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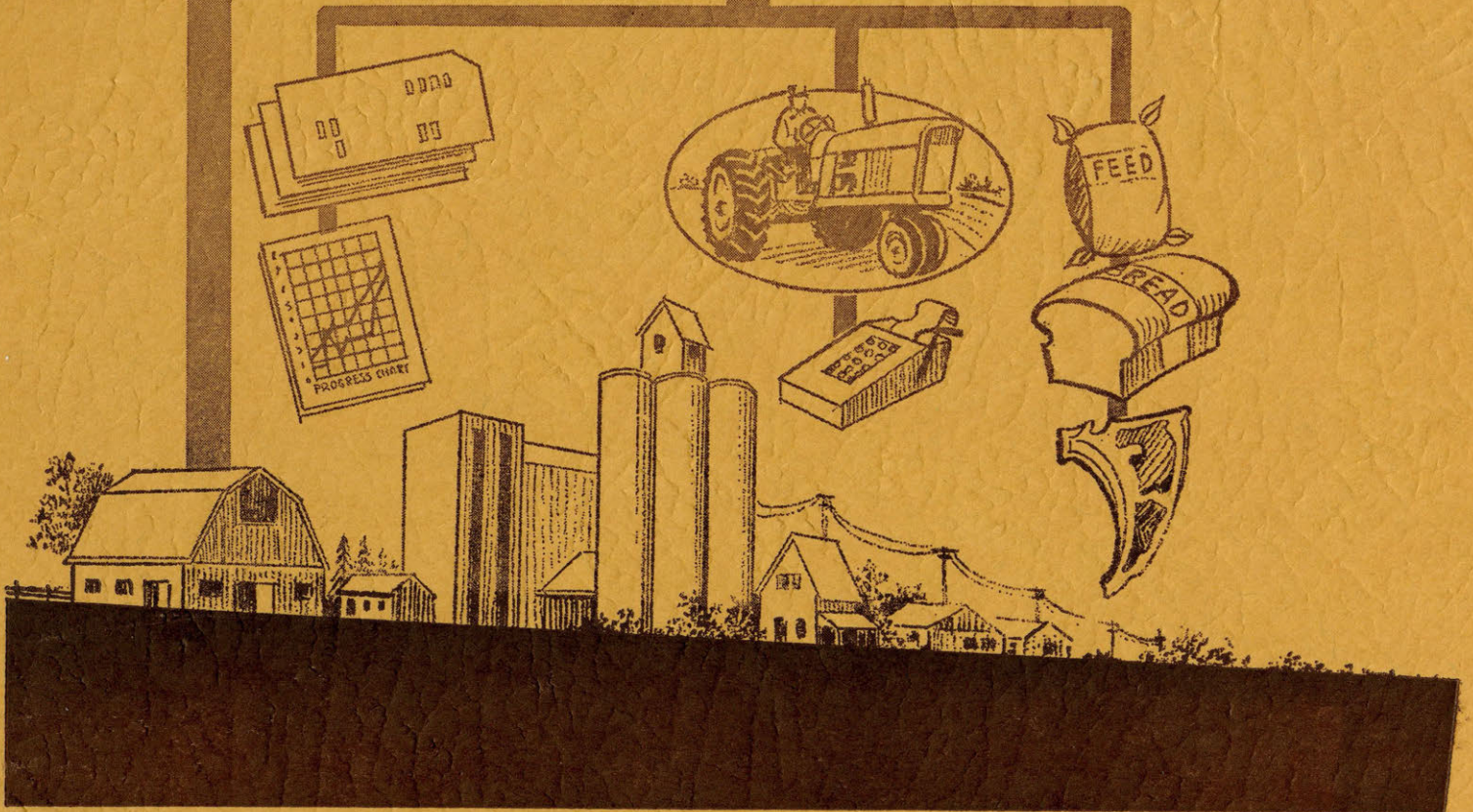
staff paper

PROBLEMS OF MEASUREMENT AND ASSESSMENT
OF THE ADEQUACY OF COMMUNITY SERVICES:
A NAIVE VIEWPOINT

by

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PROBLEMS OF MEASUREMENT AND ASSESSMENT OF THE
ADEQUACY OF COMMUNITY SERVICES:
A NAIVE VIEWPOINT*

Paul H. Gessaman and Gordon D. Rose¹

In the preparation of this discussion, we have considered our role to be that of identifying issues which we believe must be considered and, if possible, resolved if we are to adequately carry out research on the provision of community services. We recognize that the group of issues considered here is incomplete. Some of you here today may wish to add to or delete from the list we have identified. And, we hope you will do so.

We would like to start by briefly examining what it is that we are talking about when we speak of community services. To do this we use a very simple model of the economy in which it is assumed that goods and services are produced by a public (tax-supported) sector and a non-public (private) sector. In this model, the consumer is viewed as receiving from both of these sectors that mix (or combination) of goods and services which he consumes. This three-part system (public sector, private sector, and consumer) constitutes our simple model of the economy of a community (See Figure 1). We are implicitly assuming a functioning economy in which the consumer is the person whose needs and desires should be met. Thus, the consumer becomes the final judge of whether or not services are adequate. We will return to consideration of this last idea later in the paper.

As Figure 1 indicates, we view public goods and services as being directly and indirectly utilized by the consumer. Examples of directly

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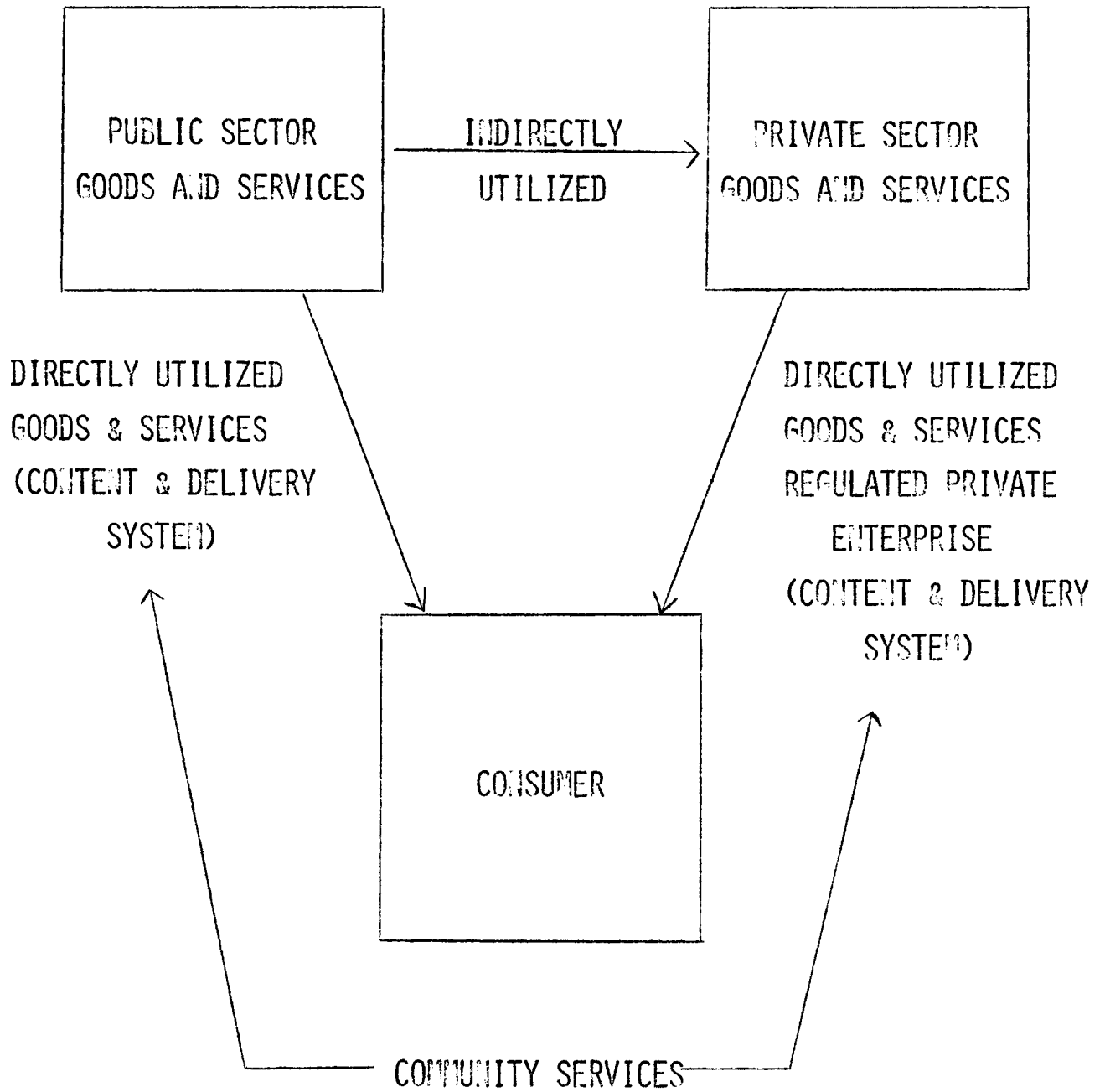


FIGURE 1. A SIMPLE MODEL OF A COMMUNITY

utilized public sector goods and services might be: Fire protection, police protection, education, public health services, water supply and waste disposal, road systems, and, in some instances, electrical power service.

Additionally, the consumer indirectly utilizes public sector goods and services as an implicit or explicit part of those goods and services he obtains from the private sector. In this case we are thinking especially of those regulatory and control services performed by the public sector which wholly or partially determine the quantity and quality of goods and services produced by the private sector. Examples here include: Sanitation and safety requirements for restaurants, food stores, and places where the public assembles; the regulation of fares and tariffs on public carriers; the enforcement of licensing requirements for professionals such as architects, doctors and lawyers; and other similar type activities. It might be appropriate to argue here that no part of the private sector is free of regulation, so all private sector goods and services represent indirect utilization of public sector goods and services. This idea is not important to our present discussion, so we will not carry it further.

The indirect utilization by consumers of goods and services provided by the public sector also includes the effects of consumption by the private sector of many of the same public sector goods and services that the consumer directly utilizes. Police and fire protection, transportation systems, water and waste disposal systems--these and other outputs of the public sector benefit the productive activities of the private sector and are generally viewed as resulting in lowered costs for the producers of private sector goods and services. Competition is usually sufficient to result in part or all of these reduced costs being passed on to the consumer in the form of lower prices.

The consumer is interested in not only the types and forms of goods and services available for his consumption, he is vitally interested in the efficiency and efficacy of the means by which these goods and services are made available for use. For example, a system for fire protection is useful to the consumer only if it has the capacity to successfully extinguish fires when and where they occur. And, for the consumer to realize maximum benefit, the system must be able to extinguish fires when they occur on public sector or private sector property as well as being able to extinguish fires on the consumer's own property. In accordance with present-day usage, we shall refer to the means of making goods and services available by the expression, service delivery systems.

If this model is accepted, the community services in which we are interested become those combinations of content (goods and services) and service delivery systems by which the public sector and the private sector, singly or in combination, provide the consumer with services having part or all of the following characteristics:

1. The services are thought to be necessary for the public good.
2. The services are, or usually should be, utilized by the general public.
3. The means of providing these services are generally set in relatively rigid institutional frameworks that are only partially susceptible to change initiated at the local level.
4. The provision of these services requires high fixed investment of such magnitude that monopolies are common and may be encouraged through exclusive franchises or other governmental actions.
5. The services are not sold, and prices are not set, through the market in the same sense as is the case for most goods and services.

6. Prices for services may not allow the recovery of fixed costs, and may not cover variable cost in some cases.
7. The cost to the consumer of services may remain constant per unit of time regardless of the quantity of the service consumed.

By this definition we include in community services the content and the delivery systems of the closely regulated private enterprise activities. These activities may supplement or complement the activities of the public sector, and in many instances the public sector and the private sector jointly provide the community services. Education, health services, and law enforcement are examples.

We now turn to consideration of adequacy measures. In many instances, adequacy measures appear to take the form of minimum or maximum standards. While there is usually not any formal statement that activities or services complying with these standards are adequate, this appears to become the case in practice. Most states require school attendance through the 8th grade or to age 16, or both, which implies that education to this level is thought sufficient for the least educated members of the society. Does this mean that the educational system is adequate if students attend school for the requisite number of grades or period of years? It appears that society believes that this is so.

In an analogous fashion, we have maximum allowable levels for pesticides, for radiation exposure, for bacteria count in milk, and water quality standards for streams and lakes. Such standards seem to imply that, if the combined efforts of the public and non-public sectors result in conditions such that these standards are met, the content and delivery systems of the appropriate services are adequate.

In following this line of thought a bit further, let us look briefly at some of the ways in which these minimum or maximum standards are set.

1. Standards set by professionals operating in their field of technical competence. This type of standard-setting is typical of the health care field where many standards of treatment and patient care are set by members of the medical profession.
2. Standards set by elected or appointed officials. These activities are often carried out by the appropriate officials in close consultation with professionals in that field, and the standards may emerge as administrative edicts or as legislation. Public hearings may be held at which interested parties testify and expert opinions are solicited.
3. Standards set by the courts. The school desegregation decision of the Supreme Court, and the more recent decision of a California court requiring schools to have equivalent funds on a per pupil basis are examples of this type of standard-setting.
4. Standards set by consumers through their actions in the political arena and in the market place. The elected officials who fail to provide adequate services may be voted out, the hospital that provides inadequate health care is by-passed by potential patients. In a larger sense, consumers may set or identify minimum acceptable standards for community services by choosing to move from, or refusing to move to, communities where the level of services is too low.

It is our opinion that standards of the type described here have proven useful and valuable to the communities of our nation, but they do not provide a sufficient basis for the measurement and assessment of the adequacy of

community services. Reasons for this include: the tendency for standards to lag behind the needs of the present, the tendency for standards to be set by elected or appointed officials in ways favorable to pressure groups, and the vote of the consumer may be heard too late or too weakly for the standards to be set in a way appropriate to the needs of the community.

If researchers are to measure and assess adequacy, they must successfully deal with a complex of inter-relationships as intricate as any other in our society. For any community service, factors which appear to have bearing on the degree of adequacy of that service include:

1. The quality of the service.
2. The quantity available of the service.
3. The cost per unit and in total of the service.
4. The mix of community services available to community residents.

The acceptability of any particular mix will depend on:

- a. The ability of the consumer as an individual, and as a member of a group of consumers in that community, to supply satisfactory substitutes for the community service.
- b. The situational context in which the community services are provided, e.g. the willingness of the consumer to substitute scenery for community services.

In the determination of adequacy, our inability to precisely measure quality and in some cases, quantity factors makes the determination difficult under the best of circumstances. In cases where no good measure for either quality or quantity can be identified, our conventional tools of economic analysis appear to be inappropriate.

Considerations of adequacy are further complicated by the condition we call, for lack of a better name, dynamic disequilibrium. This can be briefly

described as the situation in which expectations change continuously as conditions change resulting in the constant obsolescence of community services--especially delivery systems. This condition has been especially noticeable in the field of education where the "knowledge explosion" guarantees that today's educational system, regardless of its adequacy by today's standards, will be inadequate in the next decade.

In conclusion we would like to suggest four presently unresolved questions which seem to indicate fertile fields for research. We believe effective research in these areas will require a wider range of research skills, tools and methods than those conventionally used by economists. These unresolved questions are:

1. Who sets the criteria for adequacy? That is, which criteria are set by consumers, which ones by professionals, by officials, and by the courts? And, who sets the criteria where none of these are operational?
2. For any given community, what are the criteria for adequacy of community services? We are thinking here of both the formal criteria set by laws or regulations, court decisions, etc., and the effective or operational criteria that are actually used in decision-making.
3. What are the trade-offs between the various market and non-market factors entering into adequacy determination?
4. Is there something "different" about those services which we have defined as community services that makes our conventional research approaches inappropriate or inadequate for the research we are trying to carry out?