

CITIZEN COPRODUCTION: A NEGLECTED DIMENSION
OF PUBLIC SERVICE DELIVERY

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Abstract

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Traditional conceptions of public service production and delivery have failed to recognize the production capacities of citizen-consumers. Yet close examination of service production arrangements and technologies demonstrates that citizen productive efforts, what we call coproduction, are crucial elements in the delivery of many public services. This article presents a conceptual definition of citizen coproduction, provides examples in several service areas, reports evidence on current levels of coproduction, and suggests policy implications resulting from recognition of the importance of citizen involvement in service production and delivery.

CITIZEN COPRODUCTION: A NEGLECTED DIMENSION OF PUBLIC SERVICE DELIVERY

Citizens are traditionally viewed as consumers of public services. Citizens are seen as paying taxes to political jurisdictions in order that a variety of services will be provided for their consumption. Yet upon close examination of current service delivery arrangements, it is apparent that citizens are not simply the "clients" or consumers of public service agencies. Instead, they are active participants in both the consumption and production of most public services. Recognition of this coproductive role has important implications for policies and practices related to the provision and delivery of public services. This article explores the coproduction role of citizens in service delivery, presents some evidence on the extent and forms of citizen coproduction, and discusses policy implications resulting from recognition of citizen coproductive capacities.

Citizen Involvement in Public Service Delivery

Several recent studies of service delivery provide evidence that citizens are actively involved in the production of public services. Probably greatest attention to citizen involvement in service delivery has been given in studies of police services and public safety. Community and victimization surveys have measured levels of community crime, citizen crime reporting, and citizen protective activities taken in response. In a review of citizen involvement in crime prevention in several American cities, Washnis found many types of collective efforts being undertaken including the formation of block groups, citizen patrols, anticrime crusades, and lobbying groups.¹

In a recent study of police service delivery in three metropolitan areas, citizens were found to be significantly involved in several kinds of activities which affect the production of public safety.² For example, over half of the respondents to a general citizen survey reported adding extra locks to their doors to increase safety from crime. About 30 percent of those interviewed had placed identification markings on property, 22 percent had purchased light-timing devices, and 13 percent had bought a gun or other weapon. Many respondents indicated that they stayed home at night and/or locked doors when at home during the day. To a lesser extent, citizens reported participating in groups concerned with crime prevention and law enforcement. These findings are consistent with those of several other studies of citizen self - and home - protection activities.³

Empirical studies of other urban services have examined citizen coproduction to a more limited extent. In a study of solid waste collection and disposal, Savas found that in 18 percent of cities studied, self-service arrangements were used (exclusively or in combination with other arrangements) to provide solid waste collection of residential mixed refuse.⁴ Savas also found that curbside or alley pickup locations were used exclusively for residential waste collection in 53 percent of surveyed cities; in another 33 percent of the cities curbside or alley pickup was used in combination with other pickup locations.⁵ Citizens thus contribute to service production in these cities by packaging household waste and transporting it to locations convenient for pickup by private or public sanitation agencies.

In a study of urban fire services, MacGillivray and colleagues examined arrangements for providing fire suppression services in metropolitan areas.⁶ In 25 percent of the fire agencies volunteers represented the majority of personnel, while in 12 percent volunteers were used but the majority of personnel were paid. Thus, volunteers assist paid fire fighters in 37 percent of the fire departments studied. Citizens efforts to prevent fires on their own property are another very important coproductive activity.

Traditional Conceptions of Consumers and Producers

Despite increasing evidence that citizens are actively involved in efforts affecting service provision and delivery, few analyses of public service production have recognized citizens as contributing to the production of services. When considering public service production, analysts have generally applied conceptions and frameworks applicable to the production of physical goods. Public employees are seen as the "producers" and citizens are viewed as "consumers" of public services. Yet the production of physical goods is in many ways different from the production of services. As Garn and colleagues argue:

the person being served (the client or consumer) is inevitably part of the production process, if there is to be any production whatsoever. Therefore, the resources, motivations, and skills brought to bear by the client or consumer are much more intimately connected with the level of achieved output than is the case of goods production. The output is always a jointly produced output.⁷

The argument suggests that the common conceptual distinction between production and consumption does not hold when carefully applied to many service production situations. Many actions of would-be consumers

are actually instances of production. At what point a consumer's activity ceases to be production and becomes consumption is not clear. However, in the context of service production, the consumer contributes directly to production, and in some cases production cannot take place without the consumer simultaneously being willing to become involved in production. For example, teachers and schools can do little to educate the student who is completely unwilling to pay attention to instruction and participate in the education process. Similarly, police can do little to suppress crime if citizens are not willing to report crimes and provide relevant information to the police.

Coproduction: A New Way to Study Service Production

While we are becoming increasingly aware that citizen inputs are important components of service production, our conceptual tools used to analyze service production have precluded or minimized recognition of citizen production capacities. The assembly line or factory model, which is implicit in many analyses of services as well as physical goods production, is inadequate for the study of the technology and efficiency of public service production. A new conceptual framework is required which better enables us to comprehend and examine the full range of actors and inputs involved in service production and delivery. A model of coproduction, from our perspective, provides such a new framework. Before defining coproduction, it is necessary to present some important underlying concepts.

There are several ways to classify producing agents. One usual way is to separate producers in terms of public and private sectors. Another

way is to distinguish those who undertake production in order to exchange produced outputs for other goods (e.g., money, votes) from those who produce in order to consume outputs directly. An example of the former would be a bakery that produces bread in order to sell to the public to derive profit, which in turn is used to purchase other goods and services. This is the traditional conception of producers and we might think of these producing agents as regular producers. Regular producers are not limited to firms in the private sector. Regular producers in the public sector include agencies or departments of governments which undertake production of goods (e.g., water supply) and services (e.g., fire protection, health services).

Another set of producers is one comprised of those who undertake production in order to directly consume the results or output of production. A business that installs an alarm system does so to provide itself with increased security from crime, which the business itself consumes. Similarly, citizens may paint their house or teach their children to swim in order to consume the benefits of instruction and home improvement. Consumer producers, then, are those producing agents who undertake transformation activities to produce goods or services which they themselves directly consume. Producing agents in any of the traditional sectors may be either regular producers, consumer producers, or both. For example, an automotive company acts as a regular producer when manufacturing cars for profit and as a consumer producer when installing alarm and security devices to reduce losses from theft and vandalism.

Coproduction is defined as production involving both consumer producer and regular producer activities, in other words, involving a mixture of regular and consumer producer efforts.⁸ Coproduction occurs whenever both

regular and consumer producers act to transform inputs into the same general good or service. The mixing of consumer and regular producer inputs and transformations, however, need not be direct. In some cases both types of producers come together and directly mix productive efforts. This is obvious in education, where teachers and students work together to achieve instructional objectives. In other instances the mixing of regular and consumer producer efforts is very indirect. Take the case of fire prevention activities in an apartment building constructed of highly flammable materials. Fire inspectors, acting as regular producers, might conduct frequent inspections to ensure that all fire codes are rigidly enforced. Residents of the building might take extra precautions to avoid fire and reduce loss; for example, they might install home fire alarms, purchase rope ladders, and take extra care when using matches, heaters, or stoves. The efforts of fire officials and citizens could be undertaken with little or no direct cooperation, although the efforts of each contribute to the overall level of fire safety in the building. A moments reflection will indicate the dominance of citizens' actions in the production of fire prevention.

Citizen coproduction is a subset of all coproductive activity. Citizens in this context are defined as individuals outside of their occupational, income-earning roles. Individuals are classified as employees in their occupational roles where they serve as inputs and transformers of regular producers. Outside of their occupational roles, individuals are seen as citizens who can serve as both producers and consumers of goods and services. Citizen coproduction, therefore, is defined as production where efforts are contributed by both regular producers and citizen-consumers outside of occupational, income-earning roles.

Examples of Citizen Coproduction of Public Services

Presentation of examples of citizen coproduction of services may help to elucidate the concept of coproduction. Citizen coproduction can be classified in terms of at least two dimensions: (1) the level of cooperation of citizens with other citizens and (2) the level of cooperation with service agencies. Service agencies refer to any regular producers of services, be they public or private. Conceptually, we can dichotomize the two dimensions and examine forms of citizen coproduction activities in a variety of services. The level of cooperation with other citizens dimension can be divided into two categories: individual action programs undertaken by individuals or households on their own, and joint action programs undertaken in cooperation with other citizens and households. Cooperation with service agencies is considered here as either high or low.

In Table 1 examples of individual action programs in a variety of urban services are arrayed in terms of the level of citizen cooperation with service agencies. Individual action coproduction undertaken with little cooperation with service agencies includes installing burglar alarms and extra outdoor lighting, installing home fire alarms, teaching a preschool child to read, and home recycling projects. Each of these activities affects the overall quality of service delivery, although the benefits of this coproduction accrue largely to the citizens undertaking the activities.

Individual action coproduction may also be undertaken in close cooperation with regular service producers. Citizen activities, such as reporting the discovery of a fire or crime to authorities, are commonly

Table 1

Examples of Individual Action Coproduction

Low Cooperation with Service Agencies

High Cooperation with Service AgenciesPolice Services

(service agency = police agency)

- | | |
|---|---|
| <ul style="list-style-type: none"> • Putting extra locks on doors • Installing burglar alarm systems • Installing window bars • Placing identification markings on property • Install extra outdoor lighting | <ul style="list-style-type: none"> • Citizen serving as volunteer/auxiliary officer • Provision of information to police on crime problem • Reporting suspicious circumstances to police |
|---|---|

Fire Services

(service agency = fire department)

- | | |
|--|--|
| <ul style="list-style-type: none"> • Installing home alarm systems • Proper storage and disposal of flammable materials • Building with fire-safe materials • Using safety precautions and mechanisms when cooking | <ul style="list-style-type: none"> • Installing alarm connected to fire department alarm network • Placing "child here" identification stickers on bedroom windows • Having home or business inspected by fire officials • Volunteering to serve in fire-fighting capacity |
|--|--|

Education

(service agency = public schools)

- | | |
|--|--|
| <ul style="list-style-type: none"> • Preschool teaching of reading • Hiring tutors to teach children outside of school • Teaching students topics or skills not emphasized in school (e.g., personal hygiene) | <ul style="list-style-type: none"> • Careful surveillance of child's performance and progress in school work • Parent volunteers in school activities (e.g., teacher aids) |
|--|--|

Solid Waste Collection/Disposal

(service agency = public sanitation agencies)

- | | |
|--|---|
| <ul style="list-style-type: none"> • Private hauling of materials to dump facilities • Reduction in the level of household waste (e.g., recycling) | <ul style="list-style-type: none"> • Careful packaging of waste according to agency criteria • Carrying refuse to curb for pickup |
|--|---|

Recreational Facilities/Programs

(service agency = public recreation agency)

- | | |
|---|---|
| <ul style="list-style-type: none"> • Building private recreation facilities in home and backyard | <ul style="list-style-type: none"> • Volunteers manning of publicly provided recreation facilities |
|---|---|

recognized forms of citizen involvement in service production. Having one's home inspected by fire officials and undertaking recommended improvements, close supervision of a child's progress in school, and carrying household refuse to the curb for pickup are further examples. These types of coproduction not only contribute to the overall quality and level of service provision in the community, but may also directly influence the performance of service agencies.

Examples of joint action coproduction are arrayed in Table 2 according to the level of citizen cooperation with service agencies. In the case of low cooperation, examples include the formation of block or neighborhood groups by citizens concerned about crime or cleaning up the neighborhood, release time religious instruction of public school students, and private group paper drives and recycling efforts. Examples of joint action coproduction involving high levels of cooperation with service agencies include community clean-up programs sponsored by fire departments, neighborhood watch programs initiated by police officials, and parent-teacher associations which assist personnel in schools.

It is conceptually difficult to separate certain types of joint action coproduction according to the level of cooperation with service agencies. Some citizen groups, for example, have been created through the initiative of a few concerned neighborhood residents, whereas others were formed largely through the impetus of local officials. Fire safety clean-up programs may be sponsored by local fire officials, interested citizen groups or both. For this reason, similar types of joint action coproduction are listed in both the cooperation with service agency categories of Table 2. Both production dimensions -- the level of cooperation with citizen and service agencies -- are more properly thought of as continuous

Table 2

Examples of Joint Action Coproduction

Low Cooperation with Service AgenciesHigh Cooperation with Service AgenciesPolice Services

- | | |
|---|---|
| <ul style="list-style-type: none"> • Block groups concerned with neighborhood crime (initiated by interested citizens) • Watching neighbors' home while they are away | <ul style="list-style-type: none"> • Neighborhood watch programs sponsored by police agencies • Citizen groups that supply crime prevention information in conjunction with local police • Citizen mobile patrol groups working with local police department |
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Fire Services

- | | |
|--|---|
| <ul style="list-style-type: none"> • Community "clean-up" programs initiated by citizen group concern | <ul style="list-style-type: none"> • Community "clean-up" program sponsored by fire agencies • Organizing auxiliary fire service to supplement regular department |
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Education

- | | |
|---|--|
| <ul style="list-style-type: none"> • Release time religious instruction • Groups/organizations providing extracurricular education: Boy Scouts, Girl Scouts, Boys Clubs | <ul style="list-style-type: none"> • Parent-teacher associations assisting in schools |
|---|--|

Solid Waste Collection/Disposal

- | | |
|--|---|
| <ul style="list-style-type: none"> • Private group paper drives and recycling efforts | <ul style="list-style-type: none"> • Paper drives and recycling efforts sponsored by sanitation department |
|--|---|

Recreational Facilities/Programs

- | | |
|--|--|
| <ul style="list-style-type: none"> • Groups which clean a neighborhood area for use as a recreation area • Sharing home recreational facilities with neighbors | <ul style="list-style-type: none"> • Volunteer groups which clean/maintain neighborhood park in cooperation with parks department |
|--|--|

rather than dichotomous. The dimensions have been dichotomized here to facilitate discussion.

Policy Implications

Recognition of Citizen Competencies and Responsibilities

Examining public service delivery through the coproduction framework suggests several implications for public policy. First, it is important for public officials to recognize the diversity of forms of citizen involvement in public service production. Despite evidence which shows citizens to be actively engaged in coproduction of services, some public officials appear to be largely ignorant of or disinterested in these citizen efforts. The failure to recognize the potential significance of citizen involvement in service delivery derives from multiple sources. One is a professional bias through which some officials and administrators view only full-time, trained, "professional" staff as appropriate service delivery agents. The roots of professionalism date back to efforts to depoliticize and improve service delivery through training, specialization, and merit appointment. Certainly professionalization and training have contributed to many improvements in urban services. However, it is possible that this professional "perspective" has become too dominant, to the point where officials fail to notice or disregard the potential benefits of consumer efforts in service delivery.

Related to professional biases are common conceptions of appropriate forms of citizen participation in government. Sharp argues that the predominant model of citizen participation within the field of public administration perceives three roles for citizens -- to demand, consume and evaluate government-provided services.⁹ This view of citizen roles

acts to preclude recognition of citizen capacities to assist in and improve service delivery. Coproduction would seem to represent a fourth role for citizens, a role which emphasizes the joint responsibility of citizens and service agents in the production of services. As Sharp argues:

this coproduction model expands the citizen role from one of consuming and passing judgment upon public services to one that also involves the responsibility for creation of services. It expands the public official's role from one of performing and being called to account to one that also includes recognizing and developing citizen competencies.¹⁰

A first implication of the coproduction model, then, is for public officials and administrators to overcome perceptual biases and recognize citizen competencies and contributions to service delivery. To the extent that these biases are not overcome, officials may fail to discern important means of improving service delivery in the community -- means which involve some level of citizen coproductive effort.

The coproduction model also suggests the need for citizens to become aware of their potential roles in service production. One apparent result of the dramatic growth of governmentally-provided services has been a decline in citizen efforts. Many citizens more than ever appear to view service agencies in the community -- police, fire departments, schools, hospitals, and others -- as the primary service providers who are to be held responsible for the quantity and quality of services. However, if citizen efforts are critical to areas of service production, then citizen perceptions of service agents as the sole producers of community services are inappropriate. Citizens, too, have responsibilities in service production, indicating the need for citizens to become aware of potential productive competencies.

Developing Citizen Competencies

Once the potential advantages of coproduction are recognized, another policy implication involves efforts to develop citizen coproduction competencies, at least in those areas where citizen efforts appear to be critical to improved service delivery. The organizational arrangements of service agencies and the activities of agency personnel can in many ways act to stimulate or discourage citizen involvement. Agency outreach programs, for example, can stimulate both household and collective action coproduction. Outreach programs have varied in terms of objectives and structures, although most begin with publicity efforts urging citizens to join with the service agency and/or with other citizens to perform service related activities.

The structures and organizational arrangements of service agencies can influence citizen involvement in service delivery in other ways. The extent of citizen access points as well as outreach efforts can affect citizen-consumer knowledge of agency operation, information about potential forms of coproduction, and willingness to cooperate with service agencies. The activities of service agencies often are unclear and even mysterious to citizens. For example, citizens may not understand the means of and constraints on the apprehension of criminal suspects, the medical treatment provided by doctors and hospitals, or the educational programs of schools. Without knowledge of agency operations -- which provides information on service production technologies -- citizens may not recognize the kinds of actions they may perform to coproduce services. This points to the need for public agencies to be aware of how internal structures and operations affect the flow of information to citizens. Knowledge about agency operation and the technologies of service production

can be conveyed to citizen-consumers through publicity campaigns, outreach programs, public contact points, educational programs in schools and the community, and explanation by service agency personnel during contact with citizens. Until citizens become more informed about service production, they cannot fully understand or formulate possible contributions to service production.

Public agency officials also should be cognizant of the fact that the character of interactions between service agency personnel and citizens may affect coproduction. Brusque, harsh, or impersonal treatment by agency personnel may serve to diminish citizen initiative to cooperate with the agency in the future. For example, it is not difficult to understand why a person who calls to report a traffic accident to police and is brusquely informed that police are already responding, may be less motivated to report problems or crimes in the future. Expression of appreciation, however brief, by agency personnel may go a long way toward improving agency-community relations and stimulating coproduction. Polite treatment, expressed appreciation for cooperation, and some level of information provision may enhance agency-citizen interactions and the extent of citizen involvement in service delivery.

Evaluation of Service Agencies

Another policy implication arising from recognition of citizen coproduction relates to the evaluation of service agencies. In recent years several efforts have been undertaken to develop and apply evaluations of public service delivery. A subtle but central presumption of these studies has been that the local service agencies are the primary if not

sole producers of services; practically no acknowledgement has been made of citizen coproduction. As such, evaluations have centered exclusively on the impact of service agencies on citizens and their quality of life, while ignoring citizen capacities and responsibilities in service production.

To the extent that coproductive efforts are key to service production, then service agencies cannot alone be held responsible for the quality of services provided in the community. Comprehensive evaluation of public services, therefore, requires consideration and measurement of citizen coproductive efforts and the impact of agency organization and operation on citizen involvement. If citizens refuse to become coproducers where their efforts are needed, then citizens share responsibility with service agencies for inadequate service levels in the community.

Learning More About Coproduction

Finally, it is important for both service agencies and citizens to learn more about the consequences generated by coproduction. It is not assumed that all forms of citizen coproduction generate positive results. The relationships between types of citizen coproduction and the quality of service delivery need to be carefully studied. Answers must be found to such questions as how does an increase in home protective actions by some households affect those households, other households in the immediate neighborhood, and households in the remainder of the community? Does home protection serve to diminish the overall crime level or merely displace it to other households, which may be less able to perform home protection measures.¹¹ Or, how does close parental supervision affect the school performance of the individual child and of the child's class? Research

and experimental programs are needed so that a more complete understanding of the impact of coproduction can be obtained. This understanding, in turn, can inform policy makers about which types of coproduction to encourage so as to improve community service levels.

Conclusion

The production of many public services including health, education, and public safety requires joint-production activities by citizen-consumers and the personnel of service agencies. However, traditional conceptions of service production and citizen participation have led to the neglect of citizen involvement in service delivery. The coproduction framework appears to be a fruitful means to consider the production of goods and services in the public sector, a means which recognizes citizen production competencies and potentialities. Despite wide-ranging research in the area of public services, recognition and analyses of coproduction have just begun. We hope that readers will be stimulated to consider, recognize, and explore the concept of citizen coproduction in numerous areas of public service production and delivery.

Footnotes

¹ George J. Washnis, Citizen Involvement in Crime Prevention (Lexington, Massachusetts: D.C. Heath and Company, 1976).

² This Study is the Police Services Study conducted by the Workshop in Political Theory and Policy Analysis at Indiana University and the Center for Urban and Regional Studies at the University of North Carolina at Chapel Hill. These findings on citizen coproduction of safety and security are reported in Stephen L. Percy, "Conceptualizing and Measuring Citizen Coproduction of Community Safety," Policy Studies Journal, Vol. 7 (Special Issue), pp. 486-492.

³ Among the other studies of citizen involvement in producing public safety are Charles T. Clotfelter, "Urban Crime and Household Protective Measures," Review of Economics and Statistics, Vol. 59, No. 4 (November, 1977), pp. 499-503; Paul J. Lavrakas and D.A. Lewis, "The Conceptualization and Measurement of Citizen Crime Prevention Behaviors" (Evanston, Illinois: Northwestern University, Center for Urban Affairs, 1979); Jiri Nehevajsa, Crime in the Neighborhood (Pittsburgh, Pennsylvania: University of Pittsburgh, Center for Urban Research, 1977); and Mark S. Rosentraub and Karen Harlowe, "The Coproduction of Police Services: A Case Study of Citizens' Inputs in the Production of Personal Safety," paper presented at the 1980 Annual Meetings of the American Society for Public Administration, San Francisco, April 13-16, 1980.

⁴ E. S. Savas, "Solid Waste Collection in Metropolitan Areas." In Elinor Ostrom, ed. The Delivery of Urban Services, Outcomes of Change, Urban Affairs Annual Reviews, Vol. 10 (Beverly Hills, California: Sage Publications, 1976).

⁵ E. S. Savas and Barbara Stevens, Evaluating the Organization of Service Delivery: Solid Waste Collection and Disposal (New York, New York: Columbia University, Center for Government Studies, 1977).

⁶ Lois MacGillivray, et al., Evaluating the Organization of Service Delivery: Fire (Durham, North Carolina: Research Triangle Institute, 1977).

⁷ Harvey A. Garn, Michael J. Flax, Michael Springer, and Jeremy B. Taylor, Models for Indicator Development: A Framework for Policy Analysis (Washington, D.C.: The Urban Institute, 1976), pp. 14-15.

⁸ This definition of coproduction has emerged from a series of discussions among a group of colleagues at the Workshop in Political Theory and Policy Analysis at Indiana University. Coproduction is examined from a more theoretical perspective in two articles: Roger B. Parks, et al., "Consumers as Coproducers of Public Services: Some Economic and Institutional Considerations," Policy Studies Journal (forthcoming, 1981); and Larry L. Kiser and Stephen L. Percy, "The Concept of Coproduction and Its Implications for Public Service Delivery," paper presented at the 1980 Annual Meetings of the American Society for Public Administration, San Francisco, April 13-16, 1980. Related discussions of coproduction are presented in Gordon P. Whitaker, "Coproduction: Citizen Participation in Service Delivery," Public Administration Review, Vol. 40, No. 3 (May/June, 1980), pp. 240-246; Frances P. Bish and Nancy M. Neubert, "Citizen Contributions to the Production of Community Safety and Security," In Mark S. Rosentraub, ed., Financing Local Government: New Approaches to Old Problems (Ft. Collins, Colorado: Western Social Science Association, 1977); Richard Rich, "Voluntary Action and Public Services: An Introduction to the Special Issues," Journal of Voluntary Action Research, Vol. 7, Nos. 1-2.

(January/June, 1978), pp. 4-14; Mark S. Rosentraub and Karen Harlowe, "The Coproduction of Police Services: A Case Study of Citizens' Inputs in the Production of Personal Safety," paper presented at the 1980 Annual Meetings of the American Society for Public Administration, San Francisco, April 13-16, 1980; and Elaine B. Sharp, "Citizen Organization in Policing and Crime Prevention," Journal of Voluntary Action Research, Vol. 7, Nos. 1-2 (January/June, 1978), pp. 45-58.

⁹ Elaine B. Sharp, "Toward a New Understanding of Urban Services and Citizen Participation: The Coproduction Concept," paper presented at the Annual Meetings of the American Society for Public Administration, San Francisco, April 13-16, 1980.

¹⁰ Ibid., p. 1.

¹¹ This topic has been addressed in Anne L. Schneider and Jerry Eagle, The Effectiveness of Citizen Participation in Crime Prevention: A Random Outlaw Model (Eugene, Oregon: Oregon Research Institute, 1975).