they also found that black households, with fewer adults and more children, spend a larger proportion of the household income on children—33 percent for blacks vs. 30 percent for whites.

Like the allocation of resources in households, participation in the labor force is a family affair. In a study entitled Estimation of Models of Family Labor Supply, Research Associate Thomas E. MaCurdy, with the assistance of Thomas Mroz, examined the relationship between husbands and wives in this regard. In the theoretical portion of their effort, MaCurdy extended existing models of labor supply to take into account the fact that households make choices in complicated environments where much about the future is uncertain, and where the presence of taxes intricately links the returns each spouse earns for an hour of work.

In the empirical portion of the project, MaCurdy examined, among other things, how one spouse adjusts his or her hours of work in response to change in the wages of the other. Whereas previous empirical studies have generally found evidence of behavior that seemed to contradict some of the more subtle implications of economic theory, MaCurdy's work finds confirmation of these same implications. MaCurdy accounts for this difference by the fact that his work relaxes several assumptions often made by economists. Earlier studies typically assumed that households make decisions with complete knowledge, while he models the decision in a world of uncertainty. Some studies restricted their attention to married couples where both spouses work and thus failed to recognize the importance of wives' decisions about entering the labor force. And most earlier efforts ignore the existence of taxes, which MaCurdy finds can have a significant impact on the labor force choices of married couples.

In a related study, Research Associates V. Joseph Hotz and Robert A. Miller are in-

The Sexual Division of Labor

The labor force participation of married women in Western countries has increased enormously during the last 30 years. Initially, the increase was concentrated among older women, but it eventually spread to younger women with small children.

The major cause of the increased labor force participation of married women during the twentieth century appears to be their increased earning power as the economy developed, including the rapid expansion of the service sector. The growth in their earning power raised the forgone value of their time spent at child care and other household activities, which reduced the demand for children and encouraged a substitution toward the labor market.

The gain from marriage is reduced, and hence the attractiveness of divorce raised, by higher earnings and labor force participation of married women, because the sexual division of labor within households becomes less advantageous. Consequently, this interpretation also implies the large growth in divorce rates over time. The decline in the gain from marriage is reflected also in the increased number of "consensual unions" (unmarried couples living together), the large increase in families headed by women, and even partly in the large growth in illegitimate birth rates relative to legitimate rates during recent decades.

Divorce rates, fertility, and labor force participation rates of women also interact in various other ways. For example, fertility is reduced when divorce becomes more likely, because child care is more difficult after a marriage dissolves. There is evidence that couples who anticipate relatively high probabilities of divorce do have fewer children. The labor force participation of women is also affected when divorce rates increase, not only because divorced women participate more fully, but also because married women will participate more as protection against the financial adversity of a subsequent divorce.

In my paper on sexual division of labor I argue that increasing returns from specialized human capital is a powerful force creating a division of labor in the allocation of time and investments in human capital even among basically identical persons. However, increasing returns alone do not imply the traditional sexual division of labor, with women having primary responsibilities for many household activities, unless men and women tend to differ in their comparative advantages between household and market activities. Whatever the reason for the traditional division—perhaps discrimination against women or high fertility—housework responsibilities lower the earnings and affect the jobs of married women by reducing their time in the labor force and discouraging their investment in market human capital.

My paper also develops a model of an individual's allocation of energy among different activities. More energy is spent on each hour of more energy-intensive activities, and the ratio of the energy per hour in any two activities depends only on their effort intensities and not at all on the stock of energy, utility function, money income, allocation of time, or human capital. Other implications are derived about the cost of time to different activities, the effect of hours worked on hourly earnings, the effect of earnings on investment in health, and the effect of an increase in the energy spent on each hour of work on the benefits from investment in market human capital.

Since housework is more effort intensive than leisure and other household activities, married women spend less energy on each

vestigating the dynamic relationship between fertility and female labor force participation over the lifecycle. Hotz and Miller will first develop theoretical models of fertility and labor force participation decisions over the lifecycle from an economic perspective and econometric models that can be applied to longitudinal data on females during their childbearing years. They will then analyze data from the Panel Study of Income Dynamics to test hypotheses derived from the theory and to examine the impact of women's demographic and background characteristics on their decisions about childbearing and working.

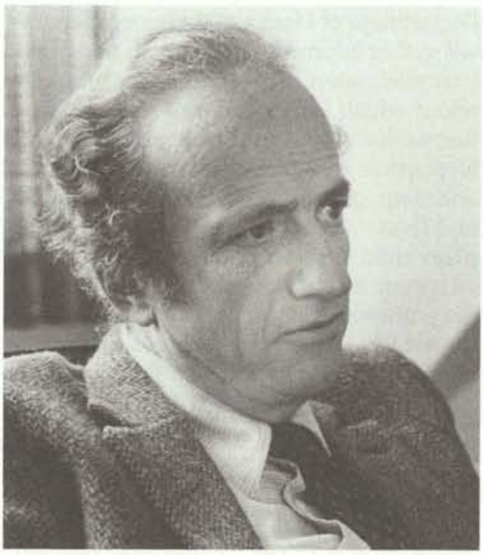
A project begun recently by Research Associates James Heckman, Jan Hoem, Joseph Hotz, and Burton Singer will use data from the United States and Sweden to investigate socioeconomic determinants of the timing and spacing of births over the lifecycle. The first paper from this project, written by Heckman, Hotz, and James Walker (to be published in the *American Economic Review* in 1985), presents an empirical inquiry designed to confirm a set of "stylized facts" about fertility dynamics in Sweden. The inquiry employs a statistical framework that can use continuous event history data on births, and can take account of issues such as marital and divorce decisions and periods of infertility following births. The early results of this project point to the vulnerability of the accepted stylized facts about the timing of fertility over women's lifecycles to the assumptions typically made about common, unmeasured characteristics of these women.

Forming Families: Expectations and Behavior

The movement from youth to adulthood is not marked by a single event or moment in time but by passage through a number of transitional experiences including the completion of schooling, the start of full-time work, and establishment of an independent residence. But perhaps no event is more closely associated with adulthood than the establishment of one's own family through marriage or childbearing. The transitions marking the passage to adulthood are each regulated to some extent by the social system. Though it seems clear that there are commonly held beliefs, or norms, about the ages at which it is appropriate to undergo various life course transitions, there is very little empirical research documenting their existence.

In research supported by The Spencer Foundation, Dennis P. Hogan and Amy Ong Tsui examined the expectations of young people concerning the major events in their own transitions to adulthood. Using data from two major surveys of youth conducted by NORC—High School and Beyond and the National Longitudinal Survey of Labor Force Behavior, Youth Cohort—Hogan and Tsui confirmed the existence of these norms for adolescents and found that they were formed in a systematic fashion, consistent with the young person's life experiences and plans for the future. Consistency about the appropriate order of events was most pronounced in the area of family formation. Three quarters of males and 68 percent of females expect to complete school before marrying and even more (90 percent of both sexes) expect to complete school before their first child is born. Most of the young people in the surveys also expect to begin work at a regular job before marriage or childbirth. This finding characterizes females as well as males, suggesting strong similarity between the sexes in early labor force commitment.

Hogan and Tsui found significant differences in their analysis as well. To take one example, whites, on the whole, expect to avoid childbirth before marriage, Hispanics are somewhat more likely than whites to expect to have a child before marriage, and blacks are much more likely than either to expect childbirth not only before marriage, but also while still living in the parental home, while still enrolled in school, and before beginning work. These differences suggest that the higher black rates of unmarried childbearing are at least partly the result of differing expectations rather than simply the unintended consequences of differences in sexual activity, contraceptive use, attitudes



Gary S. Becker

hour of market work than married men working the same number of hours. As a result, married women have lower hourly earnings than married men with the same market human capital, and they economize on the energy expended on market work by seeking less demanding jobs. Moreover, their lower hourly earnings reduce their investment in market capital even when they work the same number of hours as married men.

Therefore, the responsibility of married women for child care and other housework has major implications for earnings and occupational differences between men and women even aside from the effect on the labor force participation of married women. I submit that this is an important reason why the earnings of married women are typically considerably below those of married men, and why substantial occupational segregation persists.

Gary S. Becker

toward abortion, and marriage.

Investigating the actual behavior of young people in these areas was the focus of a study by Research Associates Robert Michael and Nancy Brandon Tuma. This research used data from the youth survey of the DoL/NLS to investigate early entry into marriage and parenthood by young men and women. The NLS/Youth data reflect the tremendous difference in behavior among youth of differing racial and ethnic backgrounds in age at entry into marriage and parenthood. The most striking contrast found by Michael and Tuma occurs between black and white females. Young white women are much more likely than young black women to have married by age 20 (28 percent versus 14 percent), but young black women are much more likely to have borne a child (39 percent for blacks versus 18 percent for whites). Michael and Tuma attempted to assess the influence of family background variables on the age at which youths enter these adult roles. The factors studied included the educational attainment of a youth's mother and father, the number of siblings, the family structure in which the youth grew up, religion, region, city size, and so forth. Using a statistical scheme called a proportional hazards model, with data on the date the youth married, Michael and Tuma traced the pattern of first marriage for whites, blacks, and Hispanics and explained a large percentage of the differences in the age of first marriage by the measured family background factors within each of these race-ethnic groups. But the family background variables failed to explain the very large differences in behavior between white and black youth. Generally, similar qualitative results are found when age at first birth is analyzed.

Financial Responsibility for Children

The failure to support children on the part of parents who do not live with them, whether the parents have never married or their marriages have ended in divorce, has become a national scandal. The Child Support Enforcement Amendments of 1984 recognized the seriousness of this problem and attempted to address the problems it creates for the involved children, the custodial parent, and the taxpayer.

Several NORC projects begun in 1983-84 are designed to shed light in this area. One will provide the first comprehensive profile of absent parents, the other is designed to obtain data on the flow of resources among family members living in separate households and to explain analytically the failure of absent parents to meet their financial responsibilities.

The Survey of Absent Parents, sponsored by the Office of Child Support Enforcement and the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, will gather information from both absent and custodial parents, but it is the absent parent about which less is known. This study will first seek out and interview absent parents to provide a more reliable socioeconomic and demographic profile of that population and then will determine the factors that explain child support payment performance, whatever its character. It will also examine the pattern of support obligations, both cases for which obligations are established by courts and those for which they are not.

The study, which is being directed by NORC Senior Survey Director Geraldine Mooney and done in cooperation with the Urban Institute, presents a formidable challenge. NORC interviewers will both abstract data from court and administrative records and locate and interview the custodial and absent parents. The findings from the study will inform developing policy in this critical area.

Related work by NORC Research Associate Robert J. Willis and his colleague Yoram Weiss examined why many divorced fathers (commonly the noncustodial parents) fail to comply with court-mandated child support awards, allowing their children's welfare to suffer as a consequence of divorce. They explore the notion that children are, from the point of view of parents, collective consumption goods. From this, they derive an explanation of failure to pay child support: The noncustodial parent loses motivation to provide support of children with the loss of their society and of control over how money is spent on their behalf. Willis and Weiss also explain why custody rights and alimony transfers often go in the same direction, usually to the wife, and why uneven distribution of income between spouses increases the probability of divorce.

The financial and behavioral consequences of divorce, particularly resource flows within families and between individuals, is one focus of interest in a project led by Research Associates Robert Michael and Robert Willis. The project is a supplement to the Fifth Followup of the National Longitudinal Study of the High School Class of 1972 (NLS-72; see ***Education***). This fifth survey, of 14,000 of the original 22,000 respondents, will be fielded in 1986, and the questions comprised by the supplement will be asked along with NLS-72's core questions on schooling and labor market behavior. Other focuses of interest for the supplement include the collection and analysis of continuous event histories in the areas of marital and fertility history and the mapping of time and money flows between the respondent and his or her relevant others. The larger project is sponsored by the National Center for Education Statistics; the supplement, by the the National Institute of Child Health and Human Development.

In Guidelines for Child Support Payments By Noncustodial Parents, Michael presents a summary of work on this topic from a study discussed earlier in this chapter.

Guidelines for Child Support Payments by Noncustodial Parents

In our monograph "Allocation of Income Within the Household," Edward Lazear and I use two large micro data sets with information on the detailed expenditure patterns of households to attempt to measure how a household's income is apportioned among members. As one of the products of that research we have an equation that describes how a household's characteristics affect its spending on the children as compared to the adults. That equation can be used to estimate how much each child gets both in intact families and in one-adult families after divorce has occurred. Consequently, that equation can inform us about how much income a noncustodial parent would have to transfer to a custodial parent in order, for example, to provide the child with the same level of income as was received when the family was intact.

We have calculated that figure and have calculated as well the amount to be transferred from noncustodial to custodial parents under several other criteria. In our study we have argued that there is no use in trying to disentangle alimony (or spouse support) from child support. Neither courts nor noncustodial parents can monitor or control how each dollar is spent in the family with custody, and only under rather unusual conditions can transfers in kind (transfers of things like clothing, tuition, or orthodontia) be an effective way of controlling how resources are allocated in the custodial family.

Instead, we assume that the custodial family will allocate all income among members in the way we estimate families to do using the Bureau of Labor Statistics' data sets known as the "Consumer Expenditure Surveys." We show that if the objective is to provide each child with the same amount of income after divorce as before the divorce, it is very likely that the custodial parent will end up with very little, relatively. In fact, the adverse effect on the custodial parent of such a criterion is enough to convince us that a different criterion should be used. The criterion we adopt is that the two households (the household of the noncustodial parent and the household of the custodial parent and children) should have income in proportion to the adult-equlivalent size. This criterion uses the household as the relevant unit, implying that nonmembers of that household cannot in any practical way affect the allocation within. With this criterion, we can take account of issues like joint custody, remarriage, and the incomes of the spouses.

As we attempt to provide a useful set of tables that reflect the implications of our assumptions and estimates for the transfers from noncustodial to custodial household, we confront several issues that have not been well researched. For example, the fixed costs associated with joint custody may be quite large if two households maintain a child's bedroom while the child spends part of each time period with each parent.

Regarding the measure of income to be used in calibrating the transfer, we argue for a rather broad concept of income and suggest a way to take account of the fact that some changes in income over time are pure luck, while others reflect decisions made by the income earner. We suggest a way to take account of the luck component without undermining the individuals' incentive to earn all he or she might earn.

Robert T. Michael

Adolescent Parenthood

The phenomenon of adolescent parenthood has attracted considerable attention in recent years. This has contributed to a widely held view that adolescent parenthood is a growing problem among teenagers in the United States. While the special hardships that young parents face in raising children deserve our concern and attention, the facts are that rates of teenage childbearing have been declining for all but the very youngest girls for a number of years. In absolute numbers, there were more babies born to teenagers in the early 1960s than in the early 1980s. Adolescent childbearing is not approaching the "epidemic" levels frequently reported in the press.

The more significant change affecting the welfare of adolescent parents and their children is the rising percentage of young mothers who do not marry the father and who assume the responsibilities of raising their children on their own. Because children born to single teenaged parents are very likely to spend their formative years in poverty and because single teenaged parents tend to remain dependent on public assistance for a long time, it is this population of young parents that NORC's program of research on adolescent parenthood seeks to understand.

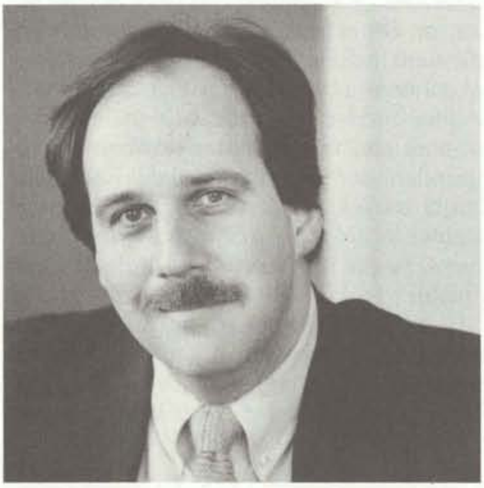
The research began in 1981, with the Adolescent Family Life Study, which surveyed a sample of over 1,900 Illinois mothers aged 17 years old or younger who were receiving Aid to Families with Dependent Children (AFDC). The preconception that most of these young parents were struggling alone was dispelled by the finding that well over one-half of the respondents were residing at the time with one or both of their parents. Less than 20 percent were raising children alone in their own quarters. Furthermore, over one-third of the young mothers were enrolled in high school, with childcare provided mostly by the girls' mothers. Many reported a desire to continue with their education beyond high school, and nearly all expected to be working in a few years.

The 1983 and 1984 followup interviews with a subsample of 500 of the original respondents were designed to learn about the longer term consequences of adolescent parenthood, especially with respect to the continued educational achievement and possible future financial independence of adolescent mothers. The slightly optimistic view obtained from the 1981 survey was tempered by the 1983 and 1984 findings. Only one-half of the girls who were enrolled in school in 1981 had managed to complete their high school education or to obtain a GED. Nearly 75 percent of the young girls interviewed in 1984 had less than a high school education. For 45 percent of the white respondents and 36 percent of the Hispanic respondents, school dropout actually preceded pregnancy with their first child. By contrast, only 5 percent of the black respondents had dropped out of school prior to pregnancy. Once a young girl dropped out of school, followup interviews showed that she was very unlikely to return to complete her education. Most of the high school graduates in the sample were women who had managed to remain continuously in school throughout their pregnancies and after childbirth. Continuous attendance in school was more characteristic of black than of white or Hispanic women and was associated with remaining in the parents' household, reporting college aspirations in the initial survey, and delaying subsequent pregnancy with a second child.

The low educational attainment of adolescent mothers is one of the major reasons for

In Support, or in Place, of Parents: Children and the State

Over the last two decades the states have assumed significantly greater responsibility for the care of children with special needs—the handicapped, the abused, the homeless—needs formerly attended to largely by voluntary agencies. The Children's Policy Research Project, housed in NORC's Social Policy Research Center, was established in 1980 to assess this changed relationship between children and the state. The project, under the direction of NORC Cen-



Mark Testa

ter Director Harold Richman and Research Associate Mark Testa, uses the State of Illinois as a microcosm.

The Project has pursued several studies, some of which are reported below, and has published two volumes in its Children in Illinois series and is at work on a third. The first volume in the series, *The State of the Child*, by Mark Testa and Fred Wulczyn, presented data on numerous topics affecting the conditions under which children live in Illinois. When published in 1980 it was greeted with strong editorial support from the major Chicago newspapers, and Illinois Governor James Thompson appointed a Task Force on Children to develop recommendations from the study's findings.

One of the recommendations of the Governor's Task Force was that a state-of-the-child report should be updated and reissued every three to five years. With funding from the Fry Foundation, the Project is preparing an updated *State of the Child* for release in December 1985. This edition will update areas covered in the earlier volume, including demographics, family life, poverty, foster care and adoption, health, violence, youth alienation, education, and employment, and will add new sections on children's mental health and living environment (housing, recreation, neighborhood safety).

The cooperation between researchers and state agencies that has characterized the work done under the Project is very much in evidence on this part of it. The original *State of the Child* involved collaboration with the Governor's human services subcabinet, and its data sources included Illinois vital statistics, census data, and published reports of the various Illinois human services departments. The updated volume will be a product of collaboration with the State's newly formed Child Policy Study Group.

Each year approximately one-half million teenaged women in the United States give birth and take up the responsibilities of parenthood. A major source of governmental support to adolescent parents is the welfare program Aid to Families with Dependent Children. In order to learn more about this growing segment of the state welfare population, the Illinois Departments of Public Aid and Public Health sponsored a statewide survey of over 1,900 adolescent mothers receiving AFDC in 1981, and The Joyce Foundation provided funds for the analysis of the survey data. Additional funding from the federal Office of Adolescent Pregnancy Programs enabled NORC to reinterview a panel of 500 of the original respondents, living in Cook County, Illinois, in 1983 and 1984. The purpose of the Adolescent Family Life Study, directed by Mark Testa, is to examine the relationship between the young mothers' access to and use of formal and informal help and services and their ability to achieve self-sufficiency through educational achievement, employment, and

their long-term dependence on public assistance. Efforts to move off the welfare rolls are often frustrated by lack of job oppoptunities, even for those with a high school diploma. Overall, 32 percent of the respondents reported being off AFDC for some period of time. However, one-half eventually resumed participation in the program. Only 14 percent of the respondents interviewed in 1981 were not receiving any form of public assistance in 1984. One-third of these were not receiving AFDC because they were receiving support from another person, usually by marriage; another one-third had obtained employment; and the remaining one-third were not receiving aid for other reasons.

The increased public role in the support of adolescent mothers and their children has stimulated interest in developing alternatives to long-term welfare dependency. One option is to pursue more vigorously the disclosure of paternity and the enforcement of child support obligations. Another is to establish special programs to aid young mothers in completing their educations and in finding jobs. Still another is to intervene early to prevent pregnancies in the first place. States have begun drafting legislation and developing programs in all of these areas. The early results show that the problems of adolescent pregnancy and parenthood will not be quickly alleviated, and that a comprehensive solution will require our paying greater attention to the opportunities afforded young people, especially the poor, in our society. An improved educational environment and better job opportunites for the young will still leave those at the bottom of the class and at the bottom of the economic ladder who see early parenthood as a pathway to adulthood, yet it is important that our society make these efforts at improvement in order that our young people may have a greater stake in avoiding early pregnancy and childbirth.

Mark Testa

other alternatives to welfare. Testa describes the study and some of its findings in Adolescent Parenthood.

The need of these young mothers, and their children, is clear. Less clear is the most effective means for assisting them. In an effort to determine how they might best be helped to complete their schooling, delay additional pregnancies, and achieve financial independence, the State of Illinois developed the Young Parents Program. Although the development of programs is sometimes influenced by research findings, it is frequently the case that there is no reliable information on which to base important programmatic decisions. The development of the Young Parents Program was aided by the existence of data from the Adolescent Family Life project just described. Based to a great extent on the findings from that survey, the Illinois Department of Public Aid devised a social service program consisting of an orientation; workshops on such topics as nutrition, birth control, and job finding; and follow-up work on topics of particular interest to individuals. The State's access to recent and relevant data permitted the clear identification of both the target group and the goals of the intervention.

Though this project had a firm, data-based beginning, the State wished to evaluate its effectiveness in practice and so has sponsored the Young Parents Program Evaluation. This project, directed by NORC Research Associates John Schuerman and Fred Wulczyn, is a social experiment with random assignment of young mothers to the treatment and control conditions. Like the design of the State's program, the design of the study was heavily influenced by the previous research project. Findings from that study, and from The *State of the Child*, helped in the specification of the sample, alerted the team to potential field problems, and provided a basis for developing the survey questionnaire. Most of the items from the Adolescent Family Life Study are repeated in this survey to provide additional, comparable data for the analysis.

The evaluation has two major components. The first is a rigorously controlled social experiment involving 500 young women, 350 in the experimental group and 150 in the control group. The sample is limited to black women between 15 and 20 years of age who are unmarried and have one child. (Though the program serves all races, the experiment is limited to black participants to improve the statistical power of the analysis.) The research design calls for these women to be interviewed twice, once at the time the experimental group begins to receive services and a second time eighteen months later. The interview data is to be supplemented by records data; the progress of all experimental cases through the program is to be tracked in monthly summaries of activity on each case. The second major component of the evaluation is an implementation analysis, a qualitative investigation of the development and operation of the program using ethnomethodological approaches.

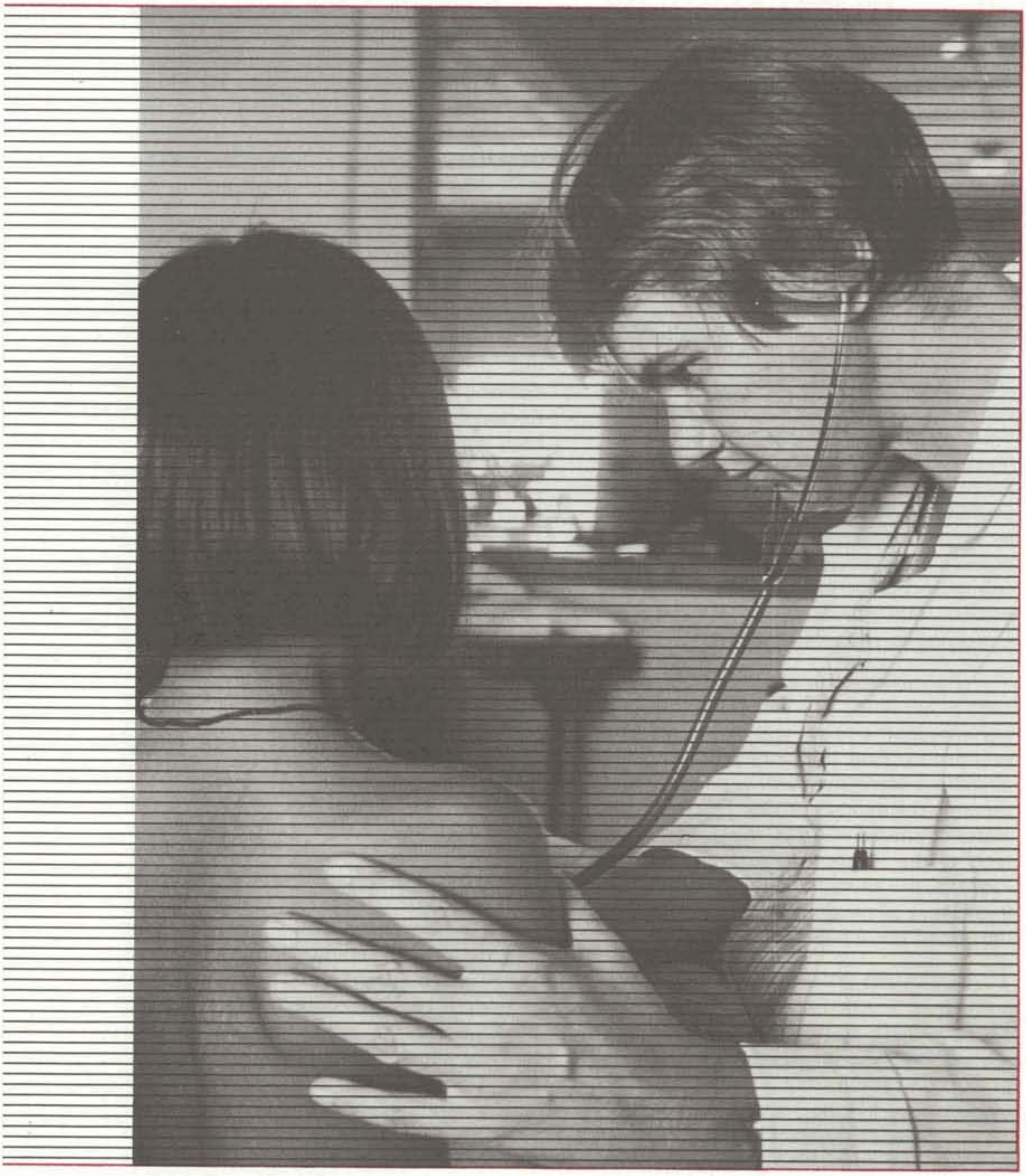
In addition to the main substantive findings from this group of studies, which should illuminate the policy problems posed by young parents and the effects of specific state-sponsored interventions, the researchers hope that these projects will shed light on how private, university-based social research centers can work cooperatively with state officials in the detection of social problems, the development of social programs, and the evaluation of those programs.

When parents cannot care for their children, the state often intervenes. Substitute care is one of the mechanisms through which states take responsibility for children. Through substitute care, the state, while retaining ultimate responsibility for children in need, shares the responsibility by placing children with foster parents and with church and voluntary agencies providing group-home and institutional care. The problems of managing this shared responsibility are formidable. The State of Illinois, for example, currently serves 14,000 children in substitute care, and caseworkers commonly supervise 50 to 75 children on placement. Making reliable information detailing progress toward achieving case plans regularly available to case managers is one means of ensuring that children are returned to the care of their parents as soon as is possible, that they are not left to languish in bad situations, or simply ignored.

In another cooperative effort, NORC researchers are working with the State of Illinois Department of Children and Family Services (DCFS) to restructure the department's database on children in foster care.

The goal of this project, directed by Mark Testa and funded by The Edna McConnell Clark Foundation, is to integrate research and administrative uses of computerized data on children under state guardianship to improve the management of foster care. The database will eventually contain information on approximately 100,000 children who have received service from DCFS. This wealth of information will be available through a network of microcomputers to child welfare staff at all levels of the organization, from caseworkers in the field to policy planners, and to researchers. The system is now being tested and its usefulness for management and case decisions is being assessed in two DCFS field offices.

health and health care



Health and health care are major issues in contemporary America. One of the major continuing stories is the rising cost of health care. The costs associated with advances in care and with the greater amount of care required by an aging and longer lived population are staggering. The National Center for Health Statistics reported that in 1982, for example, health care expenditures in the United States totaled $322.4 billion, an average of $1,365 per person. And between 1981 and 1982 the medical care component of the Consumer Price Index increased 11.6 percent, while the overall CPI increased only 6.1 percent. These facts have led to many questions: Who gets care? Can it be denied, for financial reasons, to those in life or death situations? How can the costs of care be cut? And, ultimately, who pays? This last question is particularly pointed when the cost of care is absorbed by government through Medicare, Medicaid, and other programs.

The cost crisis has led to an examination of the traditional means by which people receive medical care, and variations on the traditional settings are a major and continuing story. The single-doctor office and the hospital emergency room are being supplemented, and in some cases supplanted, by newly developed or increasingly used practice settings. Group practices are more common, HMOs are growing in size and number, and convenience care centers are appearing in shopping malls.

The abuse of drugs is another major story of our times, one with the greatest importance for the health and well-being of the population. And the drug problem is not alone in presenting a new, or newly urgent, threat to the nation's health. The tragic and alarming spread of AIDS, the poisonous effects of the technology that we mean to serve us, the aftereffects of service in war—these have all caught the attention, and often raised the anxiety, of the public.

In its 1983-84 efforts to address these and other health concerns, NORC continued a long tradition of breaking new ground in conducting research in this area. In NORC's Health Care Research: A Series of Firsts, Pearl Zinner, an Associate Director and Special Assistant to the Director of NORC, presents the highlights of this history.

Health Care—Doctors, Hospitals, Patients

Health care in the United States is dispensed in myriad settings. Patients may be seen, for example, in physicians' offices housing one or twenty doctors, in hospital emergency rooms or inpatient departments in urban centers or rural outposts, or in such recently developed practice settings as Health Maintenance Organizations.

Since 1973, NORC has worked with the National Center for Health Statistics to develop a picture of the care given patients in one segment of this universe—the physician's office. Until the launching of the National Ambulatory Medical Care Survey (NAMCS) there were no systematic data on such care, the major source of care for the ambulatory.

The study posed significant challenges, requiring as it did that researchers elicit commitment to the research from busy and sometimes resistant physicians and penetrate the privacy of the doctor's office without doing violence to the privileged doctor-patient relationship. But NORC conducted the study successfully on an annual basis from 1973 through 1981, and in 1983-84 began work on the tenth round of research. In NAMCS: Groundbreaking Survey, Widely Used Data, Paul B. Sheatsley, an NORC Senior Survey Director who has been associated with NAMCS since its inception, presents a summary of the project and its applications.

Throughout its history, NAMCS has proven to be an excellent laboratory for testing the feasibility of collecting additional data on health care. The largest and most recent of the NAMCS spinoffs is HAMCS, the Hospital-Based Ambulatory Care Study. Fielded in 1983, HAMCS was a feasibility study designed to determine whether the picture of ambulatory health care in the United States could be made more complete by the addition of data on the care given in hospital emergency rooms and outpatient departments. The study, conducted in some forty hospitals in four areas, determined that, in general, the procedures developed for NAMCS can be effectively applied in a hospital setting. Based on the results of HAMCS, NORC was able to provide NCHS with recommendations for optimal design of sampling and data collection procedures, to be used in the event that NCHS undertakes a full-scale monitoring of ambulatory care provided by hospitals.

As NAMCS and HAMCS are aimed at providing basic data on the nature of the health care provided to Americans, another NORC survey is aimed at providing basic data on the factors that determine the cost of care. The Physician's Practice Costs and Income Survey of 1984 builds on an important series of surveys conducted by NORC in the 1970s to assist the Health Care Financing Administration in containing Medicare costs and ridding the Medicare system of inequities.

In 1976-78, NORC surveyed physicians on their practice costs so that HCFA could assess the Medicare Economic Index, a congressionally mandated device for governing reimbursements to physicians providing services to patients under Medicare. The MEI was designed to tie allowable physician charges under Medicare to the actual costs of practicing medicine, rather than to the prevailing charges in an area. The MEI was applied in 1975 and has been in effect ever since. Early in this period, HCFA contracted with NORC to survey several thousand private practice physicians on their practice costs, such as wages and salaries, malpractice insurance, and office space. From these data, HCFA calculated average costs, forecasted estimates of wage, space, and malpractice costs, among others, and used these projections in setting an allowable rate of increase in Medicare payments to physicians.

The 1984 survey began with an evaluation of the methodology used in the three earlier surveys. Following an extensive pretest, NORC Senior Survey Director Mary C. Burich and the study's Principal Investigators, Jerry Cromwell and Janet Mitchell of Health Economics Research, Inc., reevaluated the objectives of the survey and the methodologies appropriate for developing an optimal data set from physicians on their practice costs, reimbursement, and related issues.

Guided by this evaluation, the full-scale study of 5,000 physicians in various specialty areas now in progress will provide HCFA with current information for recalculating the Medicare Economic Index. It will also collect data on several issues that are of interest to the study of patient care in general. The scope of the present study is considerably broader than that of the previous ones, reflecting the changing structure of health care delivery in the United States. Whereas, for example, the earlier studies interviewed only physicians in private, office-based practices, the current study includes all physicians providing care to private patients, including those in the newer forms of practice structure—Health Maintenance Organizations, Preferred Provider Organizations, and Independent Practice Associations. The study will also explore physician attitudes toward new government attempts to control the costs of care, including the prospective and DRG (diagnosis-related-group) systems of payment, which have raised many questions about the tradeoffs between cost containment and quality of care.

The survey employs NORC's CATI (computer-assisted telephone interviewing) system, a state-of-the-art approach to data collection in which interviewers read the survey questions from a video display terminal and key the respondents' answers directly into the datafile.

NORC took on the evaluation of its own earlier work in another major health care study in 1983-84. The current project is evaluating various features of the National Medical Care Utilization and Expenditures Survey. This was the second of two large national household surveys on medical problems, use of health services, and expenditures for health care in which NORC participated in the 1970s. The purpose of the current project is to evaluate the appropriateness of the imputation procedures used on NMCUES and the cost-effectiveness of various features of that survey, in anticipation of designing a maximally effective third survey scheduled for feasibility testing in 1985-86.

In addition to these broad-based studies of major issues in health care, NORC has conducted research on numerous specific issues and populations. Such a study is the Adolescent and Young Adult Health Project: A Longitudinal Study of Health in Harlem, which NORC conducted for Ann Brunswick of the Division of Sociomedical Sciences, School of Public Health, Columbia University. First fielded in 1968, this study began by interviewing a cross-section of adolescents living in Harlem, a community seen as a predictor of conditions in other inner-city neighborhoods. The subjects were

NORC's Health Care Research: A Series of Firsts

NORC has been in the vanguard of research on health, both substantively and methodologically, for over three decades. While these pioneering studies have included several that were concerned with social issues related to public health—including Shirley Star's 1950 study of public attitudes toward mental illness and the first longitudinal survey of drug abusers—the majority have been concerned with incidence of illness and the provision of health care. Highlights of this history follow.

- **A Study of the Prevalence of Chronic Illness and Needs for Care in a Rural Area, fielded in 1952, was the earliest systematic comparison of health conditions and symptoms reported by the public with clinical findings from a medical examination of the same respondents.**
- **In 1953, the Health Information Foundation (HIF) and NORC conducted the first national survey of health expenditures based on personal interviews with a probability sample of households—Family Medical Costs and Voluntary Health Insurance: A Nationwide Survey. This was also the first study to evaluate national family medical costs, the extent of voluntary health insurance, and the impact of insurance on costs. NORC and HIF (later the Center for Health Administration Studies at The University of Chicago) subsequently conducted three related surveys, in 1958, 1963, and 1971, that built on the earlier research.**
- **Attitudes, Information, and Customary Behavior in Health Matters, conducted in 1955, was the first study ever to examine the attitudes of the general population toward physicians. It was also the first to ask respondents to rate their health as "excellent, good, fair, or poor," a scale that became a standard item in health surveys.**
- **The Health of Older People, conducted by Ethel Shanas in 1957, was the first national survey to interview a sample of the population over 65 years of age.**
- **Conducted in four waves between 1964 and 1970, the Pre- and Post-Medicare Study of New York State Physicians was the first survey of physicians' attitudes toward Medicare and Medicaid, and toward government participation in the provision of health care. This panel study, which interviewed physicians both before and after the passage of Medicare, was also the first survey of physicians ever conducted by telephone. The Principal Investigator was John Colombotos of the Columbia University School of Public Health.**
- **Physicians View Social Change in Medicine (1973) was the first large-**

twelve to seventeen years old when first interviewed, and seven years older at the time of the first followup interview. In 1983-84, NORC again interviewed these respondents on a broad range of health and related topics, including current health; use of health services; personal habits such as drinking, eating, and smoking; drug use and attitudes toward it; and employment history.

This project called attention to the health problems of the nation's young urban poor and has had high visibility in the Harlem community. The findings from the first wave led to the creation of an adolescent health clinic at Harlem Hospital; this unit continues to serve the Harlem community.

Pearl Zinner

A Major Health Problem: Drug and Alcohol Abuse

Drug use, one of the health issues covered by the Adolescent and Young Adult Health Project, was the central focus of another longitudinal study of young people. Family Processes in Adolescent Drug Use, a survey conducted by NORC for Denise Kandel of the Research Foundation for Mental Hygiene and Columbia University's School of Public Health, has followed the drug abuse behavior of a sample of New York youths since 1971. On three occasions over the thirteen-year period, respondents have been asked whether or not, and how often, they use cigarettes, alcohol, marijuana, and such hard drugs as amphetamines, cocaine, and barbiturates.

An early goal of the study was to investigate the relative influence of parents and peers on drug use, and to identify both the nature of families within which drug use develops and the family processes that promote or deter the use of drugs among adolescents. Parental influence was examined both independently and relative to that of peers. Parents and the respondents' reported "best school friends" were also interviewed in the second wave of the study.

The former high school students are now in their late twenties and the social context of their drug use has changed accordingly. A new feature of the 1984 study is a set of questions designed to determine the characteristics of social networks that support drug use, focusing on the respondent's relationship with family, spouse, and friends in the use of drugs. In support of this inquiry, interviewers left questionnaires with the respondents' spouses or partners to complete and mail.

Analysis of data from the first two waves of the survey revealed increased use of both drugs and alcohol as the respondents moved from their high school years to their mid-twenties. In 1971, less than one-third of the respondents had tried marijuana; by 1980, almost three-fourths had tried it. In 1971, only 21 percent of the respondents had used hard liquor more than ten times; by 1980, 82 percent had done so. Findings from analysis of the data from the third wave of interviewing, which will take respondents from their mid-twenties to their late twenties, will be available in spring of 1985.

The longitudinal design of this survey, in which the same individuals are interviewed at selected points over a period of time, was chosen to allow researchers concerned with drug abuse to analyze patterns of behavior at different ages and in different circumstances. The value of this approach for enhancing our understanding of drug abuse led researchers to take advantage of an existing longitudinal study for this purpose. In 1984, the National Longitudinal Survey of Labor Force Behavior, Youth Cohort (described in ***The Labor Force***) included a series of questions on tobacco, drug, and alcohol use, sponsored by the National Institute on Drug Abuse. Respondents were also asked what drugs, if any, they had

scale national study of such issues as Medicare, community participation in the delivery of health care, the role of paramedics, and treatment of the terminally ill.

- **First fielded in 1977, the National Medical Care Expenditures Survey (NMCES) was the first longitudinal survey ever to collect health care data from a national sample of households. It employed several strategies for improving the accuracy of respondent reporting, including interviews repeated at three to four month intervals and a computerized summary of previously reported data.**
- **The Physicians' Practice Costs Survey was the first in a series of surveys conducted in the mid-1970s to provide the Health Care Financing Administration (HCFA) with information necessary to recalculate the Medicare Economic Index established by the Social Security Act.**

In 1984, NORC began two projects that are continuations of earlier groundbreaking research mentioned in this chapter. The Physicians' Practice Cost and Income Survey of 1984 will evaluate the studies of physicians' practice costs conducted for HCFA, as well as providing HCFA with current information on the same topics covered in the earlier surveys. The National Ambulatory Medical Care Study, which collected data annually from 1973 to 1981, is once again in progress.

Pearl Zinner

used while at work or on active military duty. These questions were put to the over 12,000 young men and women who are part of the NLS.

If a longitudinal approach is important in the study of drug abuse, it is essential in evaluations of the long-term effects of drug treatment. DARP, formally entitled Followup Interviews with Ex-Clients of Drug Abuse Treatment Centers Reporting to the Drug Abuse Reporting Program, is such a study. The Drug Abuse Reporting Program provides a system for accounting for individuals who approach agencies supported by the Narcotic Addict Rehabilitation Branch of the National Institute of Mental Health for treatment. The purpose of the DARP research was to examine the experiences of persons treated for drug abuse in thirty centers throughout the United States since their most recent contact with a treatment agency in the Drug Abuse Reporting Program.

NORC first became involved in DARP in 1974, interviewing a sample of 1,800 persons admitted to treatment in 1969-1971, and 2,200 persons admitted between 1971 and 1972; NORC did followup interviews for this study in 1977. In 1983-84, NORC reinterviewed a subsample of 700 respondents. In spite of the formidable challenge of locating the members of this sample, some of them twelve years after their last contact with a treatment center, and persuading them to consent to interviews covering sensitive subjects and sometimes illegal behavior, NORC achieved response rates ranging from 79 to 86 percent on the three waves of interviewing.

The initial interviews covered such topics as employment, education, marital and family situation, health status, drug use, legal problems, living arrangements, and participation in drug treatment programs since leaving the centers. The followup interviews focused on behavioral changes and outcomes, as well as historical assessments of psychological and social factors present throughout the addiction career. The design of the study allows comparisons of various treatment strategies across agencies, and the sample was large enough that treatment strategies could be examined in light of such variables as sex or age of patient, length of drug use, and types of drugs used.

The research incorporated measures to address two potential problems with these data. To protect respondents who were being asked to divulge information that could put them in jeopardy, NORC established the only file containing identifying information outside the United States, at York University of Toronto. Yet even with such assurances of confidentiality, a major concern in all research on sensitive topics is the truthfulness with which respondents will report embarrassing or illegal behavior. Over the three waves, therefore, the survey included both checks for internal data consistency and comparisons of self-reported information with results of urinalyses and with criminal justice records of post-DARP incarcerations. These indicated high levels of reliability and validity in the data.

NORC conducted the earlier phases of the study for the Institute of Behavioral Research at Texas Christian University; the

NAMCS: Groundbreaking Survey, Widely Used Data

Until the inception of the National Ambulatory Medical Care Survey in 1973, the nature and content of the hundreds of millions of office visits that Americans pay to physicians each year were something of a mystery. Information about these visits, which account for four out of five of all patient-physician encounters, was at that time limited to the retrospective reports (often based on faulty or incomplete knowledge or memory) of respondents to household surveys, or to retrospective reports of limited or unrepresentative samples of physicians.

In the early seventies, NORC, working with researchers at the National Center for Health Statistics and with a national panel of medical and public health experts, devised and tested a methodology for sampling office-based physicians and inducing them to report basic information about the patient visits they received during a randomly selected week of the calendar year. During the years 1973-1981, about 3,000 physicians a year reported details of some 40,000 office visits. Items of information included date of visit; patient's age, sex, race, and ethnicity; complaints, symptoms, or other reason for visit; the physician's diagnosis; diagnostic and therapeutic services provided, including medications administered or prescribed; duration of visit; and disposition of the case.

The importance of this large and unique database, cumulating over the years and projectible to the national population, can

hardly be exaggerated. It has had substantial impact on medical education, where, for the first time, medical students can be shown a realistic picture of the types of problems, and their distribution and frequency, that they will encounter in private practice. It has affected the planning, deployment, and administration of health care facilities and services, as NAMCS data have shown the variations in the nature and volume of care, according to medical specialty, type of community, geographical region, and patient characteristics. Beyond the raw data for each year, NAMCS has permitted analyses of ambulatory care over time, to reflect seasonal changes, trends in the diagnosis and treatment of specific conditions, and the distribution of patient complaints by age, sex, and type of community.

In its reports published in *Vital and Health Statistics*, Series 13, and in its *advancedata* reports in the years since 1975, the National Center for Health Statistics has issued some 65 publications that have reported NAMCS findings. These include a series on patterns of ambulatory care in various medical specialities—internal medicine, general surgery, obstetrics and gynecology, general and family practice—and special reports on visits by women patients and black patients, for preventive care, and for particular types of conditions such as diabetes mellitus, male genitourinary conditions, family planning, headache, cough, pain. A series of reports has provided statistical data on the use of analgesic and psychotropic drugs in office-based care, and has charted the drugs most frequently used in office practice over the years.

Paul B. Sheatsley

Beyond these government reports from the U.S. Department of Health and Human Services, the NAMCS data have been eagerly used by a wide variety of universities and medical schools, individual scholars and physicians, and public and private agencies. The National Eye Institute, for example, has examined the NAMCS data on eye disorders; the Centers for Disease Control have used the findings on vaccinations to evaluate their public vaccination programs; various individuals and agencies have examined NAMCS data on x-rays ordered or provided in order to study population exposure to radiation. The University of Washington School of Medicine has examined the epidemiology of musculo-skeletal problems encountered in office practice; both the American Academy of Pediatrics and the American Academy of Dermatology have analyzed appropriate NAMCS data to evaluate manpower needs within their specialties.

The National Ambulatory Medical Care Survey is but one example of the contributions that NORC continues to make in devising ways to collect and disseminate the basic statistical data that are so urgently required to help manage a large and complex society. NAMCS is conducted according to the most rigorous methodological standards. The quality and value of its data rest entirely upon NORC's sampling skills; the quality of its questionnaires and other field instruments; the skills, training, and motivation of its nationwide interviewing staff; and the meticulous processing of the data collected into forms suitable for use by analysts.

Paul B. Sheatsley

Principal Investigator was Saul Sells. The 1982-83 followup was conducted for Texas A and M University, with Dwayne Simpson as Principal Investigator and Brad Edwards as NORC Project Director.

New Issues in Health and Health Care

The war in Vietnam can hardly be called a new issue, but the time since the war's end has seen a new issue result from it: the long-term effects of that war on the health of the men and women who served in it. The difficulties of arriving at sound conclusions about this question are being addressed by an ongoing NORC project begun in 1984. Under contract to the Research Council of the National Academy of Sciences, and with sponsorship by the Veterans Administration, NORC is working on

New Interest in a Traditional Form of Care

Basic human caring for people who are sick or disabled predates medicine, science, and religion. This may have been eclipsed from time to time by advances in professional healing during the past century, but modern medicine can never completely replace more informal means of giving care. The escalation of medical costs in the 1980s has prompted intense research interest in these informal caregiving activities.

Very little research has been done on informal care in the United States. It has been known for some time that a significant proportion of the population 45 and older has some degree of disability. The National Center for Health Services Research reported in 1973 that 5 percent of Americans between 45 and 64 and 20 percent of those 65 and older were unable to perform some everyday activities without help of some kind. The designers of the Survey of Caregivers thought that if more were known about informal care it might be possible to encourage growth in this approach to health care and thereby alleviate some of the burdens imposed on institutions in the formal health care system, as well as the individuals served by them and those ultimately paying for them.

NORC's Survey of Informal Caregivers was designed to provide, for the first time on a national basis, a comprehensive picture of the informal means of providing long term care to the disabled. Data from the survey will be the basis for designing long term care policies that capitalize on private, voluntaristic care systems. Researchers in the U.S. Department of Health and Human Services are using the survey data to address such issues as:

- What proportion of all care is given informally?
- What are the costs of informal care, including not just money, but also time, stress, and opportunity costs?
- What is the impact of informal care on family structure?
- How does the stress of caregiving vary with the kind of care and the nature of the caregiving relationship?
- Do the most severely impaired rely most heavily on informal care?

In late 1982 and early 1983, NORC interviewed almost 2,000 caregivers across the country. Because the Caregivers Survey was an extension of the Long Term Care Methodology Project, which NORC began in 1980 for HHS, it could build on the earlier effort. One product of the earlier effort was a questionnaire for a Survey of Individuals in Households, which the U.S. Bureau of the Census administered to a national sample of impaired persons. The impaired sample was asked a series of questions on their ability to perform various activities of daily living, such as eating, bathing, dressing, and walking. For each activity that the sample person could not do without help, the Census interviewer asked who provided the help. This list of individuals became the frame for NORC's sample of informal caregivers—people who provide unpaid help to a disabled person.

To gather the necessary data, NORC field staff interviewed informal caregivers, who were typically relatives of the disabled person and intimately involved in the provision of care. Questions were designed to identify exactly what the informal caregiver did and how he or she viewed these activities. Particular attention was paid to identifying how much stress these functions caused the caregiver. A new methodology—magnitude scaling—was adapted to determine how much stress might cause the caregiver to make a decision to place the disabled person in a nursing home.

The survey found that about 96 percent of the caregivers were related to the disabled person and that 74 percent lived in the same household. An overwhelming majority of the caregivers were female (72 percent), and most of these (66 percent) were 53 years of age or older. Only 31 percent held jobs outside the home.

The caregivers reported providing help in numerous ways. Many reported involvement in the most mundane tasks: 33 percent helped the disabled person get around inside the house, 35 percent helped the disabled person get in and out of bed; 54 percent helped with bathing, 46 percent with dressing, 24 percent with going to the toilet, and 12 percent with feeding. Some were involved in quasi-medical activities: 52 percent gave medicine or changed bandages, 6 percent gave injections.

The caregivers reported a number of other problems associated with their provision of care: the disabled person was often confused or forgetful (63 percent), did things that embarrassed the caregiver (20 percent), had lapses into senility (26 percent), and became upset and yelled at the caregiver (36 percent).

Most of the caregivers reported helping the sample person every day of the week—a full 80 percent. About 40 percent said that there would be a serious problem if they could no longer provide this help because there was no one else to do it and no possibility of paying for help with these tasks. About 16 percent said that their own health had worsened since they began providing care.

a project that offers hope for definitive findings through a unique aspect of its research design—the use of twins as research subjects. The genetic and environmental similarity of twins should allow for greater control of the many factors that can otherwise wreak havoc in efforts to determine the causes of health conditions.

The first phase in the research endeavor, led at NORC by Senior Survey Director Mary Utne O'Brien, is the assembly of a national registry of twins who served in the U.S. military between 1965 and 1975. The large majority of names for the registry survey will be derived from a process of matching state twin birth records with military records to yield a listing of veteran twin pairs. This will be followed by a mail survey of those discovered—an expected 10,000 to 12,000 male twin pairs (20,000 to 24,000 individuals)—to assess their zygosity, the nature of their Vietnam-era combat experience, their current health-related practices, their health problems (including the occurrence of Post-Traumatic Stress Disorder,) marital and paternal history, and birth disorders among offspring.

The registry phase of the project will yield a sampling frame of Vietnam-era twin pairs with sufficient information about those listed to make the registry an important research resource. The initial intended use of the registry is a Veterans Administration study of several hundred twin pairs who will, if the study is funded, undergo extensive physical and psychological examinations. After the VA has accomplished its research purposes, the registry will become the property of the National Academy of Sciences for use in epidemiological research.

Persons requiring long-term care for disabling illness constitute another portion of the population with special needs, as do those who care for them. Medicine's increasing ability to sustain life, to treat conditions without curing them, makes this a growing problem; and the costs associated with the needed care make it a pressing one. NORC has been involved in research on this topic since 1980, when it began work on a Department of Health and Human Services project designed to develop methods for assessing the need for long-term care and the effects, on both systems and individuals, of providing it. New Interest in a Traditional Form of Care presents information on NORC's continuing research involvement in this area from Brad Edwards, who served as Project Director for a 1983-84 survey.

The question of who provides care, not informally but as a member of the elite medical profession, has received increasing attention in recent years. Minorities, it has been noted, are seriously underrepresented in the provision of medical care, largely because they are underrepresented in medical schools. In 1970 blacks constituted 11 percent of the U.S. population, but only 2.2 percent of the physicians, approximately the same percentage as in 1950; and the proportion of black medical school graduates declined from 5.4 percent in 1975-76 to 4.9 percent in 1980-81. Attempts to increase the presence of minorities among health care providers produced numerous programs designed to help minorities enter medical school—ranging from a two-hour workshop on the application process to intensive yearlong programs with academic coursework in mathematics and science—but the effectiveness of these intervention programs was never scientifically assessed.

In 1983-84 NORC, working under contract to the Educational Testing Service (ETS) and with the sponsorship of The Robert Wood Johnson Foundation, conducted a survey of minority medical school applicants who took the Medical College Admissions Test. Among the questions under study: What is the incidence and charac-

NORC submitted four reports on the Caregivers Survey to the Long Term Care Working Group at HHS: documentation of the survey's operations, a technical report on sampling, an analysis of nonresponse, and an analysis of the validity of the magnitude scaling technique.

Since the Caregivers Survey was completed, NORC has used elements of the questionnaire for two other studies in which informal care was an important research issue: a Consumers Union Foundation study of informal caregivers in the Philadelphia area, designed to assist local social service agencies in the provision of formal care; and a New Jersey Department of Health study to assess the needs of AIDS patients, which included an exploration of the health needs of the patient from the perspective of the caregivers.

Brad Edwards

ter of intervention programs designed to facilitate the acceptance of minorities into medical schools? What is their impact on the probability of minorities being accepted into medical schools? Are certain types more effective than others for particular students? What variables, including demographic and academic background as well as participation in intervention programs, are the best predictors of acceptance into medical school?

The study began with a survey, led by NORC Project Director Brad Edwards, of approximately 3,250 black and Hispanic students listed in a registry of persons taking the medical school admissions test to gather information on their participation in intervention programs, their strategies for applying to medical school, and other variables expected to be related to success in applying. Transcripts were gathered to obtain data on undergraduate performance, SAT scores, science preparation, and other relevant academic variables.

Next, a follow-up survey was conducted with all respondents to ascertain acceptance in medical school, enrollment choices, and alternative plans for those not accepted. A subsample, stratified on characteristics measured in the first phase, such as type of intervention, ethnicity, and initial qualifications, were interviewed in depth by telephone to obtain additional information on their attitudes toward intervention programs.

The final product of the study will be an ETS report describing minority applicants in relation to participation in intervention programs and success or failure in admission. An analytical model will be developed that relates various types of intervention to performance on the MCAT, and to success in the admissions process, while controlling for other predisposing variables.

The American love affair with technology has hit some bumps in the road in recent years. Questions about whether the benefits of technological advances are worth the risks to health and safety have risen in the minds of many. In 1983, NORC fielded a survey designed to gather empirical data on this issue. Public Perceptions of Technological Risk, conducted for the Roper Center at Yale University, expanded on earlier small-scale investigations. The 1983 interviews were conducted with an area probability sample of 700 of the general population of Phoenix, Arizona, and with a list sample of 200 persons who had given testimony at public hearings on the risks and benefits of technology. The NORC Project Director was Jean Atkinson. The Principal Investigator was Donald R. DeLuca of Yale. The results of the research will be published by Russell Sage.

AIDS, Acquired Immune Deficiency Syndrome, has recently been recognized as a serious and growing medical and social problem. Its victims, at this moment, face a certain and difficult death. Many of them face, in addition, the trauma of isolation from a community that fears contagion or blames them for their disease. Yet, in spite of a rapid rise in the incidence of this condition and increasing public attention, there had until recently been no systematic assessment of the needs of AIDS patients. In 1984, NORC conducted a needs assessment of a sample of AIDS patients for the State of New Jersey, which has the fourth highest population of known AIDS sufferers in the country, a majority of whom are intravenous drug abusers. The study, directed by Brad Edwards, was designed to provide the state's Department of Health with information on how best to design programs for health services and health information for this population.

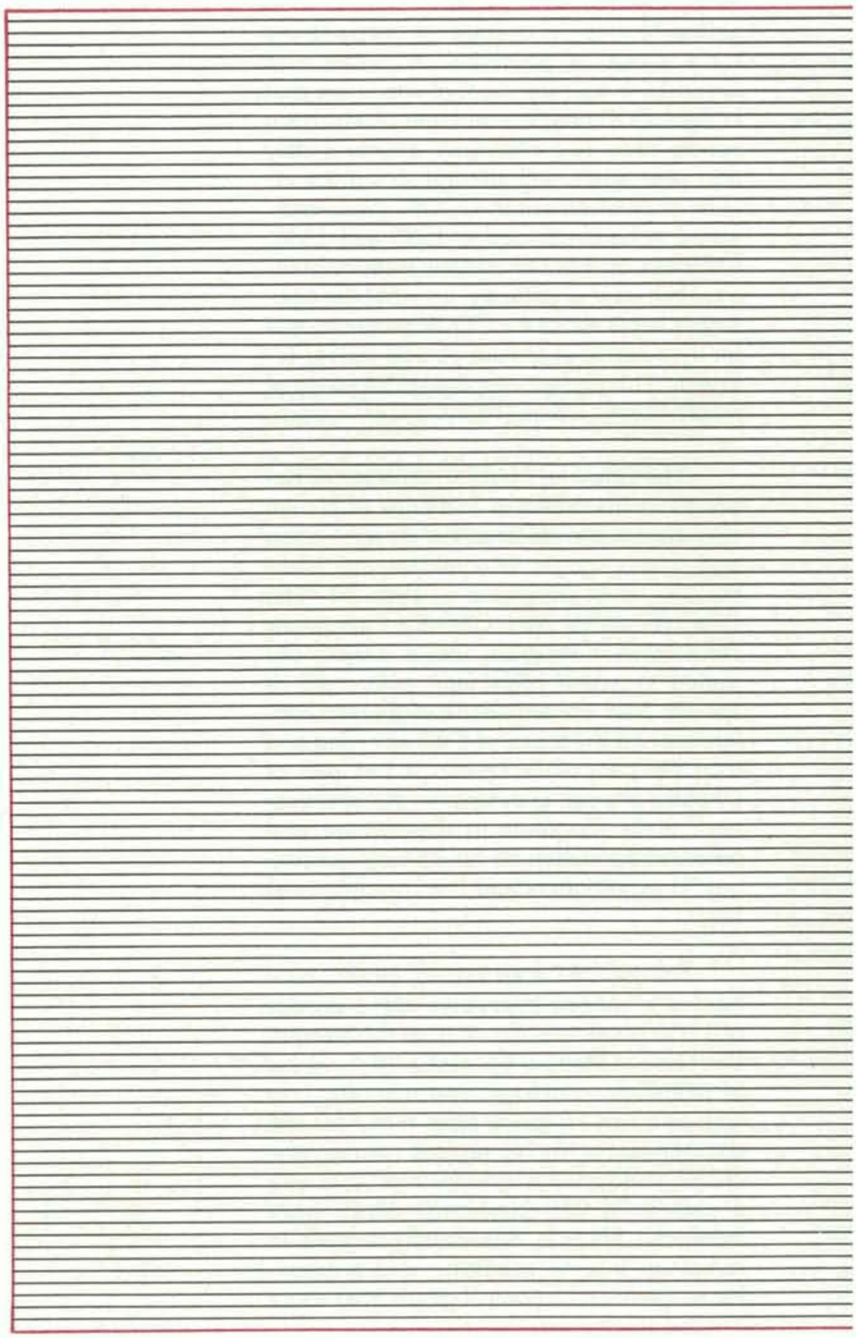
New Technology for Health Care

The medical community's claims of success in the treatment of cancers have been a recurring theme in medical news in recent years. But advances in health care are of merely academic interest if they are not available to those in need. The research that produces improved treatments proceeds at the National Cancer Institute (NCI) and other research centers, while care of cancer patients proceeds in community hospitals and physicians' offices, where over 80 percent of cancer patients are seen. The need to bridge this gap, to disseminate information on state-of-the-art cancer therapy to community physicians, led to the creation of the Community Clinical Oncology Program (CCOP), a cooperative venture among the NCI, other research centers, and community oncologists.

In order to gather information about the knowledge, attitudes, and behavior of community physicians in relation to clinical cancer care and clinical cancer research and to evaluate CCOP's effectiveness as a dissemination vehicle, NCI has developed a research project in which NORC is a participant. In 1983-84, NORC was awarded a contract by the Fred Hutchinson Cancer Center of Seattle to work with Principal Investigator Polly Feigl on a survey of physicians. NORC Senior Survey Director Geraldine Mooney is overseeing preparations for a survey of physicians at twelve sites around the country, eight of which are part of the CCOP program and four of which are control sites. Two interviews, approximately one year apart, will attempt to tap the effects of involvement in CCOP; these interviews, to be conducted in 1985 and 1986, will focus on how physicians treat or manage their cancer patients, on what the physicians know about the CCOP program, and on their attitudes toward clinical cancer research. This project, like the HCFA study of practice costs, will use NORC's CATI system.

The Office for Medical Applications Research in the National Institutes of Health also engages in information dissemination and it too sought to evaluate the effectiveness of its programs in 1983-84. The Effectiveness of NIH/OMAR's Consensus Development Program was a project designed to assess physicians' awareness of specific NIH consensus development conferences on the topics of CAT scanning and total hip joint replacement. It was part of OMAR's attempt to determine the effectiveness of its programs to disseminate and transfer information on health care technology to practitioners and the community at large.

For the CAT scan survey, NORC conducted telephone interviews with a sample of 1,050 physicians drawn from the Marquis Directory of Medical Specialists in the areas of radiology, oncology, and neurology, as well as a control group from more general disciplines. For the hip replacement survey, NORC conducted telephone interviews with a sample of 958 physicians drawn from American Medical Association records in radiology, internal medicine, and orthopedic surgery, and a control group from more general disciplines.



the social fabric

NORC came into being in 1941 as the National Opinion Research Center, an organization established to conduct surveys in the public interest. The National Opinion Research Center would not do market research or even forecast elections. Rather, it would attempt to give the people a voice in political, social, and economic decision-making. It would also offer its survey services, on a cost basis, to nonprofit organizations and to university social scientists and educators, and it would conduct methodological experiments to improve the art and science of measuring public opinion.

In 1983, "NORC, the National Opinion Research Center" became "NORC, A Social Science Research Center." As the organization developed, as research questions were reformulated, as funding priorities changed, NORC's work became increasingly behavioral in focus. In this way, the original name lost its capacity to describe the organization's work and communicate its identity.

Yet this shift in NORC's work from the principally attitudinal to the largely behavioral does not constitute a departure from the organization's original mission. Every NORC study that has consequences for public policy—and these are many—gives the people a voice in social, political, or economic decision-making. Beyond this, NORC has kept open a direct line to its past and its founding mission by continuing to do attitudinal research. In fact, the study that most strongly carries on this tradition is probably the one for which NORC is best known.

Examining the Forces That Drive Social Change, or Not: NORC's General Social Survey

The General Social Survey, funded by the National Science Foundation, is a comprehensive annual survey of Americans. The questionnaire includes a wide range of demographics, behavioral measures, and attitude items and covers most of the major concerns of our day—confidence in institutions, experience of crime and attitudes toward the punishment of criminals, and opinions on national spending priorities, abortion, foreign policy, and prayer in schools, to name a few. It is, in the words of James A. Davis, a former Director of NORC and the GSS's chief investigator, a "national opinion" survey, as befits our organization's original name.

The reach of the GSS is long as well as wide. Created in 1972, the GSS was conducted for the tenth and eleventh times in 1983-84 and the survey's scope exceeds even this considerable history. Because the GSS replicates questions asked on earlier surveys conducted by numerous other organizations, analyses of trends on some issues can cover virtually the whole of the post-World War II era.

In addition to carrying on opinion research of the most sophisticated kind, the GSS also continues NORC's tradition of service to the research community. Within months after the conduct of the GSS in the spring the data are made available to analysts through the Roper Center at the University of Connecticut and the Inter-University Consortium for Political and Social Research at the University of Michigan. The utility of these data for analysis is ensured by the process of item selection. For the 1972 survey over 100 social scientists around the country were consulted. Currently a distinguished Board of Overseers provides guidance.

Also critical to the data's utility is its high quality, which is ensured by the efforts and standards of NORC's Survey Group. The more than 100 interviewers used to conduct the GSS are drawn from NORC's trained and experienced field staff of over 700. The selected interviewers are prepared for their GSS assignment through rigorous and comprehensive training materials designed expressly for the study. For the 1984 GSS, this staff completed interviews with nearly 80 percent of the full probability sample—a very high rate for surveys of this kind.

Furthermore, GSS service to the community goes beyond providing access to a source of fresh, significant, high-quality data at low cost. The project staff are available to respond to inquiries about the GSS—about findings, about how to use the data, about how the survey is conducted—from scholars, students, the media, and others, in the United States and in places as distant and different as Egypt and the Soviet Union. Nearly 400 such inquiries were handled in 1984. In addition, the project supplied data to various government and private institutions for inclusion in such publications as *Statistical Abstract, The Condition of Education,* and *Sourcebook on Criminal Justice*

The GSS Board of Overseers 1984

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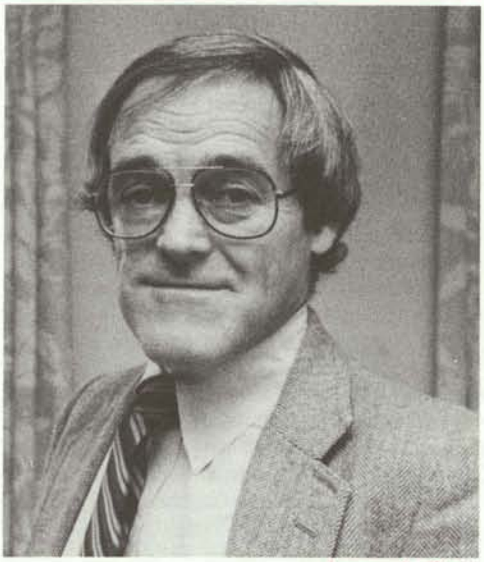
Statistics, and the survey is regularly cited by the major communications media—the *New York Times, Time,* and many others.

The GSS is also an important vehicle for extending the state of the art in survey methodology. Experiments in question wording, question order, the interaction of scale items, and the reliability and stability of measures are regularly incorporated into the survey.

In The Gist of the GSS, James A. Davis—founder of the GSS, former Director of NORC, and currently an NORC Research Associate as well as Professor of Sociology at Harvard—sums up the survey's history and contribution. In A Swing to the Right? Taking the Long View, Senior Study Director Tom W. Smith, who codirects the GSS, examines the swings and counterswings of U.S. society.



James A. Davis

The Gist of the GSS

"The Mousetrap," as all visitors to London learn, is a 31-year-old Agatha Christie melodrama that holds the world's record for longevity on the stage. Its producers have learned that to pack in the customers you don't need a better mousetrap, the original one will do.

At age 11, going on 12 in February, NORC's General Social Survey seems to be our version of The Mousetrap—a project that has attained extraordinary longevity by fighting temptations to improve, doctor, modify, and create. Instead, we ask the same questions—word for word and, as best we can, in the same order—year after year.

The consequence is not ossification but replication—and a unique ability to study social change in an entire nation by comparing answers over the years.

The eleven surveys since 1972 (in 1979 and 1981 we took sabbaticals for budgetary reasons) have produced:

- 75-minute personal interviews with 16,698 U.S. adults (18 years of age or older, English speaking, living in residential quarters in the continental U.S.)
- 635 "variables," of which 116 are permanent items appearing every year and 193 are rotating items that appear two years out of three to make more space in the questionnaire
- A 483-page cumulative codebook so thorough and careful that it is acknowledged as a model in the survey world—a kind of sociological Sears Roebuck catalogue
- A 1,000-item bibliography of research reports using the GSS
- A single computer tape with data cumulated from 1972 put into the public domain each July

And what have we learned from all of this? Boiling 1,000 research reports down into a few sentences, we can say that American attitudes and opinions are changing—but slowly and steadily, not by sudden lurches. Adjacent GSSs look surprisingly similar, but surveys a decade apart show striking changes in many variables. To take just one of these, the proportion of the American population living alone never shifted more than three or four points a year, but in 1984 we find nearly a quarter of the population living alone, when only a tenth were living alone in 1972.

We've also learned that popular impressions about social change are often, though not always, right:

- Households are getting smaller (more divorces, more people living alone), more married women are working, fewer of us are getting married. But there is an attitudinal, if not yet behavioral, trend in favor of living with one's aging parents and of tightening divorce laws.
- Several GSS items show trends toward equality in sex roles and there has been a striking increase in tolerance of premarital sex. But the survey suggests that there has been no change in the strongly negative attitudes of the population toward extramarital sex or homosexual relations.
- Despite popular claims that religion is either withering or reviving, indices of religiosity such as church attendance have been virtually constant since 1972.
- Sophisticated opinion to the contrary not withstanding, white Americans' opinions on racial matters generally moved in the liberal direction.
- Save for a large increase in (nominal) family income, measures of socioeconomic status and social stratification were virtually stable over the GSS decade.
- There has been an increase in the percentage describing their own political views as conservative, but the rate of change was less than one percentage point a year. The net result: a six-point increase in conservatives over a decade. In 1974 when the question was first asked, conservatives and liberals tied at 30 percent each (with 40 percent hunkering down in the "middle of the road"). In 1984, we find that each position has shifted six points, giving 36 percent conservative and 24 percent liberal (with 40 percent still hunkered down).

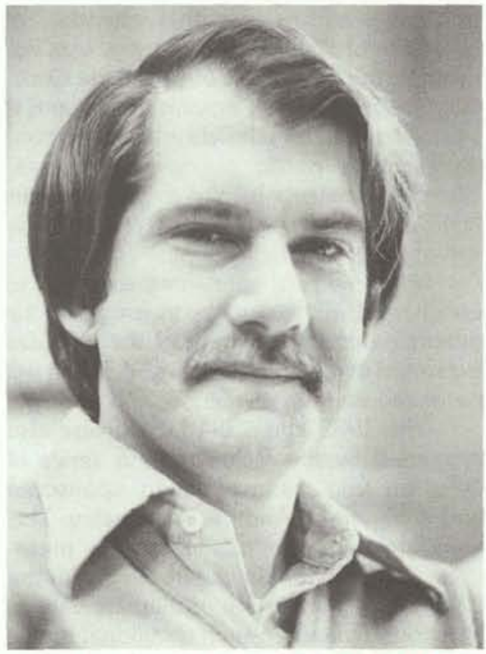
Will these trends continue as the 1980s do, or might they be reversed? Will there be new confirmations, new surprises? No one knows, but we have set our mousetrap.

James A. Davis

1983-84: Extending the Reach Still Further

Over the course of its existence, the GSS has accommodated about a dozen short "add-ons." These add-ons—questionnaire modules on special topics added to the basic survey through sponsorship by organizations or individuals—allow researchers to gather data on specific topics of interest in the rich context afforded by the GSS and at a fraction of the cost of a wholly separate survey.

In 1982, The Ford Foundation sponsored one such add-on: a questionnaire module on American attitudes toward the military, including such issues as the All-Volunteer Force, compulsory national service, and the role of women in the Armed Services. This study yielded the NORC Report *Americans View the Military: Public Opinion in 1982,* by James A. Davis, Jennifer Lauby, and Paul B. Sheatsley. The re-



Tom W. Smith

A Swing to the Right? Taking the Long View

Most people believe that American society has been awash in a conservative tide for the last decade. Both liberals and conservatives agree that the public and government have begun to reject standard liberal nostrums for social ills and have turned to the self-reliant faith-healing of the conservatives. Liberals bemoan the advances of the New Right, the fund-raising of Viguerie and NiCPAC, the moralizing of the Rev. Jerry Falwell and his Majority, the intellectual thrusts of the neo-conservatives and right-wing think tanks. Conservatives chortle over the triumph of Proposition 13, the torpid thought of leftist intellectuals, and Reagan's victories. But despite the laments from the left and the hallelujahs from the right, the notion that American society has swung to the right is at best a half truth.

Looking at the sweep of post-World War II history through the GSS, we discover a wide-ranging and sustained growth in liberalism. On abortion, race relations, sexual morality, tolerance of social and political deviants, women's rights, and many other topics, support for liberalism has increased. Over 60 percent of the time series we have examined show some shift in the liberal direction, 15 percent show no change or bounce around without any net direction, and only 25 percent have a conservative tilt. Liberal trends not only outnumber conservative trends, but have been of greater magnitude and more linear.

This liberal edge has not been constant throughout the post-WWII period, however. Something did happen in the mid-seventies: most liberal trends weakened. Yet we did not see a wholesale reversal of liberalism. Very few liberal trends shifted direction. Instead, most either continued to increase but at a slower pace, or else flattened, no longer showing growth but not showing reversal either.

The thrust of American history in the twentieth century has been toward increasing liberalism, but this movement has been not linear but cyclical—from the Progressive Era to the Return to Normalcy of the 1920s, from Roosevelt's New Deal and Truman's Fair Deal to the Eisenhower Years, and, most recently, from the New Frontier and Great Society to the Reagan Regnum. Accumulating research indicates that in each of the conservative phases of the cycles liberalism has not been rolled back, but has rather rested on a plateau. Whether these cycles are produced by an internally driven social mechanism like the business cycle or are merely convenient descriptions of recent history is not yet known. What is clear from the dozens of trends tracked by the GSS through 1984 is that the recent changes in public opinion have not added up to a reversal of the trend toward liberalism, but only to its deacceleration.

Tom W. Smith

port received the personal attention of Secretary of Defense Weinberger, was covered by the *New York Times* and the *Christian Science Monitor*, among others, and is still in demand by scholars and others concerned with public policy in this area. Sheatsley presents highlights of the results in the accompanying piece, Americans View the Military: In Brief.

In 1984, Ford sponsored a sequel to enrich the 1982 findings by investigating the determinants and strength of the attitudes expressed in the original survey. A report will be issued early in 1985.

The 1983 and 1984 GSSs were also expanded by the inclusion of a series of items on religious imagination, sponsored and analyzed by Andrew M. Greeley. This work grew out of efforts to improve measures of religion that began in 1972 with the Luce Foundation study of ultimate values. Religion, defined by such traditional measures as membership in a particular denomination or frequency of church attendance, had been found by social scientists to be a less than powerful predictor of attitudes or behavior on important social issues. Thinking that the explanation for this phenomenon might lie less in the failing power of religion than in measurement, Greeley created a measure to tap the power of religion as a set of symbols that explains and even shapes reality for believers. Building on work begun in the early 1970s, he developed a series of questionnaire items focusing on images of God that, taken together, yield a scale of religious imagination. Greeley is now analyzing the power of this scale for predicting social behavior and attitudes. His work will continue with modifications in the 1985 GSS.

1983-84 also saw significant developments in the international arena. Since the late 1970s, the directors of the GSS, James A. Davis and Tom W. Smith, have sought opportunities for international collaboration with researchers doing surveys comparable to the GSS. In 1982 those efforts came to fruition with the association of the GSS and the ALLBUS survey conducted by ZUMA (Zentrum Für Umfragen, Methoden Und Analysen) in West Germany. Analysis of cross-national differences and similarities using data from those surveys is now underway at ZUMA and NORC. In 1983-84 the collaborative effort came to encompass four nations, with the addition of England and Australia. Each participating country has an independently funded and continuing survey to which all agree to add a section on a given topic of cross-national interest. The topic for 1984 was "Equality and Class," an exploration of the degree to which the first two participating countries—the U.S. and West Germany—were perceived as open or closed societies by their citizens. The topics planned for 1985 and 1986 are "The Role of Government," which will be the subject of the first four-nation collaboration, and "Social Networks." Building on existing studies with a national focus to allow international comparisons is an exciting new venture for the GSS. And, because all of the individual studies are continuing, analyses can be carried out not only across nations but also over time. Participants in this international effort meet twice a year to develop plans and measures. The Nuffield Foundation sponsored the 1984 meetings, held in London and Chicago. Future possibilities for expanding the collaborative group include Ireland, Austria, and Italy.

Americans View the Military: In Brief

NORC Report No. 131, "Americans View the Military," published in April 1983, discussed public opinion on a range of military issues, with special reference to attitudes toward the All Volunteer Force vs. the draft and to the induction of women, blacks, and Hispanics into the Armed Services. Among the highlights:

- **Fifty-nine percent of Americans rate the All Volunteer Force as working very well or fairly well, but 35 percent believe it is not working well.**
- **Less than half (42 percent) would choose a return to the draft in the absence of a national emergency, but only 9 percent would oppose a draft if there were an emergency.**
- **The proportion of women in the Armed Services has increased from 2 percent to 9 percent over the last ten years. Eighty-four percent of the public wish to maintain or increase the present proportion, and 81 percent believe that the presence of women in the Armed Services has either raised or had no effect on military effectiveness.**

- **Most Americans oppose the use of women as soldiers in hand-to-hand combat (only 35 percent approve), but they favor women in a wide range of military roles. Supplementing near unanimous approval for their employment in such traditional roles as typists and nurses are majorities that would assign women to jobs as truck mechanics, jet fighter pilots, missile gunners, and commanders of large military bases.**
- **Only 12 percent say there are too many blacks in the Armed Services; 70 percent say the current number is about right. But fewer than one American in five favors increased recruitment of blacks. Concern about further increases in the number of blacks in the military is greater among liberal sectors of the society, including blacks themselves, than in the more conservative groups.**
- **Only 7 percent say there are too many Hispanics in the Armed Services, and one American in three would like to see more Hispanics recruited.**

Paul B. Sheatsley

Analyzing the Role of Public Opinion

It is generally agreed that democratic governments must be responsive to public opinion or face repudiation by the electorate. There are, however, difficulties in measuring public opinion in a large and complex nation, and difficulties in assessing the inclinations of elected or appointed officals to be guided by what they know about the views of constituents. These difficulties raise questions about public opinion as a force in our society.

In an ongoing project begun three years ago, Research Associates Benjamin I. Page, now of the University of Texas at Austin, and Robert Y. Shapiro of Columbia University, have been exploring these questions. The answer they found: When the people speak, Washington listens—most of the time. The study examined data from several hundred public opinion surveys conducted between 1935 and 1979 by NORC, Gallup, and the University of Michigan and found that several hundred significant changes in federal policy followed changes in public opinion.

Having determined that public opinion does indeed affect public policy, Page and Shapiro went on to investigate the forces that influence public opinion. In a followup study of the media's effects on public opinion they looked at both newspapers and network television news and how coverage of events and attitudes in these media affected the public mind. In Public Opinion/Public Policy, Page presents the major findings of this continuing, NSF-funded research.

An American Dilemma Revisited: Immigration in the 1980s

"Immigration is an issue of continuing concern for Americans. We are torn between the belief that America, land of opportunity, will offer even greater opportunities in the future for us and for others, and the fear that the opportunities that attracted our forefathers are no longer unlimited." So say the authors of *The Dilemma of American Immigration: Beyond the Golden Door* (Transaction, 1983). Research Associates Pastora San Juan Cafferty and Andrew M. Greeley, along with colleagues Barry R. Chiswick of the University of Illinois and Teresa A. Sullivan of the University of Texas at Austin, tackled this thorny problem in an NORC project funded by the Revson and Ford foundations. The resulting book, representing the different disciplines of its four authors, comprises historical, sociological, economic, and demographic analyses of immigration in the United States. It concludes with a set of recommendations that differs at critical points—on employer sanctions and amnesty for illegal aliens, to name just two—from the Simpson-Mazzoli bill that has been an issue in the U.S. Congress.

Exploring the Cities

Paths of Neighborhood Change: Race and Crime in Urban America, by Research Associate Richard P. Taub, D. Garth Taylor, and Jan D. Dunham, was published in 1984 by The University of Chicago Press. This study examined and finally challenged the common assumption that urban neighborhoods decline when minority groups move in, allegedly bringing with them rising crime

Public Opinion/Public Policy

When Americans' preferences change substantially, public policies almost always move in the same direction. On average, Congress, the President, and the courts altered policies to accord with public opinion about 65 percent of the time during the period 1935 to 1979, the years covered by our Public Policy Project. But there are some interesting variations hidden by that average:

- When there was an opinion change of 20 percentage points or more, policy changes followed an overwhelming 90 percent of the time.
- Policy more often followed public opinion on large-scale social issues (78 percent of the time) than on economic or welfare policies (68 percent), and more often on domestic than foreign issues.
- Policy changes accorded with public opinion more often when opinion changed in a liberal direction (86 percent of the time) than a conservative one (53 percent of the time). This might suggest the presence of a strong liberal bias in government, but it might instead come from the fact that . . .
- Some of the biggest opinion changes in the last two decades have involved sweeping liberal trends in such areas as civil rights, civil liberties, and abortion. All but one of the fourteen changes in public opinion that we identified as moving by 30 percentage points or more were in a liberal direction. Not surprisingly, policy moved mostly in harmony with those trends.

In sum, our research allowed us to conclude that public opinion, whatever its source or quality, is a factor that genuinely affects government policies in the United States.

When we moved on to investigate how public opinion is formed, we turned our attention to the news media. Here we discovered that the effect of news coverage of policies depends entirely on the source of the news. We found a powerful effect on public opinion from only one source—the pronouncements of popular presidents. Other voices in a president's administration appear to have no effect on public opinion. Experts and scholarly studies appear to have no direct effect. Even objective conditions and events seem to change the policy preferences of the public only as those events are interpreted by public figures. Interest groups actually appear to have a negative effect.

At this point we cannot say much about the implications of our findings for democracy, beyond noting that the public does not automatically respond to leadership—or fall prey to manipulation—by political leaders. Opinion leadership is not quick or easy. The public is not very malleable and there is time for counterargument and deliberation. It may not be too much to hope, therefore, that efforts at opinion leadership tend to succeed only when they have the facts on their side and are in harmony with the basic values of the people.

Benjamin I. Page

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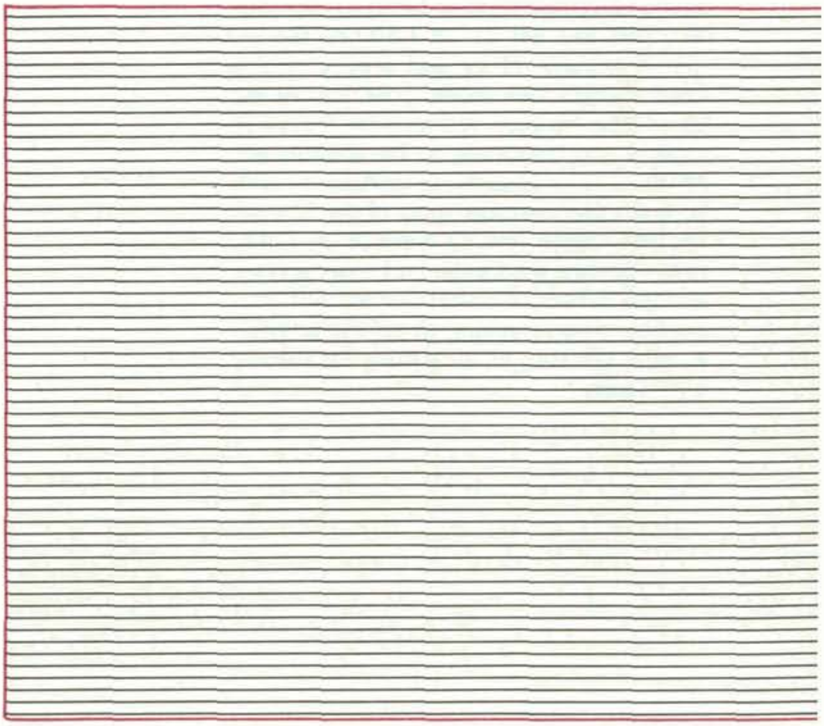
and deteriorating housing. Taub, Taylor, and Dunham investigated eight Chicago neighborhoods using a telephone survey of residents conducted by NORC, as well as informant interviews, participant observation, and archival analysis. The neighborhoods were selected to represent various aspects of the process of neighborhood change—decline, gentrification, or stability—in the face of high and low crime rates and minority presence. The book includes not only the results of this research but also a revised theoretical framework for considering change in urban neighborhoods and a set of policy recommendations for positive intervention in the neighborhood-change process.

The opportunities and problems presented by city life were also the focus of a major development effort in 1983-84. Beginning with the premier American city, NORC participated in a collaborative enterprise working to create a New York City Area Study, or NYCAS, as it came to be known. The NORC team, led by Associate Director Pearl Zinner, worked closely with the Consortium for University Research, which comprised the City University of New York, Columbia University, Fordham University, The New School for Social Research, and New York University. NORC and the Consortium, in turn, worked closely with representatives of city government because the project was designed to be a forum not only for academic collaboration but also for cooperation between the academic community and government.

The proposal prepared jointly by NORC and the Consortium outlined a five-year program of research addressing important policy-relevant topics, with one major topic to be the major focus of research in each of the five years. The themes of the five years, established by the Consortium's executive board, are immigration and ethnicity, the urban family, the metropolitan labor force, health and health care, and housing. At the heart of the program, the proposal posits an annual survey of a cross-section of New Yorkers that would provide a multipurpose data base for the city. The survey would incorporate both questions related to the major theme in each year and demographic items that would be repeated every year.

Seven foundations provided seed money for project development: The Commonwealth Fund, the Exxon Education Foundation, the Foundation for Child Development, the William T. Grant Foundation, the Charles H. Revson Foundation, the Russell Sage Foundation, and the Alfred P. Sloan Foundation. Unfortunately, the high hopes raised by the intense and collaborative development effort have gone unfulfilled as the campaign to raise funds for the project itself has not as yet achieved the required amount. Hope and activity on this front, though dampened, continue. At the same time, because research on American cities is too important to be abandoned, NORC is now engaged in discussions with several other member units of the University of Chicago (the Committee on Public Policy Studies, the Center for Urban Studies, and the School of Social Service Administration), among others, about the possibility of developing an area study for the city of Chicago.



methods

Method and substance are virtually inseparable in research. The structures supporting a project, the manner in which it proceeds, and the approach to analyzing the data it produces invariably have potent effects on the outcome. The methods employed may determine both the quality of the products of research and the efficiency with which they are produced.

NORC's commitment to sound research practice, and to advancing the standards by which that practice is judged, manifests itself in many forms. Every research question and every survey design present problems, which are in fact opportunities for methodological development. NORC surveys frequently incorporate methodological advances or experiments; and NORC does studies dedicated to exploring fundamental questions in the methodology of survey research and analysis of data. Finally, the infrastructure for NORC projects—the national sampling frame, the national field staff, expert technical and managerial staff, and automated support systems—must be not only maintained but also enhanced.

Creating the Surveys

In every survey it undertakes, NORC confronts the many challenges involved in drawing an appropriate sample, in developing specific questions and a questionnaire format that will elicit full and accurate information on all topics of interest, in gathering data by the method, or combination of methods, that will obtain the most information with the least error, in producing an informative, self-contained, and useable codebook and public use file, and in minimizing the costs of endeavor. But in some periods, events, or the simple passage of time, dictate that the organization turn its attention to the structures and systems that underpin or cut across individual surveys. 1983-84 was such a period.

The cutbacks in federal funding for research in the early part of the decade were not matched by a reduced need for information; in fact, in the view of some, they created a greater need. Researchers were challenged to do more for less. At NORC, the longitudinal study, in which the same respondents are interviewed at intervals, was an established focus of interest and an important area of expertise. The threat to social science research implied by the cuts in funding served to increase appreciation of the value—and use—of longitudinal studies and at the same time put their continued existence in doubt. In Expanding the Uses of Longitudinal Research Projects, Celia E. Homans, Associate Director for Survey Operations, discusses recent activities on this front at NORC.

National sampling frames are the source for samples representative of the population as a whole and of segments of interest for individual studies. NORC is one of the few survey research organizations that maintain a national sampling frame that is based on the decennial census. The turn of the decade required that NORC create a new frame, and interest in economy led to innovation. For the first time in its history, NORC developed a shared national frame, led by Technical Director Martin R. Frankel and done in collaboration with the Survey Research Center at the University of Michigan. The collaboration began in 1981 with exploratory meetings of the two organizations and culminated in a report on the process and the new frame issued in 1984. Cooperation enabled each organization to reduce its level of effort and the substantial costs associated with the undertaking.

When a sample frame is redesigned, some of its Primary Sampling Units, or PSUs (particular sites representative of parts of the country), change. When NORC's PSUs were changed in this way, its Office of Field Coordination and Management, which is responsible for maintaining NORC's national field staff under the direction of Senior Survey Director Miriam Clarke, saw the change as an opportunity to review and perhaps modify its field structure.

NORC's field management had for some time comprised sixteen geographic regions in a structure geared for large-scale national projects. Though it was quite successful for this purpose, projects smaller in scale or having samples not national in scope more frequently worked around the structure than within it. A new field structure was designed and put in place in the autumn of 1983. It is a more flexible structure, and thus better able to respond to the needs of individual data collection projects. It divides the United States into four large districts that are geographically similar to the

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familiar "regions" of the U.S. Census Bureau. Project management is now based on these larger districts, each of which has a District Manager working with central office project staff to determine field management and staffing needs in the district. For administrative purposes, there are twelve Divisions within the District structure, and each of these has a Divisional Field Manager responsible for the hiring, training, and professional development of the supporting field managers and interviewers in a given district. This system enables NORC to staff and manage the project requiring twenty interviewers in four states as well as that calling for four hundred interviewers in all fifty states, and beyond.

Ways of Knowing

Every research question presents potential obstacles to be overcome by research design. A particularly thorny problem for researchers interested in international research is how to study a society closed to them. This problem was overcome by the design of a project undertaken in 1983-84—the Soviet Interview Project (SIP).

Over 125,000 former Soviet citizens have arrived in the United States since 1970. This migration, known as the Third Wave, offers Western scholars a rare opportunity to interview a large number of former Soviet citizens about their lives, attitudes, work, and other experiences as participants in the Soviet system. The Soviet Interview Project tapped this opportunity by interviewing about 3,000 of these emigrants about their lives in the Soviet Union. The data will fill important gaps in knowledge about how the Soviet social, economic, and political systems work. Moreover, because this project builds on a similiar one conducted by Harvard University in the 1950s, it will be possible for analysts to measure change in the Soviet Union since that time, to identify mechanisms that work for or against change, and to project change in the foreseeable future.

The current project is sponsored by the National Council for Soviet and East European Research (NCSEER), a not-for-profit academic corporation founded by twelve major academic institutions with a Board of Trustees designated by the presidents of the founding institutions. NCSEER contracted with the University of Illinois at Urbana-Champaign to conduct the SIP research. James R. Millar, Professor of Economics at the University of Illinois, is the project's Principal Investigator, heading a research team of a dozen scholars from universities throughout the United States. NORC has provided the researchers with technical assistance on all aspects of the survey and assembled a bilingual field staff of 90 to conduct the three-hour interviews.

Analysis of the data collected so far is in progress. Plans for the project's future include interviews with additional emigrants similar to those already interviewed and a special survey of emigrants with military experience. The latter project, being developed under the direction of William Zimmerman of the University of Michigan and Norman Nie of The University of Chicago, would take advantage of the fact that substantial numbers of the recent Soviet emigrants to the United States had military experience in the 1960s and 1970s to examine sociological, educational, and organizational aspects of the Soviet military.

Virtually every NORC project involves the collection or analysis of survey data. But, occasionally, a research question requires another approach. A current project, funded by the Lilly Endowment and directed by William C. McCready, takes such an approach. It calls for the coding and computerizing of the statistics contained in the Official Catholic Directory for the years 1915 through

1984 and of the necrology of priests for each of those years. This study, which is part of a group of studies concerning the status of the Roman Catholic clergy, will yield a measure of the clergy manpower during most of this century and will allow historical analysis of heretofore unaggregated data.

Understanding the Answers

NORC has been engaged in studies entirely devoted to methodological questions since the early 1970s, when Norman Bradburn, former Director of NORC and now Provost of The University of Chicago, and Seymour Sudman of the University of Illinois began their effort to find the best method for obtaining truthful responses to questions on such sensitive topics as bankruptcy and drunken driving. This work was continued and extended in the mid-seventies, when Bradburn and Sudman addressed the effects of question characteristics, interview location, and the presence of others on responses to threatening questions. The products of this research include three books by Bradburn and Sudman, the most recent of which is *Asking Questions* (Jossey-Bass, 1982).

Expanding the Uses of Longitudinal Research Projects

During the four decades since World War II, longitudinal studies have become an important source of information about national issues for scholars and policymakers. Improvements in survey technology, increased sophistication of the tools available to create and maintain large data files, and advanced analytic methodologies have combined to make large longitudinal datasets more accessible and more useful to answer questions that affect the health and well-being of large numbers of people. In addition, the interests of government and the private sector in studies that can be used to examine the long-range effects of certain circumstances or certain experiences or a type of intervention has resulted in substantial funding for the collection and analysis of longitudinal data over the last twenty years.

A number of longitudinal studies have flourished during this time. Some are based on the need to study certain topics—working, education, and the like. Others have focused on particular population groups—the young, the poor, minorities. Outstanding examples of studies that have become classics of research on long-term changes or outcomes are the National Longitudinal Survey of Labor Force Behavior (the DoL/NLS), the Panel Survey of Income Dynamics, Project Talent, The National Longitudinal Study of the Class of 1972 (NLS-72), and High School and Beyond: A National Longitudinal Study for the 1980s (HS&B).

NORC is now involved in three of these studies—the DoL/NLS (see *The Labor Force*), HS&B, and NLS-72 (see *Education*). NORC's longstanding participation in the first two of these studies has allowed us to see beyond the considerable worth of each of these studies to the complementarity of some of them. HS&B is a study of education outcomes, but these are clearly related to employment; the DoL/NLS is a study of work, but this is obviously connected to training and skill development.

At a series of meetings in 1980, staff from both projects considered ways to design the questionnaires for each project to maximize the number of identical measures in them and thus the comparability of the data from them. This was, to our knowledge, the first attempt to standardize data across two of the largest, most prestigious longitudinal studies outside the Bureau of the Census. These efforts continue to the present time.

A second innovation, begun with the DoL/NLS, and now continued through HS&B and NLS-72 (for which NORC began to assume responsibility in 1983), is to use data collection as an opportunity to expand the studies, collecting data in subject areas that are related to the original purpose of the research but not funded through the basic contract or grant. The vehicle we have been using for the past four years is "piggy-backing." Government agencies with appropriate interests are offered the opportunity to add to the basic questionnaire. Thus, we have added studies of fertility and childrearing practices and of alcohol and drug use to the NLS; and we will add a component covering income transfers within families to NLS-72 in the 1986 followup of that study.

Study augmentations of this kind have two benefits: in a time of reduced funding, more groups share the burden and each gets more data than it could otherwise acquire for even a much larger cost; and the studies themselves are greatly enriched by data on important related topics, providing a richer database for use by scholars and policymakers.

Celia E. Homans

Cognitive Processes in Survey Responding

Each year, millions of dollars are spent in measuring the attitudes and opinions of the public. Yet the results of these surveys and polls are often difficult to interpret. Much of their ambiguity derives from the inherent complexity and vagueness of the issues addressed in opinion surveys. Enduring topics like big government, welfare, and civil rights often mean different things to different people, and even to the same individual over time.

Our study is attempting to understand the origins and meaning of responses to questions about these issues. It proceeds from a theory, grounded in cognitive psychology, that knowledge and beliefs about attitude issues often form organized cognitive structures, or "schemata." For the enduring issues that appear regularly in opinion surveys, there are often several competing schemata. Conflict among them may occur within a single individual or among individuals in a society. This is especially true for controversial topics, such as abortion. The current public debate on this issue reveals at least two competing viewpoints—one sees abortion as the taking of a human life and another sees it as a woman's exercise of her right to control her own body.

An important part of our investigation is a series of open-ended interviews on abortion, welfare, and the nuclear freeze. Specially trained interviewers are carrying out these interviews with small purposive samples of respondents in New Haven, New York, and San Diego. About twenty interviews have been conducted on each topic. Most respondents are able to discuss these issues for more than an hour with minimal prompting from interviewers; they should thereby reveal the set of beliefs that constitute the schemata informing their expressed opinions.

Identifying the relevant schema or schemata is the first step in this research. Using the findings from this phase about the structure of opinion, we will proceed to study how respondents answer opinion questions in surveys. The process of responding to a survey includes several major stages: first, respondents interpret the question; next, they call to mind relevant facts or beliefs; finally, they render a judgment and response. Attitudinal schemata play a key role in the interpretation of the question and the retrieval of relevant beliefs and feelings. Many respondents subscribe weakly to several of the available schemata for major issues, and their choice among these in responding to survey questions may be determined by the way in which a question is worded or the context in which it is asked.

This study of responses to attitudinal questions is part of a larger NSF-funded research program designed to explore the cognitive processes and structures underlying responses to survey questions. Investigators at The University of Chicago, Yale University, and Bolt, Beranek, and Newman, a consulting firm in Cambridge, Massachusetts, are conducting parallel lines of research that focus on other types of survey questions—those that ask respondents to report about their behavior and those that ask respondents for reasons for their behavior. All three lines of work are based on the belief that a deeper understanding of the processes by which respondents answer survey questions will lead to better methods for asking survey questions.

Roger Tourangeau

Roger Tourangeau

In 1983-84, NORC again took up research devoted to survey methodology in a project designed to determine the meaning of respondents' answers to questions about their attitudes toward complex topics. The study's principal investigators are Norman Bradburn; Roger Tourangeau, Senior Methodologist at NORC; and Roy D'Andrade, Professor of Anthropology at the University of California, San Diego. Their work is supported by the National Science Foundation. In Cognitive Processes in Survey Responding, Tourangeau reports on the work in progress.

Automated Systems for Surveys and Research

In 1984 NORC's Data Processing Department became its Information Resource Center. This change reflected the organization's commitment to improve its management of information as a corporate resource across its organizational divisions by taking advantage of developments in hardware and new possibilities for systems integration. The first focus of the development effort has been in the area of survey management and data collection. The goal here is to develop a single system of automated support for these tasks that is both powerful and flexible. This includes both the development of new systems and the enhancement and integration of NORC's existing systems. While the plan will take several years to implement, a number of key elements are now in place.

NORC installed both a computer-assisted telephone interviewing system (CATI) and a computer-assisted data entry system (CADE) in 1983-84. Both of these systems have great potential for improving data quality and reducing costs. The CATI system presents items in survey questionnaires to interviewers on a computer terminal screen and enables them to enter respondents' answers directly into the computer. Because the system presents the "right" item for the interviewer to ask, based on previous responses in the interview, the process moves along more quickly, saving time for both the interviewer and the respondent, and is less vulnerable to error. Both the CATI and the CADE also offer economies and reduce the chances for error by eliminating much of the document preparation, coding, and editing required by traditional data entry methods.

Developments in networking proceeded on two fronts in 1983-84. A local area microcomputer network and multi-user database management system were implemented. This hardware and software will provide the basis for integrating CATI, CADE, field management, and reporting systems. Other automated systems at NORC, including the long-established receipt control and codebook systems, will also be integrated into the database. The shared database approach will allow these systems to "talk" to one another, providing project managers with a truly comprehensive tool for project management. In addition, development was begun on a long-range plan for building a complex information network of mainframe computers, microcomputers, and online databases.

Approaches to Analysis

Just as the design of every survey presents opportunities for methodological development, so too does the design of research projects and analytic plans. NORC Research Associates and Senior Survey Directors frequently respond to these opportunities in the course of their work on substantive topics. Projects reported in ***Education*** include both the development of a scale to measure attitudes toward the American economic system by Senior Survey Director Mary Utne O'Brien and Assistant Survey Director Steven Ingels and two projects involving developments in measurement by Research Associate R. Darrell Bock. But in this area too, there are projects largely or entirely devoted to the methodology of social science research. Several such projects were undertaken in 1983-84.

Research Associates James J. Heckman of The University of Chicago and Burton H. Singer of Columbia University are at work on the development of procedures for analyzing longitudinal data in demography, economics, and medicine that will enable analysts to test predictions of relevant social and biological theories. Statistical models of the kind being developed improve on methodologies that are routinely used in estimation of fertility decisions, contraception choice decisions, marriage and divorce decisions, and almost all statistical models for the analysis of longitudinal data.

Demography will be the beneficiary of additional methodological work by Heckman and Singer, this time in collaboration with Research Associates V. Joseph Hotz and Jan Hoem. The four are analyzing two longitudinal datasets—the Panel Study of Income Dynamics, which covers the United States, and the Survey of Family and Work of Swedish Women—to systematically investigate the socioeconomic determinants of the timing and spacing of births over the life cycle. The research team plans to compare and evaluate dynamic longitudinal procedures for analyzing such data with conventional simultaneous equations procedures used by sociologists and economists.

Donald Rubin of Harvard University is conducting research using data on the labor force, but the focus of his work is a methodological problem that cuts across substantive topics. Virtually all datasets of interest to social scientists are incomplete in the sense that some variables of interest are not included or some units of the population of concern are not represented. To take a common example, some respondents do not respond to certain questions in a survey and some do not participate at all. One way to handle such problems is to predict each missing datum using a statistical model and then use the resulting prediction equation to impute, or fill in, each missing value. Over the last several years, Rubin has developed a technique for this procedure—multiple imputation—that improves on earlier methods. In this system, multiple values—rather than a single one—are imputed for each missing datum. This allows analysts to assess the error resulting from the generally imperfect predictions on which imputations are based and hence permits valid estimates of inferential precision. Moreover, this can be accomplished using standard methods of analysis; no special missing-data algorithms are needed.

In his current work, Rubin is applying his own methodology to another problem of missing data, this time one that arises from the imperfect match between files that are to be merged when the data in each, though nominally the same, have been collected at different times and thus have different meanings. With support from the National Science Foundation, he is attempting to recalibrate the 1970 Census detailed industry and occupation codes to the 1980 classifications. Methodologically, this effort will extend the theory of multiple imputation, lead to the creation of new multiple imputation models especially tuned for the occupation-industry code problem, and allow evaluation of the utility of multiple imputation as a means for achieving comparable occupation and industry data for different censuses. Substantively, it will result in Census public use tapes for 1970 Census data that have occupation and industry codes comparable to those used in 1980, which can be used by researchers to study occupational and industrial change between 1970 and 1980.

Many issues in the study of the labor force stand to gain from work done in 1983-84 by James Heckman and Richard Robb. With support from the U.S. Department of Labor and National Science Foundation, they addressed one of the major difficulties of analyzing earnings data—the problem of selection bias. Focusing on the effect of training, they note that persons who receive training either self-select that experience or are selected for it by others because of their suitability for it. This selection factor makes it difficult to sort out the pure effect of training from the characteristics of the persons exposed to it, which can make it impossible to predict the value of training to a member of the general population. Heckman and Robb focused on the question whether longitudinal data are required to identify the impact of training on earnings—a common assumption—and concluded that the relative benefits of longitudinal data have been overstated because the potental benefits of cross-section and repeated cross-section data have been understated. Though Heckman and Robb used training to motivate the analysis, their work serves as a prototype for deriving selection-bias-free estimates of the impact of unionism, migration, job turnover, unemployment, and affirmative action programs on earnings.

THE CORPORATE REPORT

1983-84 was a period of significant challenge for research organizations. Cuts in federal government research budgets were felt throughout the industry, and ways were sought to minimize the threat to important work. At the start of the decade NORC took a number of steps to improve its posture for the anticipated cutbacks. These included increased attention to development, in the hopes of establishing an endowment fund for the organization, and exploration of structural changes that would increase the organization's fitness to do business in an increasingly competitive environment. NORC's hope that its ounce of prevention would obviate the need for a cure was realized to a large extent. 1983-84 was a challenging but, in the end, a successful period for the organization.

1983-84 was also a period marked at once by stability and change. NORC continued to comprise three major divisions—Survey Operations, Research, and Administration—but it added an enhanced association with the Insitut für Demoskopie at Allensbach in West Germany. Similarly, NORC's Research Group continued to comprise three programmatic research centers, focusing on cultural pluralism, economics, and social policy, but there were changes in each of these areas. These changes, as well as continuing goals and activities, are treated in the following reports on NORC's major institutional components.

The Survey Group

The design, execution, and management of all NORC surveys are vested in the Survey Group, which has conducted hundreds of surveys since the organization's founding in 1941. The Survey Group embodies NORC's organizational experience in all areas of survey research:

- The selection of samples that are appropriate for the requirements of each survey
- The construction of questionnaires that elicit full and accurate information from respondents
- The collection of data from respondents of all kinds, in person, by telephone, and through the mail
- The organization of data in a form suitable for analysis

From NORC's earliest surveys on civilian behavior and morale for the Office of War Information in the early 1940s through the surveys in progress today, NORC has been committed to the highest standards of quality in all the surveys it conducts. The Survey Group is staffed by experienced professionals, some of them among the nation's leading experts in their fields. Under the general direction of the Associate Director for Survey Operations, Celia Homans, each survey undertaken by the organization is assigned to a Senior Survey Director. As project leaders, the Senior Survey Directors manage all facets of their surveys—sampling, instrument development, data collection, data reduction, and reporting. This project-centered management structure, which replaced an earlier, departmental structure, fosters a more integrated view of surveys and more integrated management of each survey through all phases.

Often NORC surveys are staffed by NORC personnel from design through analysis and report. The Senior Survey Director serves as principal investigator, with responsibility for design and analysis, as well as project director. On other occasions the Senior Survey Director works with one of NORC's Research Associates, integrating the scholar's design and analysis requirements with those of survey management. On still other occasions the Survey Group works with a principal investigator from outside NORC—from government, the university research community, or the private sector. To these groups and individuals NORC offers its professional skills, sampling resources, interviewing staff, and data processing facilities.

1983-84: Research and Surveys. The two projects that have been the foundation of NORC's survey work for the past several years—the Youth Cohort of the National Longitudinal Studies of Labor Market Behavior, and High School and Beyond—accomplished, respectively, their sixth and third rounds of interviewing. In the first eight months of 1984, NORC collected data from about 35,000 individuals for these two studies. (For further discussion of the former, see ***The Labor Force;*** for the latter, see ***Education*** and ***The Family***.)

Another of NORC's recurring, and most important, projects—the General Social Survey—was fielded twice in the two-year period. In 1984—the eleventh GSS

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survey—data collection was completed on schedule, under budget, and with the highest response rate in the history of the study (see ***The Social Fabric***).

1983-84 also saw significant developments in another of NORC's strongest research areas: health and health care. As discussed earlier in this report, NORC began work on a new round of the National Ambulatory Medical Care Study, with which NORC has been involved since 1973, undertook a new survey of 5,000 physicians on medical care costs, and engaged in additional projects concerned with such important health issues as cancer care, the aftereffects of service in Vietnam, and minority representation in the medical profession.

In all, NORC fielded thirty-five surveys in the years 1983-1984. Of these, seventeen used face-to-face interviews; five used telephone interviews; and thirteen used respondent-completed instruments done in groups or sent through the mails. Counting the various questionnaires and survey instruments involved (such as school transcripts, medical records, etc.), there were approximately 242,000 completed instruments. These resulted primarily from interviews with individuals concerning behavior and attitudes, but the units of analysis were also schools, doctor's offices, and hospitals, large retail department stores and manufacturing companies, automobiles, churches, state agencies, and households.

1983-84: Other Activities. 1984 was the first year of operation for the NORC field staff under a new management structure, designed to permit better control of fieldwork, and more flexible use of NORC's Field Managers. The chief salutary effect of this new system is that it allows NORC to assign managers with somewhat less attention to geographic location and more attention to individual skills.

As part of its continuing effort to streamline operations for maximum cost-effectiveness, NORC began preparations in late 1984 for the consolidation of its survey operations capability in its Chicago headquarters office. NORC will, however, maintain an office in New York, for liaison with the New York research community, and NORC's field staff in that geographic area remains intact.

The Research Group

NORC's three programmatic research centers partook of the combination of stability and change that characterized the organization as a whole in 1983-84. All of the centers continued programs of research within the compass of their founding missions, yet all contemplated or implemented changes. In the Economics Research Center, the major change was in administration. Robert T. Michael, the founding director of ERC, succeeded Norman M. Bradburn as Director of NORC on September 1, 1984. Michael will continue as an ERC Research Associate and Director of ERC's Population Research Center, but a new director of ERC has been selected: Robert J. Willis, currently of the State University of New York at Stony Brook, will take up this position, and join the faculty of The University of Chicago, in September 1985. In the interim, Christopher Winship, Associate Professor at Northwestern University, will continue to serve as Acting Director of the Center. In the Social Policy Research Center, the major change comes in a new structure that will broaden the Center's approach to its central research focus. Research on children, always at the heart of the Center's research program, will be expanded and supplemented through the creation of the Chapin Hall Center for Children. The Cultural Pluralism Research Center, which has done groundbreaking work in American ethnicity since its founding in 1970, has moved increasingly into studies of values in a pluralist society and to international efforts.

The activities of the centers—both research and ancillary, both continuing and new—are presented in the following sections.

The Economics Research Center

Founded in 1980, the Economics Research Center is devoted to empirically oriented studies in economics. Specifically, the Center has three objectives:

- To conduct research on issues of long-run relevance to the economy and to social and private behavior
- To promote basic research through the provision of training in research procedures and through a research environment and staff committed to basic research in economic science
- To improve the tools of empirical research through efforts to provide better survey data and better statistical techniques of analysis

The Center engages in research on only a few topics at any one time, topics that have a several-year horizon, encompass the research interests of a group of scholars, and are likely to involve analysis of data. The Center's commitment to this principle is seen in the fact that its research continues to focus on the three major topics with which it began in 1980: economics of the family, labor markets and earnings, and behavior over the lifecycle.

1983-84: Research. ERC's Population Research Center, established in 1980 with funding from the National Institute of Child Health and Human Development, now has a new five-year commitment from NICHD. The objective of this center-within-a-center is to better understand demographic behavior in the years since World War II and the relationship between this behavior and the changes taking place in the American family. Toward this end, center scholars use tools of economic science to study the interplay among demographic phenomena (including fertility, migration, marriage, and divorce), economic and social behavior (including schooling, employment, bequests), and the functions of the family as a social institution. The timing and spacing of fertility, the flow of resources among family members across generations, and the relationship between fertility and women's labor force attachment are the main topics under investigation within the Center.

With funding from The William and Flora Hewlett Foundation, ERC has extended its research program of economic analysis of the family to developing countries. Training of graduate and postgraduate students is an important component of this effort. Currently pre-doctoral and postdoctoral fellows are studying the relationships among women's schooling attainment, labor supply, and fertility with data from Japan, South Korea, Hong Kong, Singapore, and Malaysia.

One of NORC's largest and most innovative ongoing research projects is the effort to develop nonparametric, data-sensitive procedures to enable analysts to test predictions of relevant social and biological theories. Typically, tests of theoretically derived hypotheses are wedded to highly parameterized statistical procedures that may not be appropriate for the data. This project, under the direction of Research Associates James Heckman and Burton Singer, seeks to divorce the testing of hypotheses from the often ad hoc distribution assumptions of the statistical procedures. This project has potential payoff for demography, labor analysis, epidemiological research, and indeed any analysis of longitudinal data. A technologically innovative, dedicated Hewlett-Packard computer network has been constructed for use by this project.

1983-84: Other Activities. ERC continued to carry out many activities begun in earlier years during this period. January 1983 saw the publication of the first issue of the *Journal of Labor Economics,* initiated by ERC and published by the University of Chicago Press in conjunction with ERC. The sixth annual Summer Workshop on Analysis of Longitudinal Data was held in 1984. The workshops in 1983 and 1984, with funding from the U.S. Department of Labor, drew researchers from government, private industry, and universities around the world for sessions led by ERC Research Associates James Heckman and Burton Singer. ERC's discussion paper series continued with an increase in the number of institutional requests for the papers. And finally, NORC is proud to note that James Heckman was the 1983 recipient of the John Bates Clark medal,

Harold A. Richman

which is given every two years to the nation's outstanding economist under the age of forty.

The Social Policy Research Center

The Social Policy Research Center was established at NORC in 1981 to identify and study social problems of the following kinds:

- Problems extending beyond traditional administrative and disciplinary lines
- Problems presenting unresolved issues of fact or theory that might yield to concentrated research efforts
- Problems likely to become increasingly significant in the future

Since the Center's founding, its major research focus has been children and youth. The Center's work in this area is in keeping with its mission to study problems that have significant interest for both governmental and private agencies as well as researchers in a number of disciplines.

1983-84: Research. The Center's focus on children and youth was continued, and even sharpened, in 1983-84. The bulk of the Center's work during this period was on multi-year projects in three areas of interest: adolescent parenthood, foster care of children, and schools. The first two of these projects—a longitudinal study of young mothers on AFDC and an application of a technology developed in the Center for the construction of administrative case records to all of the caseload of the Illinois Department of Children and Family Services—are discussed in ***The Family***; the third—an analysis of High School and Beyond data by James S. Coleman and Thomas Hoffer—is treated in ***Education.***

Center staff undertook a new longitudinal project in 1983-84—a study of General Assistance recipients in the State of Illinois. Because these programs are not subject to federal financing or regulation they differ from one locality to the next, and no uniform data has been collected about them. The research addresses both the reasons individuals have to resort to General Assistance for support and the effects of General Assistance on their dependency and well-being. The study is part of a set of studies on the impact of recent changes in federal social policy being conducted by a consortium comprising the Center, Northwestern University, and the University of Illinois at Chicago, and sponsored by The Chicago Community Trust and a number of corporate funders.

In other 1983-84 projects, the Center worked with the accounting firm Price Waterhouse to develop a study of comparative costs for providing social services under public or private sponsorship; implementation of the study awaits federal clearance. Center staff also began work on the next volume of its widely acclaimed report series *The State of the Child* (see ***The Family***).

1983-84: Other Activities. Because much of the Center's work deals with issues of emerging importance to policymakers, it is critical that that work be informed by exchanges between researchers and public officials. Accordingly, Center scholars spend a fair amount of time engaged in such exchanges in the belief that this is integral to the development of a successful policy research program. In this way, Center projects are more likely both to focus on the right areas and to be formulated in a way that is understandable and useful to people responsible for policy development and implementation.

The Children's Policy Research Project has been the major vehicle for the conduct of much of the Center's work on children—specifically, that concerned with the relationship between children and the state. The Project was initially funded by The Joyce Foundation and the Chicago Community

Trust; it came to include as well support from The Bush Foundation, The Ford Foundation, the John D. and Catherine T. MacArthur Foundation, the Pittway Charitable Foundation, the Bowman Lingle Trust, The Edna McConnell Clark Foundation, and the Prince Charitable Trusts. The Project, under the direction of Center Director Harold Richman and Research Associate Mark Testa, has undertaken research on a number of topics of considerable concern, including those on adolescent pregnancy and children in foster care that are noted above and described in ***The Family***.

In 1984, Chapin Hall for Children, a private Chicago agency devoted to serving the needs of Illinois children since its founding in 1860, joined The University of Chicago to create the Chapin Hall Center for Children at The University of Chicago. The new Center will subsume and build on the children's research of the Social Policy Research Center, and SPRC's director, Harold Richman, will become Executive Director of the Chapin Hall Center.

The new Center will have three interrelated purposes. First, it will be devoted to developing knowledge and understanding of the problems that affect Illinois children and the conditions and policies that may cause or alleviate those problems. Second, it will serve as an informational and educational resource on children's issues and policies. Third, it will collaborate with public and private children's agencies in developing, testing, and evaluating new policies and practices aimed at improving children's welfare.

The new Center, like the existing Social Policy Research Center, will be housed with NORC. It will function under the direction of the Chapin Hall Board, which will be expanded to include representatives of NORC and The University of Chicago. The Director of NORC will be among these representatives. The Center will begin operation in late 1985, after a period of consultation and planning.

The Cultural Pluralism Research Center

The Center for the Study of American Pluralism was established at NORC in 1970 and became the Cultural Pluralism Research Center in 1982. The name of the Center was changed to reflect more accurately the scope of the work being done, which is guided by the following objectives:

- To serve as a clearinghouse for research and information on cultural pluralism and social diversity in American society
- To assemble fundamental demographic information on religio-ethnic identification in American society
- To do secondary analysis on existing data to learn more about values, attitudes, and behaviors among various groups in pluralist America
- To develop both a substantive theory and a research methodology that in turn generate a research paradigm from which primary research projects can be designed

In its first phase the pluralism program focused on ethnicity as a major factor in cultural diversity. More recently the Center has explored the fact and implications of diversity in a variety of settings.

1983-84: Research. The Center continued research activities across a range of social issues befitting its name in 1983-84. Among these is the General Social Survey, described in ***The Social Fabric,*** which annually interviews a cross-section of Americans about their attitudes and behavior in

William C. McCready

numerous areas of current and enduring interest. Additional studies include the project on Effective Parish Educational Programs, supported by the McGivney Fund of the NCEA; analysis of statistics from the Official Catholic Directory, supported by the Lilly Endowment; and research on the religious imagination directed by Andrew Greeley.

One of the reasons for the Center's name change was acknowledgment of the emerging international character of its work. In 1983-84, Zdzislawa Walaszek continued her work on a volume titled "Communism and National Sovereignty," and the Center is hosting a year-long visit by Professor Aleksander Posern-Zielinski of the University of Posnan in Poland, who is studying the development of ethnic identity in the United States with support from the American Council of Learned Societies. The Center has also received a grant to analyze data from the American portion of an international study of values. The study covers some 30 countries, in each of which the same questionnaire was administered. The Study of American Values is funded by CARA of Washington, D.C., and directed by Center Director William C. McCready. He is working with staff of the Institut für Demoskopie at Allensbach in West Germany (see below). It is anticipated that this will be the beginning of an international collaboration in data analysis between NORC and the Allensbach institute.

1983-84: Other Activities. McCready and Pastora San Juan Cafferty of The University of Chicago edited *Hispanics in the United States: A New Social Agenda,* to be published in 1985 by Transaction Press.

The Allensbach Institute

In March of 1984, The University of Chicago and the Institut für Demoskopie at Allensbach in West Germany announced that they had concluded an agreement to facilitate international cooperation and comparative investigations in the field of empirical social research. According to this agreement, Allensbach researchers will be able to work at the University of Chicago, and particularly at NORC, and researchers from the University will be able to work at Allensbach. The agreement includes a stipulation in the will of Elisabeth Noelle-Neumann, the institute's founder and director, that the institute will become the property of the University of Chicago.

This agreement will formalize and extend an already active relationship between NORC and Allensbach. Cooperation and exchange between the two date back to the late 1970s. The two research centers, though different in some respects, share commitments to quality in survey research and to the study of survey research methodology.

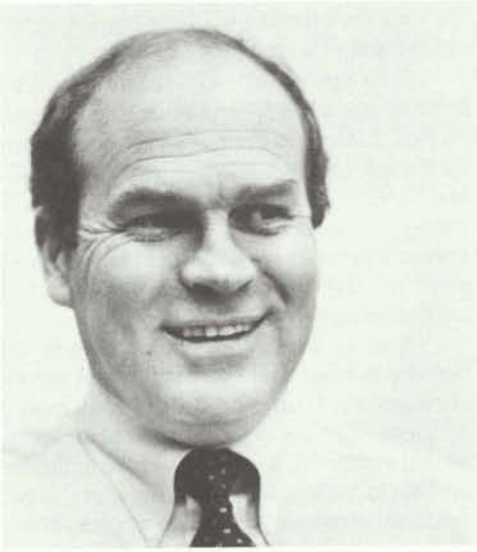
Among the differences between the two are the fact that the institute is a private corporation, founded in 1947 and owned by Elisabeth Noelle-Neumann. Also, the institute, unlike NORC, conducts both market and social research in the belief that the two are complementary and that progress in one often serves to advance the other as well.

The institute has a staff of about 90 and a field force of 1,200 interviewers. The institute's professional staff has published over 600 papers in professional journals. The institute takes special pride in its archives, which cover all of the approximately 3,000 studies conducted by the institute since its founding. The archives include questionnaires, interviewer instructions, datafiles, codebooks, and reports from the studies.

The agreement between Allensbach and The University of Chicago is in keeping with another of Allensbach's principles: fostering close cooperation between university teaching and research and commissioned research in private institutes. It will also serve to further one of the institute's goals: fostering cross-cultural international surveys. The international study of values in which both NORC and Allensbach are participating (see section on the Cultural Pluralism Research Center, above) is an example of the kind of cooperation that the affiliation between the two organizations is expected to promote.

The Administrative Group

In 1983-84, NORC's Administrative Group came under new leadership: Thomas G. Gerst, formerly Director of Grants and Contracts Administration, assumed the responsibilities of Associate Director for Administration and Treasurer. This group supports NORC's survey and research activities by providing all necessary services in management of contracts and grants, ac-



Thomas G. Gerst

counting, data processing, personnel, and office services.

Also housed in this group is NORC's Library. This department serves not only as a conventional library with a collection of over 3,000 books and over 100 journals and access to The University of Chicago library system, but also as an information office and data archive. As an information office, the Library staff, headed by Patrick Bova, responds to queries about NORC surveys, and surveys in general, from the NORC staff, other researchers, and the general public. As a data archive, the Library provides access to data from NORC projects to researchers who wish to analyze them. The Library also prepares and distributes bibliographies and copies of papers and books resulting from or referring to work done at NORC. A list of 1983-84 publications appears later in this volume.

NORC's Data Processing Department underwent several changes during this period. It acquired both a new director and a new name in January of 1983, when Lee Wood joined the staff as Director of the Information Resource Center. The latter change was in keeping with the department's new thrust toward integration of data processing with the survey and research activities it is meant to support. (Some of the department's development activities are discussed in the ***Methods*** section of this report.) During this period of growth and change, responsibility for the department was transferred to the Director of NORC.

In 1983-84, the Administrative Group met several challenges, chief among them the fiscal management of the organization during a period of contraction. The size of this challenge, and the success with which it was met by this group and the organization as a whole, is suggested by the following: Between 1982 and 1983, NORC's revenues declined by 24 percent. In this period, while NORC cut general and administrative expenses by 12 percent, the organization sustained a small loss. Between 1983 and 1984, NORC increased its gross revenues by 18 percent while keeping general and administrative expenses at the 1983 level. This resulted in a net contribution to capital funds of $391,000, over $200,000 of which has been designated a Director's Fund earmarked for internally sponsored research. The financial statements on the following page offer further information.

CONDENSED FINANCIAL STATEMENTS

For the Two-Year Period Ending August 30, 1984

Balance Sheet

Assets	1984	1983
Current Assets	$ 2,930,937	$ 2,114,701
Rental Deposits	200,000	200,000
Fixed Assets Net of Depreciation	1,694,476	1,754,303
Total Assets	$ 4,825,413	$ 4,069,004

Liabilities & Capital Funds	1984	1983
Current Liabilities	$ 2,645,933	$ 2,209,001
Long-Term Debt	-0-	71,612
Capital Funds	2,179,480	1,788,391
Total Liabilities and Capital Funds	$ 4,825,413	$ 4,069,004

Income Statement

	1984	1983
Net Revenue	$12,475,236	$10,603,052
Total Project Costs	$ 8,606,502	$ 7,120,636
General and Administrative Expenses	3,613,049	3,632,692
Total Costs and Expenses	$12,219,551	$10,753,328
Income from Operations	$ 255,685	$ (150,276)
Other Income (Expense)		
NORC-Funded Research	$ (3,132)	$ (31,824)
Provision for Director's Fund	(200,000)	-0-
Other Income (Net)	138,536	108,424
Total Other Income (Expense)	$ (64,596)	$ 76,600
Contribution to Capital Funds for the Year		
Operating Fund	$ 191,089	$ (73,676)
Director's Fund	200,000	-0-
Capital Funds Beginning of the Year	1,788,391	1,862,067
Capital Funds End of the Year	$ 2,179,480	$ 1,788,391

These financial statements are based on NORC's annual auditor's reports. The complete reports are available on request.

NORC STAFF: 1983-1984

NORC STAFF: 1983-1984

THE DIRECTOR'S OFFICE

Director
Robert T. Michael

Associate Director and Special Assistant to the Director
Pearl Zinner

Assistant to the Director
Julie Antelman

THE SURVEY GROUP

Associate Director for Survey Operations
Celia E. Homans

Senior Survey Directors
Jean Atkinson
Mary C. Burich
Miriam Clarke
Brad Edwards
Walter Sherman Edwards
Esther Fleishman
Calvin C. Jones
John D. Loft
Geraldine Mooney
Mary Utne O'Brien
Paul B. Sheatsley
Cynthia Thomas

Assistant Survey Directors
Robert Bailey
Michiyo Bennett
Robert Borchers
Anne Buckborough
Susan Budde
Marjorie Butz
James Comiskey
Jeri Crawford
Arleigh Dom
Janet Gans
Gayle Hutchinson
Julia Ingels
Steven Ingels
Carolyn Ivory
Ruth Kellam
Kevin Kenward
Joan Law
Moses Mambia
Margaret Miller
Gil Press
Richard Rubin
Alicia Schoua
Phyllis Shechet
Melody Singleton
Linda Stephens
Natalie Suter
Esther Weddell
Charlene Weiss

Administrative Assistants
Diane M. Bagüés
Rosemarie Boykin
Nellie Presberry
Heather Rice
Daniel Sichelski
Margarette Wafer

Assistant to the Associate Director
Sheryl Cook Bates

Survey Directors
Barbara Campbell
Mary Ann Fitzgerald
Mary Jean Key
Lenore Kreiling
Shirley Knight
Lucille Kolkin
Donald Kotecki
Kathryn Koehler Loft
Martha S. Mandilovitch
Harold McWilliams
Ann-Sofi Rodén
Mary Beth Schewitz
Penny Sebring
Susan Sprachman
Karen Conner Tourangeau
Roslyn Weisinger

Project Services Supervisors
Marva Lopez Griffin
Janice Leggs
Carolyn Miller
Hazel Taylor

Project Services Assistants
Deborah Alexander
Zorka Benton
Paula Christian
Jeffrey Cothran
Nina Geater
Shirley Hicks
Janis Horne
Melanie Kleine
Brian Kuhr
Jane Mayer
Timothy Power
Patricia Smith
Betty Williams
Lorraine Wilson

Sampling

Technical Director
Martin R. Frankel

Senior Methodologist
Roger Tourangeau

Sampling Statistician
Bruce Spencer

Office of Field Coordination and Management

Director
Miriam K. Clarke

Training Director
Woody Carter

Field Staff Specialists
Gwen Houston
Dianna Sexton

Coordinators of Field Management
Jeri Crawford
Charlene Weiss

The following pages list NORC staff by organizational group. For senior survey and research positions, all persons associated with NORC during the two-year period are listed. For other positions, the persons occupying them on December 31, 1984 are listed.

District Managers

Karen Baker
Patricia Phillips
Margarete Smith
June Teplitz

Divisional Field Managers

Leonora Brandon
Virginia Close
Dorothy Daoust
Cheryl Gilbert
Lois Howe
Ellen Williams
Gerry Winstin
Rebecca Zahavi

Field Managers

Ruth Adams
Leslye Axelrod
Suzanne Bard
Alice Berd
Claire Beth
Tracy Buie
Connie Campbell
Lyn Clarke
Bonnie Donley
Rosa Dwyer
Virginia Eggleston
Pamela Engquist
Janet Evison
Beverley Ferry
Patricia Fluck
Ann Fried
Mary Gartshore
Emily Green
Mary Gruner
Charlene Harris
Gloria Harrison
Geraldine Jack
Gloriette Johnston
Carla Klotz
Shirley Kroger
Dolores Laake
Claudia Lawson
Wanda Mallison
Kathryn Malloy
Dorothy Manfull
Jean Moore
Sara Murphy
Peggy Nathan
Eleanor Palmer
Jessie Raymond
Claire Rodriguez
Kathleen Salmon
Sue Sender
Dorothy Snell
Patricia Strand
Emily Wilson
Joyce Winebrenner

Editorial Services

Supervisor

Susan Campbell

Editor/Writer

Suzanne Erfurth

THE RESEARCH GROUP

The Cultural Pluralism Research Center

Director

William C. McCready, Associate Professor, School of Social Service Administration, University of Chicago

Research Associates

Pastora San Juan Cafferty, Associate Professor, School of Social Service Administration, and Member, Committee on Public Policy Studies, University of Chicago

Terry Clark, Associate Professor, Department of Sociology, University of Chicago

James A. Davis, Professor, Department of Sociology, Harvard University

Lutz Erbring, Associate Professor, Department of Political Science, University of Chicago

Andrew M. Greeley, Professor, Department of Sociology, University of Arizona

J. David Greenstone, Professor, Department of Political Science, and Member, Committee on Public Policy Studies, University of Chicago

Norman H. Nie, Professor, Department of Political Science, University of Chicago, and President, SPSS, Inc.

Benjamin I. Page, Professor, Department of Political Science, University of Chicago

Robert Y. Shapiro, Assistant Professor, Department of Political Science, Columbia University

A. Wade Smith, Associate Professor, Department of Sociology, Arizona State University

Richard Taub, Associate Professor, Division of the Social Sciences and the College, University of Chicago

David Tracy, Professor, Divinity School, University of Chicago

Senior Study Director

Tom W. Smith

Research Fellow

Zdzislawa Walaszek

Visiting Research Fellow

Aleksander Posern-Zielinski, University of Posnan, Poland

Administrative Assistant

Joanne Kent

The Economics Research Center

Acting Director

Christopher Winship, Associate Professor, Department of Sociology, Northwestern University

Research Associates

John M. Abowd, Associate Professor, Graduate School of Business, University of Chicago

Gary S. Becker, Professor, Departments of Economics and Sociology, University of Chicago

Charles Bidwell, Professor, Departments of Education and Sociology and the College, University of Chicago

Reuben Gronau, Professor, Department of Economics, Hebrew University

Lars Peter Hansen, Professor, Department of Economics and the College, University of Chicago

James J. Heckman, Professor, Department of Economics and the College, University of Chicago

Jan Hoem, Research Professor, Section of Demography, University of Stockholm

V. Joseph Hotz, Assistant Professor, Department of Economics, Carnegie-Mellon University

Edward P. Lazear, Professor, Graduate School of Business, University of Chicago

Glenn MacDonald, Professor, Department of Economics, University of Western Ontario

Thomas E. MaCurdy, Associate Professor, Department of Economics, Stanford University

Robert T. Michael, Professor, Department of Education and the College, University of Chicago

Robert A. Miller, Assistant Professor, Department of Economics, Carnegie-Mellon University

Thomas Mroz, Assistant Professor, Department of Economics, University of Chicago

Elizabeth Peters, Assistant Professor, Department of Economics, University of Colorado

Sherwin Rosen, Edwin A. and Betty L. Bergman Professor, Department of Economics and the College, University of Chicago

Burton H. Singer, Professor, Department of Economics, Yale University

Nigel S. Tomes, Associate Professor, Department of Economics, University of Western Ontario

Robert H. Topel, Associate Professor, Graduate School of Business, University of Chicago

Nancy Brandon Tuma, Professor, Department of Sociology, Stanford University

Robert J. Willis, Professor, Department of Economics, State University of New, York, Stony Brook

Other Faculty Affiliates

R. Darrell Bock, Professor, Departments of Behavioral Sciences and Education, University of Chicago

Hillel Einhorn, Professor, Graduate School of Business and Department of Behavioral Sciences, University of Chicago

Robin Hogarth, Professor, Graduate School of Business, University of Chicago

Joshua Klayman, Assistant Professor, Graduate School of Business, University of Chicago

Donald Rubin, Professor, Departments of Statistics and Education, University of Chicago

Research Fellow

Machiko Osawa

Visiting Scholar

Yue-Chim Richard Wong

Research Analysts

Haim Mano
Robert Mislevy
Eiji Muraki
Robert Sykes
James Walker

Administrative Assistant

Julie Less

The Social Policy Research Center

Director

Harold Richman, Hermon Dunlap Smith Professor, School of Social Service Administration, University of Chicago

Research Associates

Malcolm Bush, Assistant Professor, School of Social Service Administration, University of Chicago

James Coleman, Professor, Departments of Sociology and Education and the School of Social Service Administration, University of Chicago

Joan Costello, Associate Professor, School of Social Service Administration, University of Chicago

Thomas DiPrete, Assistant Professor, Department of Sociology and the College, University of Chicago

Laura Epstein, Professor, School of Social Service Administration, University of Chicago

Edward Lawlor, Assistant Professor, School of Social Service Administration, University of Chicago

Noah Lewin-Epstein, Associate Professor, Tel Aviv University

Laurence Lynn, Professor and Dean, School of Social Service Administration, University of Chicago

Edward Mullen, Professor, School of Social Service Administration, University of Chicago

Francois Nielsen, Assistant Professor, Department of Sociology, University of North Carolina, Chapel Hill

Paul Peterson, Professor, Departments of Political Science and Education and the College, University of Chicago

William Pollak, Associate Professor, School of Social Service Administration, University of Chicago

Rachel A. Rosenfeld, Associate Professor, Department of Sociology, University of North Carolina, Chapel Hill

John Schuerman, Professor, School of Social Service Administration, University of Chicago

Mark Testa, Assistant Professor, School of Social Service Administration, University of Chicago

Lynn Vogel, Assistant Professor, School of Social Service Administration, University of Chicago

Fred Wulczyn, Research Associate, School of Social Service Administration, University of Chicago

Postdoctoral Fellow

Joan Gittens

Research Project Specialist

Sarah Diamond

Senior Study Director

Carol Stocking

Administrative Assistant

Mary Kotecki

Research Analysts

Donna Barrows
David Curry
Wendy David
Paul Gronke
Thomas Hoffer
Rob Hugi
Michael Lamble
Patricia Mosena
Matthew Stagner

THE INFORMATION RESOURCE CENTER

Director

Lee Wood

Associate Director for Applications and Systems Development

Reginald Baker

Assistant to the Director of IRC

Richard Kreitman

Senior Project Support Manager

Ioanna Crawford

Project Support Managers

Virginia Bartot
Christine Beard
Anna Rantala
Barbara Rubinstein

Systems Manager

Joseph Taylor

Senior Programmer Analysts

David Cook
Gloria Rauens

Programmer Analysts

Thelma Bahadur
William Lee Lefes

Senior Applications Programmer

Robert Surabian

Applications Programmers

Hyman Bern
Tucker Landy
David Lewandowski
Chyong-Yng Lin
Ruth Moayyad
William Mudge
David Pieper
Brenda Spencer
Jacques van der Ven

Information Specialist

Chris Lonn

Operations Specialist

Reginald Wright

Operations Analysts

Barbara Browder
Beverly Harris

Production Control Manager
Maxine Hart

Senior Data Entry Operators
Audrey Trimble
Elizabeth Williams

Data Entry Operator
Sheila Walker

Data Services Administrator
Linda Ward

Assistant to Data Processing Manager
Peggy Vevers

Administrative Assistant
Leslie Littles

THE ADMINISTRATIVE GROUP

Associate Director for Administration and Treasurer
Thomas G. Gerst

Controller
Aurora Punzalan

Manager, Grants and Contracts Administration
Thomas G. Gerst (acting)

Contracts/Grants Administrator
Mary Westbrook

Administrative Assistants
Margaret Harrison
Sylvia Mandeville

Accounting

Chief Accountant
Lula Baker

Accounting Supervisor
Alicia Evans

Accounts Payable Supervisor
Arline Redmond

Accountant
Theodore Mroczek

Accounting Assistants
Charles Allen
Florence Redmond
Vivian Wilson

Staff Payroll Supervisor
Helen Smith

Interviewer Payroll Supervisor
Deidre Jackson

Library

Librarian
Patrick Bova

Assistant Librarian
Michael Worley

Word Processing

Manager
Julie Antelman

Word Processing Supervisor
Cassandra Britton

Word Processors
Arturo Landeros
Vaudelita Nance

Office Services

Office Managers
Diane Geisler
Brent Spyrka

Assistant Office Manager
John Johnson

Office Services Administrator
Kevin Okazaki

Personnel

Personnel Manager
James Ketcham

Personnel Assistants
Frances Harris
Richard Swedlund

Employee Benefits Supervisor
Arlett Harris

Mail Services Clerk
Kenneth Brown

Duplication/Binding Coordinator
Kenneth Wright

Receptionists
Robert B. Colasacco
Elsa Cruz Lindsey

Building Attendant
Robert Hall, Jr.

NORC PROJECTS: 1983-84

Survey Group

HIGH SCHOOL AND BEYOND: A NATIONAL LONGITUDINAL STUDY
1978-present

Funding Agency National Center for Education Statistics

Project Director *Calvin Jones*

This study collects a wide variety of educational and career-relevant information from a sample of young people who were in the tenth and twelfth grades when it began in 1980. Intercohort comparisons can be made with the high school graduating class of 1972, on which data has already been collected.

HIGH SCHOOL AND BEYOND TRANSCRIPT SURVEY
1982-1983

Funding Agency National Center for Education Statistics

Project Director *Calvin Jones*

This project collected transcript data from a subsample of students who completed High School and Beyond questionnaires in the first followup survey. These data were used to demonstrate that only 2 percent of the class of 1982 satisfied the recommendations on course-taking patterns of the National Commission on Excellence in Education.

HIGH SCHOOL AND BEYOND CONSORTIUM SUPPLEMENTAL DATA COLLECTION
1983-1984

Funding Agency Johns Hopkins University; National Center for Research in Vocational Education, Ohio State University; Oregon University; Stanford University Education Department; University of Wisconsin

Project Director *Calvin Jones*

In the spring of 1984 a consortium of university research centers sponsored a study of principals; guidance, vocational, and community service program counselors; and up to thirty teachers in each of a sample of High School and Beyond schools. This information will allow researchers to describe the impact of the school environment on the educational process.

HIGH SCHOOL AND BEYOND THIRD FOLLOWUP AND NLS-72 FIFTH FOLLOWUP
1984-1985

Funding Agency National Center for Education Statistics

Project Director *Calvin Jones*

The National Longitudinal Studies program began in 1972 under the auspices of the National Center for Education Statistics. At that time, comprehensive baseyear data were collected from over 22,000 high school seniors for the NLS-72 survey; in 1980 similar data were collected from 58,000 high school sophomores and seniors for High School and Beyond. Subsamples of both groups have been resurveyed several times to track their subsequent educational, vocational, and personal development.

POSTSECONDARY EDUCATION TRANSCRIPT STUDY
1983-1985

Funding Agency — National Center for Education Statistics

Project Director — *Calvin Jones*

This study is designed to obtain reliable and objective information about types and patterns of courses taken by students in colleges, graduate schools, and non-collegiate postsecondary institutions. When this information is merged with the expanding NLS-72 and High School and Beyond databases, it will be possible for researchers to relate course-taking patterns to student characteristics available in student questionnaire data files, and to subsequent occupational choice and success.

NATIONAL LONGITUDINAL STUDY OF LABOR FORCE BEHAVIOR (DOL/NLS)
1977-1985

Funding Agencies — U.S. Department of Labor; National Center for Research in Vocational Education, Ohio State University; National Institute on Alcoholism and Alcohol Abuse; National Institute of Child Health and Human Development; National Institute on Drug Abuse

Project Director — *Mary C. Burich*

A study of the labor force behavior of a sample of 12,000 youths, ages 14-21, with oversamples of black, Hispanic, and economically disadvantaged white youth. The first interview was conducted in 1979; followups have been conducted annually and are expected to continue through 1985.

NATIONAL LONGITUDINAL SURVEY OF LABOR FORCE BEHAVIOR: COLLECTION AND CODING OF TRANSCRIPTS
1983-1984

Funding Agency — Ohio State University, National Center for Research in Vocational Education

Project Director — *Mary C. Burich*

Completed this year, this study supplemented the interview data collected in the ongoing National Longitudinal Survey of Labor Force Behavior (DoL/NLS) by collecting the high school transcripts of the NLS respondents. The specific purpose of this project is to provide objective data describing participation in vocational education.

DRUG QUESTIONS ON NLS-ROUND VI
1984

Funding Agency — Ohio State University Research Foundation; National Institute on Drug Abuse; Columbia University (Denise Kandel)

Project Director — *Mary C. Burich*

A section of questions on abuse of controlled substances was added to the questionnaire used in Round VI of the National Longitudinal Study of Labor Force Behavior (DoL/NLS).

DEVELOP METHODOLOGY FOR TWO NATIONAL SURVEYS ON LONGTERM CARE
1980-1983

Funding Agency — U.S. Department of Health and Human Services

Project Director — *Brad Edwards*

This project was designed to develop methodology for two surveys of slightly, moderately, and severely impaired individuals: one was a survey of impaired persons living in households, the other, of those living in institutions. The respondents had impairments that were physical, mental, social, or a combination thereof; the focus was on the nature and extent of the impairments and the respondents' health status.

SOVIET INTERVIEW PROJECT
1981-1985

Funding Agency University of Illinois

Project Director *Esther Fleishman*

Three thousand recent Soviet emigrants in the U.S. were interviewed in Russian about their views of contemporary Soviet society and their immigration experiences.

ON THE ROAD FUEL ECONOMY SURVEY
1981-1984

Funding Agency U.S. Department of Transportation

Project Director *Miriam Clarke*

The purpose of this study was to monitor the fuel economy of late model vehicles as actually experienced by the motoring public in its everyday driving. The data, collected by use of a log, will be used to evaluate Federal Fuel Economy Standards in terms of benefits from fuel savings by consumers.

SURVEY OF YOUTH IN URBAN AREAS
1981-1983

Funding Agency Columbia University

Project Director *Pearl Zinner*

This survey investigated child and adolescent development in a large urban area. About 600 boys, aged eleven to sixteen, and their mothers or guardians were interviewed in ten neighborhoods of New York City.

FOLLOWUP INTERVIEWS WITH EX-CLIENTS OF DRUG ABUSE TREATMENT CENTERS USING THE DRUG ABUSE REPORTING PROGRAM (DARP)
1977-1982

Funding Agency Texas Christian University

Project Director *Brad Edwards*

In 1974-76, NORC interviewed 4,000 persons who had been admitted to treatment programs in centers participating in the Drug Abuse Reporting Program (DARP). For this project, 700 persons, both blacks and whites, were selected for twelve-year follow-up interviews; the questionnaire covered such topics as illicit drug use, treatment readmission, alcohol use, employment, criminality, and living arrangements.

IN-PLACE HOUSING ADJUSTMENTS BY ELDERLY HOMEOWNERS
1982-1985

Funding Agency Urban Institute

Project Director *Brad Edwards*

The purpose of this project is to better understand adjustments made in housing as they are influenced by the circumstances of aging, by analyzing data on repairs and improvements people make to their homes and property. The project involves interviewing single-family homeowners in seven cities who were interviewed for another NORC housing study in 1979 and 1981.

DEVELOPMENT OF COST-EFFICIENT, IMAGINATIVE WAYS TO ADMINISTER THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS (NAEP)
1982

Funding Agency National Institute of Education

Project Directors *Mary C. Burich, Darrell Bock*

This contract supported the preparation of a report of the same name. The report recommended redesigning the content, timing, and packaging of the assessment; using rotation samples of schools; strengthening NAEP's linkage with state and local assessments; and reporting NAEP results annually in academic areas of high priority (e.g., mathematics).

NAMCS DISSEMINATION POLICIES EVALUATION
1982-1984

Funding Agency U.S. Department of Health and Human Services

Project Director *John Loft*

This project was designed to evaluate methods of collecting demographic and clinical data from a sample of patient visits to hospital outpatient and emergency departments. Results of a pilot survey, conducted in 50 hospitals in four SMSAs, will be used to develop a plan for a national-level survey of hospital-based ambulatory care.

PUBLIC PERCEPTIONS OF TECHNOLOGICAL RISKS
1982-1983

Funding Agency Yale University, Roper Center

Project Director *Jean Atkinson*

A study of public perceptions of the risks and benefits of technology. Interviews were conducted with 700 persons in Phoenix, Arizona, and with a list sample of 200 who had testified at public hearings on this topic. The study built on the results of earlier small-scale investigations; it was designed to test whether their findings would hold among larger, more representative samples of Americans.

POSTAL SERVICE NEWSLETTER OPINION SURVEY
1983

Funding Agency Division of Public and Employee Communications, Central Regional Office, U.S. Postal Service

Project Director *Jean Atkinson*

A survey of craft employees in the Central Region of the United States Postal Service on their attitudes toward their employee newsletters, workplace issues, and postal management. Data were also collected on employees' exposure to information about such issues as automation, courtesy, revenue protection, and safety.

SURVEY OF YOUTH SERVICING AGENCIES
1983

Funding Agency Columbia University Center for Population and Family Health

Project Director *Brad Edwards*

A small-scale study of youth service workers' experience with young Hispanics seeking counseling about sex, pregnancy, and birth control. A questionnaire was administered to a sample of 200 health care workers, educational counselors, teachers, social workers, and religious workers.

SURVEY OF LAWYERS' NEEDS
1983

Funding Agency Legal Services Corporation

Project Director *Mary Utne O'Brien*

The purpose of this research was to inform the Legal Services Corporation (LSC) about the needs of legal professionals serving the poor and about their experiences in attempting to find professional support and assistance. Interviews were conducted with program directors of LSC-funded programs; with private attorneys who represent LSC Funding Agencies through Judicare programs; and with LSC managing and supervisory attorneys, staff attorneys, fellows, and paralegals.

SURVEY OF PHYSICIANS' PRACTICES
1983-1985

Funding Agency — Health Care Financing Administration, U.S. Department of Health and Human Services

Project Director — *Mary C. Burich*

This is a two-phase project. Phase I included an assessment of previous physicians' practice cost surveys done in 1976, 1977, 1978, and 1979. Phase II will include a national survey of 5,000 physicians using a modified design based on the assessment.

FOLLOWUP OF THE HARLEM ADOLESCENT STUDY
1983-1984

Funding Agency — Columbia University School of Public Health

Project Director — *Brad Edwards*

This research will assess changes in health status and need for care among a representative cross-section of black youth in Harlem who were first interviewed when they were twelve to seventeen years old. A second wave of the study was fielded in 1975; this third wave gathered information on issues of physical and psychological health, including perceived health status, stress, drug and alcohol behavior, and attitudes, values, and friendship networks.

PHILADELPHIA SCHOOL DISTRICT SURVEY
1983

Funding Agency — Philadelphia School Board

Project Director — *Brad Edwards*

The survey was conducted to assess the attitudes of parents toward desegregation and magnet school programs, and how they would react to a mandatory desegregation program in their school district. A probability sample was drawn from the Philadelphia School Board's data file on students.

IMPACT OF HOME CARE ON FAMILY CAREGIVERS
1983-1984

Funding Agency — Consumers Union Foundation

Project Director — *Brad Edwards*

This survey focused on individuals who cared for terminally ill family members or friends at home. A major focus of the study was to define the actual tasks involved in "caregiving," and to measure the stress associated with these tasks as experienced by the caregiver or his or her immediate family.

SURVEY OF YOUNG ADULTS: A STUDY OF DRUG USE IN YOUNG ADULTHOOD
1983-1985

Funding Agency — Columbia University

Project Director — *Brad Edwards*

This study is Phase III of a followup study of former New York State high school students who originally participated in the Phase I (1971) and Phase II (1981) surveys. NORC collected information on respondents' use of cigarettes, alcohol, licit and illicit drugs, attitudes on drug use, and drug related beliefs.

REGISTRY OF VIETNAM ERA VETERAN TWIN PAIRS
1983-1986

Funding Agency National Research Council, National Academy of Sciences

Project Director *Mary Utne O'Brien*

This subcontract will develop a registry of Vietnam Era (1965-1975) military veteran twin pairs. A mail survey of 10,000-12,000 twin pairs will assess zygosity, nature of Vietnam combat experience, current health-related practices, health problems, Post-Traumatic Stress Disorder (PTSD), marital and paternal history, and birth disorders among offspring. Six hundred identical twin pairs will undergo extensive physical and psychological examination at a central medical site in a subsequent study.

EXPANDING OPPORTUNITIES FOR MINORITIES IN MEDICINE
1984-1985

Funding Agency Educational Testing Service

Project Director *Brad Edwards*

NORC subcontracted with ETS to conduct a nine-month, two-phase survey of a sample of 3,300 medical school-bound minority youth. The interview focused on experiences with educational "intervention" programs designed to recruit and prepare minority students for entry into medical school.

THE HEALTH INSURANCE PLAN OF GREATER NEW YORK: DEMOGRAPHIC STUDY OF BROOKLYN
1984

Funding Agency Health Insurance Plan of Greater New York

Project Director *Brad Edwards*

This leading supplier of health care in New York City commissioned this study to aid in its planning and marketing efforts. Using a variety of data sources, including 1970 and 1980 Census data and enrollment data provided by the funding agency, NORC divided the borough of Brooklyn into ten market areas and provided the funding agency with a profile of each area.

A NEEDS ASSESSMENT OF PERSONS WITH AIDS (ACQUIRED IMMUNE DEFICIENCY SYNDROME)
1984

Funding Agency New Jersey Department of Health

Project Director *Brad Edwards*

This survey involves personal interviews with AIDS sufferers living in northern New Jersey, and telephone interviews with care providers serving that population. The purpose of the survey was to determine the special needs of persons with AIDS living in northern New Jersey, in order to enable the Department of Health to establish priorities in services to be provided to this population.

NATIONAL AMBULATORY MEDICAL CARE SURVEY
1971-1982; 1984-1986

Funding Agency U.S. Department of Health and Human Services

Project Director *Paul B. Sheatsley*

A national survey of physicians to collect data on ambulatory care provided in office-based practice by private physicians. The survey was conducted annually from 1973 to 1981 and will resume in 1985.

STUDY OF PUBLIC ATTITUDES TOWARD ISSUES OF MILITARY SERVICE
1982-1985

Funding Agency The Ford Foundation

Principal Investigators *James A. Davis, Paul B. Sheatsley*

This program of research on public attitudes toward issues of military service was conducted in two phases, over a two-year period, under the guidance of a special NORC Advisory Committee. Phase I consisted of a special ten-minute segment of the 1982 General Social Survey that updated past survey efforts, and also provided a body of additional information not previously available concerning public opinion toward these issues.

EVALUATION OF THE IMPACT OF ECONOMICS TEXTBOOKS ON JUNIOR HIGH SCHOOL STUDENTS
1984-1985

Funding Agency Foundation for Teaching Economics

Project Director *Mary Utne O'Brien*

This study was an evaluation of the impact of a textbook, *Our Economy: How It Works,* on the values of the junior high school students who use it in class. The textbook was developed under the sponsorship of the Foundation for Teaching Economics.

SURVEY OF ONCOLOGISTS
1984-1986

Funding Agency Fred Hutchinson Cancer Research Center

Project Director *Geraldine Mooney*

The objective of this survey is to evaluate the knowledge, attitudes, and behavior of community physicians concerning clinical cancer care and research. Specifically the study will evaluate the National Cancer Institute's Community Clinical Oncology Program (CCOP), which disseminates information on state-of-the-art cancer therapy to community physicians. NORC will determine how well this information is being disseminated by interviewing physicians at twelve sites throughout the United States.

SURVEY OF ABSENT PARENTS
1984-1985

Funding Agency U.S. Department of Health and Human Services

Project Director *Geraldine Mooney*

Designed to determine the patterns of and reasons for payment and nonpayment of child support, this study involves interviews with both custodial and absent parents.

A STUDY OF AGE-RELATED DIFFERENCES IN CANCER MANAGEMENT
1984-1985

Funding Agency Memorial Sloan-Kettering Cancer Center

Project Director *Shirley Knight*

NORC will interview approximately 1,115 white women over the age of 45 who have experienced either breast or rectal cancer. The aim of the study is to evaluate how age and socioeconomic factors affect the treatment experience, and to evaluate those factors that differentiate older from younger patients in terms of management procedures that have been shown to reduce morbidity and mortality from these causes in females. In addition, a projected 1,000 relatives or friends identified by patients as most involved with their primary treatment will be interviewed. All interviews will be conducted by telephone.

COGNITIVE ASPECTS OF SURVEY METHODOLOGY
1984-1986

Funding Agency U.S. Department of Health and Human Services

Principal Investigator *Norman Bradburn, Roy D'Andrade, Roger Tourangeau*

Knowledge and beliefs about attitude issues often form organized cognitive structures, or "schemata," and for the enduring issues that appear regularly in opinion surveys, there are often several competing schemata. This project consists of a series of studies that explore such cognitive processes in survey response. The studies focus on questions that elicit attitudes or opinions, and questions that ask for the reasons or causes of behavior. Many respondents subscribe weakly to several of the available schemata for such issues, and question wording and context will affect which schemata guides their response.

EVALUATION OF NMCUES DATA COLLECTION AND DATA PROCESSING PROCEDURES
1984-1985

Funding Agency U.S. Department of Health and Human Services

Project Director *Janet Gans*

This is a methodological evaluation of the National Medical Care Utilization and Expenditures Survey, which NORC conducted with Research Triangle Institute in the 1970s. It will include an examination of NMCUES' imputation procedures, and will examine the cost-effectiveness of various features of the survey; the findings will inform the design of the next NMCUES.

CHICAGO CARDIA STUDY
1984-1986

Funding Agency Northwestern University

Project Director *Geraldine Mooney*

In this study of the health and lifestyles of young adults, 5,000 young people in four cities—Birmingham, Minneapolis, Oakland, and Chicago—will be interviewed on such topics as smoking, diet, and exercise, and will be examined by medical personnel in 1984-85 and 1986-87.

Cultural Pluralism Research Center

A NATIONAL DATA PROGRAM FOR SOCIOLOGY (GENERAL SOCIAL SURVEY)
1972-1987

Funding Agency National Science Foundation

Principal Investigators *James A. Davis, Tom W. Smith*

This project is both a data diffusion project and a program of social indicator research. The study's data collection instrument, the General Social Survey (GSS), has been fielded seven times. The questionnaire contains a standard core of demographic and attitudinal variables, plus certain topics of special interest selected for rotation.

ADDITION OF BLACK SAMPLE TO GENERAL SOCIAL SURVEY
1981-1983

Funding Agency National Science Foundation

Principal Investigator *A. Wade Smith*

This project added a black sample to the GSS, tested the efficiency of two different sampling methods, and examined subgroup differences among American blacks. A total sample of about 500 blacks were interviewed, and the data will be analyzed for major attitude and political differences among, for example, lower- and middle-class blacks.

IMPACT OF MASS MEDIA ON POLICY PREFERENCES
1983-1985

Funding Agency National Science Foundation

Principal Investigator *Benjamin Page*

This project collected information from several thousand survey questions concerning public policy, asked of national samples of Americans between 1935 and the present. Several hundred cases have been identified in which identical questions were repeated within relatively short time intervals (six months or less). For those cases, the contents of TV news broadcasts and other mass media reports are being measured during the periods between surveys, noting the sources of news stories (presidents and their administrations, the opposition party, interest groups, experts, etc.), the intended or desired impact upon public opinion, the length and prominence of the stories, and the like. A variety of content variables will be used to predict the amount and direction of change in public opinion.

EFFECTS OF PARISH EDUCATION PROGRAMS
1983-1985

Funding Agency National Catholic Educational Association

Principal Investigator *William McCready*

The Parish Education Evaluation project is designed to examine the non-school aspect of religious education in Roman Catholic parishes. It is funded by the McGivney Fund of the National Catholic Educational Association. The design consists of a national sampling of Directors of Religious Education in dioceses to obtain nominations of parishes that are particularly successful in terms of religious education.

COMPUTERIZATION OF HISTORICAL STATISTICS FROM THE OFFICIAL CATHOLIC DIRECTORY
1984-1985

Funding Agency Lilly Endowment

Principal Investigator *William McCready*

The Historical Statistics project is designed to produce a datafile containing all the available statistics from the Directories beginning with the year 1915. These will be used to create longterm trend data concerning such topics as the availability of clergy, seminarians, and other religious personnel, as well as marking other institutional changes.

ANALYSIS OF THE UNITED STATES FILE FROM THE INTERNATIONAL VALUES STUDY
1984-1985

Funding Agency CARA

Principal Investigator *William McCready*

These data are from a survey that has been replicated in thirty countries and is being analyzed by an international, interdisciplinary group of scholars. The international work is being done in collaboration with scholars at the Allensbach Institut für Demoskopie in Germany. The survey is a broadly based study of values concerning many topics, including family, work, religion, politics, and culture.

Economics Research Center

LOCAL LABOR MARKETS
1982-1983

Funding Agency U.S. Department of Labor

Principal Investigators *George Neumann, Robert Topel*

This research examined the causes and consequences of patterns of spatial equilibrium in geographically separated labor markets, and the forces that cause secular change in that equilibrium. The theoretical and empirical analyses focused on such questions as why the long-run level of unemployment is traditionally higher in some regions and why local labor markets respond differently in both timing and sensitivity to the aggregate cycle.

STUDY ON METHODS OF ANALYZING LONGITUDINAL DATA
1982-1984

Funding Agency U.S. Department of Labor

Principal Investigators *James Heckman, Richard Robb*

This project is investigating statistical and methodological procedures for analyzing the effects of manpower training programs. An important feature of the work has been to develop a class of estimators that allow for control of selection bias that arises from nonrandom assignment of persons to programs.

RACIAL WAGES AND EMPLOYMENT IN SOUTH CAROLINA INDUSTRIAL LABOR MARKET: 1910-1978
1980-1984

Funding Agency National Science Foundation

Principal Investigator *James Heckman*

The purpose of this study is to collect and study the time series of wage rates and employment by race and sex for industrial workers in South Carolina for the period 1910-1978. The data will be used to study three explanations of black economic progress in the state: improved education, affirmative action programs, and tight labor markets.

INCENTIVE COMPENSATION SYSTEMS AND PRIZES
1980-1983

Funding Agency National Science Foundation

Principal Investigator *Sherwin Rosen*

This project concerned incentive systems and labor contracts in which the predominant market organization is rank-order tournaments or contests. Other areas studied included the assignment of workers to managers and the size distribution of firms in general equilibrium, the distribution of income in such economies, and equalizing wage differentials for employment risk in labor markets.

STRUCTURAL DYNAMIC MODELS
1981-1984

Funding Agency National Science Foundation

Principal Investigator *James Heckman*

This is a collaborative research project on the formulation and estimation of dynamic models of labor supply, unemployment, job turnover, occupational mobility, and wage growth. One of its goals is the integration of modern labor market theory into empirical analysis of the dynamics of the labor market.

COMPENSATION AND PRODUCTIVITY
1982-1984

Funding Agency U.S. Department of Labor, Employment and Training Administration

Principal Investigators *Edward Lazear, Robert Michael*

This study concerned the relationship between the type of compensation individuals receive and their productivity on the job. The principal investigators studied federal regulations on labor laws, taxation, and compensation, and how these affect worker productivity.

MULTIPLE IMPUTATIONS FOR OCCUPATION CODES
1983-1986

Funding Agency National Science Foundation

Principal Investigator *Donald Rubin*

This project entails the development, implementation, and evaluation of multiple imputation procedures potentially having very general applicability to a variety of problems of incomplete data: non-response in surveys, data sets whose classifications have changed over time, and statistical matching of files.

STUDIES IN APPLIED ECONOMICS
1983-1986

Funding Agency National Science Foundation

Principal Investigator *Sherwin Rosen*

This project addresses several problems in applied economics. It includes a time series study of investment in single-family houses in the United States, and also will include an empirical study of entry dynamics in professional labor markets, and the completion of a book on the spatial approach to labor markets.

STUDIES OF THE ECONOMICS OF THE FAMILY
1980-1984

Funding Agency National Institute of Child Health and Human Development

Principal Investigators *Michael/Becker/Heckman/MaCurdy/Lazear/Willis*

The objective of this three-year program of research was to better understand U.S. demographic behavior in the post-war era, and the relationship between this behavior and the changes taking place in the American family.

DISTRIBUTION OF INCOME AND EQUALITY OF OPPORTUNITY
1982-1985

Funding Agency National Science Foundation

Principal Investigators *Gary Becker, Nigel Tomes*

This research concerns analyses of an equilibrium theory of the distribution of income, and studies inequality of opportunity and intergenerational mobility. At an empirical level, data sets will be used containing information on three-generation families, in order to test some of the predictions of the theory that, holding constant the characteristics of parents, the income, wealth, and other characteristics of grandparents and other family members will enter as significant predictors of the success of children.

MODELING LONGITUDINAL MICRODATA
1982-1986

Funding Agency — U.S. Department of Health and Human Services, National Institute of Child Health and Human Development

Principal Investigators — *James Heckman, Burton Singer*

This study investigates statistical methods of longitudinal data analysis with applications in demography, economics, and medicine. A key goal of the research is the development of nonparametric, data-sensitive procedures that enable analysts to incorporate and test the predictions of relevant social or biological theories.

MALE-FEMALE DIFFERENCES IN JOB MOBILITY
1983-1985

Funding Agency — National Institute of Child Health and Human Development

Principal Investigator — *Reuben Gronau*

The major objective of this project is to estimate how wages of men and women are influenced by sex-specific human capital investments associated with interfirm mobility. The investigator is studying the relationships between job turnover and optimal investment in job training.

INTERNATIONAL POPULATION STUDIES
1983-1985

Funding Agency — The Hewlett Foundation

Principal Investigator — *Robert Michael*

This grant supports the work of the Economics Research Center on population issues, especially policy issues relevant to developing countries. A particular focus of the project will be the training of foreign students.

ECONOMIC ANALYSIS OF FAMILY AND DEMOGRAPHIC CHANGE
1984-1986

Funding Agency — National Institute of Child Health and Human Development

Principal Investigator — *Robert Michael*

This grant establishes a research center (an NIH P-30 Center) whose objective is to understand better the demographic behavior of families in the postwar era and to investigate the relationship between this behavior and the changes taking place in the American family. Tools of economic science are to be used to study the interplay among demographic phenomena, economic and social behavior, and the functions of the family as a social institution.

LIFE CYCLE FERTILITY AND FEMALE LABOR FORCE EXPERIENCE
1984-1985

Funding Agency — National Institute of Child Health and Human Development

Principal Investigators — *Joseph Hotz, Robert Miller*

The objective of this research is to improve our understanding of the dynamic relationship between fertility and female labor force participation over the life cycle. A three-stage project involving the development of theoretical models and econometric models of fertility and labor force participation decisions will be carried out, along with an empirical analysis of these models.

ANALYSIS OF FAMILY EVENTS HISTORIES OF THE HIGH SCHOOL CLASS OF 1972
1984-1988

Funding Agency National Institute of Child Health and Human Development

Principal Investigators *Robert Michael, Robert Willis*

This project will investigate how an individual's living arrangement and family structure interact with his or her flows of money and time resources. Two economic flows will be studied: the flow of money from parents to the subject for financing college, and the flow of money and time from the subject to his or her children, especially from non-custodial, divorced parents. A supplement to the 1986 reinterview of the NLS-72 sample is a major component of this project.

EMPIRICAL ANALYSIS OF THE TIMING AND SPACING OF BIRTHS
1984-1985

Funding Agency National Institute of Child Health and Human Development

Principal Investigator *James Heckman*

The goal of this project is to analyze two longitudinal data sets—one from the United States and another from Sweden—using integrated multistate models that control for time varying variables and unobserved heterogeneity to systematically investigate the socioeconomic determinants of the timing and spacing of births over the life cycle.

POLICY ANALYSIS OF NCES DATA ON THE HANDICAPPED
1982-1983

Funding Agency U.S. Department of Education

Principal Investigators *Carol Stocking, Christopher Winship*

This project began as a policy-oriented analysis of the school experiences of students who identified themselves as handicapped in the High School and Beyond baseyear questionnaire. When followup data revealed that the same students did not consistently identify themselves as handicapped, the research was refocused to explore the reasons for this inconsistency.

CALIFORNIA ASSESSMENT PROGRAM
1984-1985

Funding Agency State of California

Principal Investigators *Robert Mislevy, Darrell Bock*

This project performs psychometric activities—item calibration and scale-score evaluation—for the California Assessment Program (CAP). It employs a unique system of school-level scoring that enables CAP to work with school-level summary data from its multiple-matrix samples of item responses, rather than pupil-level data.

CONTRIBUTION TO COMPUTERIZE ADAPTIVE TESTING
1983-1984

Funding Agency Defense Contract Administration Services, U.S. Department of the Navy

Principal Investigator *Darrell Bock*

The purpose of this research was to develop psychometric models appropriate to item analysis, calibration, and test scoring, for use in an Armed Services adaptive testing project. This involves the development and implementation of marginal maximum likelihood methods, as appropriate to the adaptive testing setting.

THEORY OF DIAGNOSTIC INFERENCE
1983-1986

Funding Agency Office of Naval Research

Principal Investigators *Robin Hogarth, Hillel Einhorn*

The purpose of this three-year project is to develop a qualitative model for studying scenario generation, understanding, and evaluation; to test the implications derived in this model experimentally; and to examine the normative implications of treating inference as either a decomposed or a holistic process.

MAINTENANCE OF APTITUDE SCALES IN A COMPUTERIZED TESTING ENVIRONMENT
1984-1985

Funding Agency Educational Testing Service

Principal Investigator *Darrell Bock*

This project was designed to develop and compare four methods of online item calibration for the adaptive Armed Services Vocational Aptitude Battery (ASVAB).

PROCESSES OF LEARNING IN PROBABILISTIC ENVIRONMENTS
1983-1985

Funding Agency National Science Foundation

Principal Investigator *Joshua Klayman*

This research examines the environmental characteristics that help or hinder the learning of probabilistic relationships, and the cognitive processes through which such learning can be accomplished. This research is aimed at increasing our understanding of how people develop "expertise" through direct experience.

Social Policy Research Center

STUDY OF MICHIGAN AFDC—FOOD STAMP CONSOLIDATED DEMONSTRATION PROECT
1982-1983

Funding Agency Michigan Department of Social Services

Project Director *Cynthia Thomas*

NORC assisted the state of Michigan in an experiment to consolidate the application procedures and eligibility criteria for Food Stamp and AFDC programs.

YOUNG PARENTS PROGRAM EVALUATION
1983-1985

Funding Agency Illinois Department of Public Aid

Principal Investigators *John Schuerman, Fred Wulczyn*

This study is an evaluation of the funding agency's Young Parents Program, designed to reduce public aid dependency among young mothers and to encourage participants to delay future childbearing. The evaluation rests on the comparison of results from two waves of interviews conducted with experimental and control groups.

COMPARISON OF PRIVATE AND PUBLIC SOCIAL SERVICE PROGRAMS
1983-1985

Funding Agency Price Waterhouse

Project Director *Harold Richman*

NORC is a subcontractor on this project to develop an inventory of public and private providers of in-home support services for the elderly and disabled, residential care for children and youth, and alcoholism services in Boston, Denver, and Memphis for the U.S. Department of Health and Human Services. A second part of the study will select public, public/private, and private service providers for more detailed examination.

SURVEY OF GENERAL ASSISTANCE
1984-1985

Funding Agency The Chicago Community Trust, Illinois Department of Public Aid

Principal Investigator *Harold Richman*

The Chicago Community Trust and the Illinois Department of Public Aid funded a study of Chicago residents who receive benefits from General Assistance, the state-administered welfare program. Four hundred new recipients were interviewed to better describe the work histories, welfare histories, and support mechanisms of the Chicago general assistance population; six months later they were interviewed again to assess their experiences with the program.

FEDERALISM, EQUITY, AND EDUCATIONAL POLICY
1980-1983

Funding Agency National Institute of Education

Principal Investigator *Paul E. Peterson*

This study examined empirically the way educational equity is affected by the structural factors that create differences between central and local governments. The processes of the implementation of six federal educational policies were examined in four large cities, using a comparative case study approach.

THE STRUCTURE OF THE SCHOOL AND THE RESPONSE OF THE STUDENT
1981-1983

Funding Agency The Spencer Foundation

Principal Investigator *Thomas DiPrete*

The purpose of this study was to analyze student orientations toward the normative structure of schools, as measured by students' tendencies to participate in, rebel against, or withdraw from the social life of the schools. The analysis consisted of an investigation of the relationship between students' reports of discipline problems and delinquent activities and their academic programs, participation in school activities, and feelings of integration into the school.

CONTINUITY VS. CHANGE IN COGNITIVE SKILLS, SOCIAL VALUES
1981-1983

Funding Agency The Spencer Foundation

Principal Investigator *Lutz Erbring*

This project examined whether, to what extent, and in what respects two important institutions of social continuity—school and the family—have declined in effectiveness over the past decade. With respect to school, the analysis focused on cognitive achievement as the principal criterion; with respect to the family, it focused on criteria more loosely defined in terms of cultural values and attitudes associated with the relationship between self and society.

SOCIAL RECRUITMENT OF HIGH SCHOOL YOUTH

1981-1983

Funding Agency The Spencer Foundation

Principal Investigator *Noah Lewin-Epstein*

The purpose of this study was to describe and analyze certain processes taking place during adolescence that select teenagers into a number of social settings and possibly result in differential experience. The analytic focus was on employment course and program selection among cohorts and by individuals.

PARENTS' ASPIRATIONS AND THEIR EFFECTS

1981-1983

Funding Agency The Spencer Foundation

Principal Investigator *Rachel Rosenfeld*

This study used data from the parents' survey of High School and Beyond to analyze the formation and effects of parental expectations and aspirations for their children. It also focused on the extent of parents' and students' knowledge about post- secondary education, and on parents' ability and willingness to contribute to their child's further education.

HISPANIC STUDENTS AND U.S. SCHOOLS: LANGUAGE AND ACHIEVEMENT

1981-1983

Funding Agency The Spencer Foundation

Principal Investigator *François Nielsen*

This study focused on school delay in the Hispanic student population and its effect on the student, linguistic assimilation and maintenance, and cognitive outcomes of schooling for Hispanics. It also addressed the issues of segregation and desegregation of Hispanics, and bilingual-bicultural education and its impact on academic achievement.

EXPECTATIONS OF YOUTH CONCERNING TRANSITIONS

1981-1983

Funding Agency The Spencer Foundation

Principal Investigators *Dennis Hogan, Amy Ong Tsui*

This study was designed to produce information about the normative expectations of two adolescent school-grade cohorts regarding the timing and ordering of five transition events marking the passage to adulthood.

CHILDREN'S POLICY RESEARCH PROJECT

1981-1985

Funding Agency The Bush Foundation, The Joyce Foundation, The Chicago Community Trust, Pittway Charitable Foundation, MacArthur Foundation, Bowman Lingle Trust

Principal Investigators *Harold Richman, Mark Testa*

These grants were made to further the work of the Children's Policy Research Project, whose objective is to reassess the relations of children to the state. Initial empirical and analytic work focuses on Illinois. The Children's Policy Research Project publishes a series of research reports called *The Child in Illinois.*

The first two volumes were *The State of the Child*, published in 1980, and *Children and the State: Responsibilities and Expenditures*, published in 1983. The third volume will be a history of children's policy in Illinois. Work is currently underway on an update of *The State of the Child* to be published in December, 1985.

IMPROVING THE ANALYSIS AND UTILIZATION OF CHILD WELFARE INFORMATION SYSTEMS

1983-1985

Funding Agency: The Edna McConnell Clark Foundation

Principal Investigator: *Mark Testa*

A cooperative venture between SPRC and the Illinois Department of Children and Family Services (DCFS) to integrate research and administrative uses of computerized data systems to improve child welfare decisions at all levels. The project entails the construction of a longitudinal database from the administrative records of 80,000 children who have come under the guardianship or supervision of the state since 1976. Access to the database is being provided to direct service workers and managers through a network of micro-computers located in two pilot sites in the Chicago and Moline DCFS field offices.

ADOLESCENT PARENT AFDC SURVEY

1981-1982

Funding Agency: The Joyce Foundation, Illinois Department of Public Health

Principal Investigator: *Mark Testa*

This is a study of single mothers under the age of 18 and on AFDC. It is being conducted jointly with the Illinois Department of Public Aid, and is directed toward achieving a comprehensive understanding of the circumstances and conditions of teenage parenthood.

ADOLESCENT FAMILY LIFE

1982-1985

Funding Agency: Office of Adolescent Pregnancy, Public Health Service, U.S. Department of Health and Human Services

Principal Investigator: *Harold Richman, Mark Testa*

This study is a longitudinal survey of 500 young mothers living in Cook County who are receiving or have received AFDC. The study focuses on the social supports and services available to the young mothers and how the use of public, private, and family assistance is related to school and job accomplishments and to the pregnancy experiences of these young women.

PUBLIC/PRIVATE CHILDREN'S SERVICES

1982-1983

Funding Agency: Prince Charitable Trusts

Principal Investigator: *Malcolm Bush*

This grant supports a book being written by Malcolm Bush, Research Associate of the Social Policy Research Center. The book examines the historical and contemporary role of the private sector in the development and provision of social services to children and youth in Illinois.

MANUSCRIPT FOR A THEORY OF SOCIAL ACTION
1983-1984

Funding Agency Russell Sage

Principal Investigator *James Coleman*

This contribution to sociological theory will present a conceptual basis for modeling systems of social action and methods for their analysis at a macrosocial or systemic level. Marriage markets, intergenerational and intragenerational patterns of occupational mobility, systems of resource exchange among interest groups attempting to influence government policy, and systems of community decision-making involving interacting community elites are among those social processes for which specific modeling applications and data analyses will be conducted.

EDUCATIONAL OUTCOMES OF PUBLIC AND PRIVATE SCHOOLS
1984-1985

Funding Agency Smith Richardson Foundation

Principal Investigator *James Coleman*

This project is a followup to the work done by Coleman, Hoffer, and Kilgore on differences between American public and private high schools. The data being analyzed are from the High School and Beyond baseyear (1980) and first followup (1982) surveys.

EDUCATIONAL OUTCOMES FROM THE SCHOOL AS A SOCIAL UNIT
1984-1985

Funding Agency The Spencer Foundation

Principal Investigator *James Coleman*

This project is a pioneering study of the ways in which the social organization—particularly its informal aspects—of high schools affects students' achievement, discipline behavior, rates of dropping out, and plans for postsecondary education. The data are from the first two waves of the High School and Beyond survey.

NORC PUBLICATIONS: 1983-84

NORC PUBLICATIONS 1983-84

Abowd, Anthony M.; Abowd, John M.; and Killingsworth, Mark R.: "Race, Spanish origin and earnings differentials among men: The demise of two stylized facts." ERC/NORC Discussion Paper no. 83-11. May, 1983. 48p.

Abowd, John M. and Card, David: "Intertemporal substitution in the presence of long term contracts." ERC/NORC Discussion Paper no. 83-18. September, 1983. 47p.

Abowd, John M. and Killingsworth, Mark R.: "Do minority/white employment differences really exist?" ERC/NORC Discussion Paper no. 83-4. 29p.

Abowd, John M. and Killingsworth, Mark R.: "Sex discrimination and atrophy: A case study of the male-female wage differential." ERC/NORC Discussion Paper no. 83-3. Revised February, 1983. 31p.

Abowd, John M. and Manaster, Steven: "A general model of employment contracting: An application of option theory." ERC/NORC Discussion Paper no. 83-5. Revised January, 1983. 61p.

Alwin, Duane F. and Krosnick, Jon A.: "The measurement of values for children: A comparison of ratings and rankings." GSS Technical Report no. 40. April 1983. 43p.

Bartot, Virginia Harris: "Structural changes in the national education community, 1956-1983." Paper presented at the meetings of the Society for the Study of Social Problems, Detroit, August, 1983. 26p.

Becker, Gary S.: "Human capital, effort, and the sexual division of labor." *Journal of Labor Economics,* v. 3, no. 1, January, 1985, Supplement, pp. S33-S58. (Originally ERC/NORC Discussion Paper no. 83-20.)

Becker, Gary S. and Tomes, Nigel: "Human capital and the rise and fall of families." ERC/NORC Discussion Paper no. 84-10, June, 1984, revised October, 1984. 67p.

Blank, Grant and Norton, Andrew A.: "Converting SPSS-X system files to SAS datasets." *Proceedings of the 8th Annual SUGI (SAS Users Group, International) Conference, New Orleans, January, 1983.* Gary, NC, SAS Institute, 1983.

Bova, Patrick: "The poll and survey report collection of the NORC Library, University of Chicago." *Illinois Libraries,* v. 66, no. 4, April 1984, pp. 166-168.

Bradburn, Norman M.: "An information processing approach to recall in surveys." Paper presented at the meetings of the American Association for Public Opinion Research, Lake Delavan, Wisconsin, May 1984. 17p.

Bradburn, Norman M.: "Response effects." IN Peter H. Rossi, and others, eds. *Handbook of survey research.* New York, Academic Press, 1983, pp. 289-328.

Bradburn, Norman M. and Danis, Catalina: "Potential contributions of cognitive sciences to survey questionnaire design." Paper presented at the Conference on Cognitive Aspects of Survey Methodology, St. Michael's, MD, June, 1983. 48p.

Burich, Mary C.; Cromwell, Jerry; and

Spencer, Bruce: *Physicians' Practice Costs and Incomes Survey: Final pretest report.* September, 1984. ii,114p.

Burt, Ronald S.: "Network items and the General Social Survey." GSS Technical Report no. 53. Fall, 1984. 52p.

Cafferty, Pastora San Juan; Chiswick, Barry R.; Greeley, Andrew M.; and Sullivan, Teresa A.: *The dilemma of American immigration:* Beyond the golden door. New Brunswick, NJ, Transaction Books, 1983. xv,214p.

Campbell, Susan; Atkinson, Jean; and McWilliams, Harold: *U.S. Postal Service employee newsletters: Do they deliver?* A report on a survey of craft employees in the Central Region. June, 1983. viii,59p.

Chan, James L.; Clark, Terry, N.; and Troha, Margaret A.: "Organizational slack in municipal governments: A cost variance analysis." *Journal of Urban Affairs,* v. 5, no. 2, Spring, 1983, pp. 95-108.

Clark, Terry Nichols: "Local fiscal dynamics under old and new federalisms." *Urban Affairs Quarterly,* v. 19, no. 1, September, 1983, pp. 55-74.

Clark, Terry N. and Ferguson, Lorna C.: *City money: Political processes, fiscal strain, and retrenchment.* New York, Columbia University Press, 1983. ix,440p. (Contains an appendix on the history and composition of the Permanent Community Sample.)

Davis, James A.: "Counting your change for a ten: America from 1972 to 1982 as reflected in the NORC General Social Survey." GSS Technical Report no. 43. June, 1983. 52p.

Davis, James A.: "Extending Rosenberg's technique for standardizing percentage tables." *Social Forces,* v. 62, no. 3, March, 1984, pp. 679-708.

Davis, James A.: "Five well-established research results: Probably true, teachable in introductory sociology, and worth teaching." *Teaching Sociology,* v. 10, no. 2, January, 1983, pp. 186-210.

Davis, James A.: "New money, an old man/lady and 'two's company': Subjective welfare in the NORC General Social Surveys, 1972-1982." *Social Indicators Research,* v. 15, no. 4, November, 1984, pp. 319-350.

Davis, James A.; Lauby, Jennifer; and Sheatsley, Paul B.: *Americans view the military: Public opinion in 1982.* April, 1983. (NORC Report no. 131) ix,121p. (Includes "A question wording experiment," by Jennifer Lauby, Appendix E, 10p.)

Davis, James A. and Smith, Tom W.: *General Social Surveys, 1972-1983: Cumulative codebook.* Chicago, NORC, July, 1983. vi,453p.

Davis, James A. and Smith, Tom W.: *General Social Surveys, 1972-1984: Cumulative codebook.* Chicago, NORC, July, 1984. vi,483p.

Dempsey, Glenn R.: "Measuring political ideology and social status: A comparison of U.S. and European scales used in the 1983 General Social Survey." GSS Technical Report no. 45, September, 1984. 14 p.

DiPrete, Thomas A. and Gallaher, Harry E.: "Socialization, commitment and high school achievement." January, 1984. 25p.

ERC/NORC: "Economic analysis of the family and demographic change." Final report to NICHD. ERC/NORC Discussion Paper no. 84-6. May, 1984. 86p.

Edwards, W. Sherman: "Interviewer training for the Soviet Interview Project." Paper presented at the National Field Director's Conference, Phoenix, AZ, May, 1983, 24p.

Flinn, Christopher J. and Heckman, James J.: "The likelihood function for the multistate-multiepisode model in 'Models for the analysis of labor force dynamics.'" ERC/NORC Discussion Paper no. 83-10. April, 1983. 10p.

Frankel, Martin: "Sampling theory." IN Peter H. Rossi and others, eds.: *Handbook of survey research.* New York, Academic Press, 1983, pp. 21-67.

Fuchs, Ester R., and Shapiro, Robert Y.: "Government performance as a basis for machine support." *Urban Affairs Quarterly,* v. 18, no. 4, June, 1983, pp. 537-550.

Greeley, Andrew M.: "Religious imagery as a predictor variable in the General Social Survey." Paper presented at the meetings of the Society for the Scientific Study of Religion, Chicago, October, 1984. 40p.

Hagstotz, Werner: "Is there a 'legitimacy gap'?" Discrepancies between government policies and public opinion." GSS Technical Report no. 54. 1984. (Revised version of a paper presented at a conference at Harvard University, September, 1982.) 38p.

Heckman, James J.: "The x^2 goodness of fit statistic for models with parameters estimated from microdata." *Econometrica*, v. 52, no. 6, November, 1984, pp. 1543-1547.

Heckman, James J. and Robb, Richard: "Using longitudinal data to estimate age, period, and cohort effects in earnings equations." ERC/NORC Discussion Paper no. 83-9. January, 1983. 21p.

Heckman, James J. and Singer, Burton: "A method for minimizing the impact of distributional assumptions in econometric models for duration data." *Econometrica*, v. 52, no. 2, March, 1984, pp. 271-320.

Heeringa, Steven G. and Connor, Judith H.: "The 1980 SRC/NORC national sample design and development." Ann Arbor, MI, Institute for Social Research, Sampling Section, February, 1984. ii,112p.

Hicks, Alexander: "Elections, Keynes, bureaucracy, and class: Explaining U.S. budget deficits, 1961-1978." *American Sociological Review*, v. 49, no. 2, April, 1984, pp. 165-182.

Hicks, Alexander and Fligstein, Neil: "Reevaluating the uses of status: The case of earnings determination." *Social Science Research*, v. 13, no. 1, March, 1984, pp. 90-110.

High School and Beyond: *Course offerings and course enrollments survey (1982): Data file users manual.* July, 1983.

High School and Beyond: *Transcripts survey (1982):* Data file users manual. July, 1983.

High School and Beyond: *First follow-up school questionnaire: Data file user's manual.* June, 1983. iv,33p. plus codebook (70p.), plus questionnaires and other appendixes (66p).

High School and Beyond: *1980 senior cohort first follow-up (1982): Data file user's manual.* April, 1983. vi,76p. plus codebook (183p.), plus questionnaires.

High School and Beyond: *1980 sophomore cohort first follow-up: Data file user's manual.* April, 1983. vii,77p. plus codebook, (264p.) plus questionnaires and other appendixes (310p).

Hoffer, Thomas; Greeley, Andrew M.; Coleman, James S.: "Achievement growth in public and Catholic schools." June, 1984. 95p.

Hortsmann, Ignatius; MacDonald, Glenn M.; and Slivinski, Alan: "Patents as information transfer mechanisms: To patent or (maybe) not to patent." ERC/NORC Discussion Paper no. 83-22. November, 1983. 41p.

Hugi, Rob: Children and the state: Responsibilities and expenditures. Volume 2 of a series of research reports on children in Illinois. Chicago, Childrens Policy Research Project, NORC and School of Social Service Administration, University of Chicago, 1983. xvi,197p.

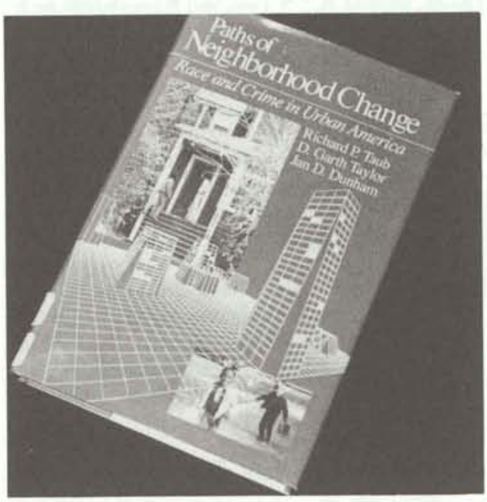
Journal of Labor Economics, v.1, January, 1983-. Published by The Univesity of Chicago Press in conjunction with the Economics Research Center at NORC.

Kiefer, Nicholas M.; Lundberg, Shelly J.; and Neumann, George R.: "How long is a spell of unemployment?: Illusions and biases in the use of CPS [Current Population Survey] data." ERC/NORC Discussion Paper no. 83-12. June, 1983. 33p.

Kiefer, Nicholas M. and Skogg, Gary R.: "Local asymptotic specification error analysis." *Econometrica*, v. 54, no. 4, July, 1984, pp. 873-885.

Killingsworth, Mark R.: "Union-nonunion wage gaps and wage gains: New estimates from an industry cross-section." *Review of Economics and Statistics*, v. 65, no. 2, May, 1983, pp. 332-336.

Krauth, Cornelia: "Attitudes toward women's role—A comparative analysis based on the 1977 NORC General Social Survey and the German General Social Survey (ALLBUS)." GSS Technical Report no. 52. October, 1984, 17p.



Lazear, Edward P.: "Salaries and piece rates." ERC/NORC Discussion Paper no. 83-15. June, 1983. 48p.

Lazear, Edward P. and Michael, Robert T.: "Compensation and productivity: Final report." February, 1984. 234p.

Lazear, Edward P. and Michael, Robert T.: "Estimating the personal distribution of income with adjustment for within-family variation." ERC/NORC Discussion Paper no. 84-12. December, 1984. 36p.

Lewin-Epstein, Noah: "The educational experience in comprehensive and differentiated systems of schooling: A comparative analysis." 39p.

Loft, John D. and Sheatsley, Paul B.: *Final report on the National Ambulatory Medical Care Survey.* Submitted to National Center for Health Statistics. January, 1983. 112p.

McCready, William C., editor: *Culture, ethnicity, and identity: Current issues in research.* New York, Academic Press, 1983. xxi,450p.

McCready, William C.; Greeley, Andrew M.; and Theisen, Gary: "Ethnicity and nationality in alcoholism." IN Benjamin Kissin and Henri Begleiter, eds.: *The pathogenesis of alcoholism: Psychosocial factors.* (The Biology of Alcoholism, Volume 6.) New York, Plenum, 1983, pp. 309-340.

McCubbins, Mathew D. and Page, Benjamin I.: "Rational public opinion and its measurement." Paper presented at the meetings of the Midwest Political Science Association, Chicago, April, 1984. 48p.

MacDonald, Glenn M.: "Equilibrium job mobility." ERC/NORC Discussion Paper no. 83-17. August, 1983. 29p.

MacDonald, Glenn M.: "New directions in the economic theory of agency." ERC/NORC Discussion Paper no. 84-7. April, 1984. 50p.

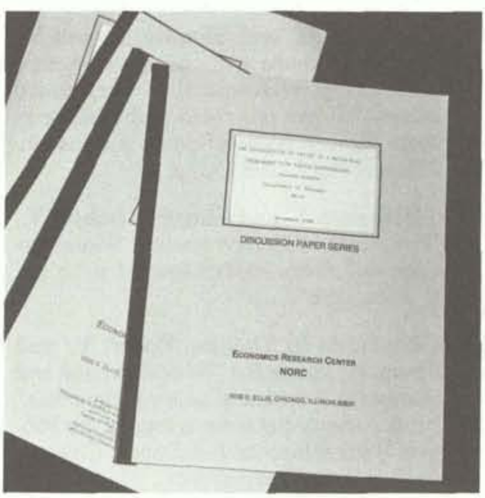
MacDonald, Glenn M. and Markusen, James R.: "A rehabilitation of absolute advantage." ERC/NORC Discussion Paper no. 84-5. May, 1984. 33p.

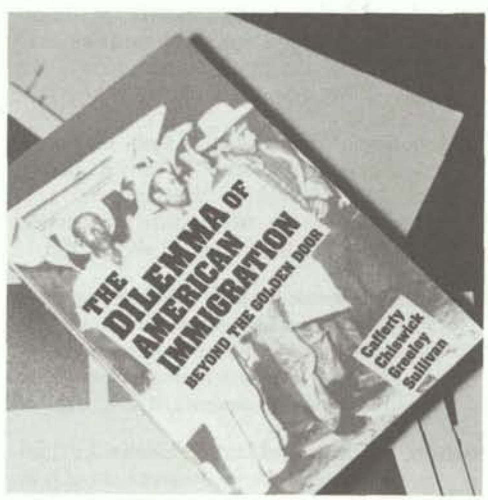
MacDonald, Glenn M. and Robinson, Chris: "Cautionary tails about arbitrary deletion of observations (or: Thowing the variance out with the bathwater)." ERC/NORC Discussion Paper no. 84-11. Revised July, 1984. 46p.

MacDonald, Glenn M. and Slivinski, Alan D.: "Efficiency and the structure of production." ERC/NORC Discussion Paper no. 83-21. December, 1983. 50p. (Revised version of University of Western Ontario Research Report no. 8322; presented at the Winter 1983 meetings of the Econometric Society, San Francisco, California.)

McElroy, Marjorie B.: "The joint determination of household membership and market work: The case of young men." ERC/NORC Discussion Paper no. 83-1. Preliminary. January, 1983. 35p.

Mare, Robert D. and Winship, Christopher: "The paradox of lessening racial inequality and joblessness among black youth: Enrollment, enlistment, and employment, 1964-1981." *American Sociological Review,* v. 49, no. 1, February, 1984, pp. 39-55. (Originally ERC/NORC Discussion Paper no. 83-14.)





Mare, Robert D.; Winship, Christopher; and Kubitschek, Warren N.: "The transition from youth to adult: Understanding the age pattern of employment." *American Journal of Sociology,* v. 90, no. 2, September, 1984, pp. 326-358. (Originally ERC/NORC Discussion Paper no. 83-2.)

Michael, Robert T.: "Consequences of the rise in female labor force participation rates: Questions and probes." *Journal of Labor Economics,* v. 3, no. 1, January, 1985, Supplement, pp. S117-S146. (Originally ERC/NORC Discussion Paper no. 83-8.)

Michael, Robert T. and Tuma, Nancy Brandon: "Entry into marriage and parenthood by young adults." ERC/NORC Discussion Paper no. 83-6. April, 1983 (September, 1982 draft). 49p.

Michael, Robert T. and Tuma, Nancy Brandon: "Youth employment: Does life begin at 16?" *Journal of Labor Economics,* v. 2, no. 4, October, 1984, pp. 464-476. (Originally ERC/NORC Discussion Paper no. 83-7.)

Mislevy, Robert J.: "Estimation of latent group effects." Psychometric Technical Report no. 2, August, 1983. 31p.

Mooney, Geraldine M.: "The timing and use of postcards as a follow-up technique in mail surveys." Paper presented at the Field Director's Conference, University of Wisconsin, Madison, May, 1984. 12p.

Morgan, S. Philip: "A research note on religion and morality: Are religious people nice people?" *Social Forces,* v. 61, no. 3, Spring, 1983, pp. 683-692.

Mroz, Thomas A.: "The sensitivity of an empirical model of married women's hours of work to economic and statistical assumptions." ERC/NORC Discussion Paper no. 84-8. October, 1984. 65p.

Nealon, Jack: "The effects of male vs. female telephone interviewers." (SRS Staff Report no. AGES830617.) Washington, U.S. Department of Agriculture, Statistical Reporting Services, June, 1983. ii,28p.

Neumann, George R. and Topel, Robert H.: "Employment risk, sectoral shifts and the geographic distribution of unemployment." ERC/NORC Discussion Paper no. 84-3. Preliminary draft, January, 1984. 41p.

Nielsen, Francois and Lerner, Steven J.: "Language skills and school achievement of bilingual Hispanics." Chapel Hill, NC, University of North Carolina. Revised, February, 1984. 59p.

O'Brien, Mary Utne: "Do sex of interviewer and sex of respondent interact to affect responses when questions are gender-related?" January, 1985. 25p.

O'Brien, Mary Utne: "Methodology of the Air Force Study of Work Groups." January, 1985. To appear as Chapters 3 and 4 of Matthew Black: *Report on the Air Force Study of Work Groups.* Arlington, VA, Systems Research and Applications, Inc. (forthcoming), 1985.

O'Brien, Mary Utne: *Report of a pretest of the survey instrument of the Vietnam Era Twin Study Survey of Health.* Chicago, NORC, August, 1984. iii,50p. plus appendixes (50p.)

O'Brien, Mary Utne and Ingels, Steven J.: *Foundation for Teaching Economics Report: The development of the Economic Values Inventory.* Chicago, NORC, March, 1984. ii,52p. plus appendixes (14p.)

Olson, Lorayn and Rosenfeld, Rachel A.: "Parents and the process of gaining access to student financial aid for higher education." *Journal of Higher Education,* v. 55, no. 4, July/August, 1984, pp. 455-480.

Olson, Lorayn and Rosenfeld, Rachel A.: "Parents, students, and knowledge of college costs." Paper presented at the meetings of the American Sociological Association, San Antonio, TX, August, 1984. 33p.

Page, Benjamin I., and Shapiro, Robert Y.: "Effects of public opinion on policy." *American Political Science Review,* v. 77, no. 1, March, 1983, pp. 175-190.

Page, Benjamin I. and Shapiro, Robert Y.: "The mass media and changes in Americans' policy preferences: A preliminary analysis." Paper presented at the meetings of the Midwest Political Science Association, Chicago, April, 1983. 37p.

Page, Benjamin I. and Shapiro, Robert Y.: "Presidents as opinion leaders: Some new evidence." *Policy Studies Journal,* v. 12, no. 4, June, 1984.

Page, Benjamin I.; Shapiro, Robert Y.; and Dempsey, Glenn R.: "Television news and changes in Americans' policy preferences." Paper presented at the meetings of the Midwest Political Science Association, Chicago, April, 1984. 48p.

Page, Benjamin I.; Shapiro, Robert Y.; Gronke, Paul W.; and Rosenberg, Robert M.: "Constituency, party, and representation in Congress." *Public Opinion Quarterly,* v. 48, no. 4, Winter, 1984, pp. 741-756.

Peters, Elizabeth: "The impact of state divorce laws on the marital contract: Marriage, divorce, and marital property settlements." ERC/NORC Discussion Paper no. 83-19. September, 1983. 41p.

Peterson, Paul E.: *Organizing schools in pluralist America,* 1870-1940. Final report to the U.S. National Institute of Education. Summer, 1983. viii,383p.

Peterson, Paul E.; Rabe, Barry G.; and Wong, Kenneth: *When federalism works.* Final report. Summer, 1984. xiii,321p.

Prewitt, Kenneth: "Management of survey organizations." IN Peter H. Rossi, and others, eds. *Handbook of survey research.* New York: Academic Press, 1983, pp. 123-144.

Prost, Rolf: "Educational aims of the United States of America and in the Federal Republic of Germany: A cross national comparison." GSS Technical Report no. 51, October, 1984, 26p.

Robinson, Chris and Tomes, Nigel: "Union wage differentials in the public and private sectors: A simultaneous equations specification." *Journal of Labor Economics,* v. 2, no. 1, January, 1984, pp. 106-127.

Rosen, Sherwin: "The distribution of prizes in a match-play tournament with single eliminations." ERC/NORC Discussion Paper no. 84-9. November, 1984. 39p.

Rosen, Sherwin: "The equilibrium approach to labor markets." ERC/NORC Discussion Paper no. 83-13. June, 1983. 59p.

Schaeffer, Nora Cate, and Bradburn, Norman M.: "Magnitude scales in the Informal Caregivers Survey." November, 1983. 80p.

Schuerman, John R. and Wulczyn, Fred H.: "Building a social experiment from survey data: Maximizing policy impact." October, 1984. 9p.

Schumaker, Paul David; Getter, Russel W.; and Clark, Terry N.: "Policy responsiveness and fiscal strain in 51 American communities: A manual for studying city politics using the NORC Permanent Community Sample." Washington, American Political Science Association, 1983. iv,61p.

Shapiro, Robert Y. and Gilroy, John M.: "The polls: Regulation - Part I." *Public Opinion Quarterly,* v. 48, no. 2, Summer, 1984, pp. 531-542. "Part II." v. 48, no. 3, Fall, 1984, pp. 666-677.

Shapiro, Robert Y. and Page, Benjamin I.: "Subgroup trends in policy choices: A preliminary report on some theories and findings." Paper presented at the meetings of the Midwest Political Science Association, Chicago, April, 1984. 37p.

Sheatsley, Paul B.: "Health in the nation's values." *Bulletin of the New York Academy of Medicine,* v. 60, no. 1, January-February, 1984, pp. 5-13.

Sheatsley, Paul B.: "Opinion research and election polls." Paper presented at the meetings of the southern chapter, AAPOR, Research Triangle Park, NC, April, 1983. 11p.

Sheatsley, Paul B.: "Questionnaire construction and item wording." IN Peter H. Rossi, and others, eds.: Handbook of survey research. New York, Academic Press, 1983, pp. 195-230.

Singer, Eleanor; Frankel, Martin R.; and Glassman, Marc B.: "The effect of interviewer characteristics and expectations on response." *Public Opinion Quarterly,* v. 47, no. 1, Spring, 1983, pp. 68-83.

Smith, A. Wade: "Cohorts, education, and the evolution of tolerance." 1983, 36p.

Smith, A. Wade: "Old fashioned families as an endangered species." *Social Indicators Research,* v. 13, no. 1, July, 1983, pp. 17-38.

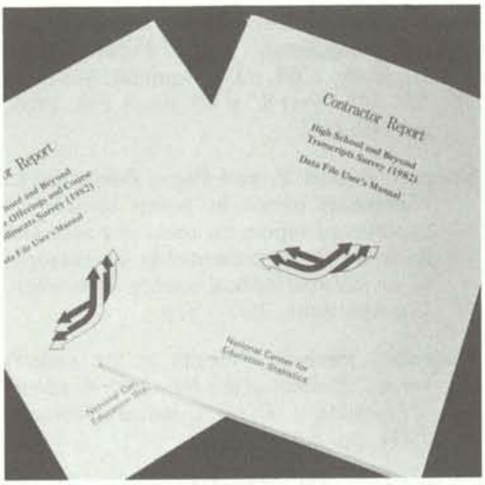
Smith, A. Wade: "Public conciousness of blacks in the military." *Journal of Political and Military Sociology,* v. 11, no. 2, Fall, 1983, pp. 281-300.

Smith, A. Wade and Meitz, June E. G.: "Cohorts, education, and the decline in undisrupted marriages." *Journal of Marriage and the Family,* August, 1983, pp. 613-622.

Smith, A. Wade and Meitz, June, E. G.: "Lifecourse effects on marital disruption." *Social Indicators Research,* v. 13, no. 4, November, 1983, pp. 395-417.

Smith, Tom W.: "American religious mosaic." *American Demographics,* v. 6 no. 6, June, 1984, pp. 19-23.

Smith, Tom W.: "Atop a liberal plateau? A summary of trends since World War II." IN Terry



N. Clark, ed.: *Research in Urban Policy,* volume 1. Greenwich, CT, JAI Press, 1985, pp. 245-257. (Originally a paper presented at the meetings of the Midwest Association for Public Opinion Research, Chicago, November, 1982.)

Smith, Tom W.: "Attitude constraint as a function of non-affective dimensions." GSS Technical Report no. 39. Revised May, 1983. 23p.

Smith, Tom W.: "Children and abortions: An experiment in question order." GSS Technical Report no. 42. July, 1983. 11p.

Smith, Tom W.: "Cycles of reform? A summary of trends since World War II." Paper presented at the meetings of the American Sociological Association, San Antonio, TX, August, 1984. 17p.

Smith, Tom W.: "Estimating nonresponse bias with temporary refusals." *Sociological Perspectives,* v. 27, no. 4, October, 1984, pp. 473-489.

Smith, Tom W.: "An experimental comparison of clustered and scattered scale items." *Social Psychology Quarterly,* v. 46, no. 2, June, 1983, pp. 163-168. (Originally GSS Technical Report no. 36.)

Smith, Tom W.: "The hidden 25 percent: An analysis of nonresponse on the 1980 General Social Survey." *Public Opinion Quarterly,* v. 47, no. 3, Fall, 1983, pp. 386-404. (Originally GSS Technical Report no. 25.)

Smith, Tom W.: "Laughing at the polls: How the comics and cartoons view public opinion surveys." December, 1984. 8p.

Smith, Tom W.: "The polls: American attitudes toward the Soviet Union and communism." *Public Opinion Quarterly,* v. 47, no. 2, Summer, 1983, pp. 277-292.

Smith, Tom W.: "The polls: Gender and attitudes toward violence." *Public Opinion Quarterly,* v. 48, no. 1B, Spring, 1984, pp. 384-396.

Smith, Tom W.: "A preliminary analysis of methodological experiments on the 1984 GSS." GSS Technical Report no. 49. September, 1984. 43p.

Smith, Tom W.: "Recalling attitudes: An analysis of retrospective questions on the 1982 GSS." *Public Opinion Quarterly,* v. 48, no. 3, Fall, 1984, pp. 639-649. (Originally GSS Technical Report no. 35.)

Smith, Tom W.: "Problems in ethnic measurement: Over- and under-misidentification." *Proceedings of the Social Statistics Section, 1983, American Statistical Association,* pp. 107-116. (Originally GSS Technical Report no. 29)

Smith, Tom W.: "Using temporary refusal to estimate non-response bias." GSS Technical Report no. 38. February, 1983 (Revised, April, 1983). 24p.

Smith, Tom W.: "Who, What, When, Where, and Why: An analysis of usage of the General Social Survey, 1972-1983." GSS Technical Report no. 48. August, 1984. 16p.

Smith, Tom W.: "Working wives and women's rights: The connection between the employment status of wives and the feminist attitudes of husbands." GSS Technical Report no. 41. June, 1983, 12p.

Smith, Tom W., and Klaeser, Dennis L.: "Looking backwards: A summary of findings and recommendations." *Historical Methods,* v. 16, no. 1, Winter, 1983, pp. 16-29.

Smith, Tom W. and Peterson, Bruce L.: "A summary evaluation of GSS questions, 1972-1983." GSS Technical Report no. 47. October, 1983. Preliminary version. 18p.

Smith, Tom W. and Ward, Michelle: "Annotated bibliography of papers using the General Social Surveys." 5th edition. Chicago, NORC, May, 1984. 289p.

Stocking, Carol Bowman: "The relationship between secondary and higher education in the United States." Paper presented at the Conference on the Relationship Between Secondary and Higher Education: An Inter-

national View, University of California, Los Angeles, July, 1983. 39p.

Stocking, Carol B. and Owings, Jeffrey A.: *Characteristics of high school students who identify themselves as handicapped.* Prepared for the National Center for Education Statistics. January, 1984. xiv,77p.

Sudman, Seymour and Bradburn, Norman M.: *Asking questions: A practical guide to questionnaire design.* San Francisco, CA, Jossey-Bass, 1983. xvi,397p.

Sudman, Seymour and Bradburn, Norman M.: "Improving mailed questionnaire design." IN Daniel C. Lockhart, ed.: *Making effective use of mailed questionnaires.* (New Directions for Program Evaluation, no. 21.) Beverly Hills, CA, Sage Publications, March, 1984, pp. 33-47.

Suelzle, Marijean; Singleton, Melody; and Rosenfeld, Rachel: "Impact of the fit between students and universities: A comparison of three Chicago area universities and their student bodies." IN *Research in Social Stratification and Mobility,* v. 4: Personal change over the life course. Greenwich, CT, JAI Press, 1983.

Sullivan, Teresa A.; Gillespie, Francis P.; Hout, Michael; and Greeley, Andrew M.: "Surname versus self-identification in the analysis of Hispanic data." *Proceedings of the Social Statistics Section, 1983, American Statistical Association,* pp. 117-122.

Sullivan, Teresa A.; Gillespie, Francis P.; Hout, Michael; and Rogers, Richard G.: "Alternative estimates of Mexican American mortality in Texas, 1980." *Social Science Quarterly,* v. 65, no. 2, June, 1984, pp. 607-617.

Taub, Richard P.; Taylor, D Garth; and Dunham, Jan D.: Paths of neighborhood change: Race and crime in urban America. Chicago, The University of Chicago Press, 1984. xii,264p.

Thissen, David and Steinberg, Lynne: "A reponse model for multiple choice items." Psychometric Technical Report no. 1, December, 1983. 51p.

Tomes, Nigel: "The effects of religion and denomination on earnings and the returns to human capital." *Journal of Human Resources,* v. 19, no. 4, Fall, 1984, pp. 472-488.

Topel, Robert H.: "Equilibrium earnings, turnover, and unemployment: New evidence." *Journal of Labor Economics* v. 2, no. 4, October, 1984, pp. 500-522.

Topel, Robert H.: "Local labor markets." ERC/NORC Discussion Paper no. 84-1. Revised December, 1983. 48p. (An earlier draft was presented at the Hoover Institution Conference on Labor Markets, January, 1983.)

Tourangeau, Roger H.: "Attitudes measurement: A cognitive perspective." Paper presented at the meetings of the American Association for Public Opinion Research, Lake Delavan, WI, May, 1984. 17p.

Tourangeau, Roger: "Cognitive science and survey methods." Paper presented at the Conference on Cognitive Aspects of Survey Methodology, St. Michael's MD, June 1983. 40p.

Weiss, Yoram and Willis, Robert J.: "Children as collective goods and divorce settlements." ERC/NORC Discussion Paper no. 84-4. February, 1984. 29p.

Willis, Robert J.: "Life cycles, institutions, and population growth: A theory of the equilibrium interest rate in the overlapping generations model." ERC/NORC Discussion Paper no. 83-16. July, 1983. 93p.

Winship, Christopher and Mare, Robert D.: "Regression models with ordinal variables." *American Sociological Review,* v. 49, no. 4, August, 1984, pp. 512-525.

Winship, Christopher and Mare, Robert D.: "Structural equations and path analysis for discrete data." *American Journal of Sociology,* v. 89, no. 1, July, 1983, pp. 54-110.

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