

## **Community Psychology and Social Impact Assessment: An Action Model**

**Gregory J. Meissen<sup>1</sup> and Joseph A. Cipriani**

*Wichita State University*

*Community psychology's intervention-oriented approach guided by a person-environment fit perspective is a productive way to address the study and mitigation of social impacts. The most obvious intervention to prevent human problems that accompany large scale projects is to stop the project itself. However, if the decision is made to implement the project, interventions can be designed to develop human competencies and resources in the community in an effort to prepare residents for the coming change. Important tasks for a community psychologist could include the collection and dissemination of valid information concerning potential social and psychological problems resulting from the project, the development and evaluation of interventions designed to prevent or ameliorate these problems, and to be an advocate for community residents.*

Social impact assessment (SIA), a multidisciplinary area of social science concerned with estimating, appraising, and mitigating the social and psychological effects of large-scale planned change, offers social scientists a vehicle to engage in prevention and intervention across a broad range of human concerns. Wolf (1974, 1976) states that the primary goal of a social impact study is to assess whether to implement a proposed project based on social and psychological effects. McCoy (1975) suggests further that if the project is approved, social scientists can help develop a mitigation plan designed to minimize the undesirable effects and enhance the development of human

<sup>1</sup>All correspondence should be sent to Gregory J. Meissen, Department of Psychology, Wichita State University, Wichita, Kansas 67208.

resources in the host community. The purpose of this paper is to review some of the major problems of SIA in order to describe how the perspective of community psychology can benefit this process of assessment and mitigation. We also present a model to guide the efforts of community psychologists interested in the process of planned change in their communities, and the attendant social and psychological impact.

The passage of the National Environmental Policy Act (NEPA) mandated environmental impact statements for any large scale project which significantly affects the quality of the human environment (Public Law 91-190, Section 102). Social impact studies have often been incorporated into larger Environmental Impact Statements (EIS) where their emphasis on human impacts have been overshadowed by the focus on biophysical and economic impacts (Lewis, 1980; Wolf, 1974). "What social impact assessment has meant thus far in practice is no more, and frequently much less, than *pro forma* compliance with statutory requirements" (Wolf, 1974, p. 9). The resolution of this dilemma of human cost has evolved into more of a political process than a scientific one.

The passage of NEPA was seen by some private groups (e.g., Sierra Club and Audubon Society) as a scientific process by which selected large scale projects could be averted on environmental, social, economic, and cultural grounds. Unfortunately, social and cultural data are rarely collected (Friesema & Culhane, 1976; Lewis, 1980). Typically, the government agency or private corporation proposing a project is in charge of either conducting the impact study or hiring a firm to manage the study (Lovejoy et al., Note 1). At the very least, the primary suppliers of information are those organizations involved in the development of the project, with the obvious conflict of interest inherent in such a dual function. It is important in understanding the SIA process to recognize this conflict between the findings of a scientific social impact study and particular economic/political interests at the decision-making stage. Further, those having the most influence on project-related decision (e.g., local political and economic leaders) often have more to gain by acceptance of the project than the majority of citizens who may lose, and who have little input (Dodd, 1982). This conflict has recently become even more inequitable because of the deemphasis at the federal level on halting projects that will produce environmental, economic, or social hardships (Warren, 1982).

This overemphasis on economic issues often carries over to the social impact study itself. The method most often used is cost-benefit analysis (Conpask & Reynolds, 1977; Schnaiberg & Meidinger, Note 2). This procedure, where all impacts are assigned a dollar figure, often overemphasizes positive economic impacts (e.g., predicted employment, wages, and increased business), while ignoring the noneconomic negative impacts (e.g., forced

relocation, housing shortages, and overuse of community facilities). The problem is compounded by the long history of understating projective costs of implementation and overestimating the positive economic benefits of the proposed project in order to make it attractive to funders and the community. In the final analysis, positive economic benefits are typically overestimated, costs of the project are often underestimated, and negative social impacts are usually ignored (Daffron, 1975). Further, since negative effects were not presented, plans for avoiding or mitigating them were not developed. The overwhelming economic benefits are considered "payment" for any overlooked negative impacts (Daffron, 1975). Unfortunately, those who experience the positive economic benefits are usually not the same individuals paying the social costs.

There are few social impact studies that have assessed how positive and negative impacts differentially affect individuals of different subgroups in the community (Friesema & Culhane, 1976; Peele, 1974; Schnaiberg & Meidinger, Note 2). Shields (1975) contends that "impacts of high technology projects affect different people in different ways at different times. Some people lose a great deal, others gain ... it is quite clear that distributional impacts are what social impact assessment is all about" (p. 280). In general, large scale projects have typically favored those in society who have economic and political resources (Daffron, 1975). Further, those who have benefited most from these projects have "least felt the sting of local and regional disruption while the relatively immobile local and regional working and poverty classes have historically suffered from such ecological disruption, i.e., have paid the costs" (Schnaiberg & Meidinger, Note 2, p. 29). For example, elderly on fixed incomes do not benefit from the increased business produced by a project through population growth. Instead, they suffer when the project produces a spurt of local inflation (e.g., high rent and special taxes) and turns their quiet neighborhood into a construction zone. These differentially impacted and powerless subgroups have rarely been a concern for those conducting social impact research.

In addition to these political/ethical difficulties, SIA by its very nature is compelled to do research on applied problems in a field setting. As well as having to deal with the well-documented problems of doing this type of research (Cook & Campbell, 1976; Runkel & McGrath, 1972), SIA must also attempt to predict the positive and negative social impacts which will occur, and estimate their magnitude prior to the project. Duhl (1967) has described this predicament as "Planning and predicting: Or what to do when you don't know the names of the variables" (p. 779). An attempt to overcome these research-related problems is shown by a growing interest in empirical studies and methods of assessment in the SIA literature (Bowles, 1981; Finsterbusch & Wolf, 1977; Soderstrom, 1981). Lists of potential social impacts from past

projects have also been developed to give researchers a starting point in predicting variables which might be important (Fitzsimmons et al., 1975; Mack, 1974).

Unfortunately, little theoretical development or even a commonly accepted orientation to the field has accompanied these methodological advances (Shields, 1977; Lounsbury et al., in press). One reason for the lack of theoretical work is that SIA began more as a "technology" than a discipline. Consequently, a great number of social impact studies were conducted with no theoretical underpinnings or even past research as a guide (Friesema & Culhane, 1976).

### A COMMUNITY PSYCHOLOGY PERSPECTIVE FOR SIA

Community psychologists can view the reduced emphasis of the federal government concerning environmental and social impacts as an opportunity to assist the local community gain more control over large-scale development. Sarason (1976) contends that the federal government has "robbed" communities of the chance to solve their own problems, guide their own fate, and take responsibility for their actions. He also suggests that this has resulted in a loss of "sense of community". This conclusion is shared by Lewis (1980), who found that local concerns were clearly overshadowed by regional and national issues in her study of rapid coal development in the Eastern coalfields. If social impact research was generated at the local level with a primary interest on local concerns, social and psychological concerns would no longer be delegated to "*pro forma* compliance" with NEPA requirements because this independent study would no longer be part of the larger EIS. A parallel, locally produced social impact study seems more realistic than changing the EIS process.

Social scientists, including community psychologists, in local universities, mental health centers, or similar institutional settings, have the opportunity to conduct independent SIA research without the restrictions imposed by the federally mandated EIS. The innovative use of community and student volunteers and the resources institutions provide (e.g., staff, computer time, and credibility) can make this type of research manageable, low cost, and very local (Reinhart & Cazavlan, 1975). This would result in more attention to social and psychological issues as they relate to the project at the local level.

The perspective of community psychology stresses a strong research or data-based approach to human concerns that includes intervention in the natural setting. While there are many empirically based studies in the SIA literature, there is a paucity of interventions based on those studies

(Lounsbury et al., 1983). At the same time, there have been interventions that attempted to mitigate the impacts of a project which were neither based on prior social impact research or needs assessments nor subsequently evaluated in terms of their effectiveness (Davenport & Davenport, 1979, 1980, 1981a). The more rational approach would be to predict and assess potential impacts than develop interventions designed to prevent or mitigate those impacts. Evaluation would be built into this research and intervention process. While community psychologists are not the only social scientists trained for applied field research, our training, guided by a prevention orientation, should allow us to engage in research and intervention as complementary processes.

SIA is well adapted to community psychology's orientation toward community level research with the unit of analysis still the individual. This orientation is consistent with the view of Burdge (Note 3) and Lewis (1980) that "real" social impacts are felt by individuals. Further, the collection of subjective, individual information such as life and community satisfaction, stress, perceptions of alienation, psychological sense of community, and expectations of impacts would offset the typical overemphasis on economic variables and cost/benefit analysis. The need for this type of data collected over time has been stressed by both community psychologists interested in SIA (Lounsbury et al., 1977) and social impact researchers who are not community psychologists (Deane & Mumpower, 1977; Gold, 1977). "The objective study may be more impartial, synthetic, inclusive and generalized but it tells us little about what keeps a community together, how its people find meaning and purpose in life, their deeper social values and sentiments, or the things which make life worth living" (Lewis, 1980, p. 13). Further, community psychology's person-environment fit perspective would encourage the study of impacts upon individuals, not in a vacuum, but in relation to their social and physical environments.

We believe the person-environment fit perspective of community psychology, and its orientation toward the use of theory in general has advantages for the study of social impacts. While community psychology does not hold an exclusive or singular theoretical orientation, it is not atheoretical. Instead, community psychologists have frequently "borrowed" theories from psychology and the social sciences along with their rich histories of thought and research. This approach allows the flexibility to apply a theoretical model that is best suited to a particular situation. One useful theoretical approach to guide the study of social impacts is Barker's (1968) ecological psychology. Recognition that "behavior settings" can account for a good portion of human behavior seems an appropriate approach to analyzing the changes precipitated by a large-scale project. For example, monitoring the changes in classroom behavior as the student population increases in size and diversity would be

useful to teachers and school administrators. This approach can be used in other behavior settings (e.g., churches, restaurants, and mental health clinics) as a way of analyzing behavioral change precipitated by a project.

Rappaport (1977) has further adapted Barker's thinking for community psychology by emphasizing the relationships between the strengths of people and their social and physical environments instead of the traditional focus on relationships between inadequate persons and their environments. Rappaport contends that interventions should stress the creation of alternatives to maximize person-environment fit. As environments change or are created by the influence of a project, considerations of "best fit" between these environments and new and old residents is critical.

Breese et al. (1965) found that the most significant impact of almost all large projects is the massive and rapid influx of individuals from outside the community who come to work on the project. It is well documented that the "boom" in such a community produces not only population growth but also disrupts the previous "fit" between residents and their community (Fellman & Brandt, 1970; Gilmore, 1976; Smith et al., 1971). Along with population growth come antagonistic relationships between local residents and incoming workers, housing shortages, increased demand for public services, overcrowding of schools, need for new community facilities, etc. (Davenport & Davenport, 1979). Traditional "solutions," such as building isolated mobile home parks for outside workers, clearly do not consider the relationships between people and their surrounding environments.

Guided by a person-environment fit perspective, nontraditional workers (e.g., housewives, retired, youth, and minorities) typically seen as a community deficit could be given special job training for employment at the project site. Similarly, training for jobs at the project site could be given to the spouses of the incoming workers. A majority of outside workers are men with families who follow construction projects from community to community. Typically, the wife is unemployed as there are few nonsite job opportunities for new residents. Weisz (1979) found this group of women, without a natural support system in the new community, to be more susceptible to mental health problems and less likely to contact available caregivers. The training of the wives of the project workers could alleviate some of these difficulties, would produce a more marketable couple, and reduce the number of new residents in the host community and at future project sites. Instead of dwelling on the deficits of certain groups in a project-impacted community, the person-environment fit perspective views these groups as resources to be "best fit" into the changing environment.

Consistent with the avoidance of a deficit approach, community psychologists have argued for a psychology in the best public interest, and with a dedication to those in society with a minimum of personal and political

resources (Rappaport, 1977, 1981; Swift, 1982). The SIA process offers community psychologists the opportunity to not only investigate the differential impacts of a project on powerless subgroups, but actively to prevent potential disruptions. SIA interventions could also empower residents with respect to project related concerns and, thereby, help equally distribute both positive and negative impacts resulting from the project. Further, a greater sense of community and/or less alienation could result from such research and intervention. Fairweather and Tornatzky (1977) acknowledge that this type of citizen participation with the attendant political process causes problems. At the same time, they argue that ignoring the political arena and the views of consumers is naive.

Community psychologists have long been cognizant of the need for involvement in the political sphere (Iscoe, 1977). Traditionally, science has been viewed as a purely objective process, but a number of psychologists have argued that the values a scientist holds commonly have an impact on their research (Kamin, 1974; Reiff, 1971; Rappaport, 1977). Rappaport (1977) argues that community psychology, as well as applied social science in general, must be political because the "link between social science and the study and development of human resources is a political one" (p. 35). SIA researchers have shown an aversion to political involvement (Friesema & Culhane, 1976; Lovejoy et al., Note 1; Wolf, 1974). In addition, SIA can be the type of scientific endeavor suggested by Chavis et al. (1983) that allows the scientist to "give psychology away" (Miller, 1969). At the same time, it allows the scientist and citizen to collaborate to the benefit of the community which, in turn, benefits the scientist and the citizen (Tyler et al., 1983).

This willingness to engage in research and intervention in areas with political overtones can result in difficult value judgments. In the SIA process, for example, negative impacts can outweigh the positive benefits, local residents can oppose the project, and/or disadvantaged subgroups can be expected to suffer the negative impacts while not receiving the positive benefits. At this point, one must critically examine the validity of citizen support or opposition, motives of community leaders, the predictions of the impact study, and the special concerns of disadvantaged subgroups. A value judgment is appropriate on whether to support or oppose a project, or to remain "neutral," that is, interested in the SIA process purely as a scientist. The perspective of community psychology calls for these judgments to be made in the interest of the community at large and/or powerless subgroups of the population, and suggests that it is difficult to remain "neutral." This does not mean a rejection of the scientific process, simply a declaration of one's values (Rappaport, 1977). Value judgments become even more precarious if the community psychologist has been hired by either the organization developing the project or by a group opposed to the project.

## AN ACTION MODEL FOR SIA

One primary difference between community psychology and other disciplines is community psychology's action-oriented, data-based approach to the prevention of social problems. Applying this action research perspective to the study of psychological and social impacts of planned development can come under two major areas: (1) assisting the community in the decision phase which could include an attempt to stop the project, and (2) assisting the community in coping with changes if the project is accepted. In discussing the relevance of a community psychologist as a social planner, Catalano and Monahan (1975) encouraged those in the field to live up to their "theoretical commitment to an ecological position" by engaging in "large scale interventions in the natural environment" (p. 327). The type of action research being suggested fits the "Lewinian" model proposed by Ketterer et al. (1980) in that it involves the repeated cycle of planning, information acquisition, and consumer feedback designed to accompany change. Below is a description of an action model that can serve as a guide to social impact research.

### Pre-Decision

*Data Collection.* Prior to a decision to incorporate a project into a community, information about potential impacts can be collected by conducting an initial social impact study (see Figure 1). The first step in social impact assessment, as in any type of research, is to examine the existing literature for relevant information. Also available are lists of potential impacts collected from past projects (Finsterbusch, 1977, 1980; Fitzsimmons et al., 1975; Mack, 1974). It is important to gather information on both project-related and community-related impacts (Wolf, 1976). Project-related information would center on the effects of similar projects across a variety of settings, while community-related information would focus on previous change in the area or in similar communities. A survey of citizens in past project-impacted areas could provide the kind of data most often overlooked, how such projects affect the lives of residents. Special attention could be paid to low income groups, children, the elderly, those who were forced to relocate, or other special impacted groups. Special attention should be given to the "fit" of such groups into the changing environments of these past projects. Complementing the traditional literature are the large number of Environmental Impact Statements completed for most large-scale projects since 1969 (Friesema & Culhane, Note 4). Further, if the EIS for the actual project is available, a great deal of information may have already been assembled.



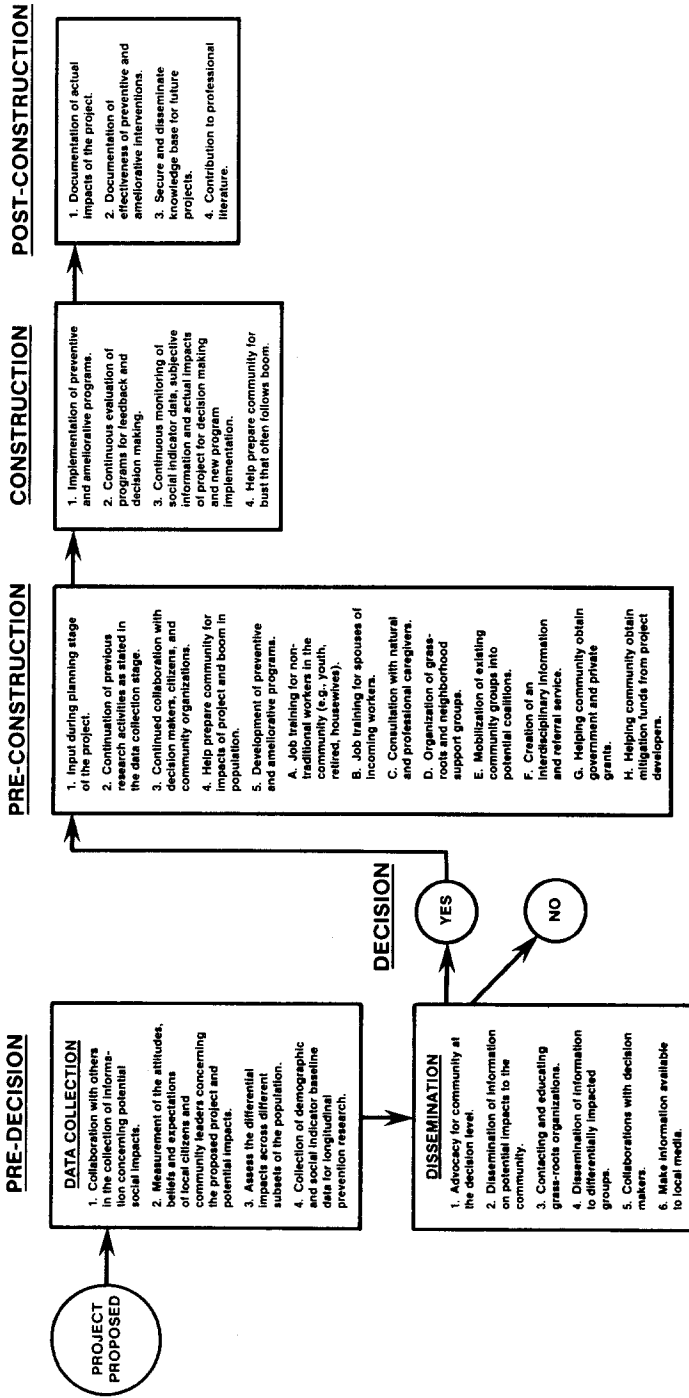


Fig. 1. Social impact assessment: An action model.

This initial review of information should result in an appreciation of potential impacts of the proposed project, "at risk" groups and environments, and a list of relevant variables. A review of the lists of potential impacts by community leaders, a representative sample of citizens, and local experts can help solve the problem of "knowing the names" of important variables for a particular community and project. Once a list of potential impacts is developed, surveys of community leaders and/or citizens concerning their expectations of the likelihood and importance of potential impacts can be conducted. This has become an accepted procedure to complement archival data and economic/environmental forecasts (Bowman & Fishbein, 1978; Lounsbury et al., 1977; Sundstrom et al., 1977).

While the expectation of impact has been criticized as being subjective, it does provide an accurate view of what citizens anticipate in positive benefits and what they fear in negative ones. This type of information is especially useful when compared to survey results from other communities who have already experienced project-related change. Other subjective dimensions such as attitudes toward the project, quality of life, community and neighborhood satisfaction, satisfaction with community services, political efficacy in general and specifically toward the project, psychological sense of community, and knowledge of project specifics can be assessed at the same time.

It is equally important to collect the more objective social indicator data prior to the project adoption decision. It can be useful to have a good record of such indices as employment levels, crime rates, housing data, and public services usage. Not only are these subjective and objective social data useful prior to the decision but they can also serve as a baseline to monitor the psychosocial effects of the project longitudinally.

### **Dissemination**

An important function for a community psychologist would be to collaborate with other social scientists, caregivers, and concerned community members in the dissemination of information collected in the initial social impact study (see Figure 1). Often, a project is promoted by a small faction of the local population and nonlocal interests who stand to benefit greatly, at the expense of a less influential majority (Bonnen, 1970; Dodd, 1982). Another aspect of the role of a scientist/advocate for the community prior to a decision could take the form of consultation with decision makers as well as existing organizations in the community. Groups that could potentially suffer more of the negative impacts or experience a poor fit with the new environment could be organized at the grass roots level. Possibly, the most effective means of communicating the information from the initial social impact study would be through the local media. This type of activity would

allow a community to make a more rational decision concerning the desirability of a project, possibly in the form of a referendum. "Here is an area (SIA) where what social scientists think and argue convincingly can make a substantial difference to the quality of human life and the condition of human community" (Wolf, 1975, p. 261).

### **Decision**

The most obvious intervention to prevent the human problems that accompany large-scale projects is to stop the project itself. While there have been instances where a project was halted on social and psychological grounds, it is rare (Fellman & Brandt, 1970, 1971; Peele, 1974). This has typically occurred when both community leaders and citizens overwhelmingly and actively opposed the project, and were well organized and informed (Fellman & Brandt, 1971). To oppose a project is a value decision which is not always popular. Such a decision can be especially controversial if made in the interest of residents or powerless subgroups of the population. We believe it is important to take a stand consistent with the findings of the initial social impact study and one's values. If the project is approved, it is equally important to have input during the construction stages to help prevent undesirable impacts and actions taken during this stage should not eliminate input as the project continues. This is an especially important consideration for the community psychologist consulting to project developers, local government, or opposition groups.

### **Preconstruction**

The information collected from the initial social impact study not only gives decision makers input concerning the planned and unplanned social consequences of a project, but can also guide efforts at preventing the human problems that accompany such change (see Figure 1). If the decision is made to commence with the project, certain useful information has already been collected. For example, estimates of social impacts are already available, much is already known about impacts from previous projects and how other communities dealt with these problems. It is also known what subgroups of the populations might be "at risk," and what impacts are of greatest concern to local residents. A baseline of community/social indicators, residents' attitudes toward the project, and expectations of potential impacts will have already been collected. Further, such a data base allows for the design and implementation of preventive interventions prior to the onset of the project and a basis to evaluate these interventions. A community psychologist can utilize this data base to insure that continuous resident input and the concerns of dif-

ferentially impacted subgroups are available to policy makers. In addition, both policy makers and residents should have become better educated concerning potential impacts due to the local publication of this information. Possibly, they would be more amenable to interventions designed to prevent some of the problems that typically accompany such projects.

The rhetoric that exists during the decision phase of a project often leads community leaders and citizens to anticipate new, good-paying jobs for area residents, and reduction of unemployment (Little & Lovejoy, 1980). Unfortunately, local residents are rarely trained for the specific tasks involved, construction unions restrict local hiring, and "hardcore" unemployed persons in the area are never considered. Consequently, a great majority of workers and their families come from outside the area and that migration precipitates the population boom (Meissen et al., 1980). In order to protect their own interests, concerned citizens and community leaders need to take the responsibility for interventions designed to reduce the typical population boom as well as other project-related impacts.

Working with the information available from the initial social impact study and the time lag between the decision and construction stage of the project, specific preventive interventions can be designed and implemented before problems actually exist. Many primary prevention strategies which community psychologists are capable of developing can be useful at this stage. As discussed above, the reduction of the number of new residents entering the community due to training of existing groups, or by any other means, could prevent some of the problems associated with the population boom (Davenport & Davenport, 1981b). Consultation with natural and professional caregivers is important because mental health problems will be different and more prevalent (Boughsty & Marshall, 1981; Weisz, 1979, 1980). Forced relocation of property owners and strained relations between old and new residents have been shown to be particularly stressful (Donnermeyer, 1975; Napier, 1972; Tremblay et al., 1981). Organizing at the grass roots and neighborhood levels, and the mobilization of existing community groups into potentially powerful coalitions could prevent some of the negative consequences of the projects (Bates et al., 1980; Warner, 1979). The creation of an interdisciplinary information and referral service could assist citizens with difficulties ranging from legal concerns to mental health problems (Lantz et al., 1980).

Special consideration should be given to the disadvantaged and differentially impacted subgroups such as wives and children of outside workers (Moen, 1980), the elderly on a fixed income attempting to deal with a "booming" economy (Clemente & Summers, 1973), and school-aged children having to cope with overcrowded classrooms and new classmates (Pietens, 1979). Helping communities to obtain government and private grants as well as mitigation funds from the organization sponsoring the project would be important

in underwriting some preventive programs in the community. The social and psychological difficulties that accompany any project vary according to the nature of the project and the host community, but a preventive strategy coupled with an initial impact study can guide specific intervention strategies.

### **Construction**

Once construction has started, it is important to continue monitoring and publishing social indicators, demographic data, and subjective information (see Figure 1). For example, if unemployment rates of local residents do not decrease early in the construction stage, negotiations between community leaders and the project developer can begin immediately to remedy this situation. Keeping a continuous record of population figures allows for better planning in schools and for other community services. Knowing how community residents are reacting to changes precipitated by the project (community and life satisfaction, attitude toward the project) can help guide further decision making and insure continuous citizen input.

The evaluation of preventive interventions should begin early in the construction stage. These initial evaluations provide necessary feedback to monitor and possibly modify interventions. If some programs were clearly ineffective or unnecessary, valuable resources could be reallocated. Since it is impossible to plan for all potential impacts, the continuous collection of information and evaluation of programs would identify needs as they arise.

During the construction stage, it is also important to prepare the community for the "bust" that often follows the above-mentioned "boom" (Breese et al., 1965). Local business people expand their operations due to the increased population. When the project is completed the transient construction crews move on to another project, and business in general is reduced. Collaboration with business and industry consultants in forecasting both the boom and the bust could help local business concerns. Careful planning can allow a community to take advantage of the economic boom without suffering from the bust.

### **Postconstruction**

The postconstruction stage of a project allows for a summation and analysis of the various activities and interventions that have occurred throughout the project. The documentation of both the actual impacts of the project (economic and social, positive and negative) and effective preventive interventions provide a crucial knowledge base for future projects. Information on impacts and interventions can be made available not only to

the affected community, but also to project developers. The community psychologist can further expand this knowledge base by contributions to the professional literature. For example, a journal article describing the results of an intervention targeted at a specific project impact (e.g., job training for nontraditional workers) would provide specific, empirical information to guide future intervention efforts.

## CONCLUSIONS

Community psychology has been criticized as being more rhetoric than action (Glenwick, 1982). Glenwick calls for community psychology to build a data base founded on prevention, empowerment, self-help, and networking to complement the well-established perspective of community psychology. As argued above, the SIA process seems to be amenable to these strategies. Mann (1978, p. 18), when discussing the community psychologist's participation in social change, commented:

On their part, community psychologists can contribute competencies in three clusters of activities: (1) research on the identification and analysis of community problems, surveys of community attitudes, and the evaluation of proposals for community programs, including the conduct and assessment of pilot projects; (2) participation in the design, delivery, and evaluation of community human services; and (3) active professional participation in social action programs of community development, including the design of community social settings that minimize adaptive difficulties and enhance the development of personal competencies within those settings. One example of a high point of this latter kind of activity might be working to create a requirement for, and participating in the preparation of social-environmental impact statements that precede the implementation of technological and social developments, similar to the statements concerning the physical environment that are now required in many instances.

In numerous communities, the construction of new physical structures ranging from small projects (shopping mall, urban renewal) to larger projects (urban highways, airports, factories) to huge projects (nuclear plants, world's fairs) are impacting on the quality of life of residents. These are all potential intervention points for community psychologists to make significant contributions along the lines suggested by Mann.

A major contribution that community psychologists could make in the area of social impact assessment and the prevention of social problems resulting from large-scale projects is in the area of research and theory development. It is especially important to pursue longitudinal studies of social impacts as well as research on the effects of specific preventive programs. Our interdisciplinary, community-wide prevention orientation, coupled with a scientific approach, could produce methodological and theoretical advancements in the measurement of social impact but, more importantly, could prevent human suffering in future projects.

## REFERENCE NOTES

1. Lovejoy, S. B., Baden, J. A., & Kemp, S. *Inadequate EISs: A structural approach*. Madison, Wisconsin: Stephen Lovejoy, Environmental Resources Unit, University of Wisconsin, 1978.
2. Schnaiberg A., & Meidinger, E. *Social reality versus analytic mythology: Social impact assessment of natural resource utilization*. Paper presented at the Annual Meeting of the American Sociological Association, San Francisco, California, 1978.
3. Burdge, R. J. *Some potential problems in doing social impact assessment research*. Paper presented at the Annual Meeting of the Rural Sociological Society, Madison, Wisconsin, 1977.
4. Friesema, H. P., & Culhane, P. J. *The environmental impact statement process: Technical assessment or political advocacy*. Paper presented at the Annual Meeting of the Society for the study of Social Problems, Montreal, 1974.

## REFERENCES

- Barker, R. G. *Ecological psychology: Concepts and methods for studying the environment of human behavior*. Stanford: University Press, 1968.
- Bates, V. E., Clark, F. W., & Bertsche, J. W. Developing comprehensive community helping systems in boom towns: The potential of informal helping. In J. Davenport & J. A. Davenport (Eds.), *The boom town: Problems and promises in the energy vortex*. Laramie, Wyoming: University of Wyoming Press, 1980.
- Bonnen, J. T. The absence of knowledge of distributional impacts: An obstacle to effective policy analysis and decisions. In R. H. Haveman & J. Margolis (Eds.), *Public expenditure and policy analysis*. Chicago: Markham, 1970.
- Boughsty, T., & Marshall, P. S. Prevention and remediation of social/psychological problems in energy-impacted communities. In J. A. Davenport & J. Davenport (Eds.), *The Human side of energy*. Laramie, Wyoming: University of Wyoming Press, 1981.
- Bowles, R. T. *Social impact assessment in small communities*. Toronto: Butterworths, 1981.
- Bowman, C. H., & Fishbein, M. Understanding public reaction to energy proposals: An application of the Fishbein Model. *Journal of Applied Social Psychology*, 1978, 8, 319-340.
- Breese, G., Klingenstein, R. J., Cahill, H. P., Whelan, J. E., Church, A. E., & Whiteman, D. E. *The impact of large installations on nearby areas*. Beverly Hills, California: Sage, 1965.
- Catalano, R., & Monahan, J. The community psychologist as social planner: Designing optimal environments. *American Journal of Community Psychology*, 1975, 3, 327-334.
- Chavis, D. M., Stucky, P. E., & Wandersman, A. Returning basic research to the community: A relationship between scientist and citizen. *American Psychologist*, 1983, 38, 424-434.
- Clemente, F., & Summers, G. F. Industrial development and the elderly. *Journal of Gerontology*, 1973, 28, 479-483.
- Conopask, J. V., & Reynolds, R. R. Using cost-benefit analysis in social impact assessment: Hazards and promise. In K. Finsterbusch & C. P. Wolf (Eds.), *Methodology of social impact assessment*. Stroudsburg, Pennsylvania: Dowden, Hutchinson & Ross, 1977.
- Cook, T. D., & Campbell, D. T. The design and conduct of quasiexperiments and true experiments in field settings. In I. M. Dunnette (Ed.), *Handbook of industrial/organizational psychology*. New York: Rand McNally, 1976.
- Daffron, C. Using NEPA to exclude the poor. *Environmental Affairs*, 1975, 4, 81-122.
- Davenport, J. A., & Davenport, J. (Eds.), *Boom towns and human services*. Laramie, Wyoming: University of Wyoming Press, 1979.
- Davenport, J., & Davenport, J. a. (Eds.). *The boom town: Problems and promises in the energy vortex*. Laramie, Wyoming: University of Wyoming Press, 1980.
- Davenport, J. A., & Davenport, J. (Eds.) *The human side of energy*. Laramie, Wyoming: University of Wyoming press, 1981. (a)
- Davenport, J., & Davenport, J. A. Preventive measures for boom town bifurcation. *Human Services in the Rural Environment*, 1981, 6, 4-10. (b)

- Deane, D. H., & Mumpower, J. L. The social psychological level of analysis in social impact assessment: Individual well-being, psychosocial climates, and the environmental assessment scale. In K. Finsterbusch & C. P. Wolf (Eds.), *Methodology of social impact assessment*. Stroudsburg, Pennsylvania: Dowden, Hutchinson & Ross, 1977.
- Dodd, J. *Exposé: The real story behind the Knoxville World's Fair*. Knoxville, Tennessee: Joe Dodd, University of Tennessee, 1982.
- Donnermeyer, J. F. *Forced migration: A bibliography on the sociology of population displacement and resettlement*. Monticello, Illinois: Council of Planning Librarians, 1975.
- Duhl, L. J. Planning and predicting: Or what to do when you don't know the names of the variables. *Daedalus*, 1967, 96, 779-788.
- Fairweather, G. W., & Tornatzky, L. G. *Experimental methods for social policy research*. Elmford, New York: Pergamon Press, 1977.
- Fellman, G., & Brandt, B. A neighborhood a highway would destroy. *Environment and Behavior* 1970, 2, 281-301.
- Fellman, G., & Brandt, B. Working class protest against an urban highway. *Environment and Behavior*, 1971, 3, 61-79.
- Finsterbusch, K. The potential role of social impact assessments in instituting public policies. In K. Finsterbusch & C. P. Wolf (Eds.), *Methodology of social impact assessment*. Stroudsburg, Pennsylvania: Dowden, Hutchinson & Ross, 1977.
- Finsterbusch, K. *Understanding social impacts: Assessing the effects of public projects*. Beverly Hills, California: Sage Publications, 1980.
- Finsterbusch, K., & Wolf, C. P. (Eds.). *Methodology of social impact assessment*. Stroudsburg, Pennsylvania: Dowden, Hutchinson & Ross, 1977.
- Fitzsimmons, S. J., Stuart, L. I., & Wolff, P. C. *Social assessment manual*. Cambridge, Massachusetts: Abt Associates, 1975.
- Friesema, H. P., & Culhane, P. J. Social impacts, politics, and environmental impact statement process. *Natural Resources Journal*, 1976, 16, 339-356.
- Gilmore, J. S. Boom towns may hinder energy resource development. *Science*, 1976, 191, 535-540.
- Glenwick, D. S. Community psychology in the '80's: A discipline for all seasons or one whose time has passed. *Division of Community Psychology Newsletter*, 1982, 15, 4-6.
- Gold, R. L. Combining ethnographic and survey research. In K. Finsterbusch & C. P. Wolf (Eds.), *Methodology of social impact assessment*. Stroudsburg, Pennsylvania: Dowden, Hutchinson & Ross, 1977.
- Iscoc, I. Realities and trade-offs in a viable community psychology. *American Journal of Community Psychology*, 1977, 5, 131-154.
- Kamin, L. J. *The science and politics of I.Q.* Potomac, Maryland: Erlbaum, 1974.
- Ketterer, R. F., Price, R. H., & Polister, P. E. The action research paradigm. In R. H. Price & P. E. Polister (Eds.), *Evaluation and action in the social environment*. New York: Academic press, 1980.
- Lantz, a., Sackett, K., & Eaton, V. A general approach and strategies for intervention. In J. Davenport & J. A. Davenport (Eds.), *The boom town: Problems and promises in the energy vortex*. Laramie, Wyoming: University of Wyoming Press, 1980.
- Lewis, H. M. Social impact: Ignored or mistreated component in environment, impact research. *Human Services in the Rural Environment*, 1980, 5, 12-16.
- Little R. L., & Lovejoy, S. B. Energy development and local employment. In J. Davenport & J. A. Davenport (Eds.), *The boom town: Problems and promises in the energy vortex*. Laramie, Wyoming: University of Wyoming Press, 1980.
- Lounsbury, J. W., Van Liere, K., & Meissen, G. J. Psychosocial impact assessment. In K. Finsterbusch, L. Llewellyn, and C. P. Wolf (Eds.), *Social impact assessment methods*. Beverly Hills, California: Sage Publications, 1983.
- Lounsbury, J. W., Sundstrom, E., Schuller, C. R., Mattingly, T. J., & DeCault R. Toward an assessment of the potential social impacts of a nuclear power plant on a community: Survey of resident's views. In K. Finsterbusch & C. P. Wolf (Eds.), *Methodology of social impact assessment*. Stroudsburg, Pennsylvania: Dowden, Hutchinson & Ross, 1977.
- Mack, R. P. Criteria for evaluation of social impacts of flood management alternatives. In C. P. Wolf (Ed.), *Social impact assessment*. Washington, D.C.: Environmental Research Design Association, 1974.
- Mann, P. A. *Community psychology: Concepts and applications*. New York: Free press, 1978.



- McCoy, C. B. The impact of an impact study: Contributions of sociology to decision-making in government. *Environment and Behavior*, 1975, 7, 358-372.
- Meissen, G. J., Seibel, A. T., & Bronfman, B. H. Social impacts of nuclear power plant construction. *Human Services in the Rural Environment*, 1980, 5, 3-8.
- Miller, G. A. Psychology as a means of promoting human welfare. *American Psychologist*, 1969, 24, 1063-1075.
- Moen, E. Social problems in energy boom towns and the role of women in their prevention and mitigation. In J. Davenport & J. A. Davenport (Eds.), *The boom town: Problems and promises in the energy vortex*. Laramie, Wyoming: University of Wyoming Press, 1980.
- Napier, T. L. Social-psychological response to forced relocation due to watershed development. *Water Resources Bulletin*, 1972, 8, 784-795.
- Peele, E. Social effects of nuclear power plants. In C. P. Wolf (Ed.), *Social Impact assessment*. Washington, D.C.: Environmental Research Design Association, 1974.
- Pietens, B. Some facts of life about boom town education. In J. A. Davenport & J. Davenport (Eds.), *Boom towns and human services*. Laramie, Wyoming: University of Wyoming Press, 1979.
- Rappaport, J. *Community psychology: Values, research, and action*. New York: Holt, Rinehart and Winston, 1977.
- Rappaport, J. In praise of paradox: A social policy of empowerment over prevention. *American Journal of Community Psychology*, 1981, 9, 1-25.
- Reiff, R. R. Community psychology and public policy. In J. C. Glidewell & G. Rosenblum (Eds.), *Issues in community psychology and preventive mental health*. New York: Behavioral Publication, 1971.
- Reinhart, R., & Cazavelan, J. Mental health consumer survey on a shoestring budget—It is possible. *American Journal of Community Psychology*, 1973, 3, 273-276.
- Runkel, P. J., & McGrath, J. E. *Research on human behavior: A systematic guide to method*. New York: Holt, Rinehart & Winston, 1972.
- Sarason, S. B. Community psychology and the anarchist insight. *American Journal of Community Psychology*, 1976, 4, 243-261.
- Shields, M. A. Social impact studies: an expository analysis. *Environment and Behavior*, 1975, 5, 265-284.
- Shields, M. A. Grounded theory construction in social impact assessment. In K. Finsterbusch & C. P. Wolf (Eds.), *Methodology of social impact assessment*. Stroudsburg, Pennsylvania: Dowden, Hutchinson & Ross, 1977.
- Smith, C. L., Hogg, T. C., & Reagan, M. J. Economic development: Panacea or perplexity for rural areas? *Rural Sociology*, 1971, 36, 173-186
- Soderstrom, E. J. *Social impact assessment: Experimental methods and approaches*. New York: Praeger Publishers, 1981.
- Sundstrom, E., Lounsbury, J. W., Schuller, c. R., Fowler, J. R., & Mattingly, T. J. Community attitudes toward a proposed nuclear power generating facility as a function of expected outcomes. *Journal of Community Psychology*, 1977, 5, 199-208.
- Swift, C. Community psychology: Riding the crest of the third wave. *Division of Community Psychology Newsletter*, 1982, 15, 6-7.
- Tremblay, K. R., Schwartz, C. L., & Dillman, D. A. Understanding the boom town problem: Value conflict between oldtimers and newcomers. In J. A. Davenport & J. Davenport (Eds.), *The human side of energy*. Laramie, Wyoming: University of Wyoming Press, 1979.
- Tyler, F. B., Pargament, K. I., & Gatz, M. The resource collaborator role: A model for interactions. *American Psychologist*, 1983, 38, 388-398.
- Warner, E. Grassroots organizing in boom towns. In J. A. Davenport & J. Davenport (Eds.), *Boom towns and human services*. Laramie, Wyoming: University of Wyoming Press, 1979.
- Warren, C. S. Budget cutbacks and environmental legislation. *Environment*, 1982, 24, 2-4.
- Weisz, R. Stress and mental health in a boom town. In J. A. Davenport & J. Davenport (Eds.), *Boom towns and human services*. Laramie, Wyoming: University of Wyoming Press, 1979.
- Weisz, R. Coping with the stresses of a boom town: Mental health alternatives for impacted communities. In J. Davenport & J. A. Davenport (Eds.), *The boom town: Problems and promises in the energy vortex*. Laramie, Wyoming: University of Wyoming press, 1980.

- Wolf, C. P. Social impact assessment: The state of the art. In C. P. Wolf (Ed.), *Social impact assessment*. Washington, D.C.: Environmental Research Design Association, 1974.
- Wolf, C. P. Social impact assessment. *Environment and Behavior*, 1975, 7, 259-263.
- Wolf, C. P. Social impact assessment: The state of the art restated. *Sociological Practice*, 1976, 1, 56-70.