RESEARCH ACTIVITIES

Fred R. von der Mehden

Rice University
Houston, Texas

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FINAL REPORT OF RESEARCH ACTIVITIES (U)

By Fred R. von der Mehden, Director
Center for Research in Social Change and Economic Development

William Marsh Rice University
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Houston, Texas 77001

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Center for Research in Social Change and Economic Development
Rice University, Houston, Texas
INTRODUCTION

The Center for Research in Social Change and Economic Development at Rice University, Houston, Texas, was originally established with funds in the amount of $400,000 granted by the Advanced Research Projects Agency to cover operations for a period of two years ending August 31, 1968. Research activities began almost immediately after receipt of the contract, and the Center was formally organized in the fall of 1966. Quickly thereafter a full program of research was inaugurated in accordance with the services to be provided outlined in the contract:

"The research activities of the Center shall include, but not necessarily be limited to, the following general areas: (I) process of urbanization and acculturation in heterogeneous societies; (2) the impact of social-psychological factors upon economic and political development; (3) analysis of the 'Weltanschauung' of various societies; (4) origins of conflict and peaceful means of resolving conflicts; (5) the adaptation of advanced technology and policy to the needs of developing nations; and (6) the psychological and social consequences of the modification and control of the physical environment."

Additional financial support of $250,000 was requested for the period from September 1, 1968 to August 31, 1969; however, since the approval was not received until February, 1969, a no-cost extension of the contract was granted to terminate on February 4, 1970.

The Center operates under a governing body, called the Council, composed of eight faculty members, including representatives of each of the behavioral sciences and the Dean of Humanities and Social Sciences. Research projects are planned by social scientists, most of whom are faculty members of Rice University, and application for funds to support such projects are formally submitted for consideration to the Council of the Center.

Given the large number of projects and variety of subjects covered, it is not possible to summarize work done under the contract in a normal fashion. Instead, an effort has been made to abridge the final reports of the principal investigators of each of the thirty-three projects. Thus, under each project is presented the name of the principal investigator, his title and university, the title of the study, the scope and methodology of the project, its results and publications or reports related to the particular project. At the end of this final report a complete listing of publications under the contract is presented. It should be emphasized that the small space given to each study cannot properly describe many facets of the research undertaken by individual investigators.

The summaries that follow are abridgements of the reports written by the principal investigators themselves.
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Principal Investigators: WILLIAM MCCORD, formerly Fox Professor of Sociology, Rice University; and ABDULLAH LUTFIYYA, formerly Senior Research Associate, Center for Research in Social Change and Economic Development, Rice University.

Title of Project: STUDY OF URBANIZATION AND MIDDLE EASTERN VALUES

Methodology and Scope:

In broadest outline, the goal of the study was to question a large number of men drawn from differentially modern segments of the Middle East concerning their basic values. In all, 3066 men drawn from desert settlements, peasant villages, and cities were interviewed. They ranged from sophisticated professionals to illiterate wanderers. Originally, it was hoped to investigate four countries (Jordan, Lebanon, Egypt, and Libya), but the events of the 1967 Arab-Israeli conflict forced the researchers to limit themselves to Jordan and Lebanon.

Within each nation, they selected four social groups which differed in the degree to which they had been exposed to an industrial-urban milieu: 1) Traditional-Rural Environment, 2) Transitional-Rural Environment, 3) Transitional-Urban Environment, and 4) Modern-Urban Environment.

A final word on sampling: because of the very nature of population statistics in the Middle East (Lebanon, for example, does not even attempt to take a census) it cannot be claimed that the sample is representative in the strictest sense. Rather, the researchers were forced to rely upon their knowledge and experience in the Middle East to make up what seemed to be the closest replica of a representative sample.

Results:

The results of the study are still very tentative since they are currently being analyzed. Up to now, however, it was noted:

1) On every relevant question, urbanized Jordanians and Lebanese indicated less adherence to their religion although they practiced traditional ritual observances.

2) Urbanites believed more often in the efficacy of science in the solving of world problems.

3) As people became more urbanized, fatalism declined.

4) Urbanites have a more developed (in the Western sense) sense of time than the rural people and more often believe that it is necessary to plan ahead more carefully in those matters.

5) Contrary to expectations, rural people were equally receptive to technical advances and change as were urbanites.

6) Urbanites more often said they believed in "hard work" but a majority of neither urban nor rural people appeared convinced that hard work would gain them much.

7) In their relations with other people, urbanites much more often cited reasons of self-interest for their friendships. Traditional rural people, in contrast, overwhelmingly cited need for cooperation as the basis for friendship.
8) Transitional urbanites, who had just entered the city environment, seemed on most issues the most confused in their orientation.

Publications:

Values and Urbanization in the Middle East, New York, W. W. Norton, (expected publication, 1971).

Principal Investigator: EDWARD NORBECK, Professor of Anthropology, Rice University.

Title of Project: A COMPARATIVE ANTHROPOLOGICAL STUDY OF RELIGIOUS AND SOCIAL CHANGE

Methodology and Scope:
This research project is based upon the assumption that relationships of mutual influence exist between religion and the social order. The research sought, by means of comparative study, to draw inference about the nature of these relationships.

Results:
A large body of data was gathered that concerns non-Western societies at various levels of cultural complexity that range from simple tribal societies to industrialized nations. Particular attention was given to religious developments that occur frequently and appear to be concomitants of change in other spheres of culture such as the economic and the social. Among these religious developments are "religious movements," periods of greatly heightened religious activity that have occurred in many hundreds of societies as a response to various stresses of sociocultural change. These movements are known by several names that include the titles nativistic movements, revitalization movements, and millenarian movements. They have sometimes been wholly religious efforts to meet conditions of crisis, and in other societies they have been accompanied by, or been an element of, warfare and other forms of hostility toward foreign societies or subgroups within societies that present threats to existence or to an established way of life. Another common reaction to cultural change has been a turning away from the religious beliefs and practices of the past. Sometimes this has led to religious reformulations—the "movements" discussed above—that involve entire societies or only certain social groups within societies. Another response has been to find secular substitutes for the various functions performed in the past by religious beliefs and practices. Still another noteworthy trend of change that has as yet received little attention by scholars, has been toward the abandonment of certain established rites that appear once to have been widely distributed throughout the world. These institutionalized rites, which the researcher has called "rites of reversal" provide that during certain fixed, and brief, periods, normal conventions of behavior, including moral rules and customs of deference connected with placement in the social
hierarchy, are lifted and the "reverse" of the everyday norms is expected or
demanded. At such times, people may with impunity revile superiors, steal,
indulge in sexual behavior that is immoral at other times, and turn numerous
other conventions "upside down." The near absence of such rites from the
culturally most advanced nations of the world is noteworthy, especially since
all of these societies had such customs in the fairly recent past and linger-
ing echoes of them remain in the festivities of Mardi Gras and Carnival.
Conclusions will be presented in forthcoming publications.

Present Stage of Publication:
Many of the data are being used in the preparation of a book, now in progress, entitled The Anthropology of Religion, to be published by Harper and Row. It is expected that the manuscript will be completed by the fall of 1970. An article entitled "Rituals of Reversal," based in large part upon this research has been completed in first draft.
This research has contributed in some measure to two chapters of books, now in press:


Principal Investigators: ROBERT E. PENDLEY, Assistant Professor of Political Science, Rice University; GEORGE ANTUNES, Instructor in Politi-
cal Science, Rice University.

Title of Project: INTERNATIONAL LINKAGES AND NATIONAL POLICIES

Methodology and Scope:
In order to supplement traditional analyses of important
behaviors of nations based on consideration of purely national characteris-
tics, a first attempt was made at collecting data on variables which reflect
linkages of several kinds between nations, and which may have effects on
national policy outputs (both domestic and foreign).
To get at some simple, historical links, two kinds of data
collection were begun: 1) codification of formal alliance membership patterns,
and 2) historical colonial links. This is complete for all the major regional
and multilateral groupings, and is being expanded in the future.
Several important transactional links have been collected.
Dealing with a total purposive sample of 56 nations, first data were collected
on the total exports and imports of each nation, then total trade with each
of the ten most productive nations in the world; and both these kinds of data
were then sub-divided into four important sub-classes of trade (raw materials
as opposed to finished products, etc.). This was done for each of three years:
1955, 1960, 1965. A second major type of transaction data concerned foreign
aid: the total U.S. economic aid given to each nation for the years was col-
lected; and the total U.S. military aid given to each country was collected
for every post World War II year. As a measure of aid given by nations other
than the U.S., the total aid received by countries from all the developed economies was collected.

Further to assess the relative degree of multilateral as opposed to bilateral aid transactions, all the aid given by seven major international organizations dealing in monetary and technical assistance was collected for each organization, to each nation, for every year from 1945 to 1965.

As a measure of links between decision-making elites of nations, data were collected from original sources dealing with the visits of important political, economic, and military figures to other nations for every year from 1955 through 1965. Temporarily this has been restricted to figures of cabinet-level rank or above; this will be expanded shortly.

In an attempt to specify some important economic links between nations, figures reflecting the total foreign investment in nations were searched for. So far data concerning only the total U.S. and the total U.K. investments in other nations have been found. This search is continuing.

Trying to specify actions by smaller nations to either encourage or discourage links with developed economies, three kinds of variables have been collected. First, the number of expropriations of property or funds was collected for every nation for 1955 through 1965 inclusive; also nationalizations were collected. Finally, the opposite of the former kinds of actions, i.e., attempts at stimulating aid and assistance have been collected for all nations for all years. Major progress was made on the creation and revision of special purpose computer programs to aid in the statistical analysis of the aforementioned data. These will aid in the immediate and ongoing research which should lead to several further research memoranda and publications concerning the results of the anticipated analyses.

- D -

Principal Investigator: DOUGLASS PRICE-WILLIAMS, Professor and Chairman, Psychology Department, Rice University.

Title of Project: A CROSS-NATIONAL STUDY OF COGNITIVE STYLES

Methodology and Scope:
A comparative study on cognitive styles, more specifically psychological differentiation or field dependence, is currently being conducted in four nations. These are 1) Norway (under the direction of Professor Bjorn Christensen, University of Bergen); Holland (under the direction of Professor Mario Bertini, University of the Sacred Heart, Rome); 4) Mexico (under the direction of the Principal Investigator and Professor Manuel Ramirez, formerly employed as Research Associate of the Center for Research in Social Change and Economic Development, Rice University). In each country two locations were chosen--one in which the population was predominantly rural, agrarian and somewhat conservative in habits and outlook; the other in which the population was relatively urban, the economy more technological, and the inhabitants more progressive in outlook and habits.

In each location 100 children were chosen for investigation, thus making a total of 200 for each nation. Both sexes were investigated, and two age samples, 9-11 and 13-15. The children were given a series of tasks aimed at exploring the cognitive differentiation factor, associated
with the name of H. A. Witkin, who was a consultant to the study. In addition, the mothers of the children were interviewed with the intention of exploring the socialization factors thought to be associated with the presence of field dependence, based on previous work.

Results:
The timing of the different researches has not proceeded synchronously. The Dutch sample has been fully completed and analyzed. The Norwegian sample has completed preliminary trials. One Italian sample has been collected. Both Mexican samples have been collected, but the second one is at present in the stage of computer analysis. At the moment of reporting, the Dutch and Mexican conclusion are only presented for inspection.

1) Dutch: Differences in socialization procedures were found in the two villages. In the conservative village socialization fosters obedience, and in the progressive village responsibility is emphasized. This finding was in accordance with the predictions based on general characteristics of the subculture. Conforming to Witkin's hypotheses, differences in socialization procedures were correlated with differences in degree of psychological differentiation of the children. The children in the conservative village showed a lower degree of psychological differentiation than children in the progressive village. Hypotheses about the measures of psychological differentiation were confirmed: there is a close relation between measures of field independence, analytical perception and self-differentiation (as reflected in an articulated body concept). There appeared to be a closer relation between measures of psychological differentiation and the extensiveness of vocabulary than was expected. There is however no reason to assume that differences in general intelligence are sufficient explanation for differences in degree of psychological differentiation. The concept of intelligence appears not to be broader or more fundamental than the concept of psychological differentiation.

2) Mexican: Four hypotheses were tested:
(1) The subject of the more conservative village would obtain scores on the cognitive tests which would be indicative of less psychological differentiation than the subjects of the more progressive village.
(2) Mothers of the children of the first (conservative) village would give more responses to the socialization questionnaire indicating that they used child rearing practices which interfered with the development of differentiation than would the mothers from the second (progressive) village.
(3) Since previous anthropological research had revealed that one of the characteristics of Mexican culture is separation of the sex roles, it was expected that the differences between the sexes on the tests would be significant with males scoring in the direction of greater differentiation. It was predicted that sex differences would be bigger in the first village than in the second village because the culture of the first stressed differentiation of the sex roles more.
(4) In accordance with the previous findings of Witkin and his colleagues, it was expected that scores on the cognitive tests would correlate with each other significantly. It was predicted that a significant positive correlation would be obtained between the Rod and Frame test (RFT) and the Draw a Person test (DAP), between the Embedded Figures test (EFT) and Block Design test (BD), between the EFT or the Children's Embedded Figures test (CEFT) and DAP, and between EFT and RFT.

Hypothesis (1) was supported by the results. The progressive
village obtained scores on the tests which indicated greater psychological differentiation than those in the conservative village. In the latter, sex differences on the test scores were in the predicted direction, with males doing better on all three tests than females, thus supporting Hypothesis (3).

In the progressive village, Hypothesis (3) was supported by the results of the two older sub-groups but not by the younger sub-groups. In the younger subjects the RFT scores were in the predicted direction, but the CEFT, BD, and vocabulary scores were reversed, with females doing better than males. In the first village all correlations between RFT and CEFT did not reach significance; however correlations between CEFT and DAP were significant and in the direction which had been predicted.

Correlations in the second (progressive) village are not yet available, but a first inspection indicates that all RFT/EFT or CEFT correlations will be insignificant. Correlations between EFT or CEFT and BD, and BD/RFT seem to be significant and in the predicted direction.

The results obtained here seem to indicate that socialization practices are related to psychological differentiation in Mexican children. Child rearing practices as carried out by mothers in the progressive village encourage psychological differentiation and scores on the cognitive tests reflected this.

Possible Publications:

The entire study, when completed, is expected to make a book. It has been agreed by all investigators that each separate investigator may publish his results for that country in the relevant journal.

Principal Investigator: GASTON V. RIMLINGER, Professor of Economics, Rice University.

Title of Project: A COMPARATIVE ANALYSIS OF THE DEVELOPMENT OF SOCIAL LEGISLATION AS A RESPONSE TO INDUSTRIALIZATION

Methodology and Scope:

The study was primarily an historical analysis, with special emphasis on those factors which have shaped the present-day structure of social rights in the United States, Western Europe, and the Soviet Union. It was mostly a library research project. The basic hypothesis of the study was that industrialization engenders social and economic changes which necessitate as well as facilitate acceptance by the state of a large share of the responsibility for the economic welfare of the individual citizen.

Results:

The first area focused on Germany; its purpose was to compare the objectives and techniques of social protection which emerged in the Federal Republic during the 1950's with the objectives and techniques of Bismarck's Imperial Germany during the 1880's. The contrast here is between an authoritarian society in the early stages of industrialization and a fully industrialized society with a democratically elected government. The original system of protection was highly politically motivated. It was looked upon by
Bismarck as a means of buying off the industrial workers by tying their welfare to the preservation of the established political order. The springs of his action were traditional Prussian paternalism and the threat of revolutionary socialism. The level of protection at which he aimed was simply one which would alleviate the worst hardships facing the industrial worker. For political reasons he wanted the costs to be fully borne by the state.

The motivations behind social protection in the present Federal Republic of Germany are of a quite different character. It is no longer a question of trading the political rights of workers for a minimal level of social rights. Protection is now conceived as a fundamental right of all citizens, not just industrial workers who are thought to be prone to revolution. Protection is no longer treated as the gift of a paternalistic state to well-behaved subjects; it is now seen as a right earned by citizens through their own work. The level of protection is related to the length of the working life and to the level of earnings; it specifically aims at maintaining, during disability or retirement, the relative economic status achieved by the citizen during his years of work. This means that benefits for those out of the work force are kept in line with the growth of earnings of those still actively employed.

The second area of investigation under the ARPA program focussed on some of the characteristic differences in the development of social rights between Eastern and Western patterns of industrialization.

The comparison covers England, Germany, the United States, and Russia. The German evolution from a tradition of authoritarian paternalism to modern democratic social rights has already been cited. In England, the modern welfare state emerged in a context of a rapidly developing social egalitarianism. One of its central objectives was the establishment of an egalitarian national minimum. All workers were to pay the same contribution and receive the same level of benefit. This approach, which symbolized the concept of equality in social rights, was reinforced by the Beveridge-inspired reforms after World War II. Its chief drawback was that it necessitated a uniform low level of protection. With the growth of national and personal income during the 1950's, the low level of protection was found increasingly unsatisfactory. Egalitarian protection was replaced by a system of differential benefits, with higher payments for those who had higher earnings.

A tradition of egalitarian benefits was never a problem of either American or Russian social protection. In America the major problem was to overcome the individualistic tradition, which looked upon assistance from the state as a monstrous threat to individual liberty and economic virility. In Russia, on the other hand, the Soviet authorities were anxious to differentiate the kind of protection they offered from the tradition of Tsarist paternalism. Where America sought to develop a system that was compatible with the concepts of a free market and individual self-help, the Soviet Union forged a system that increased the state's control over economic life and consciously promoted the individual's dependence on the state.

Publications:

Two papers were read at national meetings. At the September, 1967 meetings of the American Sociological Association in San Francisco, the following paper was presented: "German Social Security: Then and Now." At the September 1968 meetings of the American Sociological Association in Boston: "Eastern and Western Patterns of the Development of Social Rights."
Two articles have been published:


Some of the work done under the ARPA grant is also included in a book entitled Welfare Policy and Industrialization in Europe, America, and Russia, to be published by Wiley in 1970.

- F -

Principal Investigator: FRED R. VON DER MEHDEN, Albert Thomas Professor of Political Science, Rice University.

Title of Project: DEVELOPMENT, INSURGENCY AND POLITICAL VIOLENCE IN SOUTHEAST ASIA

Methodology and Scope:

This is a comparative study of the relationship of development to political violence in selected countries of Southeast Asia. It is based upon early work (1965-67) in Thailand, library research in the United States and various studies made by other researchers in Southeast Asia. The Thai, Vietnamese and Philippine data are in part based upon interviews in insurgent areas or with former insurgents done by the principal investigator and others.

Results:

The as yet to be completed study tentatively shows that there is no necessary relationship between economic factors and rural political violence. Factors such as land tenure, economic growth, education, health, GNP and some thirty other indices do not show a high correlation when comparing incidence of violence across Southeast Asia in the post-war period. Interviews with peasants in Thailand do not show that economic and social developments are prime factors in changing villager behavior toward insurgents, although it may change attitudes toward the government if aid is provided through government officials who are aware of rural sensitivities. The method of providing aid is usually more important in changing attitudes than the development aid itself. It also appears that certain authority patterns of an historic nature are important in explaining the incidence of political violence in an area or country.

Publications:

Papers related to this research were given at meetings of the Southeast Asia Development Advisory Group and the Association of Asian Studies. An article is near completion on development-violence correlations in the area, and a book-length manuscript is in progress.
AFRICAN STUDIES

Principal Investigator: FREDERICK C. GAMST, Assistant Professor of Anthropology, Rice University.

Title of Project: CONTINUED RESEARCH ON SOCIOCULTURAL CHANGE IN ETHIOPIA

Methodology and Scope:
The research project was a continuation of an on-going study of patterns, structures, and changes in cultures and societies of the Agaw peoples of northcentral Ethiopia, begun in 1964 with fourteen months of field work based on participant-observation. The aims of the project included completing research on several related sub-projects. Methodology in each sub-project consisted of ordering and interpreting data gathered in the field and conducting relevant library research. Data from the literature and the field were integrated and analyzed within the conceptual framework of various bodies of anthropological theory.

Sub-project 1: Conclusion of initial research on the previously unstudied Qemant group of the Agaw of Ethiopia. Field data were analyzed and interpreted in accord with anthropological concepts. The study first put the Qemant in their geographical and historical contexts. The latter involved research into the literature on Ethiopian history. The pagan-Hebraic religion of the Qemant, the focal point of their way of life, is the integrating theme of the study. Analyses of animism, witchcraft, magic, and behavior of practitioners of supernaturalism are included here. Analytically the work examines processes of cultural change affecting the Qemant and examines the societal boundary-maintaining mechanisms of the group. These last are sociocultural elements that have protected the Qemant from absorption into the culture of their dominant neighbors.

Sub-project 2: Survey study of the Agaw peoples of Ethiopia. This study was to integrate all information available on the little-known Agaw groups, some of which are not yet classified as Agaw or are not known at all. This study contains basic information for guiding scholars interested in northcentral Ethiopia. Data were collected and analyzed as in Sub-project 1.

Sub-project 3: Are Ethiopian cultivators to be called "Peasants"? An investigation of northcentral Ethiopian cultivators with regard to the anthropological literature on peasants was begun. Particular attention was given to structural relationships between components of pre-industrial civilization.

Research was carried out at Rice University with the aid of one student research assistant.

Results:
Sub-project 1: Research on Qemant Agaw of Ethiopia. Study completed as a book: The Qemant: A Pagan-Hebraic Peasantry of Ethiopia, New York, Holt, Rinehart and Winston, 1969. The study on the Qemant, who are peasants, shows them to be culturally the most archaic of the remaining groups of Agaw. Qemant retain a social organization of patricians organized into moieties. Leaders exercise religious and political roles. Religion combines
ancient Agaw paganism with elements of two-millenium old Hebraism. The study centers upon an analysis of Qemant religion as a focal point of their way of life and as the principal factor inhibiting cultural change among them. Units of the study examine indigenous political organization and its relation to the Ethiopian feudal and modern bureaucracies, the relationships between religion and social organization, religious regulation of the annual round of economic endeavor, and the central place of religion in the Qemant life cycle. Finally the place of Qemant religion in acculturative change, called Amharization, is examined. Three phases of Amharization are delimited. Today the Qemant are in the terminal phase in which the relatively few Qemant still practicing the "old religion" do not fill enough positions in their society to maintain the social interaction necessary to perpetuate Qemant culture.

Sub-project 3: Are Ethiopian cultivators to be called "peasants"? Research advanced to the point where a seven page paper was written and read at the Annual Meetings of the American Anthropological Association in Seattle during November, 1968. The ideas in this paper entitled "Peasantries and Elites Without Urbanism" were incorporated in the research of the summer of 1969. An enlarged paper of 35 manuscript pages resulted, which is in press with the journal Comparative Society and History.

- B -

Principal Investigator: FREDERICK C. GAMST
Title of Project: DYNAMICS OF SOCIOCULTURAL CHANGE AMONG THE AGAW PEOPLES OF ETHIOPIA
Methodology: This project was a continuation of two months of research already completed. The Agaw are the original Cushitic-speaking inhabitants of northcentral Ethiopia. Today they no longer dominate the area and are found in enclaved remnants. Data for the research from participant-observation came in part from field work by the principal investigator during 1964-65: a year-long study of the Qemant Agaw and ethnographic surveys of the Falasha Agaw, Kumfal Agaw, Awiya Agaw, and the related Wayto. The remainder of the data comes from the principal investigator's virtually complete collection of the primary and secondary written sources on the Agaw. This collection includes about 150 items based upon accounts of travelers, explorers, and missionaries, plus translations into western European languages of Arabic and Geez manuscripts describing the Agaw.

Results: The uncompleted monograph length study is to be entitled "The Dynamics of Sociocultural Change Among the Agaw Peoples of Ethiopia." It incorporates various points of anthropological thought on sociocultural change which are used as the conceptual framework of the study. Research begins with the earliest records of these changes and continues into changes studied ethnographically in the 1960's. Use of the comparative method on data gathered during ethnographic field work of the principal investigator among several Agaw groups is to give meaning and fuller cultural context to events of change, recorded in the past. Departing from the usual anthropological studies, in
this research, acculturative change is examined apart from the impact of the technologically overwhelming West on indigenous peoples with pre-industrial technologies. Regarding anthropological studies of change, Ralph Beals has written: "It is of the utmost importance that both theoretical and empirical studies give adequate consideration of the reciprocal nature of acculturation and to instances of acculturation which do not involve European cultures" (Anthropology Today, A.L. Kroeber, ed., 1953:638). This study of change among the Agaw is noteworthy, then, because cultural changes to be investigated were originally reciprocal, among Ethiopian societies, and European culture had almost no part in this change. Completion date for this research is unknown.

The 35-page manuscript in press as an article in Comparative Society and History is entitled "Peasantries and Elites Without Urbanism: The Civilization of Ethiopia." It is based upon my previous ethnographic field work and upon fifty published sources in English, French, German, Italian, Latin, and Amharic all researched during the term of the grant. The paper demonstrates the existence of Ethiopian civilization without urbanism for a millennium ending a few centuries ago and shows that its peasants live in a relationship to a state and not necessarily to a city. The nature of and structural relations within and between the various Ethiopian Great and Little Traditions are also examined in the course of the paper. Finally, it is noted that the limited urbanism of Ethiopia today will for the rest of this century insulate Ethiopia and its peasants from fundamental changes in traditional ways of life.

The second manuscript for an article to be entitled "The Plural Little Traditions of the Agaw Peasantries of Ethiopia" is nearly completed. It encompasses ideas from the literature on plural societies and on peasantries to show multiple Little Traditions related to both a civilization's Great Tradition and to its major complementary Little Tradition. Also included in the discussion of this work is a survey of the as yet virtually unknown Agaw peoples. This article will be submitted to the Journal of Ethiopian Studies before June, 1970.
Principal Investigator: JAMES W. LAND, Associate Professor of Economics, Rice University

Title of Project: GROWTH OF THE PUBLIC SECTOR AND ECONOMIC AND SOCIAL CHANGE IN TURKEY

Methodology: The research project was based upon two statistical projects conducted by the principal investigator in Turkey—one providing detailed production and financial information on public enterprises and one providing complete economic accounts for all levels of government. Each of these projects utilized about five research assistants and clerks and required approximately one year to complete. Because of the large amount of data involved, final assembly of the data was accomplished using the computer facilities at Yale.

Results: It is usual to summarize recent Turkish economic history along the following lines. From the establishment of the Republic in 1923 until the adoption ten years later of Etatism, the government of Turkey was primarily concerned with social and religious reform, leaving to the private sector the difficult task of bringing about a modern industrial economy. With Etatism, however, the government increased the resources in the hands of the public sector both to carry out difficult government policies and to increase the size of the public enterprise sector. After several years of not very great successes in either direction, the people of Turkey decided upon a government that would again emphasize the private sector. After 10 years of experimentation with such emphasis in the '50's, the revolutionary government in 1960 decided to reemphasize the role of the public sector in achieving rapid economic growth.

However, analysis of government investment and expenditures, public enterprise investment and growth, and growth of the major financial institutions of Turkey suggests several flaws in this thumbnail sketch. From 1923 until 1938, the government of Turkey remained cautious in its budgetary policies, although it had an ambitious construction and nationalization for railways. Etatism had surprisingly small effects in increasing the scope and composition of government efforts. World War II, however, with its emergency national defense budgets, resulted in abandonment of the government's reluctance to incur deficits, and there was an increase in government expenditures. However, it was not until the '50's—under Menderes—that the government embarked on substantially increased social and economic infrastructure expenditures.

The immediate effects of the adoption of Etatism was to create new enterprise institutions to carry out the five-year plan and to direct the formation of other public enterprises. By 1939, however, the output from the public enterprise sector was not significantly greater than it was in 1933, and its composition was very much the same as that at the end of the '20's. World War II, which almost completely stopped imports, allowed the public
enterprise sector to grow in order to meet greatly expanded domestic markets and take advantage of the capacity that had been created during the late '30's. However, not many new enterprises were created during the '40's, and if the public enterprise sector had been left alone in the condition it faced at the end of World War II, the public enterprise sector in Turkey would not have been astonishingly large. Beginning in 1948, however, and using much American assistance and direction, the government of Turkey began to increase the diversity and scope of the public enterprise sector. The Menderes government continued this trend, and in the mid 1950's actually carved out even more ambitious investment and expansion programs for public enterprises.

The government's unwillingness to increase tax receipts resulted in government deficits, particularly when the rapid growth of the early '50's disappeared. Consequently, much of the credit extended by the financial system of Turkey went on a priority basis to finance the diverse public sector, choking off funds to the private sector or at least not allowing those funds to increase. Such financing arrangements during the '50's were merely the continuation of a trend established during the early days of the Republic, when most of the large banks established were either private banks close enough to the government to act as national institutions or were banks established directly by the government to carry out economic and investment policies.

Consequently, what one sees over the long sweep of time from 1923 until 1963 is a set of government policies changing to meet wartime conditions and other external emergencies but largely devoted to growth of the economy. Ideological considerations, such as free enterprise or Etatism have occupied the speeches of politicians, while the government was steadily increasing the resources brought to bear on the problem of charting economic growth.

Publications:

The research described above has been written up in two separate papers. The first, "The Role of Public Enterprises in the Economic Development of Turkey," has been accepted for publication in Government and Economic Development, Gustav Ranis, editor, New Haven, Yale University Press, 1970. The second, "The Changing Role of Government in the Economic Development of Turkey," is now being circulated as part of the discussion papers series of the Program of Development Studies at Rice.

- B -

Principal Investigator: EDWARD NORBECK, Professor of Anthropology, Rice University.

Title of Project: CONFERENCE ON THE STUDY OF JAPAN IN THE BEHAVIORAL SCIENCES

Methodology: The research grant was for aid in meeting the expenses of an international conference on the study of Japan in the behavioral sciences held April 11-12, 1969, which was financially supported principally by the Social Science Research Council. Funds were used to enlarge the number of participants in the conference and, especially, to prepare for publication the papers of the participants. The conference was planned to summarize and appraise research
on Japan to date in the behavioral sciences (limited to anthropology, sociology, and social psychology).

Results: A wide array of subjects was covered, and participants included Japanese as well as Western scholars (almost entirely American), so that results and points of view of Japanese as well as foreign scholars were presented and discussed. No conference of this scope has ever previously been conducted, and the participants felt that the stated goals of the conference as well as some unstated but implicit goals were reached. Addresses gave synoptic appraisals of all research thought to have importance, information on shortcomings and problems, and made recommendations concerning desirable future research. One of the important implicit goals of the conference was to bring together in direct contact American and Japanese scholars who had not previously met, allowing them to exchange views informally at times when the conference was not in session as well as to communicate during the conference.

Publications: Papers have been edited, submitted for publication, and are now in press in Rice University Studies. Expected date of distribution is December, 1970. Title, The Study of Japan in the Behavioral Sciences.

Principal Investigator: EDWARD NORBECK

Title of Project: SOCIAL AND ECONOMIC CHANGE IN JAPAN

Methodology: This project consisted of library research conducted at Rice University to augment data previously gathered in the field in Japan during 1964-65 and 1966 on the subject of social, economic, and religious changes in Japan during the past century. The project is a continuation of research on Japan conducted by the principal investigator intermittently since 1950. To augment field research in Japan, library resources of several kinds were used. These included Japanese newspapers, journal articles and books by Japanese and Western social scientists, writings of the popular press in Japan, and numerous publications, principally statistical, of the Japanese government. Particular attention was given in this research to writings that concerned, and raw information that was relevant to, the mutual relationships between changes in technology-economy, the social order, and Japanese values, particularly as expressed in Japanese religious beliefs and practices.

Results: The findings of this research deal principally with the relations between economic, social, and religious changes in Japan, and, although discussing the circumstances from about 1868 to modern times, give greatest emphasis to the period after World War II. During this time, Japan has undergone greater change than in earlier years of the past century. Information on recent changes is, of course, available in important measure from personal
research and observation in the field, and relevant printed information is far more abundant than for the earlier times. The principal changes with which this research concerned itself may be summarized under the headings of technologic-economic, social, and religious.

In technology and economy, Japan has changed from a nation of agrarian peasants into one of the most highly industrialized nations of the world. These technologic and economic changes have had social concomitants, largely unplanned, that may be described as a peaceful upheaval of the old social order. Among the social changes are a breakdown of the once firm hierarchy of social classes to a present state of flux in which a new order of social prestige reflecting modern times is certainly evident but continues to change. Another drastic social change has been the diminishing importance of kinship and personalized relations in domestic life, industry, and elsewhere, and a growth of social units not based upon kinship which perform various of the functions, especially in affective or emotional matters, once served by kinship and the small community of intimate acquaintances of former times. Changes in values and views of the universe have been correspondingly great. One of the greatest changes has been a great decline in the strength and vigor of organized religions of the Japanese nation--a decline so great that only about 30% of the Japanese population today declares itself as church members. This general decline in religious participation has been accompanied since World War II by the seemingly anomalous growth of many new religious sects, a few of which have grown to phenomenally great size and strength. Most notable among these new sects is the organization of lay Buddhism named Soka Gakkai, which presently claims many millions of adherents. An understanding of the growth of Soka Gakkai and other new sects is afforded by an examination of economic and social changes. For a considerable part of the Japanese population consisting principally of urban industrial workers, these changes have resulted in the loss of emotionally satisfying relationships with fellow human beings that are not met under the conditions of urban life and are not provided by the old religious sects, which have been reluctant to adjust to modern times. The new sects attract these citizens and the strength of the sects may be seen as primarily social rather than theological.

Publications:

The following works were supported financially in large part by the research grant:


Religion and Society in Modern Japan, 425 manuscript pages, Rice University Studies, in press, scheduled for distribution in March, 1970.

Several addresses have been given before scholarly audiences in Houston and elsewhere in the nation on the subjects of social, economic, and religious changes in Japan.
Principal Investigator: RONALD SOLIGO, Associate Professor of Economics, Rice University.

Title of Project: IMPLICIT TAXES AND SUBSIDIES AND INTERSECTORAL RESOURCE TRANSFERS IN PAKISTAN

Methodology and Scope:

The methodology included the recalculation of financial flows between importers and exporters to the rest of the world and between importers and exporters and government, using alternative foreign exchange systems in which the nominal price of foreign exchange differed but the effective price (the actual price paid by importers and received by exporters) remained the same. This is done by calculating what additional taxes would have to be levied on exports and what additional subsidies must be given to importers if the official rate were devalued but offsetting taxes and subsidies were used to keep effective rates unchanged.

Results:

By looking at the financial flows between government and the foreign trade sector in Pakistan one gets a completely distorted view of what the real effects are of the existing set of nominal exchange rate, export taxes and subsidies and import taxes. The observed flows indicate that explicit tax revenue collected from exports was only Rs 59 million whereas tariffs and taxes on imports yielded Rs 1,530 million. By setting the official (nominal) exchange rate unrealistically low the government can then levy high taxes on imports to bring the effective rate for importers to a more realistic rate. Hence it appears as if importers are paying the bulk of taxes on foreign trade. In fact, the effect of the foreign exchange system is to tax exports, particularly raw cotton and jute, very heavily and to subsidize most imports, especially intermediate and capital goods. If one were to recalculate what explicit taxes would have to be levied on exports if the nominal rate were changed from Rs 4.76 per U.S. dollar to Rs 7.50 per dollar, a much more realistic figure, one would find that exporters would be contributing Rs 1,350 million in tax revenue. Importers, on the other hand, would be recipients of subsidies equal to Rs 1,290 million. Thus, the existing system is very effective in concealing the real transfer effects which it is producing.

Because Pakistan is a recipient of significant amounts of foreign aid, much of what is now collected as taxes on imports is possible because the official exchange rate undervalues foreign aid receipts. If the exchange rate were more realistic, the rupee value of foreign aid would be much larger than it now appears and foreign aid would appear to be much more important as a source of finance for the development program. For 1964-65, the government proudly announced that domestic resources would finance 49% of total development expenditures. If the financial flows are recalculated using the more realistic exchange rate of Rs 7.50 per U.S. dollar, this proportion falls to 17.5%.

One of the much discussed "success indicators" of the Second Five Year Plan which ended in 1964-65 was the marginal savings rate which over the plan period was 18%. Research indicates that the marginal rate of savings was very high because of a large increase in foreign aid over the plan period. Since this aid was undervalued at the official exchange rate,
the government could increase its revenues significantly by buying import duties on goods which were financed by the aid. Upon recalculating financial flows using the Rs 7.50 per dollar exchange rate, the marginal rate of saving drops to 12%.

Because exports of raw cotton were subject to a small explicit export tax under a grossly overvalued exchange rate, these exports were in fact being subject to very high implicit taxes. At an exchange rate of Rs 7.50 per U.S. dollar, for example, the explicit tax would have had to be 43% in order to keep the same effective exchange rate. Even at a rate of Rs 6.90 per U.S. dollar, the tax would be as high as 33%. Since Pakistan cotton textile mills are large consumers of domestically produced raw cotton, they were in effect receiving a subsidy on their primary input. Taking the extremely conservative estimate of Rs 6.90 as a realistic exchange rate, it is shown that the textile mills received a subsidy of close to Rs 400 million on this one input alone. Since most of their other inputs are also imported they received further subsidies on those inputs. These facts have raised the question as to how much of the observed value added in the Pakistan cotton textile industry is in reality hidden, indirect subsidies. Several other studies using different procedures have suggested that the real value added in this industry is either zero or negative. Research results will probably substantiate these results.

Publications: This paper will be submitted for publication in one of the journals specializing in the economic problems of less developed countries. The Pakistan Development Review is a likely journal. The paper will also appear in revised and expanded form in a monograph-length study which will be published by the Yale Press under the auspices of the Economic Growth Center at Yale.
Title of Project: FRENCH ATTITUDES TOWARD AUTHORITY

Methodology and Scope:

With the exception of a small sum for computer usage, the Center's contribution to this research project has been limited to the early planning stages. Under the Center's auspices, the principal investigator attended seminars on survey research at the University of Michigan in the summer of 1968, conferred with experienced researchers in this field, and began drawing up plans for an attitude survey to be conducted in France. The pilot study, which consisted of 241 interviews with French adults taken in eight different regions of France in July, 1969, was conducted under the auspices of a Fulbright research fellowship and an additional grant from Rice University. It was designed and conducted in collaboration with two French social scientists, Guy Michelat and Annick Percheron, both of the Foundation National des Sciences Politiques in Paris. The principal national survey, which will be the central feature of the research, will be conducted in late spring, 1970, or early fall, 1970.

Among the problems analyzed are the following: Which of the assumed authorities and authority figures in French society are actually accepted as such? What patterns of attitudes and social characteristics are discernable among those who accept authority as opposed to those who reject it? Do the French detest "face to face" relations with authority figures, as French sociologists have suggested? What social and attitudinal characteristics are associated with willingness to participate in decision-making? Are orientations toward authority consistent from institution to institution (school, family, work, government)? Is there a discernable French "authoritarian personality" type?

Results:

There are no results at present except for those of the small and none-too-representative pilot study. Those results are only partially analyzed. A report upon them at this stage would be premature, save to suggest that several of the expected patterns seem to be appearing in the data.

Publications:

It is expected to publish the results of the principal study in book form, although probably not until 1972.

The principal American investigator will give a paper based upon the pilot study to the Western Political Science Association meetings in Sacramento, April 24, 1970. The two French collaborators very likely will present a paper, also based upon the pilot study, to the International Political Science Association meetings in September, 1970.
Principal Investigator: R. JOHN RATH, Mary Gibbs Jones Professor of History and Editor of the Austrian History Yearbook, Rice University.

Title of Project: SOCIAL CHANGE AND ECONOMIC DEVELOPMENT IN THE HAPSBURG MONARCHY

Methodology: In addition to using personnel to hasten the editing and publishing Vol. IV-V of the Austrian History Yearbook in which some of the material that will be drawn upon for this study will be published, the principal investigator has engaged in making a preliminary survey of comparative studies of the economic, social, political, and cultural history of the Hapsburg monarchy and of modern Austria and Hungary.

Results: Since only a preliminary study has been made, it would be meaningless to discuss the results of the project at this time.

Publications: Vol. IV-V of the Austrian History Yearbook, which should be ready for distribution in March or April, 1970.

It is hoped to submit the completed manuscript of the research to the publisher in September, 1971.
Title of Project: INDUSTRIALIZATION'S IMPACT IN LESS DEVELOPED COUNTRIES:
WITH PARTICULAR REFERENCE TO PROBLEMS OF FOREIGN EXCHANGE,
EMPLOYMENT, AND INCOME GROWTH

Methodology and Scope:
In the study both traditional and modern theory are applied to
selected less developed country problems with industrialization. The research
effort was mainly empirical. At the first stage of the long term project--
beginning during a research grant at Yale Growth Center in 1966--the researcher
traced the impact of industrialization and import substitution on the Brazilian
economy. A second stage of the project was concerned with the impact of foreign
aid on industrialization and income growth in numerous foreign countries. The
ARPA financed research commenced and the principal investigator has since
gathered sizable quantities of data on selected developing countries--labor
force, employment, wage levels, industrial growth by sectors, government ex-
penditure patterns, and price changes over a time series and cross section of
countries. Much of the data had to be corrected for various distorting,
statistical discrepancies, etc. Then some very rough trial runs were made.
After further adjustments, the data have just now been key punched; the first
sets of multiple regressions on variables should be run in mid-January and
some final results should be ready by June. Douglas Lee and Mrs. W. Ross,
both undergraduates, have assisted on a part-time basis this past semester.

Results:
Support helped complete the writing only of several studies now
published. All of these deal with the interrelationships between industriali-
ization, income growth, employment, planning, and, in several, import substitu-
tion. Briefly, the findings have been that 1) import substitution industriali-
ization has been rapid in less developed countries and even successful at least
for a time; 2) direct employment effects of such industrialization are small
and lead to a crowding of labor into petty services; 3) there is no evidence
that even substantial foreign aid can obviate the period of difficult transi-
tion, and 4) industrialization patterns actually followed have seemed to be
inefficient even in the medium-term dynamic comparative advantage sense. How-
ever, the investigator has not completed the step related to 5) in which
indirect employment effects can be determined, or the effects of devaluation
and inflation. The former cannot be done until the computer runs can be com-
pleted.

Publications:
"The Postwar Brazilian Industrialization: Growth Patterns,
Inflation, and Sources of Stagnation," in E. Baklanoff (ed.). The Shaping of

"Measurement of Import-Substitution Industrialization in
"Allocating Foreign Aid: An Appraisal of a Self-Help Model."

- B -

Principal Investigators: JOHN M. I'GHAM, Assistant Professor of Anthropology; DAVID H. NISSEN, Assistant Professor of Economics, Rice University.

Title of Project: THE MOTIVATIONAL ROOTS OF ECONOMIC CHANGE IN A MEXICAN VILLAGE

Methodology and Scope:

This is a study of market behavior of Mexican peasants. The basic aim has been to find and determine the importance of economic, social and psychological correlates of peasants' adaptation to agricultural market conditions and technology.

The researchers have studied data at the national, state, municipality and village level. Economic and social data above the village level was obtained through census and secondary sources, and was analyzed with standard regression and contingency techniques. Extensive data in one village, Tlayacapan, Morelos, Mexico, was gathered in the field. These data include a complete economic and ethnographic census of the whole village, together with detailed records of planting behavior. In addition, Rorschach and TAT tests were administered to 50 selected campesinos. This village data was subjected to intensive multivariate analysis, primarily factor analyses and multivariate covariance analyses. The results may be compared with somewhat similar studies done in two other villages of differing economic and social structure in the same state. The following questions were considered: 1) Do peasants respond to market incentives? 2) Is there a difference in the response of open (mestizo) villages and closed, corporate (Indian) villages? 3) Are the explanatory variables of differential responses primarily socio-economic or psychological?

Results:

Data at all levels indicate substantial response to market conditions. There appears to be little difference in the level of adaptive behavior achieved by the two types of villages. (If any, it now appears that the Indian villages will supersede mestizo villages.) There are major differences in the timing of the initiation adaptation. In particular, mestizo villages began adaptation earlier, and among Indian villages those which had relatively low land pressure after the revolution began adaptation earlier. Within the particular village studied, psychological variables did not add to economic variables and neighborhood effects in explaining the timing and level of adaptive behavior. (The significance of psychological factors though not demonstrated, cannot on these bases, be rejected however; the sample may have been too small to provide power.)

An important tentative conclusion of the study is that: 1) The peasants of Mexico are strongly responsive to economic conditions; and 2) The stability of the closed corporate Indian village does not, in the long-run,
dampen this responsiveness, and further, may itself be a substantial national resource.

Publication: The results are currently being written up with an expected completion date of February 1, 1970, and will be submitted for publication to the Journal of Economic Development and Social Change.

- C -

Principal Investigator: JUAN MARSAL, Director, Instituto Torcuato Di Tella, Centro de Investigaciones Sociales, Buenos Aires, Argentina.


Title of Project: COMPARATIVE STUDY OF POLITICAL INTELLECTUALS AND THEIR IDEOLOGIES IN THREE SPANISH-SPEAKING COUNTRIES

Methodology and Scope:
This project is a comparative study of the ideologies of writers on social and political affairs in three nations, Argentina, Spain, and Mexico, and their impacts on these nations. Research in 1967-68 was limited to interviews with Mexican intellectuals of this type. Research on Argentina and Spain has already been done. The goal of the study is to test hypotheses and theories concerning the influence of social and political writers on other elite groups, and to compare the different ideologies held by intellectuals in the three countries. These countries differ in the intellectual freedom they allow their citizens, in political stability, political participation, literacy, and urbanization. These variables will be examined in their relationships to the attitudes of the intellectuals and the force of the impact the intellectuals seemingly have on their societies.

Results:
A preliminary version of a paper entitled "La ideología de los intelectuales Argentinos y Mexicanos," written in Spanish, has been prepared which discusses the results of research on intellectuals in Mexico. Time did not permit translation and reproduction of the paper for distribution by the Center for Research.

- D -

Principal Investigator: GORDON W. SMITH, Assistant Professor of Economics, Rice University.

Title of Project: IMPORT SUBSTITUTION AND FOREIGN INVESTMENT IN BRAZIL
(undertaken jointly with Professor Samuel A. Morely, The University of Wisconsin)

Methodology:
Basic hypothesis: Brazil's rapid industrialization during 1949-64 depended to an excessive degree upon foreign firms and inefficient government operations. The private domestic sector was left behind because
Brazilian policy aimed at very rapid short-run growth in industries where large amounts of capital and sophisticated technology were necessary. The elements of the project are:

1) An inventory and evaluation of Brazil's policies toward foreign direct investment since 1945. Research was made into regulations and their enforcement. Most of this was completed before the summer of 1969.

2) An estimation of policy-induced import substitution in the various Brazilian industries.

3) An estimation of the contribution of foreign government and private Brazilian firms to each industry's growth, 1949-62.

4) Correlations were run between the degree of foreign control in an industry and: a) percentage of total profits accounted for by the top four, and top eight firms; b) the share of profits in value-added--a proxy for the capital intensity of production; c) value added per worker; and d) the magnitude of effective protection.

Results:

1) Import substitution accounted for at least 44% of Brazil's industrial growth. It was concentrated in five key industries: metals, machinery, electrical equipment, transportation equipment and chemicals. Together, these industries were responsible for over 50% of the growth in manufacturing, 1949-62.

2) This import substitution was generated primarily by protection--multiple exchange rates, tariff, import controls, tax incentives, etc. It definitely did not follow Brazil's static comparative advantage.

3) The industries stimulated by these instruments, and where the most import substitution and growth occurred were: a) large scale, requiring high initial investments; b) capital intensive; d) technologically more "complex"--as indicated by the composition of the work force; d) generally new to Brazil.

4) As a result, these industries were also those in which Brazilian private firms suffer the greatest disadvantages compared with American or European-based firms for the following reasons: a) the Brazilian capital market is poorly developed; b) Brazilian firms suffer serious disadvantages in raising funds abroad; c) they did not have the experience in many of the production lines; d) access to high level management is much more difficult for private Brazilian firms.

5) Therefore, protection for these industries would tend to attract mainly foreign firms if the government--with its easy access to financing--did not pre-empt the field. It was found that: a) more than 50% of the import substitution and more than 40% of total manufacturing growth was accomplished by foreign and government firms. These are minimum, conservative estimates; b) all of the key sectors referred to above were dominated by foreign-government firms. Not only were the percentages of profits accounted for by these firms greater than 45% in 1965 for all but the very broad "metals" sector, but the great bulk of the larger firms in each of the key industries was foreign or government controlled. In most cases, private Brazilian firms tend to be smaller, satellite firms.

6) Brazil's strategy created short-term growth, but has left the key industrial sectors controlled either by foreign firms (transportation equipment, electrical equipment, drugs, rubber, a good deal of heavy machinery, and chemicals) or government firms generally held to be inefficient (steel, petroleum).
7) It was estimated also that in the late 1960's, foreign-controlled manufacturing firms' after tax profits plus depreciation allowances reached about 20% of total Brazilian export earnings. Foreign firms appear to be quite sensitive to political trends in formulating their investment policies. A loss of confidence in Brazil could generate serious instability through repatriation of earnings.

8) Finally, much of Brazil's industrial growth is illusory. Foreign investment has generated substantial liabilities against future income which should be offset against past growth.

Publication: A paper based on this research, "Import Substitution and Foreign Investment in Brazil," has been submitted to the Quarterly Journal of Economics.
URBAN AND WELFARE PROBLEMS

- A -

Principal Investigator: CHANDLER DAVIDSON, Assistant Professor of Sociology, Rice University

Title of Project: NEGRO POLITICS AND THE RISE OF THE CIVIL RIGHTS MOVEMENT IN HOUSTON, TEXAS

Methodology and Scope:
The purpose of the investigation was to determine the extent to which political participation since the end of the white primary in 1944 has enabled Negroes in a large southern metropolitan area--Houston and surrounding Harris County, Texas--to achieve their goals. The extent of Negro political participation in recent years was ascertained, using aggregate voting and registration data. Also, the voting preferences of the black electorate were examined, and the success of biracial coalition politics was assessed. The effects of changes in election rules, voting requirements, redistricting, and attempts to discourage participation were analyzed, insofar as they bear on the political power of the Negro electorate. Finally, an attempt was made to measure the gains Houston Negroes have made during the last 20 years, as political participation has increased and the civil rights movement has acquired momentum.

Results:
Among the major findings are the following:
1) Negro registration and turnout rates have risen fairly steadily since 1944.
2) These rates in the last few years have usually been only slightly lower than those of whites, and in some cases are almost identical.
3) The Negro electorate generally perceives who the friendly candidates, factions, and parties are. Negroes show a marked preference for racial liberals in the Democratic primaries, for Negro candidates, and for the Democratic party in general elections.
4) The only formal coalition which Negroes have formed with whites is the so-called "liberal coalition," consisting of Latin American groups, organized labor, and independent economic and racial liberals.
5) At the voting booth, Negroes have allied with different socio-economic strata of whites to elect both white liberals and Negro candidates. In 15 elections in which the race issue was particularly salient, a positive correlation between the median family income of a sample of white precincts and support for the "pro-Negro" position was discovered in only three cases. An inverse correlation existed in four.
6) Negro candidates for office have never received a majority of the white voters' support.
7) Houston Negroes engage in numerous non-electoral political and quasi-political activities, but in general they are hampered by the meager social and economic resources of the black community, including professional expertise, money, and skills usually associated with middle class income and education.
8) As Negro political participation has increased, and federal
laws have been promulgated whose purpose is to prevent barriers to voting, changes in the local electoral system have often made it more difficult for Negroes to elect candidates of their own race to office, or have hindered the effectiveness of the Negro vote.

9) Although progress in some respects has occurred since the enfranchisement of Houston Negroes, the situation has gotten worse in other respects. The conclusion, reached by other authors, that Negro political participation is of limited use in attaining the goals of equal social and economic opportunity, is accepted as applicable to Houston.

Publication: Accepted by Prentice-Hall with a publication date in approximately nine months.

Principal Investigator: KAREN DAVIS, Assistant Professor of Economics, Rice University.

Title of Project: AN ECONOMIC THEORY OF THE PROVISION AND FINANCING OF HOSPITAL CARE

Methodology and Scope:
The research consisted of two stages: 1) development of a theoretical model of the provision and financing of hospital care based upon a hypothesis of motivation in non-profit hospitals, and 2) testing the model with detailed data on hospital prices, costs, personnel, and utilization.

The theoretical model was based upon the hypothesis that non-profit hospitals are interested in acquiring the latest, most modern, and most extensive capital equipment available—a goal which is made possible through revenues in excess of operating expenses as well as contributions from private benefactors. Consequently, pricing in the hospital industry is hypothesized to be determined so as to maximize short-run net revenue. A simultaneous equation model is used to tie together various aspects of hospital behavior. Included in the model are a demand function relating demand for hospital services to such factors as prospective patient’s income and insurance coverage, a Cobb-Douglas production function, a capital services determination function based upon an availability of funds theory of investment, and a labor input determination function based upon the hypothesis of short-run net revenue maximization.

Empirical testing of the simultaneous equation model was accomplished with the use of a two-stage least squares regression technique.

Results:
Two-stage least squares estimation of the simultaneous equation model lends fairly strong support to the model. Overall explanation is high; coefficients enter with expected signs, and individual variables tend to have significant t-scores. Alternative measures of hospital output—admissions and census—yield roughly the same results although overall explanation tends to be somewhat higher for equations using census as output measure.

Empirical estimation of the model substantiated the hypothesis that hospitals set prices so as to maximize short-run net revenue. Therefore,
recommendations are made that public policy based upon the assumption that hospitals merely seek to break even should be reevaluated. Changes in the institutional setting which would allow greater competition among hospitals should be investigated. Government reimbursement schemes based upon the assumption that hospitals merely seek to recover costs should be re-examined.

The production function was found to exhibit constant returns to scale. Previous studies, based upon single equation estimations have produced a variety of results including a U-shaped average cost curve, an inverted U-shaped average cost curve, and declining average cost curve. The constant returns found in this study indicate that single equation estimations may have been subject to significant simultaneous equation bias.

The demand curve was found to evidence substantial elasticity with respect to price and income again in contrast to earlier single equation demand studies which found price inelastic demand curves suggesting that single equation estimation results may be subject to significant simultaneous equation bias.

The main limitation of the empirical work is the measure of capital used. Neglect of the extent of specialized equipment of the hospital and specialized services provided may hide evidence of real economies of scale. To check for this a detailed single equation cost estimation was made relating hospital costs to the possession of specialized facilities. Although possession of specialized facilities was found to have a significant positive effect on hospital costs, average costs of providing basic hospital care by hospitals which do not possess specialized facilities were constant.

Adequate treatment of the quality of care provided is also impossible in the empirical work presented here. Some hospitals may treat fewer patients with the same given resources as another hospital but provide better care. An ideal output measure would reflect these differences in quality of care.

Publications:

Two papers have been prepared and will be submitted for publication in economic journals:

"Production and Cost Function Estimation for Non-Profit Hospitals."
"The Effect of Specialized Facilities upon Hospital Costs."

- C -

Principal Investigator: DR. MARY ELLEN GOODMAN (deceased, August 24, 1969).
Formerly Professor of Anthropology and Sociology, Rice University.
(Report submitted by Edward Norbeck, Chairman, Department of Anthropology and Sociology, Rice University.)

Title of Research: HOUSTONIANS OF MEXICAN ANCESTRY: AN URBAN ETHNOGRAPHY

Methodology:

Research assistants have recently analyzed data collected earlier through participant and non-participant observation, and formal and informal interviews of persons representing various segments of the Mexican-
American population in Houston.

Results: Previous research had delineated three principal segments of the Mexican-American population in Houston: a low-income, a "traditional," and a middle-class group. These segments have been investigated to ascertain characteristic life styles (values, attitudes, aspirations) which indicate degree of acculturation and assimilation in Anglo, middle-class society. This stage of research has concentrated on the middle class and traditionalists. Social and civic organizations to which such persons belong have been studied. Interviews with high school and college youth have also been conducted. In sum, the research represents extensive documentation of major strata of the Mexican-American population in Houston.

Publication: A book presenting the results of Dr. Goodman's research on Mexican-Americans in Houston is being prepared by her principal research assistants and will be finished by the spring of 1970, after which a publisher will be sought.

_-D_- 

Principal Investigator: EDWIN S. HARWOOD, Assistant Professor of Sociology, Rice University.

Title of Project: AMERICAN Ghetto YOUTH AND THE MARKET FOR THEIR Labor

Methodology and Scope: The researchers interviewed the owners and personnel managers of Houston businesses that had hired low income youths through one or more of several anti-poverty programs operating in the city, e.g., Neighborhood Youth Corps, Concentrated Employment Program and National Alliance of Businessmen. They sought to determine the difficulties private industry had in hiring and training low income youths. Standardized questionnaires administered in person were used in this part of the research.

A graduate assistant, Rudi Volti, had the additional task of working as a non-participating observer in one of the Neighborhood Youth Corps projects for out-of-school youths, to gather statistical data on the number of poverty youths placed in private industry through the NYC program.

Results: Interviews with personnel managers and proprietors in private corporations were related to two problems that had come up in earlier manpower research conducted by the principal investigator. Those were as follows: 1) The jobs available to poverty youth, male and female, in Houston were relatively plentiful. From earlier research conducted on the Houston Neighborhood Youth Corps for the Department of Labor, the principal investigator had already established that jobs paying considerably more than the NYC wage were available to boys. This was the main reason why so few males elected to enroll in the NYC program. Most teenagers, even females, could get some job unless they were under 17 years of age. It was assumed females enrolled in the NYC in large numbers because none but service jobs were available to them.
that in many cases paid less than the NYC wage ($1.40 per hour).

2) Yet it was found that jobs in factories and small firms paying the federal minimum wage ($1.60) and often more than that were available to poverty females as well as males. A large number of girls had been graduated into these jobs from the NYC. Interviews with counselors revealed that many quit these "good" jobs after a short period. Some sought to re-enter the NYC after much effort had been spent finding them a job in the private sector. We wanted to know why.

It appears that many low-income females prefer the more relaxed routine of low-paying service jobs which they can take and leave as they please to the discipline required in factory jobs which demand not only regular attendance but greater discipline in attention to the job while at work. Many of the community service jobs the girls obtained in the NYC by contrast, offered a more relaxed job pace. Moreover, NYC counselors were lenient about absenteeism.

Many of the females graduated from the NYC had small children to care for, which was the main reason their absenteeism in this government program had been high. Private employers confirmed that their child-rearing functions continued to interfere with their job adjustment even after they had obtained a "good" job, i.e., one paying the federal minimum wage or more. At one plant, the researchers were told some girls refused to accept job offers because they rejected the plant's work environment--the dirt and noise. Others who were hired eventually quit because of their responsibilities as housewives and mothers.

Publication:
The research findings have not yet been written up for publication.

- E -

Principal Investigator: CLIVE KILEFF, candidate for Ph.D. degree, Behavioral Science Graduate Program, Rice University.

Title of Project: THE BLACK SUBURBANITES: URBANIZATION AND MODERNIZATION IN TWO NEIGHBORHOODS IN SALISBURY, RHODESIA

Methodology and Scope:
The aim of the project was to describe and analyze the changes and adjustments Africans are making to modern, urban living. The residents of two elite, black suburbs were studied because these people occupy a unique position--they are permanently settled in the city, but they have roots and ties reaching back into the rural, tribal way of life.

Results:
The data are presently being analyzed, but a preliminary study indicates that the people studied came from family backgrounds which may have helped prepare them for successful adjustment to urban life. Several common features such as Christianity were found which may be key variables in social change.

Also studied were the social groups to which the people belong by using the concept of social network. It was found that their friends and
associates were mostly of high occupational status, and, in most cases, friends were not chosen on the basis of family or tribal affiliation. The social networks contained vertical ties extending down to uneducated kinsmen.

It was found that the most conservative aspect of the residents' lives was their family relationships. Whereas they had all shifted from ancestor worship to Christianity, they all voiced support for the custom of bride-price payment.

Publication:
A publisher has contacted the principal investigator and expressed an interest in the study.

- F -

Principal Investigator: DONALD HUDDLE, Associate Professor of Economics, Rice University

Title of Project: A COST/EFFECTIVENESS STUDY OF CLINICAL METHODS OF BIRTH CONTROL

Methodology and Scope:
The purpose of the research was to promote efficient allocation of public family planning funds. To this end, it sought to develop methods for estimating the cost of preventing births with different combinations of users and clinical contraceptives, and to apply these methods to a public program which is operating in the Northeast Health Region in Puerto Rico.

Data for the empirical study was collected in Puerto Rico by a research assistant, William J. Kelly, formerly a Ph.D. candidate, Department of Economics and Business Administration, Rice University, now an assistant professor at the University of Georgia, during the period from March to August of 1969. The data falls into three categories: 1) data on the physical inputs used by program clinics and data on the weekly output of various kinds of patient visits by these clinics; 2) data on the costs of clinic inputs; and 3) demographic data from patient records including age, parity, length of time in the program, and method used.

Data from categories 1 and 2 will be used to calculate the cost of supplying patients with contraceptive services for various periods of time. Data from category 3 will be used to calculate the number of births prevented during these periods. Most of these calculations will be carried out by single-equation regression techniques.

Results:
At present, this data is being processed in accordance with the theoretical frameworks developed for the demographic and economic parts of the problem. Mr. Kelly is seeking to develop single-equation production functions which will express the output of each category of patient visit as a positive function of clinic inputs and as a negative function of other outputs. A serious statistical problem of multicollinearity among inputs and among outputs has apparently been solved. Once an appropriate mathematical form is found for these equations it will be possible to estimate cost functions for these services and then, with appropriate demographic equations, the cost per birth prevented.
Mr. Kelly has given seminars on this research at Georgia State University and at the University of Tennessee and plans to give further seminars at the University of Georgia and at the Economic Development Workshop at Rice University. Subsequent seminars and research publications are contemplated.

- G -

Principal Investigator: HAROLD M. HYMAN, William P. Hobby Professor of History, Rice University.

Title of Project: THE IMPACT OF ATTITUDES TOWARDS THE UNITED STATES CONSTITUTION ON ATTEMPTS TO LEGISLATE FOR BLACK CIVIL RIGHTS DURING RECONSTRUCTION

Methodology: Intensive investigation of the private papers of Congressmen in the period of Reconstruction (1864-1876) was made by Michael Les Benedict, graduate student, Department of History. Collections consulted at manuscript repositories in South Bend, Indianapolis, and Bloomington Indiana; Cincinnati, Columbus, and Fremont, Ohio; Rochester, Albany, and New York, New York; Boston, Massachusetts; Concord, New Hampshire; and Brunswick, Maine.

Results: It was found that attitudes toward the Constitution severely limited the powers congressmen were willing to exercise to protect black rights during Reconstruction. These attitudes were held by "radical" and "conservative" congressmen, although radicals were more willing than conservatives to interpret the Constitution in such a fashion as to give Congress power over the question. Contrary to most historical opinion, conservative Republicans generally controlled Reconstruction legislation and their hesitancy to take wide, new powers to protect civil rights was the primary cause for Congress' failure to secure civil equality and justice for blacks after the Civil War.

Publication: One article based on the research is being considered for publication by the Journal of Southern History. A book-length monograph is in progress.

- H -

Principal Investigators: WILLIAM McCORD, formerly Fox Professor of Sociology, Rice University; and JOHN HOWARD, formerly Research Associate, Center for Research in Social Change and Economic Development, Rice University.

Title of Project: NEGRO SOCIAL PSYCHOLOGY IN THE URBAN GHETTO

Methodology: The researchers have directly observed the riots in Watts,
Houston, Hunters Point (Oakland), Newark, Detroit, and Orangeburg, South Carolina, and interviewed some 150 people during the actual rioting. They then submitted their subjective impressions to the more rigorous test of interviewing 1,185 urban Negroes in three American cities, and the findings reflect the tempo of the ghetto now. They also interviewed 620 people who represent different responses to ghetto life, ranging from the apathetic to the militant, from the skid-row bum to the affluent, from the head of a numbers racket to ministers. Finally, they examined the collective responses of urban Negroes to their condition and the reaction of the white establishment to these movements.

Results:

Despite differences in geographical areas, dissatisfaction about the speed of integration is stirring a supposedly southern city like Houston at about the same level as it is a northern city like Chicago. While the specific grievances differ among cities, only a minority of urban Negroes in any area felt that violence was never justified.

While relatively high percentages of Houston and Oakland Negroes believed that riots might help their situation, only a tiny minority in Watts believed that another riot of the 1965 variety would significantly help them. Both in Watts and in Houston (holding other factors constant) people who claimed to be "very religious" were the least dissatisfied with ghetto conditions and the least likely to protest in any way against the status quo. For example, in Houston 58 per cent of people who said they were very religious opposed the use of violence, as opposed to 26 per cent of those who were not religious at all. The researchers evidence, therefore, tends to support those writers who have contended that religion has served to deflect Negro concerns from the present to the "next world." Religion, however, may be losing its influence in the Negro community. In Houston only 22 per cent of the respondents said they were "very religious" and in Watts (using a more indirect question) only 30 per cent said they thought religion was "very important" to other people in their neighborhood.

When comparing matched groups in Houston and in Watts, it became clear that men and women held similar views about the main problems which face Negroes. In fact, in only one area was there significant disagreement between them: the utility of violence. Twenty-eight per cent of male respondents condemned the use of violence under any circumstances as compared to 40 per cent of a matched group of women. The researchers evidence, therefore, tends to support those writers who have contended that religion has served to deflect Negro concerns from the present to the "next world." Religion, however, may be losing its influence in the Negro community. In Houston only 22 per cent of the respondents said they were "very religious" and in Watts (using a more indirect question) only 30 per cent said they thought religion was "very important" to other people in their neighborhood.

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When other variables--age, sex, and education--were held constant, the investigators did not discover any major differences among occupational groups in Watts. Whether in a white-collar profession or unemployed, the Watts sample seemed equally militant. In Houston, however, a more complicated pattern emerged. As might be predicted, the unemployed in Houston regarded jobs as their major problem more often than other occupational groups did. Again, also predictably, the unemployed evinced greater hostility toward the police. Forty-four per cent of the unemployed as opposed to 17 per cent of the white-collar group regarded the police as abusive. Further, only 2 per cent of the unemployed versus 26 per cent of the white-collar group claimed never to have had contact with the police. A majority of the white-collar group (51 per cent) believed that violence was never justified while only a quarter of the unemployed (26 per cent) always condemned violence. In Watts, therefore, we may have witnessed a unification of occupational groups on basic
issues but in Houston predictable differences in opinion among the various economic strata continue to exist.

While education is, of course, highly correlated with such other factors as occupation, educational attainment was, in itself, deeply related to other opinions. In general, the higher the individual's education, the more often he expressed satisfaction with the immediate conditions of his own life, such as his job or housing conditions. Nevertheless, in appraising the condition of the Negro community in its entirety, the most well-educated group expressed greater concern about the speed of integration, claimed to have participated in civil rights activities more often, and condemned police behavior with greater vehemence than the less educated. Only two differences separated Houston from Watts. First, in Watts educational level had no relation to the amount of participation in civil rights activity. Second, in Watts college-educated people were least opposed to the use of violence, while in Houston there were no consistent differences among the various educational groups. In Watts, 21 per cent of the college-educated group and 28 per cent of the elementary-school group felt that violence was never justified, while 49 per cent of the high school group completely eschewed the use of violence. Perhaps, again another effect of the 1965 violence was to form an alliance of opinion between the least- and the best-educated urban Negroes.

As could be predicted, most Negroes believe that whites regard them as ignorant, inferior, "crazy," etc. It should come as no surprise, then, that movements emphasizing Negro dignity and even superiority are able to win over many ghetto residents. For example, in Watts 58 per cent of the respondents favored the concept of "black power," 24 per cent opposed it, and the remainder were "neutral" or had never heard the term. The young were not generally more dissatisfied with their life and they were not more militant than older people.

Publications:


Principal Investigators: EDWARD NORBECK, Chairman, Department of Anthropology and Sociology, and LEE HORSTMAN, undergraduate (senior), Rice University.

Title of Project: URBAN FUTURES USA (A NATIONAL STUDENT CONFERENCE)

Methodology and Scope:

Problems connected with the urban crisis were the subject of a national conference of students entitled URBAN FUTURES USA, held at Rice University on March 26-29, 1969. The conference sought: 1) to awaken the interest
of concerned citizens in improving the quality of American urban life now and for the future; 2) to summarize and appraise research on the subject that has already been done and to forecast the shape of American society between 1980 and 2000; and 3) to consider governmental policies that might solve the problems of the present so as to prepare for a better future. The conference was planned and conducted by nearly 80 Rice students.

Results:

As most of the papers presented at the conference suggest, the key idea in these new approaches should be autonomy, both communal and personal. We must decentralize initiative, especially in government, and guard for all the right to have a separate voice in an increasingly interdependent society.

One theme of discussion was the question of what our future urban environment might be like. Architect William Weismantel of the University of New Mexico stated that the spatial organization of our cities may be changing from one based on social class and income, to one based on life styles (for example, campus towns, resort cities, and art colonies). Since constantly improving communication and transportation networks convey the urbanity of the vast and dense industrial city everywhere, the post-industrial city will in all likelihood be a smaller, special-purpose center of a design more premediated than in the past. Each center might clearly express the refined sensory and spatial esthetics, as well as greater prosperity, of one or another of America's diverse subcultures.

Free access to all information may threaten personal privacy, and efficient procedure may replace democratic procedure. The option of non-cooperation may vanish within a tightly-planned automated society.

Each urban community must, however, learn to unite against any disruptive "bulldozing" by outside agencies. To gain the desired influence, local involvement and flexibility should be fostered by giving communities more say in the use of federal money within communities. This would be especially helpful for communities or groups that have been financially or technologically limited in self-expression. We might thus enrich our cultural and community life, even though such a decision-making process may be less "efficient" than other procedures.

Publication:

Proceedings of the Conference, edited by Charles Lee Horstman, multilithed by the Center for Research. The journal is now being considered for publication by publishers and magazines.
EDUCATION AND SCIENCE

- A -

Project Sponsors: JOSEPH COOPER, Associate Professor of Political Science; HAROLD M. HYMAN, William P. Hobby Professor of History; RICHARD H. LYTLE, University Archivist and Curator of Manuscripts and Rare Books, Rice University.

Title of Project: THE ORAL HISTORY PROJECT ON THE PRESIDENTIAL CRISIS OF FEBRUARY, 1969, AT RICE UNIVERSITY, HOUSTON, TEXAS

Purpose of the Project:
The purpose of this project was to collect data for scholars doing research in social and economic change in the university. The 1969 presidential selection crisis at Rice University was taken as the focal point of the inquiry, from which the project proceeded to accumulate written and oral documents for study of many economic and social issues of academia. Emphasizing use of oral history techniques, the project documented recollections, attitudes, activities, and interpretations of important participants in the crisis. A few areas of usefulness of this accumulated material are as follows:

a. the history of Rice University
b. methods of effecting academic social and policy change
c. challenges to governance in American universities
d. behavior of organizations under stress
e. variant forms of student and faculty protest
f. the exercise of leadership in academic environments
g. the possibilities of student media in mobilizing campus opinion
h. cognitive consistency in the academic community
i. verbal generalization as a tool for organizing political movements.

Results:
1) Actual Distribution of Interviewees
Sixty-eight interviews were completed, totalling 140 hours of tape-recorded memoirs. Thirty of the interviewees were students; 33 were members of the faculty and administration. Although reasonable and in some cases even presumptuous efforts were made to obtain oral recollections from those representing every known shade of opinion, the project lacks material from the Board of Trustees, from the Presidential-Appointee, from the former Chairman of the History Department (now Acting President of the University), the Dean of Undergraduate Affairs, and certain others whom colleagues identified as taking a moderate to strong pro-Board position during the crisis. These omissions may not seriously reduce the value of the material gathered thus far if other relevant documents become the property of the University Archives within the five-year closure period specified in agreements with participants.

2) The Recorded Interviews
Exact contents of the oral interviews are known only to the interviewee himself, to the interviewer, and to the typist who prepared the transcript and therefore cannot become a part of this report by Project Sponsors. Because of
the extreme polarization of opinion caused by the crisis, the emotional pitch of many participants, and perceived threats to careers. Sponsors assumed that to obtain candor in the interviews, absolute commitment to confidentiality would have to be made. None of the Sponsors have listened to the recordings or read the transcriptions beyond a superficial glance to render an opinion about format or style. The agreements signed with the interviewees commit the University to a five-year closure period before opening the materials for research. Expiration date of this period is October 1, 1974.

3) Results of Processing the Recorded Interviews

Of the 68 interviews, complete transcriptions are on file for 37 and abstracts have been prepared for 27, for a total of 1894 pages. Signed agreements have been obtained from 58 interviewees and of those remaining, 9 are still out awaiting review of abstract or transcript. There is no agreement form for one interviewee who died before a transcription was prepared. Because of the confidential nature of the interviews, there are no plans for publication at this time.

- B -

Principal Investigators: DOUGLASS R. PRICE-WILLIAMS, Professor of Psychology, Rice University; and MANUEL RAMIREZ III, Assistant Professor of Psychology, Rice University.

Title of Project: RELATION OF CULTURE TO EDUCATIONAL ATTAINMENT: MEXICAN-AMERICAN, NEGRO, AND ANGLO CHILDREN

Methodology and Scope:

Nature of the problem—a detailed examination of variables related to educational problems in three ethnic groups. These variables subdivide into: a) motivational, b) cognitive, and c) social factors. Previous research has indicated that interrelations of these three sets of variables are important in the educational life of the child.

One hundred and eighty children in the fourth grade, 60 Mexican-Americans, 60 Negroes, and 60 Anglos of mid and low socio-economic class, males and females, were selected from six Catholic schools in Houston. Permission for doing the research was granted by the superintendent of the Houston-Galveston diocese.

A Personal Data Questionnaire and the Draw-A-Person test were administered to approximately 300 fourth grade children. This allowed the researchers to obtain socio-economic and ethnic group membership data and also to eliminate those children with severe problems. Subjects were chosen at random from the screened pool to constitute the sample described above. Interviews with subjects and their parents, and performance tests and administration of other techniques with children at the schools were also conducted.

Preliminary Results:

Preliminary data include hand-computed figures, and simple computer-run contingency tables. More sophisticated comparisons are scheduled for computer runs.

The use of subjects from parochial schools, and the attempt to form cultural groups with equivalent economic levels results in samples in which differences should be minimized. In spite of this, differences occur.
Almost all Mexican-American parents and children speak Spanish; half of the "Anglo" and Negro parents speak another language at home, but most of their children do not admit to knowledge of another language. The persistence of Spanish-speaking among the children is surprising, since only 1/6 of the parents grew up in Mexico. This persistence may be a reflection of the markedly higher number of Mexican-American parents who disagreed with the statement, "It is a good idea to have some friends whose backgrounds are different from his own." Yet parents of all three groups were in agreement on desiring to pass on cultural heritages, language skills, and some traditional family patterns, such as the responsibility children have to aging parents. Mothers' role as protector of her children is stressed much more markedly by Mexican-American mothers, and so is parental authority.

Effects on children's self-image, and cognition, from whichever source, are marked. In measures of children's skills which are pertinent to school achievement, the Anglo girls generally score higher than the boys, for example, in total self-esteem scores, and in field independence, and intelligence scores, although statistical significance may not be reached. Mexican and Negro averages are lower than the average, and the trend is for girls to score lower than boys. Yet it is notable that Anglo boys and girls achieve the Piagetian concept of conservation at the same high level, and, in order come Mexican boys, Negro girls and Mexican girls, and Negro boys. This skill assumedly depends on a background full of manipulatory experience.

Rough estimates of language skills from word counts in TAT stories, and an analysis of modes of defining words suggest that the Negro and Mexican-American children are highly vocal, but differ from their Anglo confreres in that their definitions are at a more concrete level. It should soon be possible to judge to what extent this concrete, less abstractive, view of things extends to perceptions of family and extra-family members, and hopefully, correlate these views with self-esteem scores and perceptions of peers.

The computer is processing the following measures: TAT story content, with need for achievement, succorance, aggression, affiliation, power, achievement for family and group measures; valued characteristics of self and peers, preference for delayed or immediate reward, skill in a paired associate memory task, and creativity. Following this, it is hoped that the extent to which some of these measures intercorrelate can be found.

Expected Publications:

Although some aspects of this study would be amenable to short paper publications in Child Development, Developmental Psychology, Journal of Negro Education, and Sociometry, the main thrust would be best treated by means of a monograph or book. The format would most likely approximate that used by Baughman and Dahlstrom in their book, *Negro and White Children: A Psychological Study in the Rural South*. 
Principal Investigator: MARY E. SHELDON, Assistant Professor of Sociology, Rice University.

Title of Project: CHANGING COMMITMENTS OF SCIENTISTS TO RESEARCH ORGANIZATIONS

Methodology: This study was from Ph.D. scientists and engineers working in a private research organization in Eastern Washington State. The study was an attitude survey designed to measure attitudes and perceptions both of the profession and of the employing organization. Library research supplemented the empirical findings of the study. Statistical analysis has been done and is still on-going.

Results: It was found that investments in an organization--age, length of service, and position--lead to the development of commitment to the organization, regardless of other features of the relationship of the member to the organization. For example, persons with long length of service in the organization are committed to the organization even when there is a lack of recognition and rewards.

There is a major exception to the above statements. Scientists with middle length of service and medium positions are unlikely to be committed to the organization. They are even less committed to the organization than are young scientists new to the organization.

The explanation for this appeared when professional commitment was introduced into the analysis. For persons with low professional commitment, the positive relationship between investments and commitment to the organization is pronounced. Persons with high commitment to the profession tend not to be committed to the organization, regardless of investments.

High professional commitment appears to increase with work experience. The larger professional peer group becomes more salient as professional competence and professional recognition develops. Professional identity crystallizes with competence and recognition. The profession thus provides a reference group that competes for loyalty with the organization, and because of increased employment alternatives that also develop, the organization is hard-pressed to retain the loyalty of its professional personnel.

There is a factor which reduces the effect of professional commitment for some persons. This factor is social involvements within the organization. Social involvements are particularly important at a critical stage in a man's career--his middle years. In these years, without social involvements and with increased professional commitment, a withdrawal from commitment to the organization appears in spite of increased investments.

Men with professional commitment and a high level of social involvement within the organization are almost three times as likely to be committed to the organization as such men without social involvements. Social involvements therefore operate with investments to assure that the organization retains some of its personnel with professional competence.

Even an organization characterized by a favorable professional environment such as that in this study is only partially successful in retaining men with high commitment to the profession. Favorable work environment and economic incentives are important. They may not be sufficient for men with
high professional commitment. These men in particular acquire an identification (commitment) to the organization as they are drawn into the social orbit of the organization. Social relationships would therefore seem critically important for the organization that wishes to retain men of superior professional calibre.

Publications: One paper entitled "Investments and Involvements as Mechanisms Producing Commitment" has been submitted for publication. A second paper, "Role-making among Scientists," is in preparation.
MISCELLANEOUS

Principal Investigator: LOUIS GALAMBOS, Associate Professor of History, Rice University

Title of Project: A STUDY OF THE PUBLIC RESPONSE TO THE LARGE CORPORATION IN AMERICA AS A PROBLEM OF SOCIAL CHANGE

Methodology and Scope: Basically, the research involved a content analysis of the literature which reflected group concepts of big business. The researcher worked with farm journals, labor publications, and the journals published for professional groups. Most of the material was quantified and attempted to correlate the group perceptions with changes in the groups' economic positions, etc. He also attempted to relate results to the previous studies which touched upon this subject.

Results: Content analysis of a sample of the following journals was completed:

3) professional men: Engineering News-Record, 1880-1940; Congregationalist, 1880-1934; Advance, 1934-1940.

The quantitative material resulting from the content analysis has been processed on the computer, so that we now have time series for all of the groups covering a period of about sixty years. The results indicate whether the image was basically favorable, unfavorable, or neutral, and what the constituent elements in the image were (that is, did the publication stress price policy, labor relations, etc.). For some of the groups involved some basic correlations with income data has already been done. The researcher is continuing that work at the present time. He has also completed part of the job of relating the changes reflected in the time series to other forms of political and social change (e.g., reform measures such as the passage or implementation of the antitrust laws). The data also reveal which firms, businessmen, and industries received the most attention over this sixty-year period. Some work on interpreting this material has already been done as is reflected in the publications noted below. Finally, the data include information on what type of responses the group favored (e.g., private, and individual; private collective; public, state and local; or public, national). These time series for each of the groups are now being interpreted.

Publications:
"Parsonian Sociology and Post-Progressive History," The Social Science Quarterly, 50, No. 1 (June 1969), 75-95.


A book-length manuscript planned for completion by September, 1970, which will be submitted to The Johns Hopkins Press. The working title of the manuscript is: The Public Image of Big Business in America, 1880-1940: A Study in Social Change.

Professors Chandler and Galambos presented a paper on "The Development of Large-Scale, Economic Organizations in Modern America" to the annual meeting of the Economic History Association, September, 1969.

- B -

Principal Investigator: MARIAN KRZYZANIAK, Henry Fox, Sr., Professor of Economics, Rice University.

Title of Project: EFFECTS OF QUALITY DIFFERENCES IN LABOR INPUTS IN A GROWING NEOCLASSICAL ECONOMY

Methodology and Scope:

The question to be researched was: can transfer of proceeds from a tax on profits to the low-skill, low wage workers help that group of income recipients in the long-run? If the answer is yes, how much and at what cost?

As no clear tax and transfer policy was pursued in the past, no empirical answer to these questions is possible; one could only theorize about them with the help of modern models of a neoclassical growing economy.

The methodology applied is that provided by tax incidence analysis. In the process we also acquire tools to compute a "true" benefit-cost estimate of a policy of taxing profits and transferring them to the low wage workers.

The questions were studied in the following stages:

1) A model was built of a growing neoclassical economy with two labor inputs and using calculus the investigator found the parametric long-run solution. This permitted him to find equilibrium values of various economic variables, especially factor group incomes. Substituting parameter values considered "realistic" for the U.S. economy, he got also numerical values of variables in absence of taxes.

2) In the second stage, the investigator imposed a tax on profits, proceeds of which were spent either (a) wastefully (model "W") or (b) were transferred to the low-skill, low-wage workers (model "T"). The long-run position of economic variables were then compared with the same in absence of this tax. The differences in group factor incomes represented the combined
tax and spend policy burdens and/or realized transfers.

3) Finally measures of tax and transfers effects were computed (usually in form of ratios). Specifically, (a) the measure of transfer realization, $R_{T}$, defined as the ratio of the realized transfer to low-wage workers to the transfer dollars; (b) the benefit-cost ratio of this tax and transfer policy, $B_{T}$, defined as the ratio of the realized transfer to the global tax burden, and (c) the relative income improvement measure, $I_{T}$, defined as the ratio of the realized transfer to the value of low-skill workers wage bill in absence of this tax and transfer policy.

These measures depend also (nonlinearly) on the level of the rate of the tax. To show this relation their numerical values were computed for tax on profits rate $x = .1, .2, .3, .4, .5, .6, .7, .8, and .9$. The results show that the policy makers wanting this policy of taxing and transferring should ask themselves what tax rate $x$ would be optimal.

**Results:**

For "realistic values of parameters it was found that taxing profits and transferring them to low-wage workers is possible but has high burdens. Specifically, (1) regarding the transfer realization measure, $R_{T}$, we find that relative to the nominal transfer (also the tax liability for the taxed businesses) the realized transfer to low-wage workers is only a fraction of the transferred dollar. For a very low tax rate $x = .1$, low-wage workers gain 57c for each dollar collected in taxes, and as the tax rate rises their share in the dollar declines to become nil or negative beyond the 80% tax rate. As the decline in transfer share of the tax dollar increases more as the tax rate rises, the relation between the two is not linear even approximately, but concave with respect to origin. (2) regarding the benefit-cost ratio, $B_{T}$, we note that there is a high loss to the society that undertakes such transfers. The benefit-cost ratio, $B_{T}$, for a tax rate as small as $x = .1$, shows that low-wage workers gain about 42c for each dollar lost by the society. As the tax rate rises the gains per dollar decline near linearly, and for tax rates higher than 80%, a point is reached where the realized transfer becomes nil or even negative. (3) regarding the relative income improvement measure, $I_{T}$, it shows a more complex behavior. For a low tax rate it is very small, and rises with an increase in the tax rate $x$. This rise leads to about a maximum of 12½% increase in real incomes for the tax rate $x = .5$. For higher tax rates the measure declines to zero and for $x = .9$ it is even negative. This behavior could be explained by two partial tax effects, off setting each other to a degree. First, as the tax rate rises the nominal transfer $R_{T}$ rises. This contributes to a rise in the realized transfer. On the other side, as the tax rate increases the global burden rises as well, contributing to a decrease in the realized transfer.

**Publication status:**

The paper has been circulated among colleagues in the profession. It is hoped to get further comments before submitting the final version to editors of economic journals for publication.
Principal Investigator: WILLIAM C. MARTIN, Assistant Professor of Sociology, Rice University.

Title of Project: NEW POLITICAL MOVEMENTS AS RESPONSE TO THE INSTRUMENTS OF SOCIAL CHANGE

Methodology: Primary place of research: Harris County, Texas. The basic phases of the research accomplished to date were as follows:

1) Extensive review of the literature in the areas of political ideology (particularly that associated with the "common man" and with authoritarianism and extremism), the 1968 presidential election, and the "silent majority."

2) Two surveys conducted by mail, of systematic sample of 300 each, chosen from a population of approximately 18,000 voters who registered as supporters of George Wallace at the time of the May, 1968, primaries. Respondents were questioned on reasons for supporting Wallace, their expectations before the election, their expectations as to the future of the American Party, previous political activity, and standard socio-economic information.

3) Assembling of basic socio-economic data on all persons contributing over $25 to the 1968 Wallace campaign. National contribution records were checked against city directories and various biographical publications. This work is still in progress.

4) Observation of most regular meetings of the Harris County American Party and some meetings of the executive committee of the local party, from September, 1968, to the present.

5) Extensive exploratory interviews with leaders and most active members of the Harris County American Party, plus limited interviews with state leaders and representatives of the Montgomery headquarters.

Results: Because the research has not been completed, genuine conclusive results of the project are few at this time. No effort was made to duplicate information that is being provided in abundance by such organizations as the National Opinion Research Center. The research has aimed primarily at providing a case study of the support for Wallace in a major metropolitan southwestern area, in the conviction that this type of study will provide a kind of understanding that cannot be provided by surveys of the type that have been published to date.

The two mail surveys indicated that in Harris County, Texas, Wallace supporters ranked somewhat higher on standard indicators than the portrayal of the Wallace man that is frequently seen in the media. With respect to occupational status, educational level, and family income, the typical Wallace voter who responded to the survey ranked slightly above the average resident of Harris County. One important factor that must be considered is that the average figures include both Negroes and Mexican-Americans. The American Party includes almost no members of either group. Still, the data cast serious doubt on the stereotypical picture of the uneducated, poor, low-status redneck racist. Obviously, the data on the 46% who did not return the questionnaire could alter these results significantly, but it is the opinion of the researcher that the picture would remain substantially the same.
Publications:  No publications have been completed to date. Articles on working-class authoritarianism and on the financial support of the Wallace movement are contemplated.

Principal Investigator: WAYNE WHEELER, formerly Professor of Sociology, Rice University.

Title of Project: SOCIAL CHANGE IN A SWEDISH IMMIGRANT COMMUNITY

Methodology and Scope:
Techniques employed include analysis of primary and secondary historical sources in both Swedish and English, e.g., life histories, letters, diaries, personal accounts, biographies, statistical records, general histories, etc. Data have also been gathered by interviews with key informants and participant observation and analyzed by generally accepted procedures. Content analysis of historic materials and contemporary (mid-20th century) newspaper accounts has also been made.

Results:
The major emphasis of this research is upon a diachronic perspective of social change. Continuity of social institutions and culture patterns which developed as a result of the social factors conducive to migration from Sweden in the 1860's and 70's and as a consequence of conditions on the American frontier is a primary theme of the investigation. A second prime theme deals with the influences of the larger American society on the Lindsborg community. In theoretical terms, the direction of change is set forth as developing (in pre-industrial Sweden) from a traditional, peasant community to one which had adapted itself to the modern mass society (Gemeinschaft to Gesellschaft).

Specifically, the following factors are dealt with: the Old-World background of the immigrants including causes of migration, personal behavior, and values including desire for economic opportunity, religious freedom, and social equality; the geographic and social boundaries of the American Lindsborg community; the features of Lindsborg which are shared with or distinguish it from other communities; divisions and cleavages in the community that are cause and symptom of social change; the family and kinship system including its previous and present forms; demographic factors such as age distribution, fertility, and mobility; the influence of an aged population on the contemporary community; the Americanization-assimilation process; the youth culture as an environment for training for outward geographic and upward social mobility; the educational institutions including public schools and Bethany College as structural components of the community and as their forms are both cause and consequence of social change processes; religious institutions and their influence on the development of the community; the sacred and secular rituals enacted in the community and their contribution to community cohesion while contributing to influence of non-cohesive, secular factors in the community's social organization; the business segment of the community as the source of both innovation and obstruction to industrial development; the direct and indirect influences in local community change of
state and federal governments including Defense and Agriculture Departmental activities and absentee-owned corporate enterprise.

Publications: Expect to publish, probably with University of Kansas Press, 1971.
PUBLICATIONS

DAVIDSON, CHANDLER

GALAMBOS, LOUIS
(Co-author with Alfred D. Chandler, Jr.), "The Development of Large-Scale Economic Organizations in Modern America," forthcoming in the Journal of Economic History.

GAMST, FREDERICK C.
"Are Ethiopian Cultivators to be Called Peasants?", Comparative Society and History, (in press).

GOODMAN, MARY ELLEN
Houstonians of Mexican Ancestry (all will be incorporated in a book)
Report No. 5: A Content Assessment of El Sol, a Community Newspaper.

HUDDLE, DONALD L.

HORSTMANN, CHARLES LEE, editor
Urban Futures USA, Proceedings of National Student Conference at Rice University, March 26-29, 1969, (in mimeo.)
JUSTICE, BLAIR
Violence in the City. Fort Worth: Texas Christian University, Leo Potishman Fund, 1969.

KRZYZANIAK, MARIAN

LAND, JAMES W.

McCORD, WILLIAM and JOHN HOWARD

McCORD, WILLIAM, JOHN HOWARD, BERNARD FRIEDBERG and EDWIN HARWOOD

McCORD, WILLIAM and ABDULLA LUTFIYYA

"Values and Urbanization in the Middle East." New York: W. W. Norton (in press).

McCORD, WILLIAM

MARSAL, JUAN
"La ideología de los intelectuales Argentinos y Mexicanos," (in press).

NORBECK, EDWARD

Religion and Society in Modern Japan. Rice University Studies (in press).


PRICE-WILLIAMS, DOUGLASS R.

RIMLINGER, GASTON V.
Research conducted under the auspices of the Center for Research in Social Change and Economic Development at Rice University concerns social change and emphasizes social change associated with economic development. Given the large number of projects and variety of subjects covered, it is not possible to summarize work done under the contract in a normal fashion. Instead, an effort has been made to abridge the final reports of the principal investigators of each of the 33 projects. It should be emphasized that the small space given to each study cannot properly describe many facets of the research undertaken by individual investigators.

The list of publications includes only those manuscripts which have been published or accepted for publication. Many of the projects are not yet completed and/or manuscripts of research results are in progress.