

DIRECTIONS IN AFDC STATISTICAL RESEARCH

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I. Introduction

Since 1937, the Aid to Families with Dependent Children (AFDC) program has provided public assistance to needy families with children who are deprived of parental support or care. In addition, beginning May 1961, States could extend the AFDC program to include not only foster home care for these children but also assist intact and needy families with children whose fathers were inadequately or temporarily unemployed and ineligible for unemployment insurance benefits.^{1/} Currently, 25 jurisdictions have approved plans operating under the unemployed father segment of the AFDC program.

As of February 1974, 10.9 million persons or 5.2 percent of the total civilian population in the nation were covered under the AFDC program. Included were 7.9 million children and 3.0 million adults in about 3.2 million families (or 5.8 percent of the total number of families in the nation). The program currently covers about 97 AFDC children for every 1000 under 21 years of age in the Nation (the AFDC child recipient rate).

In February, 1974, 461,000 recipients (including 277,000 children) within 101,000 (mostly double parent) families were in the unemployed father segment of the AFDC program. The remaining segment covered essentially single parent families, mostly families headed by a woman. In January, 1973, a special study found that about two million families of the 2.9 million AFDC families (or 79 percent of the total) were families headed by a woman.

Four States (New York, California, Illinois and Pennsylvania) with about 30 percent of the nation's population had 36 percent of the total AFDC recipient caseload.

AFDC assistance groups not only receive cash maintenance payments but some are also eligible to receive benefits such as food stamps, Medicaid, housing allowances and social services. The amount and type of assistance received depends on States' payments plans and on how much assistance units are able to obtain necessities on their own. Means-tested assistance payments make up the gap between income received and the minimal living cost standards established by States (including adjustments which differed by States.)^{2/}

In February 1974, for the nation as a whole, an average AFDC case unit (approximately a 4-person family) received about \$200 monthly of cash assistance or an annualized amount of about \$2400. This cash assistance was roughly about 53 percent of the low income threshold for a 4-person family. However, due to different payment standards among States, average monthly

payments per unit ranged from \$339 in New York to \$51 in Mississippi.

AFDC cash income maintenance payments for February 1974 amounted to 638 million dollars. In calendar year 1973, total AFDC income maintenance payments totaled 7.2 billion dollars, approximately 35 percent of all Federally aided assistance program expenditures of 20.5 billion dollars (including AFDC, the adult programs and emergency assistance).

In February 1974, Federally aided Medicaid payments (in the form of vendor payments) amounted to 842 million dollars. In calendar year 1973, total Medicaid payments totaled 9.8 billion dollars. Overall, the Federal Government paid about 54 percent (income maintenance) and 52 percent (Medicaid) of total assistance costs with the balance paid by State and local jurisdictions.

The establishment of timely and comprehensive statistical reporting channels from State welfare offices to Federal regional offices and to NCSS is critical for the proper planning and administration of Federally aided but State operated public assistance programs, such as AFDC.

The main purpose of this preliminary paper, divided into three parts, is to outline better information needs for policymaking purposes. The first part highlights changes in AFDC caseload and AFDC family characteristics occurring in past years. The second part presents some of the efforts being made in NCSS to improve the current AFDC statistical information systems.

While the first and second parts are descriptive, the third part is exploratory. The third part points out needs for further research to develop better ways to collect household survey data. It notes that for certain types of information data collection methods fail to produce relevant information because of the lack of a theoretical framework and related data collection techniques, especially in household surveys covering low income families. It further suggests that the human capital approach be used in developing a conceptual framework for use in conducting household surveys.

II. Changes in AFDC Caseload and AFDC Characteristics

A. Macro Changes

Since the beginning of the program in 1936, AFDC caseload has been on an upward trend in response to many complex interrelated variables. As of December 1936, with 23 States included, the program covered 161,600 AFDC families and 546,200 recipients (403,980 children). As of December

1973, with 54 jurisdictions included, (50 States Puerto Rico, District of Columbia, Guam, Virgin Islands) there were 3,155,500 AFDC families and 10,814,300 recipients (including 7,811,700 children). Between 1936 and 1940, the average annual percentage rate of increase in the number of families and recipients were both about 21 percent per annum primarily because of new States coming into the program. However, between 1941 and 1973, the annual rate of increase averaged out to 6.7 percent for families and 6.9 percent for recipients. The ratio of AFDC families to all families in the Nation (the AFDC family rate) and the ratio of AFDC recipients to the resident population in the Nation (the AFDC recipient rate) increased at an average annual rate of 6.5 percent and 5.4 percent, respectively, during this same period. These data indicate that although AFDC families increased proportionately with the increase in the number of families in the Nation, the AFDC recipient population increased at a slower rate than the overall population growth from 1941 to 1973.

A full analysis of the reasons for the upward trend in AFDC caseload over the past 37 years is outside the scope of this present paper. Only an outline of the more important factors involved is presented. For those who wish to pursue this problem further, publications on this general subject are available. 3/

The growth of AFDC caseload during the past 37 years has been in response to many complex factors. Simplified, they relate to demographic changes, e.g., child population increase, mobility and migration; economic, e.g., rising standards of living, unemployment, etc.; sociological, e.g., increasing teenage-age marriages, more broken homes, urbanization, etc.; and the most important-administrative, judicial and legislative program changes, including amendments in the Social Security Act, several important court decisions, and changes in State and Federal regulations resulting in expanded coverage, improvement of standards, etc. Clearly, this expansion in AFDC caseload did not occur at an uniform rate but at variable rates depending on how various factors affected the creation of new eligibles, how fast they were converted to program recipients, and on how fast AFDC recipient units were leaving the system.

Beginning in 1936 and continuing through 1940, the high average annual percentage increase (21 percent per annum) in the number of families and recipients between 1936 and 1940 is attributed primarily to new States entering into the program. Between 1936 and 1941, 21 additional States joined this program. By April, 1941, 44 States had adopted the AFDC program. Not included were several States with about 10 percent of the total civilian population in the Nation.

From December 1941 to December 1945, the continual rise in AFDC caseload was broken due to World War II. During this period, the average annual percentage decline was 8.5 percent and

7.5 percent, respectively, for families and recipients. However, after this temporary contraction, the AFDC caseload again rose. From 1946 to 1950, the average annual percentage increase in AFDC families and recipients were 17 percent and 19 percent, respectively. The AFDC recipient rate showed an average annual rate of increase of about 15 percent. Major reasons for this upswing were increases in marriages and marital breakups, expansion in the child population, economic problems, and program changes. In August 1950, the caseload reached a peak of 655.8 thousand families and 2.24 million recipients. As of December, 1950, 36 children per 1000 population under 18 years of age in the Nation were aided in the AFDC program.

This expansion in AFDC caseload was temporarily stopped during the period of the Korean conflict. From 1951 to 1953, the average annual percentage reduction in the number of AFDC families and recipients were 5.6 percent and 2.5 percent, respectively. As of December 1953, there were 547.3 thousand AFDC families and 1.94 million recipients on the rolls. This represented a net loss of 108 thousand AFDC families in three years. The child recipient rate was 27 per 1000, significantly below the high of 36 per 1000 in December of 1950.

From the end of 1953 to the beginning of the 1957-58 recession, the overall AFDC caseload moved steadily upward again. Between December 1953 and December 1956, the average annual percentage increases in AFDC families and recipients were 4.0 percent and 5.4 percent, respectively. The AFDC recipient rate grew at an annual average of 3.4 percent. The child recipient rate was 29 per 1000 as of June 1956, still below the high of 36 per 1000 in December 1950. However, from 1956 to 1958, the average annual rate of increase accelerated to 11 percent for families and 12 percent for recipients, probably affected by the 1957-58 recession. Although the average annual rate of increase in AFDC caseload leveled off for a short period from 1959 to 1960 (4.3 percent for recipients) it started to advance again during the 1960-61 period. This amounted to an average of 11 percent for recipients between December 1960 and December 1962. Two main reasons were involved: (1) the 1960-61 recession and (2) effective May 1961, the AFDC program was broadened to include the unemployed father segment. There was a net increase of 112,000 AFDC families and a net increase of 493,000 recipients between December 1960 and 1961.

From 1962 through 1966, the volume of AFDC families and recipients moved forward only gradually, averaging an annual increase of 4.9 percent and 5.3 percent, respectively. Both the AFDC family rate and the AFDC recipient rate increased at an annual average rate of 4.0 percent; in contrast, the child recipient rate crept up from 42 per 1000 in June 1962 to 48 per 1000 in June 1966, reflecting a higher share of the Nation's children under 18 years within the AFDC program.

Beginning in August 1966, the longest rise in AFDC caseload began and continued upward until

April 1972. From August 1966 to March 1970, the average annual rate of increase of the 12 months moving average (to eliminate seasonal variations) in the number of AFDC families was 16 percent per annum; from April 1970 to December 1970, it accelerated to a historical peak of 33 percent per annum. From January 1971 to March 1972, the expansion slowed down but still advanced at a very high rate of 22 percent per annum. Between December 1966 to December 1971, the AFDC family caseload continued to increase at an average annual rate of 18 percent while the AFDC recipient caseload rose at 21 percent per annum. The comparable measures for the AFDC family rate and the AFDC recipient rate were 19 percent and 16 percent, respectively.

In December 1966, the AFDC child recipient rate was 48, but in December of 1971, this rate was approximately 83 children per 1000 population under 18 years of age, a near doubling within 5 years.

As of December 1971, the AFDC caseload consisted of 2.9 million families and 10.7 million recipients (including 7.7 million children). Five years before (December 1966) the caseload covered about 1.1 million families and 4.4 million recipients (including 3.3 million children).

The dramatic rise in AFDC caseload during this period can be attributed to several factors. The more important ones were the 1967 amendments to the Social Security Act which required States to reprice their cost standards for basic needs to reflect price changes and required States to disregard specified amounts of earnings in determining the assistance amount that a family with earnings would receive. Additional families became eligible for assistance under the first amendment while cases that normally would had been closed continued to be eligible for reduced assistance payments under the second. In addition, more units entered into the AFDC program as they became aware of their eligibility as publicized under the "War on Poverty" program. Also, many organizations working in this program area caused program regulations to be revised which made possible more people to be eligible under the AFDC program. In addition, internal administrative changes caused more AFDC eligible families to receive benefits.

However, beginning with April 1972, the average annual percentage rate of increase of the 12 months moving average began to decline. From April 1972 to August 1973, the average annual rate of increase of the 12 months moving average for recipients dropped about a third (7 percent) of the rate for the January 1971-August 1973 period (22 percent). From September 1973 to February 1974, the average annual rate of increase in the moving average dropped significantly to a level of 1.2 percent. The rate for 1970 to 1971 was 10.3 percent, from 1970 to 1972, 7.1 percent, and from 1970 to 1973, 3.8 percent. Declines in the average rates of expansion were equally significant for families, 14.3 percent, 10.6 percent and 7.3 percent,

respectively. For the AFDC family rate, the rates of increase were 12.9 percent, 8.8 percent and 5.5 percent while for the AFDC recipient rate the comparable rates were 9.0 percent, 5.9 percent, and 2.8 percent, respectively.

This decline in the rate of increase in the dramatic upward movement of AFDC caseload can be attributed to many interrelated factors among which are administrative (e.g., tightening of administrative procedures in screening eligibles), legislative (e.g., shift of the disabled to APTD and subsequently to SSI prior to July 1973), demographic (e.g., probable saturation of female headed families eligible for AFDC) and economic (e.g., budgetary pressures on governmental units). The various reasons responsible for the rise and decline of the AFDC caseload are to be analyzed in more detail.

With respect to seasonal variations in the AFDC caseload, there is a definite seasonality pattern in the caseload for the unemployed father segment. Overall, the national caseload tends to increase about 17 percent during the late winter and early spring period and tends to decrease about 14 percent during the late summer and early fall period. The AFDC-UF segment caseload hits its highest peak during January-February and decline to its lowest level during the summer months. These variations are presumably associated with seasonal farm and service-type work, involving the high risk AFDC population.

In summary, this overview noted that AFDC rolls have not expanded on a steady course during the past 37 years but have grown with different periods of rise and decline, depending how different caseload variables interacting with each other. More detailed investigations of reasons for fluctuations in AFDC caseload will be a subject for future papers.

B. Micro Changes

Characteristics of AFDC families have also changed historically, many in line with national trends. Data depicting these changes were obtained from National surveys of AFDC families conducted recurrently since 1948 by NCSS in cooperation with State welfare offices. These changes in characteristics reflect changes in administrative, demographic, economic and sociological variables. The statistical information compiled in these surveys is limited to those which can be readily obtained by caseworkers from case schedules kept in State welfare offices. All information is handled under very strict procedures to protect the confidentiality of individuals. Since more detailed statistical information is available elsewhere, only key changes in characteristics are highlighted. 4/

In line with National trends, AFDC families are becoming more urbanized (an increase of about 31 percent between 1953 and 1973). The proportion of Black families in the National caseload has increased, from 22 percent in 1942 to 40 percent in 1961 and 46 percent in 1973. The

average number of child recipients declined in AFDC families from 3.2 in 1961 to 2.6 in 1973.

Accordingly, the average size of an AFDC family has dropped from an average of 4.2 persons in 1961 to 3.6 persons per family in 1973. Moreover, the median age of AFDC mothers has declined from about 35 in 1961 to about 30 years in 1973.

In 1961, the median time on assistance rolls of those on the caseload at the time of the survey for a family was 2.1 years. In 1971, the comparable figure was 1.6 years. This drop was heavily influenced by the large number of AFDC families newly coming into the program during the 1966-71 caseload expansion period noted previously. In 1973, however, the median time on assistance had risen to two years. This rise was due to a combination of factors including a slowdown in the caseload expansion which resulted in a smaller proportion of families which were on AFDC rolls for shorter periods and also a result of the income retention provision of the 1967 amendment.

The percentage of illegitimate children in the AFDC program has risen. ^{5/} In 1948 about 11 percent of all children in the program were illegitimate. This percentage rose to 24 percent in 1961, and to 33 percent in 1973. The January 1973 study showed that about 46 percent of all AFDC families had at least one illegitimate child.

Also in line with national trends, there are more AFDC families with marital breakups. In 1961, about 22 percent of all AFDC families had no fathers because of marital breakup. In 1973, this rate was approximately 45 percent, twice the percentage of 1961.

Approximately 18 in every 100 mothers was employed or looking for work in 1961. However, by 1973, this rate had risen to 29 in every 100. AFDC mothers working full-time also increased. In 1961, one in every 20 mothers had worked full time. In 1973, this rate was 1 in 10.

The average educational level of workers has also risen from 9 years of schooling in 1961 to 11 years of schooling in 1973.

Overall, these data indicate that as compared with the past, AFDC families have better chances for getting off AFDC rolls, i.e., relatively smaller sized AFDC families with breadwinners having more work experience and higher educational levels than before. However, further reduction also requires that on the demand side, more work opportunities be made available for them, and on the supply side, barriers for employment outside of the home be reduced (e.g., availability of child care facilities).

III. Ongoing NCSS Statistical Research 6/

In view of the need for more relevant, timely and accurate statistical information on SRS program recipients, eligibles, and the high risk AFDC population, a demonstration project to be

implemented in a single State is in progress to (1) provide information on unduplicated counts of SRS program participants, (2) tie in assistance from multiple programs to individuals and families, (3) identify factors which lead to programs participation among eligible and (4) provide detailed characteristics of recipients and services received by these recipients.

This redesign of the recipient statistical reporting system brings into focus data of the "in-scope" population who are already on the rolls of welfare agencies. Information will also be sought about the high risk AFDC population by means of a proposed longitudinal sample survey of low income households. A small pilot study is presently being conducted by the Census Bureau covering families with an income level of less than 1.5 the low income threshold. This survey will attempt to learn more about the AFDC eligible population, with or without public assistance payments, and the low income population not eligible for the AFDC program. In this test study, data on household compositional changes will also be collected. The results of this study should provide valuable information on problems involved in collecting such data in future household surveys covering low income families.

Furthermore, NCSS is publishing results of the AFDC study conducted in January 1973, of which some findings were presented in Part II. This is a continuation of a series of such studies conducted periodically since the program originated. Surveys were made in 1948 (June), 1953 (November), 1956 (January, February, March, or April), 1961 (December), 1967 (November or December), 1969 (May), and 1971 (January). Although no evaluation has been made to determine the accuracy of study findings, plans are being made to conduct such analysis in the future.

In addition to the above, action is being taken to expedite the timely reporting of key statistical data from State welfare offices by telephonic reporting to NCSS (via Regional Offices) in advance of the regular reporting requirements. Also to speed up the processing and publication of statistical data collected by NCSS, efforts are being made to computerize the production of NCSS publications.

The above work will materially improve the current statistical information system within NCSS and will result in better statistical data on AFDC caseloads and payments for use in the administration of SRS programs.

IV. Directions in AFDC Statistical Research

It goes without saying that decision-makers make choices under conditions of uncertainty. The statistician's main task is to help reduce this uncertainty by providing the proper information so that the decision-maker will make better decisions. Ideally, this information should be relevant, accurate, timely and understandable. However, working under imperfect conditions, the statistician sorts out the more important requirements and attempts to meet them as best as

possible under the constraints of time and resources. In this effort, tradeoffs among alternatives are made depending on how information is to be used, costs of obtaining the desired information and the penalties of making wrong decisions. For example, under certain circumstances, timeliness may be more important than rigor and in others, accuracy supersedes, regardless of costs.

In making these tradeoffs, implicitly or explicitly, the statistician applies a crude information effectiveness index. In this regard, this writer believes that many statistical studies on household activities, especially on low income households could have been materially improved by the use of some analytical framework in compiling statistical data. Typically, much of the information asked in surveys is not related. This writer believes that these surveys have a low information effectiveness index because of the lack of an appropriate conceptual model and the use of deficient data collection techniques. Under these circumstances, the decision-maker could receive misleading quantitative information.

Framework of Analysis

In trying to understand a complex social phenomena involving many interrelated variables, e.g., demographic, social, economic, psychological, political and administrative, decision makers need to formulate a framework by which these interrelationships can be analyzed. It is suggested initially that simplified social accounts be used which correlate transactions between and among the three sectors in the domestic economy - government, business and households.

This is shown in the form of circular flow accounts:

Sales (Income)	Purchases (Expenditures)
<u>Private and Household Enterprises (Production)</u>	
Net sales of goods and services to enterprises, government and to households	Net purchases of goods/services Labor services purchased from households Net Government payments Residual
<u>Households (Production and Consumption)</u>	
Earnings received from labor services sold to enterprises, government and to households Transfers receipts Other receipts	Net purchase of goods/services Transfer payments Net government taxes Residual
<u>Government (Production)</u>	
Government Receipts	Net purchase of goods/services Labor services purchased from households Net transfer payments Residual

In this scheme, households purchase goods and services (from business and household enterprises, government and households) for consumption purposes. The value of consumption expenditures, other things equal, depends on the amount of aggregate income received, which in turn, is divided into earnings received from labor and capital services, and transfer payments from governmental or private sources. The value of individual earnings is a product of earnings received per time unit and the amount of time unit worked. For public assistance households, e.g., those in AFDC, means-tested transfer payments are cash assistance receipts and income-in-kind or vendor payments for housing, social and medical services.

Services provided to eligible public assistance households are paid by Government in the form of vendor payments or direct compensations. Within the household sector, given fixed levels of household consumption expenditures, earnings and transfer receipts are substitutes since as one source increases, the other decreases and vice versa. Under these circumstances, transfer payments are substitutes on the income side; but on the expenditures side, they are complements.

A key problem is to examine how rates of substitution between these income sources, given a fixed consumption level, are derived by households under varying conditions and circumstances.

This framework helps to examine the following statistical conceptual issues in conducting household surveys, especially among low income households:

- Need for a labor utilization approach instead of the presently used labor force approach to collect work experience data;
- Need for a human capital conceptual approach in designing household surveys;
- Need for integrated household surveys, and,
- Need for integration of information on transactions between and among the three sectors - government, business, and households.

Need for A Labor Utilization Approach

For the typical household, aggregate income consists mostly of earnings. However, for the public assistance households, income consists of mostly transfer payments, whether in the form of cash payments or income-in-kind. Many studies on the employment potential of AFDC families have concluded that breadwinners of these families are employable and are willing to work to get off public assistance rolls if employment barriers, such as need for training, inadequate child care facilities, illness, etc., could be somehow reduced. 7/

The size of individual earnings is a product of the volume of paid work measured in time units, and the corresponding average time unit earnings, which depends on the occupational activity performed. For aggregate household earnings, its size depends on (1) number of earners in the household and (2) the size of individual earnings.

Thus, the overall level of aggregate household expenditures and income which affects the assistance level, depends upon the amount of earnings received which in turn is related to the amount and type of paid work performed. Study findings show that work activity being performed by AFDC mothers was typically sporadic employment-either full or part time. 8/

The currently used labor force approach used for measuring employment activity in AFDC households is not fully adequate to produce information which reflects the fluid and dynamic work situation typically found among these households. A basic assumption of the labor force approach is that labor agents work at and seek jobs - related to established work activities involving regular work, regular pay, and rather standardized working schedules. In AFDC households, it is not unusual to find working age members engaged in low productive work in marginal services activities while seeking regular (and more productive work elsewhere). For others, they temporarily apply for assistance until suitable work is found. They move in and out of different work (and nonwork) activities as circumstances change. Under these conditions, classifications such as "inside and outside of the labor force" based on a week's time, become meaningless and very difficult to interpret for policy-making.

Instead of the labor force approach this writer suggests that a labor utilization approach may be more suitable for measurement purposes. This proposal employs a flow accounting concept rather than the stock accounting concept used in the labor force approach. 9/

The labor utilization approach attempts to analyze the sources and uses of the labor input flow in the same way that the economic accounts attempt to measure the value-added flow in productive activity. In this approach, labor agents are classified in different categories based upon how their streams of labor energy are utilized. In contrast, the labor force approach primarily attempts to measure the number of people in the economically active population who were either employed or not employed at certain points of time as shown by the labor force participation rate and the unemployment rate. The mechanics of getting meaningful information under the labor utilization approach in household surveys involve the development of a time disposition questionnaire which allows for the recording of irregular hours worked by labor agents in primary and second work activities during the month. In view of the typical irregularity of work activities performed by persons in AFDC households, the use of a time dispo-

sition questionnaire provides the opportunity to record the variability not only in the hours worked but also in the types of work performed. For recording purpose, the survey period can be divided into (1) the survey reference period and (2) the survey accounting period. Labor agents are classified based on the information compiled in the survey reference period. More detailed information is collected for those labor agents which have very irregular working conditions, e.g., migrant laborers, in the supplementary survey accounting period. This allows more flexibility in collecting survey information, especially for the dynamic work situation typically found among AFDC households.

Need for A Human Capital Conceptual Approach in Designing Household Surveys

Once the formulation of the labor utilization approach is accepted the applicability of the human capital approach in designing household surveys logically follows. 10/

The basic idea of this approach is that persons or labor agents represent human capital with embodied investment flows such as inputs of health care, education, training, etc. 11/ They are also carriers of work energy that can be utilized in both production and non-production activities. In combination with other factor agents of production, labor agents produce goods and services (and receive earnings) for current consumption or further investment.

A good example of this relationship is that between caloric consumption, work activity and value added. 12/

A basic problem is to investigate the flow process by which this work energy is created and eventually utilized in different remunerative and non-remunerative end-use activities. This type of analysis should materially add to the better understanding of needs of low income households for policymaking purposes.

Need for Integrated Household Surveys

In line with the above, requirements exist to analyze the socio-economic behavior of public assistance units in a more comprehensive fashion using integrated household surveys. It is unfortunate that much of this interdependent information on human and social capital (investment) is collected separately in ad hoc surveys, e.g., a sample survey on the labor force, a sample survey on income and expenditures, etc. This problem can be attributed partly to the lack of a comprehensive analytical framework which can be used to integrate different types of household data into a socio-economic theoretical system.

As soon as we accept the need for the use of the human and social capital approach in designing household surveys, the use of integrated household surveys becomes more critical.

Need for More Information Analyzing Transactions
Between and Among Sectors of the Economy

The discussion up to now relates to data needs to analyze more effectively the dynamic behavior of the household sector. However, for policy-making purposes, data are also required which show linkages between and among the selling (supply) and buying (demand) components, e.g., the provision of social and medical services to AFDC recipients. For this, a marketing matrix can be developed. Thus, a social service statistical information system can be developed in the same way that retail consumer sales by different types of outlets can be related to purchase of goods and services by different types of households.

This matrix can be used to trace types of social services received by different groups of public assistance recipients from various vendor groups under different SRS program areas. Work is now ongoing to develop the basic groundwork by which such information systems can be implemented.

Summary

This preliminary note is a beginning of a series of more detailed papers presenting statistical research efforts currently being conducted at NCSS. It indicates the need for more analysis on the sources and structure of growth in AFDC caseload. Also, it notes that more work is needed in developing new conceptual approaches to compile statistical data covering potential and current AFDC households in household surveys. Finally, it calls for more investigation to improve the statistical measurements of transactions dealing with public assistance payments between and among the three sectors of the economy-business, government and households.

Footnotes

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1/ See Handbook of Public Income Transfer Programs, Paper No. 2 of Studies in Public Welfare, by Irene Cox, Joint Economic Committee Print, U. S. Government Printing Office, Washington, D. C., 1972, p. 136.

2/ See the following: "Families Receiving AFDC: What Do They Have to Live On" by Gerald Kahn and Ellen Perkins, Welfare in Review, October 1964; "Characteristics Associated with Receipt or Non-Receipt of Financial Aid from Welfare Agencies" by Robert Stone and Fredric Schlamp, Welfare in Review, July 1965. See also Studies in Public Welfare, various papers.

3/ See the following: "AFDC in Review"; Ellen Perkins, Welfare in Review, November 1963; "Trend in AFDC Recipients, 1961-65"; John Lynch, Welfare in Review, May 1967; Decline in Number of AFDC Orphans, 1935-1966", David Eppley, Welfare in Review, Sept.-Oct. 1968. NCSS Report (A-2) for March 1970; NCSS Report (H-4); "Trends in AFDC," NCSS Report (H-1), October 1968. Published analyses by various State agencies, e.g., the Illinois Department of Public Aid. Studies in Public Welfare series prepared by the Joint Economic Committee. "Have the Poor Been Regulated" Toward a Multivariate Understanding of Welfare Growth" by Eugene Durman, Social Services Review, September 1973, pp. 339-359. Aid to Dependent Children by Winifred Bell, Columbia University, 1965.

4/ See "The AFDC Family in the 1960's" by David Eppley, Welfare in Review, Sept.-Oct. 1970; "A Study of Children in AFDC Families," by Perry Levinson, Welfare in Review, March-April, 1969; "Changes in AFDC, 1969-71" by Betty Burnside, Welfare in Review, March-April 1972. See also various NCSS publications published under the title Findings of AFDC Studies.

5/ See "The Incidence of Illegitimacy in the United States" by Arthur Campbell and James Cowhig, Welfare in Review, May 1967. See also "The Role of the Unmarried Father" by Mignon Sauber, Welfare in Review, November 1966.

6/ This covers the research work currently being conducted only in NCSS and does not include the other research work being completed in other organizational elements within SRS.

7/ See "The Employment Potential of AFDC Mothers" by Genevieve Carter, Welfare in Review, July-August 1968; "How Employable are AFDC Women?" by Perry Levinson, Welfare in Review, July-August 1970; "MDTA Training and Employability" by Edward Prescott, et.al. Welfare in Review, January-February 1971; "The Employment Potential of AFDC Mothers" by Betty Burnside, Welfare in Review, July-August 1971. For studies relating employability and public assistance see "The Employability of AFDC Mothers and Fathers" by Martin Warren and Sheldon Berkowitz, Welfare in Review, July-August 1969; Measuring the Potential of AFDC Families for Economic Independence" by Harold Morse, Welfare in Review, November-December 1968; "Predicting Use of Public Assistance" by Oliver Moles, Welfare in Review, November-December 1961.

8/ See "Patterns of Work and Welfare in AFDC" by Mildred Rein and Barbara Wishnov, Welfare in Review, November-December 1971. See also "Families on Welfare in New York City," Welfare in Review, March-April 1968.

- 9/ This concept involves a flow/stock model where a person is envisioned as a carrier of human capital. There is a stock (an inventory of potential human energy) and a flow (the use of this labor energy as measured in time periods). The human population at a point of time then represents a collective of persons holding an inventory of potential labor energy to be used for some end use.
- 10/ According to T. W. Schultz, investments in human capital can be classified under (1) schooling and higher education, (2) pre-school training and learning, (3) preschool learning activities, (4) migration, (5) health, (6) information and (7) investment in children (population). See his "Human Capital: Policy Issues and Research Opportunities" in Human Resources, Fiftieth Anniversary Colloquium, Part VI, National Bureau of Economic Research, New York, 1972.
- 11/ See "Food Consumption, Nutrition and Economic Development in Asian Countries" by H. T. Oshima, Economic Development and Cultural Change, July 1967, pp. 385-397.
- 12/ For useful studies, see The Economics of Human Resources by H. Correa, North Holland Publishing Co., Amsterdam, 1963; Human Capital Formation and Manpower Development, edited by R. A. Wysha, The Free Press, N. Y., 1971; Journal of Political Economy, Supplement on "Investment in Human Beings," Vol. LXX, No. 5, Part 2, Oct. 1962; "The Increasing Economic Value of Human Time" by T. W. Schultz. The American Journal of Agricultural Economics, December 1972 pp. 843-850.