

Developing Work Units in a Child-Placing Agency

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Social work agencies use various units of count to describe their service programs—case counts, activity counts, personnel counts, and financial data. For determining unit costs and for budgeting and other important administrative purposes, an integrated measurement system is needed. Work measurement, a system that holds promise of meeting this need, is currently being tried in a voluntary agency, and the test is described in the following pages.

THE pressures of large-scale operations, rising prices, and shortages of professionally trained personnel are causing social agency executives to study their operating costs and budgets even more carefully than before. The article that follows indicates some of the reasons the statistical measures currently used in administering certain types of social work agencies are frequently unsuitable for obtaining unit costs, suggests a more nearly adequate system—work measurement—and describes an effort being made currently to apply that system to the operations of a child-placing agency.

Counts Now in Use

The generally accepted basic unit of count in agencies using the casework process is the "case." The "case" is an individual or family to whom casework service is given by the agency. In family service agencies, for example, the family is the unit of count, and the number of individuals in the family may be maintained as a subsidiary count. In children's agencies the child is the unit of count, and the members of his family may be enumerated as an auxiliary count.

The case count is intended to be a count of the volume of service provided by the agency. The customary form is a monthly inventory or turn-

over report—that is, the number of cases on hand at the beginning of the month, the number accepted for service during the month, the number terminated, and the number on hand and continued to the next reporting period. By separating the cases accepted into new cases and those reopened within the reporting period, it is possible to ascertain the population served that can be related to a general population to obtain rates of coverage.

Computations of turn-over rates provide a rough measure of the duration of service and have possible value in relation to agency policy with respect to short-term versus long-term care. The same type of information can be obtained more directly and precisely, however, through data on length of service—that is, time elapsed between opening and closing the case.

The reason that case counts are cast in inventory form seems to be related to the desire to use the case count to arrive at workers' caseloads. A case accepted for service in an agency is assigned to a worker; the case then becomes the worker's responsibility and is part of his caseload. The caseload of a worker is commonly used not only as a direct, quantitative measure of his responsibility but, by extension, as an indication of the volume of work actually performed. It is commonly accepted practice in the analysis of case-count data to divide the number of caseworkers into the agency case count to obtain average caseloads. Interpretations of trend and interagency comparisons of average caseload data are usually based on the assumption

that high caseloads reflect heavy demands on workers. Low caseloads are considered prima facie evidence of less onerous and less pressing demands on staff and hence indicative of situations that may provide opportunity for higher quality work.

In recent years, statisticians, budget officers, administrators, and other persons concerned with the operation of casework agencies have become increasingly dissatisfied with raw caseload data. The easy assumption that a case is a case and nothing more—an assumption not often challenged when caseload data are used for general informational purposes—is seen to be untenable when the data are used to establish workload standards for use in staff supervision. Likewise, as cost differentials become more important, the customary procedure of dividing caseloads by selected expenditures to determine unit costs is seen to be increasingly unsatisfactory.

A child-placing agency may be used as an example. A caseworker engaged in the adoption program of this agency may be assigned to work with one or more of the following: (1) the child, (2) his natural parent or parents, (3) the boarding-home parents who may provide temporary care until the child is placed with the adoptive parents, (4) the adoptive parents and the court representing the interests of the community. If the case, defined as a child receiving service, is the unit of count, how does one determine the workload of a caseworker who is engaged exclusively in studying the suitability of prospective boarding homes? Or if some caseworkers are engaged in both placement for adoption and finding foster home care, how does one determine costs for each type of service? These are common operating situations and measurement problems in a child-placing agency.

In other types of casework agencies, similar problems occur that defy analysis under present case-count pro-

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cedures. Because of its lack of clarity and homogeneity, the case is an unsatisfactory unit of count for use in analyses of workloads, unit costs, and other aspects of administration. As has been suggested, the term "case" was originally intended to relate to the individual or person receiving service. The attempt has been made, unsuccessfully, to make this term serve as a measure of the extent of the worker's responsibility, the volume of work performed by him, and the extent of the services provided. Because the case count does not, in fact, describe either the work performed or the service delivered, it cannot be related with precision to either the count of personnel providing service or to agency expenditures for service.

To improve the unit of count in casework agencies, it has been suggested that a count of specific activities performed by the caseworker in providing services—for example, office interviews, home visits, supervisory conferences—be substituted for or replace the case count. A few agencies currently maintain such counts. This device would appear at best, however, to be only a half step in the direction of a solution. An activity such as an interview may be a necessary part of the process in providing service, but it does not in itself describe the function of a program or the purpose of the service provided; hence it lacks validity as a basic unit of count. The mere addition of an activity count or any other type of count only adds to the list of units currently in use and does not clarify their interrelationships.

The units of count currently used in many social work agencies are (1) the case count, using as a unit the individual or family; (2) the activity count (office interview, home visit, case recording, etc.); (3) the personnel or staff count (worker); (4) the financial count (dollar expenditure).

Some of these units of count can be interrelated easily to get ratios having administrative value. The number of cases, for example, may be divided by the number of interviews and interviews by workers, and the number of workers may be related to expenditures for salaries. There is, however, no common denominator or method of conversion used in service programs that makes it possible to interrelate

meaningfully all four types of count that are currently employed. Moreover, efforts to obtain workload averages or unit costs by using undifferentiated case counts as the denominators are fraught with statistical danger.

The determination of unit costs requires the measurement of input and output relationships. This is, in essence, the objective of statistical work measurement, a system developed for purposes of public administration.

Work-measurement procedures involve utilization of time-study and cost-accounting techniques, especially adapted to the needs and characteristics of agencies established to provide public services rather than to earn a profit. These procedures have been applied in the administration of units of the Department of Defense and in other operations of the Federal Government, such as the Forest Service of the Department of Agriculture. Work measurement in some of its aspects has been applied to such varied operations as public health nursing, public assistance, and library service. Its successful application thus far has been in operations involving a few highly repetitive tasks, organized on a straight-line production basis. The question raised here is whether work measurement can be applied for the purpose of getting answers to basic questions about workloads and unit costs in a service program such as that operated by a child-placing agency.

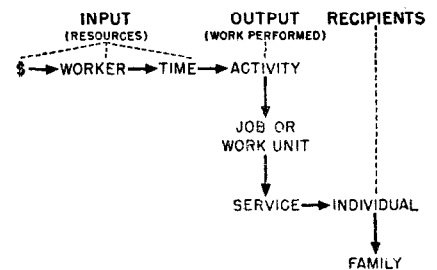
Work Measurement in a Child-Placing Agency

A pilot study to test the possibilities and to examine the problems involved in applying the work-measurement method in a child-placing agency is currently in process. The study is being made in a State-wide voluntary child-placing agency in the Midwest. This particular application is for the purpose of developing and testing work-measurement procedures for use in performance budgeting. A performance budget, in brief, shows past expenditures in relation to given types and quantities of service provided and presents estimates of the anticipated costs of a specific quantity of work to be performed in the coming fiscal year in order to supply a given volume of future service. A performance budget

or, as it is sometimes called, a program budget, is ordinarily used as a more functional and readily comprehensible expression of the conventional budget, which is based on objects of expenditure. It is obvious that a prerequisite for performance budgeting is the development of valid, measurable, and homogeneous units for measuring work performed in a given program.

The general function of the agency in which the pilot study is being undertaken is to provide for the care of children who come to the attention of the agency because they cannot be cared for in their own homes. The agency's objective is to restore the children to the care of their parents, when it is feasible and is believed to be to the child's best interest, or to provide substitute care. Work measurement is being applied to the adoption and foster care program of the agency.

As a conceptual framework for the application of work measurement to this and possibly to other similar agencies, the following pattern of units of count was established.



The integrating factor here, which is absent from the units of count previously shown, is, of course, the measure of time. The time factor is used to measure the conversion of agency resources to a form that is functionally and realistically related to output. Units of count measuring work performed are then arranged from the most detailed and preliminary manifestation of output to the completed product.

It was found possible to set up a common set of activity units for the adoption and foster care programs. Activity units are units of count that describe operationally expenditures of time and effort. They are the most detailed units that can be devised for this type of program, if it is granted

Work units for test study in an agency placing children for adoption and foster care ¹

Work units relating only to persons providing substitute parental care (adoptive and foster home)

Work units relating only to children

Work units relating to children and to persons providing parental or substitute care

A. Adoption service and foster care

1. *Preadoption boarding-home and foster-home screening.*

Begins with the first inquiry from, or contact with, a boarding-home mother or foster-parent applicant. Ends with giving the applicant an application form to fill in and return.

2. *Preadoption boarding-home and foster-home study.*

Begins with the first activity after giving the applicant an application form to fill in and return.

Ends, if the home is to be used, with the last activity before the child is left in the care of the boarding-home or foster mother or with the disposition of the application by rejection, withdrawal, or referral.

3. *Adoptive-home screening.*

Begins with the first inquiry from, or contact with, an adoptive-parent applicant.

Ends with giving the applicant an application form to fill in or otherwise disposing of the application.

4. *Adoptive-home study.*

Begins with the first activity after giving the adoptive-parent applicant an application form to fill in and return.

Ends, if the home is to be used, with the last activity before the adoptive family worker gives the child's history to the adoptive family or with the disposition of the application by rejection, withdrawal, or referral.

5. *Intake screening.*

Begins with the receipt of the inquiry regarding services for a child.

Ends with a decision that the agency will accept the child for study or, if the decision is not to accept for study, with the last activity involved in referral or other disposition of the inquiry.

B. Adoption service only

6. *Intake process.*

Begins with the first activity after a decision is made that the agency will accept the child for study.

Ends when the child is left in the care of the nursery home or boarding home that is to care for him pending placement for adoption or when the plan to place for adoption is changed—for example, with the death of the child.

7. *Preadoption study of child in nursery home.*

Begins with the first activity after the worker leaves the child in the care of the nursery home that is to care for him pending placement for adoption.

Ends with the last activity before the adoptive family worker gives the child's history to the adoptive family or with the physical removal of the child to a boarding home pending placement for adoption.

8. *Preadoption study of child in boarding home.*

Begins with the first activity after the worker leaves the child in the boarding home in which the child is to be cared for pending placement for adoption.

Ends with the last activity before the adoptive family worker gives the child's history to the adoptive family or with the physical removal of the child to another boarding home pending placement for adoption.

C. Foster care only

9. *Intake process.*

Begins with the first activity after the decision that the agency will accept the child for study.

Ends when the worker first leaves the child in the continuing care of the foster parent or when some other plan is made for the care of the child.

10. *Preadoption placement process.*

Begins with the first interview when the adoptive family worker gives the child's history to the adoptive family.

Ends when the worker first leaves the child in the continuing care of the adoptive parent or when a decision is made not to place the child for adoption in this home.

11. *Preadoption supervision.*

Begins with the first activity after the worker leaves the child in the continuing care of the adoptive parent.

Ends when the worker knows that the court hearing has been held.

12. *Postadoption supervision.*

Begins with the first activity in relation to the child and the adoptive parent that continues supervision or other service after the court hearing has been held.

Ends with the worker's decision that the service is terminated.

13. *Supervision in foster home.²*

Begins with the first activity after the worker leaves the child in the continuing care of the foster parent.

Ends with the physical removal of the child from the continuing care of the foster parent.

14. *Supervision in institution.²*

Begins with the first activity after the worker leaves the child in the continuing care of the institution.

Ends with physical removal of the child from the continuing care of the foster care institution.

15. *Supervision in own home.²*

Begins with the first activity after the worker returns the child to the home of his parents or relatives.

Ends with the decision that this type of supervision is terminated.

¹ Time devoted to providing casework service to individuals that does not fall in the work units listed is recorded as a miscellaneous or special unit.

² Work units 13, 14, and 15 may be alternative units; work for a child may move from one of these units to another.

that counts describing individual physical motions of professional staff are not appropriate. Examples of activity counts are telephone calls, office interviews, home visits, travel, and case recording. The service units are those that describe work carried to the point where it is clearly recognizable, to lay persons as well as professional persons, as representing a product appropriate to the objective of the program. The primary service units being used are "a placement of a child for adoption" and "a foster care placement for a child."

Some services provided by child-placing agencies extend over such prolonged periods of time that a given service may not be completed for a year or longer. It is desirable, therefore, to interpose a class of units at a level between the activity units and the service units. Activity units are then grouped into job or work units, each of which represents a phase in the provision of the service. A few work units representing the early processing of requests for service can be used for both the adoption and foster care programs. For the most part, however, a distinct series of work units is required for each type of service unit. The work units used to analyze adoption services and foster home services are listed and defined in the accompanying chart.

Work units are the pivotal count in a work-measurement system. The pilot study has progressed far enough to indicate some of the salient characteristics of work units for a child-placing agency.

Developing Work Units

By means of examining case records and interviewing staff workers, descriptions of the process followed in providing services were obtained. Flow charts were constructed, and junctures or nodes were sought that would delimit phases of work that seemed to the professional staff of the agency to represent the important steps in the service. Work units were defined in terms of the kind of actions that begin and end a phase of work, rather than by attempting to describe in advance the expected detailed content of the unit. Generally speaking, the actions used to describe the beginning or end of a work unit are those that re-

late to (a) the progression of work relationships between the agency and the child, or between the agency and the foster or adoptive family that may provide care for the child, or (b) physical or environmental changes relating to the care given to the child. The logical validity of the work units that are being tested derives from the fact that they represent performance and completion of a specific job that is purposively related to a service, which in turn represents the function of the program.

One of the purposes of interposing the work-unit count between the activity level and the service level is to break the service unit into manageable segments. This purpose would appear to be accomplished for all work units devised for the adoption program and all the foster home care work units except those referring to continuing supervision. Work units classified in the experimental application are all susceptible of expression in terms of the time invested from their initiation to their completion. A number of practical measurement problems, however, present themselves. One example is found in those work units that relate to long-time care of children, particularly "supervision in foster home" (work unit 13) and "supervision in institution" (work unit 14). Many children are given continuing supervision in the same foster home for 5 or 6 years or more. The measurement of a work unit that runs for longer than the fiscal year is likely to be of little value from an administrative point of view.

The logical method of reducing these long-run work units to proper size would be to diagram the phases of the casework process that are followed in supervising a child in foster care and to establish these phases as work units. A characteristic quality of the casework process in a foster care program, however, is the personal, helping relationship offered by the agency through the caseworker to the child and the foster family. The dynamics of this social-psychological relationship have not yet been expressed in a sufficiently objective form to permit its translation into measurable work units.

Another approach, and one that was more expedient, has been taken in the

present study. With this approach, long-run work units are divided into subunits representing supervision provided in a month. These subunits have the disadvantage of having endings determined by the passage of time rather than by the completion of a specific task by the worker. A month's supervision, for example, can be completed on a stand-by basis only, without the investment of any working time. These subunits can, however, be tabulated by time invested and possibly by type of activity into categories such as (1) a month's supervision, including a visit with the child or the person providing care, (2) a month's supervision including other work, and (3) a month's supervision involving no work. In the present application it will be possible to analyze further these subunits in an effort to ascertain patterns of care from the time study data. If, for example, the data show concentrations of time in the first few months and in the last few months of placement, with less time invested in a large number of intermediate months, it may be possible to establish work units representing, for example, the orientation, the continuing, and the termination aspects of supervision. This approach may prove adequate for work measurement of unit costs. Further consideration of this problem may be necessary for other applications—for example, in quality control or the establishment of workload standards.

After defining work units that seem to be valid and encompassable, it is then necessary to determine the time invested in each type of work unit. In the pilot study, caseworkers are maintaining daily journals, in which they record all time given to individuals not only in terms of the activity undertaken but also in relation to the work unit in which time is invested.

Some of the characteristic problems in applying time measurement to the work of child-placing programs are as follows:

- (1) Because of the continuing interaction between the worker and the clients in the agency, it is sometimes difficult for the worker to know definitely when a given work unit is completed. For example, staff work on a preadoption boarding-home study may, as far as the caseworker and his

supervisor are concerned, be completed with the decision to approve the home. Subsequently, however, the boarding-home mother may request and obtain an interview in order to secure further information about her future responsibility. The staff time for this interview is properly charged to the work unit previously thought to be completed. For work units whose termination may in fact be marked by actions initiated by either the caseworker or another person, the practice has been followed of defining the termination in terms of the last activity before the initiation of the next work unit in the process. While this maneuver has the disadvantage of producing definitions that appear to be circular or redundant, it does provide for work units that are mutually exclusive.

(2) A caseworker may work on two or more work units at the same time. For example, a worker may interview a foster mother concerning a matter that affects two or more foster children. The practice followed here is to divide the time involved (interview time plus related travel time) equally among the work units to which it applies.

(3) Frequently more than one worker may work on a single work unit. For example, a worker may come to a preliminary conclusion about the advisability of accepting an adoptive parent applicant, but his supervisor will invest time in reviewing the study before it is completed. As many as four staff members are frequently involved in and give time to a "preadoption placement process" (work unit 10). They are the worker responsible for the adoptive home, the worker responsible for the study of the child, and their respective supervisors. The time investment of the four staff members must therefore be collated around a given work unit.

Difficulties of reporting time may be regarded as both problems in and justifications for the use of work measurement in a child-placing agency. This type of measuring seems to provide a unique method of determining the total expenditure of staff time in providing the basic units of service offered by the agency and hence a basis for estimating unit costs.

Thus far, of the three necessary attributes of work units, two—validity and measurability—have been reviewed. The third essential attribute is homogeneity. Homogeneity can be considered from the viewpoint of both the quality and the quantity of work included in work units. In the present study, it is assumed that, as a whole, the quality of the work of the staff will remain substantially constant not only during the period of the study but also for the subsequent periods for which work-unit data will be used. It is not assumed that quality is uniform throughout the agency but only that the general level of quality that has been attained will persist. If work units are to be used for the establishment of workload standards, the need for quality control of work units becomes more urgent.

The quantity aspect of homogeneity in work units is represented by the time taken for its completion. The smaller the variation in time taken to complete a group of work units of a given type, the greater the group's homogeneity and the greater its usefulness in estimating future costs.

Although all workers in the agency who are directly involved in the provision of casework services are included in the study, the data obtained must, of course, be regarded as a sample from an infinite universe of time. The question of reliability is therefore introduced. The mean time of a given type of work unit completed in one period will be compared with

the mean time for work units completed in a subsequent period. If their differences are found not to be significant, the mean for the combined work units in both periods will be considered a reliable measure, and the work unit will also be adjudged to be sufficiently homogeneous for the purpose.

With salary costs directly chargeable to specific work units, conventional cost-accounting procedures can be used in charging other direct costs and in allocating joint costs during the first year of the study. In the following fiscal year it will be necessary to maintain counts of work units completed. However, assuming no change in conditions likely to affect the amount of time invested in a given type of work unit, it will not be necessary to continue time measurements. To arrive at the unit cost for a service—for example, the cost of placing a child for adoption—it is then necessary only to add the mean costs already determined for the work units that go to make up that service. A performance budget can then be constructed by applying unit costs against a projected schedule of work units to be completed and services to be provided in the coming fiscal period.

Not only can a fully developed work-measurement system lead to improved budgetary procedures, but when it is combined with quality control it offers an approach to solving one of the most important and vexing problems in the administration of social service programs—the establishment of optimum workloads for caseworkers and other professional personnel. Many difficulties can be foreseen in working through to a feasible and widespread application of work measurement to service programs. The potential gains in administrative efficiency seem real and important enough, however, to make desirable a substantial emphasis in this area of program research.