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Citizen's Role in Transportation Planning

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FOREWORD

This RECORD contains papers that examine various aspects of the citizen's role in transportation planning.

Davis reviews the major events in the development and execution of an experiment by the Georgia Department of Transportation. The experiment was to introduce procedural changes in the planning process that would make planning more sensitive to community needs and that would increase the possibility of project implementation. The paper discusses the experiment from the perspective of Atlanta University, one of the major participants.

Harper discusses three basic concepts that must be implemented if the goal of effective citizen participation is to be achieved: (a) There must be viable and achievable objectives for citizens, (b) specific and viable criteria for the selection of citizens are necessary and must be related to the task objective, and (c) agency personnel must start to build credibility. The importance agencies attribute to citizen participation is discussed in a characterization of their personnel as yesterday, today, and tomorrow people.

Curry briefly describes and compares the citizen participation strategies used in two recent regional transportation planning projects in King County, Washington. The purpose of this analysis is to determine how citizen participation strategies differ according to the planning issue and the importance of such participation in the community. The analysis and comparison focus on several key aspects of the programs: recruitment techniques, structure and process of involvement, and the citizen's role and impact on the planning process. Curry bases this analysis on a survey and study of the Metro citizen participation program and on involvement in the initial stages of the Sea-Tac community involvement program.

Vodrazka, Schimpeler, and Corradino examine the method used by the Louisville and Jefferson County Air Board to include citizen participation in the site selection process. The paper discusses the procedure for selecting citizens, the results of this procedure, and the methodologies used by the site evaluation committee to select the best site for a new airport to serve the Louisville region.

PUBLIC PARTICIPATION IN TRANSPORTATION PLANNING: AN EXPERIMENT IN PROCESS CHANGE

Sid Davis, School of Business Administration, Atlanta University

Confronted with problems of getting parts of its transportation plan for the Atlanta area implemented, the Georgia Department of Transportation engaged in an experiment to introduce procedural changes within the planning process to make planning more sensitive to community needs and to increase the possibility of project implementation. Drawn into the effort were Atlanta University and the Massachusetts Institute of Technology Urban Systems Laboratory community values group, as consultants and observers. The department's initial proposal, basically a project location analysis, was changed during Atlanta University and Georgia Department of Transportation negotiations to a major subarea transportation study. This paper reviews the major events in the development and execution of the experiment and the lessons learned from the perspective of Atlanta University, one of the major participants.

•THE Georgia Department of Transportation was having difficulty in implementing important components of the Atlanta area transportation study plan, and, therefore, modified its planning process to meet the concerns of adversely affected community residents. At the same time it was to achieve what the department regarded as its basic mandate: the provision of improved transportation service.

The transportation facility that stimulated this concern for process modification was a proposed limited-access road that would penetrate residential areas that provided housing for many blacks. The department knew that it would have special problems in successfully carrying out location and design studies without careful handling. Before the experiment was concluded (aborted), Atlanta University and the Massachusetts Institute of Technology Urban Systems Laboratory and local planning organizations and interest groups had participated in the project. Each participating group had vastly different agendas:

1. The department was clearly interested in plan implementation and was seeking a more sophisticated way of reaching that goal;
2. The university, an educational institution with a predominantly black student body and staff, not only was physically located in the proposed corridor but also was concerned about its role vis-à-vis the community;
3. The M.I.T. group, which had done considerable research on community values in transportation planning, selected the experiment as a test case for the work it was doing on devising methods for improving transportation planning procedures; and
4. The citizens, for the most part, were attempting to find out what was going to happen and ways to protect themselves from adverse impact.

The interaction (conflict, confusion, hesitation, and learning) that took place between these major participants was, predictably, not dull.

In a conventional sense, the experiment was a failure in that its explicitly stated objectives were not achieved. Fortunately, however, it is possible to fail to achieve primary experimental objectives and, yet, have the results make useful, even significant, contributions to the understanding of the nature of the problem and provide additional avenues for exploration. It is within this context that the observations of one of the major participants in the experiment, Atlanta University, are presented, hopefully

to provide the basis for further sorting out and more precisely defining the lessons learned and their implications for other transportation planning efforts.

BACKGROUND

Atlanta, like most metropolitan communities, worked during a portion of the last decade on the development of a comprehensive areawide transportation plan that was, in part, the local area's response to emerging federal policy articulated in the Federal Highway Act of 1962 (1). This plan was subsequently modified and refined to include information generated as a result of the study process and the implementation of highway projects. In January 1971, the final report of the Atlanta area transportation study (2) prepared by the Georgia DOT was published. It proposed additions and changes to the region's existing freeway, arterial, and collector street systems and the development of a new transit program.

Included in the recommended plan were a number of transportation facility changes that would directly affect residents living on the Westside of Atlanta. One of them was a proposed Westside-Southwest connector described as an extension of I-85 terminating near the area's major regional airport facility. Although the size of the facility was not defined, it was to have the same general characteristics of the existing Interstate: a four-lane limited-access road with perhaps a median strip of sufficient size to accommodate future road lanes or lanes for public transit. In February 1971, a consultant was engaged to conduct a limited traffic service study for the proposed corridor (3).

Recently, Georgia DOT has encountered significant community opposition to proposals for freeway construction through relatively densely populated urban areas. These conflicts, of course, are not isolated to Atlanta and to Georgia, but have been and continue to be encountered in major urban areas throughout the United States.

SETTING THE STAGE

Georgia DOT recognized the potential difficulties (racial polarization and conflict) in attempting to undertake detailed planning for what was then called the Westside Freeway, especially in view of the almost unavoidable disruption of established black residential areas. Because of these concerns they drafted a special study proposal (4), which they felt was designed to promote a broader and more realistic philosophy of urban highway location and awareness and to improve citizen involvement and awareness. A pivotal role was assigned to an evaluation team that would do the final review and select specific routes amenable to in-depth study. The proposal also indicated the possibility of involving faculty and staff members of Atlanta University. They were particularly interested in the participation of the university's urban transportation and urban affairs project, which had become involved in related research and training activities through a federal grant program.

The nature of Atlanta University's response to the invitation of Georgia DOT to participate in the proposed freeway location study was to be significant in shaping the direction that the proposed study took in subsequent months. Staff members of the Atlanta University project understood that, although important transportation problems existed on the Westside of Atlanta, to be involved in a freeway location study when the community was only minimally aware that such a facility was planned could have significant adverse corridor impact and could easily place the project in direct conflict with a constituency that expected the University to support their interests and not those of Georgia DOT. To develop and clarify the university policy, a meeting was arranged between the Council of Presidents of the Atlanta University Center (five undergraduate schools and one graduate school) and representatives of Georgia DOT.

The position of Georgia DOT, in response to critical comments made by one of the presidents concerning transportation planning and minority interests, was that the department would proceed with the study even without the cooperation of the university but that such cooperation was desired. The council decided, after the debate, that the

Atlanta University Urban Transportation Project in conjunction with the Clark College Center for Studies in Public Policy should attempt to negotiate with Georgia DOT in developing services that would accomplish two preliminary university objectives: (a) to involve the schools so that they might stay well informed on the way being done and (b) to protect the interests of the residents of the area. President Vivian Henderson of Clark College was designated to act for the council in negotiating with the department.

The Atlanta University project and the Clark College policy center, when furnished with this mandate from the council, began serious negotiations with Georgia DOT. Their strategy was to find some way of broadening the proposed study from essentially a freeway corridor selection program and yet still retain the interest of the department. Fortunately there was surprisingly little disagreement between the department and university negotiators on this point, and a university alternative proposal, which later served as a basis for drawing up a formal scope of services, was prepared (5). The general agreement arrived at by the university and department representatives and elaborated on in the alternative proposal stated that

1. Meaningful citizen participation in the study program is necessary;
2. It would be possible for the study program to deal with alternative locations for a specific kind of facility and that alternative facilities themselves could also be reviewed; and
3. The program of study proposed by Georgia DOT would be open for discussion, review, and modification.

Although these were broadly stated points of agreement, the flexibility they provided enabled the university to establish a sound basis for legitimizing its involvement, especially in relationship to the community. The agreement provided the university with the opportunity to expose issues relating to the proposed freeway construction and transportation planning in general to directly affected interest groups. The university was initially to convene the study group that was to provide an organizational mechanism that would coordinate and integrate the various elements of the study implementation program that was to follow.

Involvement of M.I.T. Urban Systems Laboratory

Although the department generally agreed on a further definition of how the study should be organized and carried out, it was not until the introduction of one additional study participant that the university-Georgia DOT negotiations reached the point where a contract was drawn up and executed. The M.I.T. Urban Systems Laboratory in the spring of 1972 was looking for several sites to field test the work they had been doing on improving transportation planning processes (6). A draft document was developed that was intended to serve as a procedural guide to assist local areas in reaching what the systems laboratory regarded as process objectives: substantial and effective agreement on a course of action that is feasible, equitable, and desirable. Based on initial conversations with department officials, review of the Atlanta University proposal, and a subsequent conference with both university and department staff, the systems laboratory decided that the Atlanta Westside project seemed to offer an interesting opportunity for testing procedural guide concepts.

Their offer to come to Atlanta provided a measure of support for the approach to the study Atlanta University had proposed. It helped convince the department that embarking on an experiment in modifying transportation planning processes, although risky, could enhance its capacity to deal with some of the complex and sensitive problems associated with possible construction of the freeway and even lend luster to its image. This was not an unimportant consideration.

Evolution of Study Design Approach

The initial three-party arrangement among Georgia DOT, Atlanta University, and the Urban Systems Laboratory proved to be useful in refining the ground rules for conducting what was now called the Westside corridor access study. Although a number of tasks were outlined in the services drawn up by the university and the department, the most interesting was to assist the department in developing a study design that reflected not only the department's initial objective of freeway location analysis but objectives of other agencies and interest groups as well. The contract, rather than rigorously defining the content of the study design, indicated that comprehensive delineation of study design tasks would emerge from the team convened for that purpose and that these tasks would be assigned to appropriate members of that team. The objectives of this flexibility were to avoid the traditional client-consultant, product-oriented research, which would make the university responsible for producing the study design, and to keep the department central to the entire study design project in which the university would provide supportive assistance. This flexibility was new to the department as was the concept of carrying out a study design effort that would be a joint product of individuals and groups that had widely varying interests to advocate. The influence of the Boston Transportation Planning Review (BTPR) (7) experience is evident in the approach used. The BTPR used a similar technique to organize the elements of their subsequent study effort. A crucial difference between the Boston and Atlanta efforts; however, lay in the sponsorship of the study effort. In Boston, sponsorship was external to the existing Department of Public Works; the Atlanta Westside corridor study design was internalized within Georgia DOT. This enhanced the possibility that engaging in the study effort might have a favorable impact on the department's behavior vis-à-vis existing transportation planning processes.

The emergence of the study design concept as a central organizing tool marked another stage in what was originally a freeway location project. The study design would draw on the divergent interest groups in the planning process; expose proposed plans for their review; and develop general agreement on the specific objectives, content, structure, and management of the study itself.

Negotiated agreements on the approach to the pending study design did not necessarily mean that there were no problems. On the contrary, a number of times, the entire effort was in jeopardy. Resolution of these difficulties, however labored and agonizing, meant that the study design effort could proceed to the next step in its development.

CONFLICT AND RESOLUTION

Several of the problems faced during this negotiation/organization phase, which would bring the initial principal participants into substantial and effective agreement, to use the systems lab language, were in many respects similar to the difficulties that were to be encountered when efforts were made to prepare the study design document. These problems are discussed below.

Procedural Difficulties

There were procedural difficulties in signing a contract to formally bring the resources of Atlanta University center participants into the study design effort. It is not clear whether the protracted period (several months during which the department processed the university contract) was symptomatic of complex bureaucratic operating procedures, or whether it represented an ambivalence toward engaging in what was, in the department's view, a highly experimental venture. If it had not been for the involvement of the systems laboratory, the entire effort would have, at that point, either collapsed or been seriously impaired. Georgia DOT had made a commitment not just to a local university but also to another university-based group involving a major experiment in transportation planning process improvement. The department could not back away from com-

pleting the negotiations without running the risk of losing esteem. On November 9, 1972, the commissioner of Georgia DOT signed the contract with Clark College, which would act as primary consultant for the Atlanta University center participants. The university group had, in fact, already begun work some weeks earlier based on a verbal authorization from Georgia DOT.

Internal conflict notwithstanding, the formal commitment to carrying out the study design put the department in the position of supporting a major local experiment in transportation planning process improvement.

Lack of Recognition of Resource Commitment Needed

There was an initial lack of recognition, probably shared in varying degrees by all of the primary study design participants, of the resource commitment needed by the department if it were to successfully manage the study design effort. An early decision was made during contract negotiations that placed central responsibility for the study design effort not with consultants but with Georgia DOT itself. Recognition of what this responsibility meant built up steadily during the process of organizing and bringing other government agencies and citizen interest group participants into the study design effort. At least five full-time staff members were eventually committed to the study design. This staff base was buttressed in varying degrees by additional assistance provided by the Atlanta Regional Commission, the Metropolitan Atlanta Rapid Transit Authority, the city of Atlanta, and a representative of three small municipalities located adjacent to Atlanta that would be directly affected by the construction of a limited-access road facility.

The realization of the need for proper staffing grew slowly but steadily within the Georgia DOT. Initially management of the study design was made an adjunct activity of one of the department's section leaders; later, the responsibility was shifted to a full-time staff member under the direction of a section leader; and finally a section leader was reassigned to manage the study design. This adjustment took place over several months. Again the role of the Urban Systems Laboratory with support from Atlanta University was critical in pointing out to the Georgia DOT that the entire study effort would be jeopardized if adequate staffing were not forthcoming. It was almost as if a game of brinkmanship were being played. Each time game stakes were raised to extraordinarily high levels, the department managed to make the adjustments required for the project to continue. The independence of the Urban Systems Laboratory once again provided the necessary stimulus for change.

Study Design Approach as a Tool

The study design approach itself became a major tool used to penetrate community opposition to the proposed freeway. This, of course, was not an unexpected occurrence. Since extensive systems planning had already been done, which included the proposed facility and a subsequent study reinforcing the need for such a demand criterion for traffic using the road, a special effort was needed to prevent polarization on this issue. It was the consensus of the university-department-systems laboratory group that the use of the study design approach, which focused on dealing with the broadly defined transportation needs of the subarea and those of the users of the proposed freeway, would be the only feasible way to successfully involve various interest groups.

The results obtained from applying this technique for the most part met this initial objective of facilitating interest group participation and avoiding unyielding confrontation. Interest group interaction, although far from perfect, did provide wide exposure of the issues. This interaction also allowed citizens to voice concern for the adverse impact they believed would occur if the limited-access facility were built and to channel their concerns into useful articulation of transportation considerations and guidelines that they felt should be included in a study design document. The prevailing attitude of the citizens was that they did not want the freeway but that they were interested in im-

proved vehicular and transit access within their community. A record was compiled of the straightforward but often difficult to answer questions that were posed. Dealing with them successfully would represent a major achievement in any study effort. Some of the more interesting questions and comments follow:

1. Why is the study being done?
2. If citizens are represented in the process, who has been chosen and what were the criteria for selection?
3. What are environmental effects?
4. I want more citizen participation!
5. How are expected fuel shortages going to affect this question?
6. Do you have some statistics to justify the study?
7. How many blacks are employed in the Georgia DOT?
8. Will rapid transit be better for this corridor than a freeway?
9. Where are our elected officials?
10. Is this road another way to get housemaids to the suburbs?

This list could be easily tripled and not exhaust questions that challenged the study participants.

Transportation Systems Planning

Transportation systems planning is currently being carried out under the auspices of the Atlanta Regional Commission, the local areawide planning agency. Citizens raised significant issues about the relationship of the study design effort to the regional commission's ongoing update of systems planning. They also were concerned about the structure of decision-making processes and the study design's relationship to that process. The interest groups participating in the public meetings that were held to help prepare the study design document were explicit: They were not interested in participating in an exercise that did not have an acceptable relationship to the areawide planning agency or to the local political structure that would make decisions relating to study design recommendations. Citizens had a good grasp of the way decisions are made in the public arena because they knew that the study design and the entire evaluation of Westside transportation needs had to be explicitly connected to decision-making structures.

Preparation and Completion of Study Design

The schedule for preparation and completion of the study design called for a draft document to be available in April 1973, about 6 months after the initiation of the study design. A first draft was prepared for circulation. Unfortunately, completing the report, testing its acceptability with interest groups, making negotiated changes to the document, and then obtaining local government and planning agency endorsement were never accomplished. Because the study design was never formally completed, no further efforts were made toward carrying out technical studies relating to the freeway or additional corridor access. Rumor had it that no limited-access facility would be built. This may be why the study process was suspended. Implied in this view is the assumption that transport-access improvements within the corridor are not especially interesting to the department if possible construction of the freeway is not considered. The department has, however, taken the lead in attempting to develop and refine an approach to subarea transportation planning based on the Westside experience. A small group of citizens were also meeting, not under the auspices of the department but as part of a group concerned with transportation impact on low-income households. The department's contract with the university expired about a month and a half before the submission of the first draft of the study design report. The university worked approximately 2 weeks after the expiration of their contract with the understanding that

it would be extended. The extension was eventually processed but not until considerable time had elapsed. The university stopped its activities relating to the study at the request of Georgia DOT. The explanation provided for suspending Atlanta University's formal involvement was based on the procedural matter of contract; however, the contract question apparently caused significant problems within the department bureaucracy. Approximately the same time the university stopped its direct involvement in experiment, the field representative of the Urban Systems Laboratory concluded his activities and returned to Boston.

SUMMARY

The following summary observations relating to the Atlanta Westside experiment should provide a useful frame of reference for examining attempts to modify transportation planning processes in other communities. Perhaps these insights, especially those that relate to improving opportunities for citizen-interest group participation, can be helpful to others engaged in similar efforts.

Broadening citizen-interest group participation in the planning process creates a disequilibrium in the political-economic power relationships of established institutional structures currently responsible for developing and implementing plans. Goodwill or sense of public purpose on the part of these established institutions plays a minor, even insignificant, role in modifying institutional behavior to accommodate meaningful citizen-interest group participation. This occurs because such participation has the potential for reordering priorities and capital allocations in ways that are significantly different from prior practice. The Westside experiment was aborted for this reason—the outcome was potentially threatening to established practice.

We should not think, however, that interest group participation mechanisms do not exist. They in fact operate well and facilitate participatory access at almost every level of plan development and implementation. They operate, however, only for a constrained array of groups whose views on allocations coincide with the institution's and for groups that receive substantial benefit flows from this institutional decision making. Change of institutional behavior in this setting is a function of the power held by citizens and interest groups outside this closed equilibrium system. It was only the knowledge that some process modification was necessary to increase the probability of successful implementation of the department's highway plans that supplied their motivation to engage in the Atlanta Westside experiment at all.

Opening up and repair of the closed system is currently in progress. It is the result of direct citizen activism vis-à-vis local political processes, reduced funding bias on the federal level, legislative mandates that provide opportunities for legal redress, and improved process and procedural requirements that force consideration of alternative allocation of resources.

An important issue that emerged during the experiment dealt with the difficulties associated with introducing process modification within the context of the existing body of technical work and process mechanisms that were in operation. Citizen participants and the agencies involved had to agree on what was to be studied, the alternatives to be considered, the resources to be committed for the study effort, the role of citizens, and the decision-making sequence to be involved. In developing such understanding, existing procedures had to be reviewed to test their acceptability or to formulate new ones. The tool used to accomplish this was a study design that was, in essence, a negotiated agreement representing the participants' understanding of what was to be done. Although only a rough first draft of such a study design was ever produced, it served as a crucial organizing device that permitted energies to be focused on developing agreement rather than on highly generalized intraparticipant conflict.

To focus on the ability of the participants to successfully produce a study design masks some useful results of the effort itself. Citizens became more informed about transportation issues and the implications these issues had for their community, and shortcomings in the process were exposed.

The involvement of an independent participant such as the Urban Systems Laboratory

was useful in keeping the experiment moving. Their freedom to offer advice and ability to call crucial problems to the attention of appropriate bureaucratic levels without regard for the typical chain of command, to critically review the efforts of the study design team, and to provide back-up technical assistance was of significant value.

Citizens are able to demonstrate a sophisticated understanding of the link between planning processes in which they are permitted to participate and political decision making. They are aware of the difference between the planning game for fun and the planning game for real and are beginning to show a very low tolerance for having no effective impact on decisions.

Process modification is not cheap in terms of money, time, human energy, or psychic comfort. It is these costs that are, in part, responsible for maintaining system equilibrium. Alternative costs, however, of not changing must be raised to such an extent that process modification is viewed as perhaps a bit more reasonable.

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DISCUSSION

John H. Suhrbier, Cambridge Systematics, Inc.

Davis has treated public participation as an experiment in process change. I would prefer to eliminate the word experiment. Public participation is sufficiently well understood and has proved to be both sufficiently necessary and effective that we can no longer afford to consider participation as an experiment but as an essential component of a planning and design process.

I also suggest that Davis really is talking about organizational change, not just process change; therefore, an alternative title for his paper might then be "Organizational Change Implications of Public Participation."

The overall message of the Atlanta Westside experience is that the introduction of meaningful, effective citizen participation is not just the addition to an existing planning process of a workshop, a prehearing information meeting, a newsletter, or a citizen advisory committee. It is much more: It has implications for the timing of study activities, the scope of technical studies performed, the kinds of alternatives investigated, the assignment of decision-making responsibilities, the skills and attitudes of the professionals participating in the study, and even the internal organization of the study team and the transportation agency itself.

In brief, the introduction of effective citizen participation implies the possibility of significant organizational change. In an organization as large and as complex as a state transportation agency, these changes are likely to be difficult; will require time (mea-

sured in months and even years); will be resisted; will undoubtedly result in a certain amount of internal tension, perhaps even the resignation of some key officials; and may result in upsetting the internal equilibrium of the organization. The problems within Georgia DOT that Davis has described unfortunately are not unique; similar difficulties have been encountered wherever a participatory planning process has replaced a previously existing, largely technically oriented process.

These difficulties, however, do not imply that we should give up on citizen participation but indicate the need for strong, systematic, well-designed organizational change strategies, including training and periodic evaluation of the changes as they are implemented. Determining that a particular change is desirable may be considerably easier than determining how to bring about that change.

Following is a discussion of a number of important points identified by Davis pertaining to the Atlanta experience.

CITIZEN INTEREST AND EFFECTIVENESS

The Atlanta experience demonstrated that private citizens can easily comprehend the important issues of choice and the intricacies of transportation planning. They are able to make important contributions to many phases of a study, including the identification of potential beneficial and adverse impacts and the development of alternative courses of action.

RESPONSIVENESS AND FLEXIBILITY

When a community participates, an agency cannot predetermine and adhere to a fixed schedule of technical activities. Although a time schedule and decisiveness are clearly needed, the detailed activities themselves must remain flexible and be periodically revised so that they are responsive to requests from citizens and other agencies. These requests may pertain to particular impacts to be investigated, alternatives to be considered, the opening of a neighborhood field office, or the development of a particular visual display.

INTERRELATION OF PROJECT AND SYSTEM STUDIES

An important development of the Atlanta work and of several other transportation studies was the transition of the Westside effort from a highway-link location study to a subarea transportation study recognizing (a) the interdependencies of the bus, rapid transit, and highway systems serving the area, (b) the existence of local area transportation problems and the provision for through travel, and (c) the relation of Westside transportation decisions to decisions being made in other areas of Atlanta.

The emergence of subarea or corridor studies as an intermediate level of planning helps to achieve citizen participation in system planning by combining longer range proposals with shorter time-frame actions and by considering all relevant components of an area's transportation system, not just an isolated link or terminal.

Subarea studies are also consistent with the view that system planning should be viewed as a framework in which project decisions can be made rather than as a phase of planning preceding project studies and should serve to coordinate ongoing project studies. This view implies that a decision not to build or improve a facility is just as useful as a decision to proceed with construction. As a particular study proceeds, more realistic and accurate estimates are made of cost, of traffic service provided, of the impacts on the various communities and groups, and of the costs necessary to compensate for negative impacts. These estimates may indicate costs and other effects that are substantially less desirable than those estimated when the initial decision to proceed was made. If, as a result, a particular project is seen as undesirable and is eliminated, this is not a catastrophe. It simply reflects a decision based

on more complete information. Thus, the Atlanta Westside study can be viewed as an opportunity to reexamine earlier system decisions so that they may be validated or revised.

TRANSPORTATION NEEDS

Davis states that citizens did not want the freeway but were interested in improved vehicular and transit access within their community and that it was agreed that the study should focus on the subarea's broadly defined transportation needs and those of the users of the proposed freeway. These statements imply that there is no single technical definition of transportation need that can be used to justify the construction of a new facility. People now question statements of need for new facilities based only on a transportation objective. Perception of needs is based on current levels of mobility; other needs, such as housing, jobs, and environmental quality; and the actual effects of building a facility.

The mandate of highway and transportation agencies is no longer simply to plan and construct capital-intensive transportation facilities. The concern now is with the use of a multimodal system to move passengers and freight and with the balancing of gains to some interests against losses to others. Emphasis is on improving operational efficiency, examining lower capital options, and providing transportation services to meet such specific needs as those of the elderly, low-income, or commodity transfer.

DECISION-MAKING RESPONSIBILITIES

According to Davis, Atlanta citizens expressed concern about structure of decision-making processes and how the study design was related to those processes. Atlanta has a complex institutional arrangement that was poorly understood by all parties concerned, and this confused the novice participant on how to gain access to and influence the decision-making process. [In contrast, those citizens experienced in fighting Georgia DOT had demonstrated a particularly insightful understanding of Atlanta's and Georgia's bureaucracies and frequently proved (much to the consternation of these bureaucracies) their ability to influence a decision.]

Citizen participation is facilitated by clarifying decision-making authority, by providing equal access to decision-makers, and by permitting an orderly process of appeal of transportation decisions. In contrast, four major institutions at three different levels of government have a direct interest and concern with transportation in Atlanta's Westside area. These are the Georgia DOT at the state level; the Atlanta Regional Commission and the Metropolitan Atlanta Rapid Transit Authority at the metropolitan level; and the city of Atlanta at the local level. None of these four interests could be solely responsible for the kind of program envisioned in the Westside area, and indeed all of them had to participate cooperatively to achieve a meaningful coordinated program. Each level of government might be said to have had an effective veto power. Further, none of these four interests had a monopoly of qualified staff which, had it been the case, might have forced a distribution of authority for purely practical reasons.

CONCLUSIONS

1. There was an increase in concern on the part of both Georgia DOT and the citizens about the process through which transportation planning and decision making are performed. Interest was not limited just to the products that might emerge or to the particular technical techniques to be used. The overall process through which social, economic, and environmental considerations are brought into transportation decision making are equally important.

2. Effective citizen participation implies major organizational change. This change cannot be implemented instantaneously. Rather the accomplishment of change should

be viewed as a learning process that is most likely to be effective when some resistance to change is encountered. This implies that the change is indeed reaching individual attitudes and behavior.

DISCUSSION

Gerald P. Selby, Atlanta, Georgia

I will elaborate on the transportation planning process described by Davis from the viewpoint of a citizen who spent many hours from March to September 1973 struggling over the principals of public involvement in the Westside transportation evaluation project. The success or failure of the citizen's ad hoc committee is yet to be determined.

The citizen's ad hoc committee is a volunteer group of interested citizens; some reside in the Westside transportation evaluation corridor and others are from the greater Atlanta community. The group was formed in March 1973 to assist the participating agencies by providing direct citizen input into the Westside project study design.

We became involved because we felt that citizen input had, for the most part, been relegated for too long to the final stages of the transportation planning process instead of being considered an integral part of the total process.

Because of the lack of dialogue between the citizens and the policy makers in the implementing agencies in Atlanta, citizen participation evolved into a reactionary force characterized by opposition, confrontation, and controversy. This force led to the defeat of a major planned transportation facility and a corresponding waste of substantial planning efforts costing millions of dollars. Therefore, a difficult traffic congestion problem was not alleviated.

The goal of the ad hoc committee was to develop a citizen participation mechanism that could be initiated early in a planning process of any major consequence. Although our discussions centered around transportation issues, many members hoped that the product of our efforts could be used as a guide in future discussions of housing, land use, and health care. We thought that positive citizen participation would contribute to more harmonious development that was more economical and that could be more quickly realized than the negative process that Atlanta had been experiencing.

Three major issue areas were uncovered and addressed:

1. The initiation of a community goal development process,
2. The development of an education process, and
3. The development of a citizen participation mechanism.

The ad hoc committee proposed that, as a starting point, an executive committee made up of elected citizens representing the community, policy makers from participating agencies, and representatives of the region or business community assemble a goal formulation package of instructional and procedural material.

Further, it was suggested that a two-way educational program be prepared to include workshops, audio-visual presentation, handouts, and advertising.

Finally, citizen involvement can be achieved most effectively when a structure is created that will provide for citizen participation at all levels of planning. The executive committee was the mechanism that would deal with the transportation technicians on matters relating to the formulation and evaluation of transportation alternatives. At the same time, the executive committee would deal with formal policy boards on matters of implementation and policy decisions.

A formal presentation was made to the decision makers of the Atlanta Regional Commission. The results were less than encouraging. The ad hoc committee was thanked for its efforts. Objections were voiced against newly elected officials and the modifications of existing organizations. Six weeks later a formal rejection was made.

In spite of apparent failure, some good came out of the Westside experiment: Citizens are interested in and willing to plan their own fate, and mistrust of the power structure can be overcome. The ad hoc committee developed the necessary support with some staff members. This rapport enabled us to complete our proposal. Finally, this 7-month experiment demonstrated that citizens are interested in making a positive contribution to transportation planning.

AUTHOR'S CLOSURE

Suhrbier's observation that effective citizen participation in the planning process may imply major organizational change is good. It is also important to observe that the complexities of such organizational restructuring are profound when one considers that a state's department of transportation as well as other major planning participants must change. These include the area-wide comprehensive planning agency, a transit authority, and local governments. Such reorganization is not only internal but extends to relationships among these participants. Even under the best of circumstances, this kind of adjustment within and among groups is difficult and time-consuming.

An important issue raised by Suhrbier is why and how this restructuring takes place. I think that it is possible to point to the development and refinement of 3-C planning requirements as a technique that has helped to improve citizen access to the planning process. This has been had significant organizational impact. Similarly, the development of policy and procedures that require careful environmental assessment, consideration of community values, and evaluation of alternatives have improved citizen access to the process and have stimulated, at the same time, organizational restructuring. These changes have made the work by planning groups difficult; however, making the process more explicit and robust has permitted the citizen to enter the process in new, interesting, and useful ways. This includes a citizen's ability to seek legal redress when important aspects of the process have been neglected.

TOMORROW'S PEOPLE: ACHIEVING EFFECTIVE CITIZEN PARTICIPATION

Beverly A. Harper, Portfolio Associates, Inc.

Transportation agencies must implement these three basic concepts if the goal of effective citizen participation is to be achieved: (a) There must be viable and achievable objectives for citizens, (b) specific and visible criteria for the selection of citizens are necessary and must be related to the task objective, and (c) agency personnel must start to build credibility. A citizens panel convened to assist in a study for the Pennsylvania Department of Transportation serves as a model of effective participation. The development and operations of this panel provide proper procedures for implementing the basic concepts. This panel assisted with the development of a manual to be used by agency personnel to achieve effective citizen participation. The importance of agency personnel attitudes toward citizen participation is demonstrated in a characterization of them as yesterday, today, and tomorrow people.

•IN reviewing the process of successful citizen participation, one inevitably finds certain basic concepts underlying such success. I will explore the successful interaction between a group of citizens working with consultants from Portfolio Associates, Inc., and Ueland and Junker, Architects and Planners, and show how together they developed a manual for achieving effective citizen participation in Pennsylvania. The project was successful because the manual was produced with substantial citizen input.

In 1973, Portfolio Associates, Inc., was awarded a contract by the Pennsylvania Department of Transportation to research and produce a citizen participation manual for use by agency personnel. The manual details what citizens might do at specific points throughout the transportation planning and development process in Pennsylvania. A project report outlines the process used to develop the manual and the research findings (1).

Some of the five major parts of the study provide a sound rationale for citizen participation to those who think it is not needed. For those who think that citizen participation cannot work, the process that was developed for convening and working with the citizen panel serves as a model for achieving citizen participation by using three basic concepts.

What was involved in the five major parts of the study is discussed below.

1. A long time was spent at the beginning of this study trying to understand what aspects of the process would involve citizen participation. It was decided that citizens would be involved in the Pennsylvania DOT transportation planning and development process from system planning to construction.

Problems in using citizen participation occur because in a bureaucratic structure, departmentalization frequently minimizes effective communication. This results because, although department heads broadly know their areas of responsibility, they are often in doubt about the specific tasks of other departments and how this work affects the operational continuity of their tasks.

2. A national survey was conducted to ascertain those techniques of citizen participation that had proved effective, i.e., whether or not there was substantial agreement in terms of outcome on the part of all participants. The dollar value of projects stopped because of citizen resistance in the last 5 years was also part of the survey.

Based on responses from 43 states, there were approximately 111 projects terminated at total project cost of \$4 billion. Each state had an average of two to three projects stopped at a cost of \$107 million/state. In my judgment these figures offer a most effective argument for citizen participation.

3. Four case studies on citizen participation in transportation planning within Pennsylvania and three national cases, in California, West Virginia, and Boston, were conducted and reported on. In all cases, at least four people representing various points of view on each project were interviewed.

4. Approximately 120 techniques were reviewed for possible applicability to a transportation planning process that would involve citizens. Forty were selected for presentation in this manual.

5. A statewide citizen's panel was convened to assist us, the consultants, in the development of the manual.

The manual diagrams and describes specific points in the five-phase Pennsylvania DOT process at which citizens might be involved. Nine types of tasks that citizens may be asked to do are also presented. These include having citizens assist in the notification process, using informal advisory groups (existing or newly formed), and formally constituting a negotiation group to resolve specific conflicts among groups within an impacted community.

Forty techniques for involving and working with citizens are described and grouped into four categories: information, issue clarification, problem solving, and group process. Since communications problems are important for agencies to solve, emphasis was placed on information techniques.

Finally, a process is presented for selecting the appropriate techniques given a specific situation. The process requires an analysis of the project and communities to be impacted. Three basic concepts emerged when the process developed for involving a group of citizens was reviewed. A discussion of each follows.

NEED FOR A VIABLE AND ACHIEVABLE OBJECTIVE

There must be a viable and achievable objective for citizens participating in the transportation planning and development process. Much thought must be given to what citizens are asked to do so that their time is not wasted. Their time is wasted when (a) they come to a meeting, are handed papers, and asked to vote on certain items, (b) they are asked to develop alternatives and know that there is only one solution the local politician will accept, and (c) the first hour and a half of a public meeting at which the citizen statement is to be made is occupied by technical jargon and maps no one understands or can see.

If citizens are asked for advice they must be convinced that such advice will be taken into consideration. An aspect of real involvement is real communication. Citizens must believe that their experiences and views are worth something in the transportation planning and development process. They can only believe this if the people asking them to participate demonstrate this. However, without citizen participation, transportation facilities can still be built. The history of transportation planning and development in this country clearly demonstrates this. When our national transportation policy involved waterways and railroads, how many citizen groups were a part of the decision-making process? In the early twentieth century when public work departments started building roads for cars, how many automobile owners were contacted for their input? When, in 1956, the Highway Revenue Act became a reality, were citizen views heard (2)?

An achievable objective is to demonstrate to citizens that their participation was effective, meaningful, and worthwhile and that it made a difference. However, citizens may be involved in meaningless participation when they attend a meeting like that of the citizen advisory committee (CAC). An agenda of such a meeting follows:

1. Introductions,
2. Welcome by the deputy secretary of the state department of transportation,
3. A film on the history of public participation in transportation planning,
4. Rules and regulations governing the CAC,
5. A speech by the immediate past president of CAC on citizen responsibility,
6. Meeting schedule for the coming year, and
7. Questions and answers.

An example of a participatory meeting agenda would have a structure that allows citizens to assume specific responsibilities in the public notification process for a given geographic area. A group could be convened for a 1 or 2-year term to assist the state department of transportation in ensuring that communities, neighborhoods, organizations, and individuals receive information about impending public meetings, public hearings, and various project or system plan reviews. This group could be trained to assist organizations or individuals in understanding the information or in the preparation of public statements.

A typical meeting agenda of the CAC on communications for area A that demonstrates meaningful participation would be structured as follows:

1. Introductions;
2. Review of two-page background materials (received previously by the group by mail) including, perhaps, the agenda, a brief synopsis of the history of public participation, and statements by the deputy secretary and the immediate past president of CAC;
3. Determination and description of the formal and informal communications channels that exist in the target area;
4. Identification of the groups, institutions, and key individuals in the target area;
5. Assignment of responsibilities for information dissemination (a) to conduct an informal survey to determine the names and contact people for all community organizations in the area or (b) to find out the public programming policies of local media and how much technical assistance is available to community groups or individuals; and
6. Development of timetables and meeting schedules.

The differences between these two meeting agendas are obvious. At the end of their terms, each participant in the CAC on communications will have learned valuable communications information that can be used in many other projects in which every community organization in a given geographic area receives and understands information about a transportation project.

The meetings with the Pennsylvania DOT citizens panel further demonstrate that there are projects for citizens to work on, even at the planning stages of transportation development. These meetings coincided with the consultants' development of the manual. The first of four sessions was planned as an introductory meeting for a panel, the consultants, and Pennsylvania DOT personnel. It provided a review of project objectives, a discussion of the consultants' expectations for the citizen panel, and the citizens' expectations of the study. Information was also available about how the panel was selected.

At this first meeting, people talked about their experiences, their feelings, and their distrust of Pennsylvania DOT and of other government agencies and elected officials. Ironically, agencies and politicians reinforce this distrust when they set up mechanisms to deal almost exclusively with each other.

Although many of the citizens had been actively involved in transportation projects, this was the first face-to-face opportunity they had to let Pennsylvania DOT administrators know how they felt. This necessary venting process served as a test of the department's public image and recurred at intervals during the succeeding sessions. This process should be viewed, by agency personnel, as valuable feedback and as an opportunity to counter negative impressions or incorrect information. This airing of views often happens when any group meets for the first time. The amount of time consumed by this activity is directly related to the importance the group attaches to its primary objective.

At the second meeting with the panel, the citizen entry points into the Pennsylvania DOT planning process were discussed. Citizens had an opportunity to review, in advance of the meeting, the various citizen entry points in Pennsylvania DOT's action plan and those recommended by the consultants.

The objective of the third meeting was to recommend specific techniques for involving citizens throughout the transportation planning and development process. In the past and in a number of agencies today, citizen participation in the form of a public hearing is announced in a small box often on the obituary page of a local newspaper. The citizen panel had many constructive comments and suggestions for improved techniques.

All of the recommendations and observations of the citizens were considered when the consultants produced the draft manual and report. These drafts were 400 pages each; as a result, one was not inspired to read them entirely.

The citizens panel was given 6 weeks to read this material. Much to the surprise of Pennsylvania DOT personnel, when the citizens met for the fourth and final meeting all had read most of the documents. In addition, they had made extensive comments or specific recommendations. Generally, the changes suggested by the citizens involved simplifying the organization and structure of the manual. They also felt that it should be as jargon free as possible. As the result of citizen input radio was used instead of billboards to inform the community.

Of course, the fact that the citizens were available to discuss all aspects of the manual's development from their perspective served as an invaluable resource and sounding board. The consultants received a tremendous vote of confidence from the citizens. They trusted that the suggestions made at this final meeting would be incorporated into the final report and manual. They did not have to see the revisions.

In retrospect, I think the citizens became involved and stayed involved in this project because

1. They felt that they had something to contribute;
2. They saw this as an opportunity to constructively present their views and recommendations;
3. They thought the committee was something important and prestigious and, therefore, were flattered; and
4. They trusted that their views would be considered.

NEED FOR CRITERIA FOR SELECTION OF CITIZENS

Specific and visible criteria for the selection of citizens are necessary and must be related to the task objective. Transportation officials must be willing to make public the process and selection criteria for citizen participants. Once the process and criteria are made public, the criteria will be forced to become more specific. For example, it was never valid to have one black citizen as a representative for minorities, although many agencies believed it was. As soon as this general criterion is made public, questions are asked about the person's socioeconomic background, education, residential area, and job. The answers to these questions force us to consider a more definite set of criteria.

The process developed for the selection of the citizens panel for the Pennsylvania DOT study is as follows:

1. Identification of a definite job to be done,
2. Development of general and specific criteria for the selection of individuals,
3. Submission of names by Pennsylvania DOT and the consultants, and
4. Negotiation of the final group with decision makers.

(The specific job to be done has been discussed in the first concept.)

The first general criterion for selecting the citizens panel was that each citizen had had some experience with a transportation planning or development project. This was

necessary because project time was too limited to allow the panel to be educated about Pennsylvania DOT processes or the concept of citizen participation in transportation planning. The second general criterion was that each person had to be able to constructively contribute to the work of the group.

To provide broad-based experiences and input to the manual, at least one citizen was identified for each of the following categories:

1. Resident of Philadelphia or Pittsburgh,
2. Resident of a nonmajor city in Pennsylvania, and
3. Elected government official.

To ensure that participants had a wide range of community experiences, individuals were selected from at least three types of community groups.

Finally, it was felt that technical expertise was needed on the panel to make information readily available on issues concerning the citizens. This requirement was satisfied by requesting that someone with legal experience within Pennsylvania DOT and a lawyer outside of Pennsylvania DOT serve in addition to a department cost accountant and someone with department construction or engineering highway design experience. Questions of race, sex, and socioeconomic level were discussed as a secondary set of criteria to ensure that the panel was balanced. The organized panel contained 21 persons. All participants generally accepted that the criteria were valid and consistent.

Following are two examples in which established criteria fit specific tasks assigned to participants:

1. If the group were to act as a communications channel with a given community, a general criterion would have been active (having participated in more than 10 community activities in the past 2 years) people who lived within that community.
2. If the group were to help develop alternatives, one general criterion would have been people who had lived in the affected community for at least 1 year (they would not necessarily have to have been involved in community activities).

Again, the problem of who should participate is simplified if one specifically describes the task, develops the process and criteria for citizen selection, and, finally, makes the process and criteria for selection public.

Every panel or group is composed of people with personalities and involvements. When people are selected, it is important that their personalities be matched to appropriate and compatible tasks. This is a crucial factor in the first stages of serious citizen participation organization. To maximize effectiveness, selectivity and discrimination must be given priority.

For such groups, people are needed who (a) can solve the problems already created, (b) are not intimidated by bureaucratic structures, (c) can offer constructive and diplomatic guidance, and (d) can recognize when a task is impossible and believably state the reasons for its impossibility. There are such people; I have worked with them on the Pennsylvania DOT and other projects. These are successful men and women, who, through determination, have overcome the enormous obstacles in contemporary society.

When a specific job is identified for citizens and their selection is based on their compatibility with the task, the remaining aspect is the manner in which agency personnel relate to the citizens collectively and as individuals.

NEED FOR AGENCY PERSONNEL TO BUILD CREDIBILITY

If citizen participation is to become a reality, agency personnel must start building credibility. Several ways of building credibility are (a) to provide enough time for citizens to talk, (b) to let citizens know that you are listening to them, and (c) to openly discuss agency constraints. The individual representing a transportation agency must

be able to react honestly to situations as they arise.

Transportation planning agencies seem to be so involved with strategies, simulations, manuals, and red tape that things such as listening, speaking simply, or allowing citizens time to respond are forgotten.

In the last few years, there has been much research, conducted mainly by large consulting firms or institutions, to find viable solutions to old problems, specifically, how to get citizens to participate or, more realistically, how to get citizens to accept the decisions that planners have made. Planning agencies must start working with citizens on projects that are not doomed from the outset. They should work with ordinary citizens, not planners or educational theorists but those whose losses have been greatest because until now they have not been able to contribute to the decision-making process.

No matter how participatory or democratic the process, a group still needs a leader. This person may represent the citizen or a specific agency. It must be someone who can call for a vote, effectively manage a meeting, and direct setups and follow-ups. Agency personnel who are charged with implementing citizen participation should know the agency and its constraints. They should also not be afraid to speak honestly and openly; most importantly, they should provide a forceful but diplomatic image.

Portfolio Associates, Inc., provided for each session of the citizen panel to be evaluated individually by the citizens. The evaluations determined how each person viewed the meeting and estimated how many people they felt would agree with their panel's analysis. The tabulated results of each evaluation were included with the summary of the meeting. (In this type of evaluation, some individuals will admit they are obstructionists.)

Doing this or any type of immediate evaluation is risky; however, it is necessary if we are to learn from our failures and take pride in our successes.

The only reservation that citizens had was that they did not believe that Pennsylvania DOT would follow through and involve citizens at all of the recommended points.

OBSERVATIONS

In view of current staffing, operations, and attitudes, it does not seem feasible and reasonable to expect that Pennsylvania DOT will involve citizens at all or even most of the recommended points in their planning and development process. However, whatever Pennsylvania DOT does in terms of involving citizens will be well worth the effort that was expended to develop a document of this scope and magnitude. If the department can deal effectively with its own internal problems, this effort has provided some guidelines for getting citizens realistically involved in the planning and development processes.

In this 13-month study, the citizens panel was one element. It was critical, rewarding, and frustrating. It also demonstrates, operationally, that a group of citizens are people with feelings, concerns, valuable experiences, and valuable perceptions.

Based on research findings and work with the panel, additional recommendations were made. They include

1. Establishment and dissemination of policies to govern the implementation of citizen participation,
2. Production of a citizens guide,
3. Establishment of a relationship with state and local elected officials,
4. Earlier identification of impacted communities,
5. Training in citizen participation for agency personnel,
6. Funding of citizen participation, and
7. Legislation to help achieve effective citizen participation.

A detailed report of research findings and a discussion of these recommendations are presented in the project report.

CONCLUSIONS

I would like to characterize some basic attitudes that transportation agencies have about citizen participation. Perhaps it will help each of us admit what we must do if we are to achieve effective citizen participation. First are the yesterday people, the majority, who think that we did not and do not need citizen participation. They are the obstructionists and staunchly support the status quo. We must begin to ask them, How could yesterday have profited with citizen participation?

Second, there is a large group of today people who say that citizen participation does not work. They, of course, have more than enough evidence to support this position. One then questions, Can today profit from citizen participation? Being the realist, I must admit that some projects can and some cannot. Today, we have to separate those projects. We have to separate those projects in which citizen participation will be an asset and those projects in which it will be a liability. The liability projects are those in which the decisions have already been made.

Third, there are the tomorrow people, who are willing to try almost anything because they believe that tomorrow will be better because of it. I admit to being a tomorrow person, despite today's failures. I feel that today's successes will perpetuate themselves. By tomorrow we will know what to do right because we will have a growing list of successes as examples and failures as learning tools.

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DISCUSSION

Maurice Laub

My reaction to this paper is influenced by the following:

1. I have long been a member of a regional citizens' transportation committee that has always considered citizens' involvement in transportation planning and development as both valuable and necessary.
2. I was an active member of the Pennsylvania DOT citizen review panel and participated in three of the four working meetings that were held.
3. I am a graduate civil engineer engaged in building construction, and am, therefore, conversant with the technical aspects of transportation planning and construction, and have a working knowledge of budgeting and cost factors.

Initially, this paper points out a condition that has existed for too many years: people who think we do not need citizen participation and those who think it cannot work. The reference is to the authorities and professional engineers in the transportation field who have ignored (or wished to ignore) the citizen's desire to participate. This attitude has always been so prevalent that it has roused suspicion and antagonism on the part of the citizen. No professional group should consider that they, and they alone, can properly plan for the needs of the people. There has been too much faulty planning that has resulted from such thinking in the past.

Harper also points out that in 43 states responding to a national survey 111 projects involving a cost of \$4 billion were stopped because of citizen resistance. I completely

agree with her conclusion that this makes a strong argument for citizen participation. If the citizens had been brought into the planning process, if their help had been solicited, and if they had been informed with accurate data and had been given an opportunity to influence the final result, many of these projects could have been completed.

In considering the case studies, one must question the adequacy of so few as four interviews producing enough information to draw definite conclusions about the success of the citizen participation process. Undoubtedly there were many different viewpoints expressed in these matters, and a broader consensus of opinion seems warranted.

I agree that, as discussed in the first concept, citizen involvement must not be a window dressing or token effort used to satisfy certain criteria but not used to study need or to select the best route, choice of roadway design, access and egress, and other important elements. Candor and accuracy of information are quite important. The citizen must feel that he or she is a planning team member, privy to all of the data available and free to make suggestions, recommendations, and comments that will be listened to and considered seriously at every stage of development and implementation. That transportation facilities could still be built even if we did not have citizen participation was the pattern in the past and is irrelevant because conditions have changed radically and the problems of traffic movement are much greater and more complex than they were previously. In addition, the impacts are significantly different.

In the section about choice of agenda for meetings, it seems that these citizen meetings are suggested to be structured, regulated meetings in which Pennsylvania DOT steers the activity. This is certainly in order for a meeting in which Pennsylvania DOT is presenting information or outlining timetables for advancing projects through the various phases of study, design, and final implementation. However, there must also be other meetings, perhaps sponsored by Pennsylvania DOT, at which Pennsylvania DOT personnel act as resource people and at which open discussion and debate among the citizens will lead to resolution of differences and to constructive action on controversial questions. Did it not occur to Harper that a major reason for involvement in this program was that citizens want the program to succeed and that they know best what elements are most likely to be effective as far as they are concerned?

In the second concept, it seems there is an intent to choose citizens for involvement in the planning process and to assign specific tasks to them. Where civic associations and other associations representing specific areas are in existence, to choose representatives from their membership is perfectly all right, but how about the people not represented by groups? Are they to be ignored? Every citizen affected by the impact of a highway or transportation facility should be free to participate in some way in discussion of how he or she, or his or her well-being, will be affected and to express the desire for or position against a particular plan. The role of citizen involvement should not be expanded or limited at the whim of any individual or group, such as seems to be implied.

In addressing credibility of agencies, in the third concept, Harper might have made the point that great antagonism toward Pennsylvania DOT exists because of past experiences in which the people involved were given incomplete information, promised results that never materialized (not necessarily through any fault of Pennsylvania DOT although the citizens were unaware of this), or even promised serious consideration of their wishes. Citizen input was seemingly ignored because of the chosen course of action, and there was no explanation to indicate that, in fact, proper consideration was given to their position but finally discarded for some valid reason. Communication has been seriously deficient. Candor, tact, accountability, and sharing of information should be basic requisites in the two-way relationship between the people and the agency. It is unfortunate that Harper has negative feelings about the Pennsylvania DOT program of involving citizens in the planning process. I think that the agency must follow through with a properly developed program that shows sincere intent and that will ultimately result in better planning, quick acceptance of plans jointly developed, and a great saving in time and money both in the planning and in the implementation phase of such planning.

In conclusion, I would like to make two observations.

1. Although this paper is based on a specific program of Pennsylvania DOT, the subject matter could easily apply to almost any state.

2. What was accomplished by this experiment may not be a perfect document or line of action. I know it will fall quite short of what I would like to see, but it is an important beginning in the change that will eventually produce more satisfactory results than were achieved in the past.

DISCUSSION

Louis E. Keefer, Bureau of Advance Planning, Pennsylvania DOT

I would like to report on the status of the project on which the paper is based. The subject is one of two reports. The other is the project final report, which describes the whole research task, and is published separately and self-contained. Although the reports have been accepted by Pennsylvania DOT, they represent recommended procedures not yet necessarily endorsed by the department or by the Federal Highway Administration.

Pennsylvania DOT is currently assembling reactions to the manual from department field and central office staff who would be expected to implement the described citizen participation techniques. We are asking for suggested pilot applications, both at systems planning and project planning levels, where the various techniques can be used for testing purposes. We expect to start testing these techniques this coming spring.

I found the first phase of this research an exciting and innovative experience. Jack Kinstlinger and I were both active participants, and, I hope, were generally helpful to the consultants. We think that Pennsylvania DOT field people will have considerable difficulty in digesting the complex 40 techniques presented in the manual. They must, of course, read and understand the entire manual, and then they choose the best technique for each particular exercise. I think this will call for more sophistication than these field people presently possess.

Second, I am not sure that Pennsylvania DOT administrators have yet faced up to the amount of personnel and money that a full application of the manual's techniques would call for. Thus, the consultants are probably recommending not only a too-sophisticated methodology but one that may go unsupported administratively.

At the same time, Harper was absolutely correct in outlining what a citizen participation program should entail. It is a Pennsylvania DOT problem if the personnel cannot immediately do the kind of job called for.

However, I think our present program is fairly good. We are, for example, spending some \$30,000 to \$40,000 in our state college transportation study exclusively for citizen participation activities. This is a highly innovative experiment, which I hope will be reported on next year.

Pennsylvania DOT could routinely do so much more! We have in a 20,000-person department exactly 2 community liaison planners, our title for citizen participation experts. One handles about 15 citizen advisory committees on urban transportation studies and other citizen participation activities on system planning. The other handles the postsystem planning activities related to the highway program only. Although there are a great many more Pennsylvania DOT people working in citizen participation activities at all levels, their efforts are largely incidental to the principal tasks on which their civil service classifications are based. This is hardly adequate.

Pennsylvania DOT is fortunately in the process of establishing community liaison planner positions in each of our 11 district engineering offices, and I am hopeful that they will have the necessary technical assistance they need.

In particular, I would like to comment on three points in Harper's paper.

1. I am not sure that Pennsylvania DOT personnel were surprised that most of the citizens advisory panel had read all of the extensive reports provided them because this was a select panel, chosen for the high level of interest expected to be shown. I will admit however, that I would certainly be surprised if anywhere near most of the 500 citizens we have on our transportation study advisory committees read all of the materials we send them. Half the time, they do not come to meetings at all. Probably our agendas are unexciting, just as in the persuasive example Harper outlined. My point is that communication must be two-way, and it is not automatically the bureaucracy that is to blame.

2. Harper also makes a point of building agency credibility, noting that agency personnel charged with implementing citizen participation must not be afraid to speak honestly and openly. That is a good idea; however, it is often fraught with difficulties such as contradicting a governor, a secretary of transportation, or some state legislator or local elected official. Total honesty is probably impossible for any agency representative who wishes to keep an agency job. This practical difficulty in maintaining complete candor is perhaps the strongest argument I can cite to support agency retention of advocate planners. How can an agency build credibility outside the entire political structure in which it exists?

3. I think that Harper's terminology of yesterday, today, and tomorrow people is apt. Because of many things happening in the world, there are more tomorrow people in transportation circles than ever before. Maybe this is because we are attracting younger, brighter people. I know that at Pennsylvania DOT there is growing recognition of the need for meaningful citizen participation, and I think that recognition is now generally shared by most competent transportation agencies. The fact that there is now a TRB Committee on Citizen Participation in Transportation Planning that is vigorous makes for considerable optimism.

WHAT ROLE FOR CITIZENS?

Martha Curry, Battelle Human Affairs Research Centers

Citizen participation can and does take a variety of forms and will result in different roles for citizens in planning and policy-making processes. This paper describes and compares the citizen participation strategies used in two recent regional transportation planning projects in King County, Washington. The purpose of this analysis is to determine how citizen participation strategies differ according to the planning issue and its importance in the community and how such strategies provide different opportunities for citizens to become involved and to influence the planning process. The analysis and comparison focus on several key aspects of the programs: recruitment techniques, structure and process of involvement, and the citizen's role and impact on the planning process. The analysis finds that where the issue, such as the airport study, is important in the community a loosely structured, citizen-defined involvement program is more effective. Advocate planners are beneficial in this instance. For a nonsalient, or less visible, issue such as the countywide transit plan, a more tightly structured involvement program that emphasizes educating citizens is effective in stimulating citizen input. This strategy relies on planner-defined activities with all citizens playing the same role. The information for this analysis is based on a survey and study done in the Metro 1980 transit planning study and on involvement in the initial stages of the Seattle-Tacoma community involvement program.

•IN U.S. transportation planning (1), different strategies have been used to involve citizens. These strategies differ in the methods used to motivate citizen participation in certain roles and in the types of problems citizens deal with.

In the past several years, two transportation planning programs, having regional and local impacts, have been undertaken in King County, Washington. The Municipality of Metropolitan Seattle (Metro) 1980 transit planning study and the Seattle-Tacoma (Sea-Tac) airport master plan and vicinity planning study used different strategies to involve citizens in their planning and policy-making processes. This paper describes and evaluates some of the major differences between these two strategies and, specifically, examines whether and to what extent these differences have affected the citizens' role and ability to impact the decisions being made.

The two planning projects were attempting to solve problems that had different levels of saliency in the community. In both planning processes, some decisions were made prior to or without citizen involvement. This latter factor influenced the potential role for citizens and closed off some areas of decision making to their influence.

MUNICIPALITY OF METROPOLITAN SEATTLE TRANSIT PLANNING STUDY

The Metro transit planning study was conducted during the fall of 1971 and spring of 1972 to develop a countywide bus transit system. It was initiated by Metro, which operates sewage treatment plants in the area, and by the cities of Renton and Bellevue and the Puget Sound governmental conference (PSGC). It was funded through an Urban Mass Transportation Act grant. This was the third attempt in the area; two rail rapid proposals to develop an improved, comprehensive public transportation system had been defeated in 1968 and 1970.

A team of consultants was hired by PSGC to conduct the 8-month planning study, and the citizen participation program was subcontracted to a local consulting firm. Almost \$139,000, or 20 percent of the total project funds, were allocated to the citizen participation program. This allocation shows a considerable commitment to providing citizens with an active role in the planning process. The issue of improved transit service in the area was, at the time, a fairly low-visibility issue. The policy makers wanted to maintain this low profile (to keep the issue from becoming politicized) since voter approval was needed for Metro to assume operating functions that included taxing power. This characteristic of planning was important in determining the strategies developed for involving citizens in the process.

In general, the Metro program was based on an advisory role for citizens (2). The program was designed and implemented to stimulate interest in bus transit among citizens in all parts of the Seattle metropolitan area but, at the same time, to channel citizen interest and input to this one mode of transit. To maximize input from individuals rather than from groups alone, the program was carefully structured to follow the major steps of the planning process. Thus, channels for input were well defined by the consultants. As a consequence, citizen participation was limited to a predetermined range of alternatives and ideas. This limited the options to explore new or different concepts. This tactic was justified by the consultants, however, as being necessary, in a practical sense, to prevent another failure such as the rail rapid transit bond issues. This strategy was efficient in obtaining citizen input directed to the actual issues being considered by the policy makers. However, this notion assumes that the parameters that are set by the decision makers are acceptable to all groups and individuals concerned and that the defined decision area provides the opportunity to develop the optimal plan from the perspectives of the citizens and the policy makers.

SEATTLE-TACOMA AIRPORT MASTER PLAN AND VICINITY PLANNING STUDY

The Port of Seattle and the King County Division of Land Use Management jointly sponsored an 18-month planning project (March 1973 to October 1974) that included an update of the airport master plan and the land use plan for the community surrounding the airport facility. This area covers 44 mi² (114 km²) of southern King County and has 137,000 residents. The project was funded by the two local sponsors, and matching funds came from the Federal Aviation Administration; the total amount was \$642,000. Most of the funds allocated for the Sea-Tac community involvement program (CIP) were in the form of in-kind services from the two local agencies, and a small amount was from the various consulting firms, who conducted environmental impact studies of the airport and urban development in terms of noise, air, water quality, and solid wastes. A total of \$48,834 was allocated at the beginning of the study for these services and materials, although some additional funds were provided for specific activities, e.g., \$10,000 allocated for a community attitudes survey.

Unlike the transit study, the airport project is focused on a visible and important issue for the community around the airport facility. As air traffic has increased and the airport has expanded, many people in the vicinity have been adversely impacted by the noise from airplanes. In the community attitudes survey (3), almost 20 percent of the residents sampled thought noise was the most serious problem in the community. Nationwide, 3 percent of the population cite noise as the major problem. Of the people sampled 79.1 percent indicated that the source of the noise problem is airplanes. These people live in the zones adjacent to the airport facility and feel the impact more than those who live farther away. As more residents have been impacted directly, they have actively sought some solution to the problem.

The zone 3 committee was formed in 1972 by citizens living in the aircraft approach pattern to solicit compensation from the Port of Seattle or changes in airport procedures to help alleviate the noise problem. Little progress had been made at the time that this study commenced, although the port commissioners had heard the citizens' case for acquisition of homes most heavily impacted by noise from the airport. Because of the

intensity of feelings against the port and to some extent against the county (4), opportunity for conflict resolution had to be incorporated into the citizen participation program. This was not necessary in the Metro study since few people showed strong feelings about the proposed bus transit system at the outset of the planning study.

The Sea-Tac CIP has not focused on developing a new or more comprehensive service. Major expansion on the airport recently was completed; therefore, citizens had limited opportunity to influence decisions directly relating to the size of the airport facility and its impact on the community. The land use plan being developed is an update of existing land use plans and is not reflecting any radically new or different service or structure.

This means that citizens have not been involved in developing a new system or service, as was the case in the Metro program, but that they have dealt with problems that directly affected them. This was not the case for many people involved in the Metro study.

Sea-Tac CIP differs in a number of ways from the Metro program. First, it was based on the concept of a partnership between the community and agency planners in decision areas that directly affect the community. Second, as mentioned above, CIP allowed for conflict resolution early in the planning process; therefore, the program structure was kept loose and flexible to allow citizens to air grievances and to explore a variety of alternative solutions to problems related to the airport and urban development.

Although different types of decisions were being made in these two planning processes, they both developed an ongoing citizen participation program for the duration of the planning period. Both were concerned with regional transportation issues although in both cases citizens were not given a direct role in making basic policy decisions regarding such issues as the operating agency, funding, and form and size of the transportation facilities that impact the local communities in which they are located. Citizens were given the opportunity, to different degrees, to influence middle-range policy or operational decisions that dealt with the more tangible aspects of the planning issues involved.

These two citizen participation programs present some clear differences in the scope and saliency of the problems to be solved and in the methodologies used to involve citizens. The rest of this paper will present a more detailed discussion and comparison of the two citizen involvement programs based on several specific points:

1. Recruitment methods and participation rates,
2. Structure and process of involvement, and
3. Citizen roles and their impacts on planning.

RECRUITMENT METHODS AND PARTICIPATION RATES

Metro

Because the Metro transit plan involved planning a transit system for a large part of the greater Seattle metropolitan area, participation was sought from residents from all areas of the county and in the city of Seattle. At the outset, it was anticipated that the voters would be called on to approve a local sales tax for transit; therefore, registered voters were selected as the primary client group for the participation program. From voter registration lists developed for school levies and local bond issues, a random sample of 10,000 regular voters was selected. These and the more than 300 identified community organizations received personal letters from the study sponsor, PSGC, inviting them to attend citizen meetings to be held during the planning study. Letters were sent before each of the five meetings and contained information on the previous meeting and the agenda, time, and location of the forthcoming meeting. In addition, notices of the meetings were placed in the metropolitan and local newspapers, on radio and TV, on buses, in stores and libraries, and in other public places.

To facilitate participation by residents of different areas of the city and suburbs, the 5 meetings were held at approximately the same time in each of the 10 geographic zones covering the area.

These efforts were somewhat successful in attracting residents to the meetings. Results from a survey conducted by Curry show that from 28 to 52 percent of the participants in the five meetings came in response to the letters to individuals and organizations. Another 25 to 34 percent came in response to notices in the news media. Of the respondents in this survey, 75 percent belonged to some kind of community organization, and 79 percent have lived in the area for more than 10 years. This possibly reflects the emphasis on regular voters who tend to be the more stable residents of an area [based on a survey of 4 percent of the citizen participants and of 10 of 12 planners in the Metro program (5)].

In addition to the general citizen meetings, a transit liaison committee was formed to serve as a link between citizens and the policy makers within PSGC and Metro. Fifty-four persons who were professionally involved in transportation policy, elected officials, or representatives of groups involved in transportation matters were selected by the agencies to serve on this committee.

A total of 1,300 citizens attended at least 1 of the 50 citizen meetings during the planning study. However, many people attended only one or two of the meetings. Based on the Curry citizen survey, 54 percent attended only one or two meetings, 19 percent attended three, and 27 percent attended four or five meetings (Table 1). Average attendance varied widely among the 10 districts and among meetings. Highest attendance came in the second and third meetings, which focused on alternatives and route selection. This attendance then tapered off in the last meeting, which dealt with detailed development of the preferred (and eventually recommended) plan.

Demographic information gathered by consultants (6) shows that the participants who attended each meeting represented a fair cross section of the population of the Seattle metropolitan area (Table 2).

Sea-Tac

The impact of the airport facility and its activities and the impacts of rapid urban development in the airport vicinity were the two major factors considered and resolved in the Sea-Tac CIP study. Therefore, property owners were defined as the initial primary client group for the CIP. All the property owners in the airport study area received letters from the King County Division of Land Use Management, inviting them to attend the initial public meetings held to explain the purpose of the planning project. Attached was a short

Table 1. Meeting attendance rate of survey respondents.

Number of Meetings Attended	Number of Persons Attending Meeting		Percentage
	Number of Persons Attending Meeting	Percentage	
1	17	32.7	
2	11	21.2	
3	10	19.2	
4	9	17.3	
5	5	9.6	
Total	52	100.0	

Table 2. Demographic profile of meeting attendees based on King County 1970 census.

Item	1970 Census (percent)		Meeting Attendees (percent)
	Population	Work Force	
Sex			
Male	48	61	62
Female	52	37	38
Age, years			
19 to 20	5.1		0.7
21 to 29	23.0		14.9
30 to 39	17.8		22.3
40 to 49	18.6		23.9
50 to 59	16.0		19.0
>60	19.2		18.0
Income, dollars			
0 to 4,000	8.2		13.2
4 to 8,000	15.0		12.2
8 to 12,000	26.0		22.4
12 to 16,000	17.0		21.0
>16,000	31.0		31.0
Mode to work			
Automobile	76.0		74.6
Bus	14.0		18.8
Walk	6.9		2.9
Other	2.3		2.1

questionnaire asking whether the person was interested in becoming involved in the CIP or in being kept informed on the progress of the study. In addition, notices and articles were placed in local and metropolitan newspapers and in public places in the community. Contact was also made to known community organizations to encourage their participation in the project.

Two initial public meetings, at which the study team tried to explain the project, were held in different sections of the study area. The first meeting, in particular, generated a large and hostile crowd. Many questions were asked about the need for a study by the port to verify that there was a noise problem. This first contact with the public indicated to the planners that citizens were highly aware and critical of airport impacts and that there was a need to provide a flexible participation structure and an open atmosphere concerning information on the study.

At these meetings, citizens were encouraged to fill out questionnaires on the notices if they had not received them in the mail. Boxes were placed at the entrance to the meeting hall for depositing these questionnaires. Over 400 of these questionnaires provided the basis for a specific client-action group for starting the CIP. These people received a second questionnaire asking them to state their preferred area of activity and involvement. From this, two general activity areas were derived: airport and noise and urban development and water quality. These two areas provided a general structure for citizen activities in the CIP.

One of the goals of the CIP was to provide open access to information and involvement for all citizens in the airport vicinity who were interested in becoming involved or just informed about the study. Because many residents in the community were concerned and interested, a rather loose recruitment strategy was maintained, and more emphasis was placed on providing information. Unlike the transit project, planners in the Sea-Tac project did not have to drum up interest in the issues involved. There was more than enough interest in noise and water quality, and, to a certain extent, in county activities in the area.

Since most of the resources allocated to the Sea-Tac CIP involved in-kind services, there was a small budget for materials and activities (\$7,000). During the first 6 months of the study, there was only one full-time community planner, the CIP coordinator, assigned to the project and two part-time assistants. Later, one full-time planner replaced the two part-time assistants. As a result, information on the number and demographic characteristics of participants was not documented. However, participants for particular activities were mapped periodically by their mailing address, and this showed a fair distribution of the area, especially in the neighborhoods immediately adjacent to the airport facility.

According to the CIP coordinator, 90 to 100 persons were consistently active on the 4 committees set up by the citizens. It is estimated that 200 to 300 citizens were actively involved in various phases of the program during the past 15 months. When the study was 1 year old, over 1,000 persons were on a regular mailing list for information about the progress of the project, and up to 2,000 members of the communities involved in the study were estimated to be highly aware of the project activities.

No set number of meetings were scheduled at the outset of the planning study, partly because of the length of the project and the loose structure of the CIP. Most meetings involved 5 to 15 citizens in small work sessions or activities. Bimonthly committee meetings drew 25 to 40 persons. The task force meetings were held once or twice a week for the past year; thus, over 100 work-activity sessions have been held. Two larger public meetings, for port discussion of acquisition plans for the area, have been held since the project began. In addition, five information-education meetings were held in seven community schools to explain the data collection phase of the environmental studies.

STRUCTURE OF INVOLVEMENT

Metro

As was indicated in the introduction, the Metro citizen participation program was very structured in regard to process and content. Exactly 5 meetings in each of the 10 zones were held at defined crucial points in the planning process: goals and objectives, alternative plans, tentative plans, recommended plan, and final plan. All followed the same agenda, meeting time, and format. Location and consulting team personnel were the only factors that varied from one meeting to the next within each zone.

The consultants began the program with a technical presentation on the topic of the meeting, and thus the citizens were provided with information regarding the technical aspects of the study. Small group discussions or work sessions followed in which citizens were divided into groups by a number assigned to them as they entered the meeting. All citizens participated in all of the activities; there was no division of labor (i.e., each group dealt with only a few specific issues).

This strategy tended to promote individual input rather than group input or coalition formation. It allowed each person to gain, at least, an overall understanding of the transit planning process but no in-depth knowledge of any one part of it. During these small group sessions, citizens were asked to discuss goals, to choose among investment priorities, and to develop preferred fare structure. Each group gave a report to the meeting, then each individual was asked to fill out a questionnaire to give planners their personal opinions on the topics of the meetings. The use of predetermined work tasks kept citizens focused on the parameters set by the policy makers. This control of the issues and information resulted in control of citizen responses; it directed citizen efforts toward those alternatives that were acceptable to the policy makers or the planning group. For example, all of the tasks dealt only with a bus transit system for the Seattle metropolitan area. Although this tactic provided the consultants with relevant information for their work, it limited citizen opportunity to explore other concepts of public transportation for the area.

Information and input from the citizen meetings were synthesized by the citizen participation consultant and sent to the planning consultants for incorporation into their development of a feasible and preferred system of public transportation. Written group tasks and individual questionnaires were designed to provide quantifiable information for input.

A team of consultants and staff persons from PSGC and Metro rotated to different areas for meetings. Rotation of planning staff discouraged development of continuing relationships between citizens and planners and promoted a more formal structure of interaction between citizens and consultants. Although both citizens and planners interviewed in this project thought that the planners were willing to discuss questions with citizens concerning the planning issues and tasks involved, the formal structure of the meetings provided relatively little opportunity for informal and continuing group interaction among citizens or between citizens and planners.

The link between citizens and decision makers in this planning process was indirect: The consultants gathered written input from citizens and then synthesized and interpreted it before presenting it to the policy makers. No citizens were involved in transmitting the information to the policy makers or in determining what information should be emphasized by the consultants in plan development. The transit liaison committee activities paralleled those in the citizen meetings, although there was more opportunity for discussion of the issues. Citizens participating in the meetings did take some active roles; primarily these were in the area of operational policy, as defined by the consultants and policy makers. This participation was satisfactory to a majority of the citizens surveyed but tended to prove frustrating to those who wanted to explore basic policy issues or other possible mixes of transit modes. In the survey of citizens and planners, 18 citizen respondents (35 percent) who had previous transportation planning or citizen participation experience stated that citizens' ideas and suggestions affected the plan development only to some degree or not at all. The seven who saw no citizen

impact thought that all the major decisions were made ahead of time and that citizens had little influence on the outcome of the planning process. The planners interviewed were in basic agreement with these citizens' perceptions: Six (60 percent) stated that citizens affected the plan development to some degree or not at all and that they primarily affected operational policy.

However, citizen influence in basic policy issues was not absent from the overall process. A citizens' lobby group, the citizens' transit committee (CTC), was formed by citizens who had been involved in the plan. This group, formed after the consultants had prepared their recommended plan for presentation to the Metro council, was more open to citizen-initiated activities and direction and was able to exert more direct pressure on the decision makers than were citizens participating through the formal citizen participation program. Although this group was set up to seek voter support for the transit issue, its members also successfully lobbied the Metro council for five policy changes and additions to the final plan. Specifically, these concerned the following:

1. No diesel buses,
2. Special fares for the elderly and handicapped,
3. A Metro pledge to seek (a) alternatives to the sales tax as a funding source and (b) removal of the sales tax from prescription drugs,
4. Retention and expansion of the trolley fleet in Seattle, and
5. A lower base fare of 20 cents instead of 25 cents.

There was substantial citizen influence in the final outcome of the operational aspects of the plan. But influence on basic policy issues was achieved from the CTC efforts more than from citizens working through the formal citizen participation program. This will be discussed further in the next section.

Sea-Tac

The structure for involvement in this program provides some clear contrasts to that used by Metro. First, the program was administered primarily by King County planning staff and secondly by the Port of Seattle planning staff. The two agencies did not always share a common view of the role of citizens in the decision-making process, and this generated some difficulty in smooth working relationships between them. Second, the program first found out the concerns and interests of the community and then based the CIP around those priorities in relation to the issues treated in the planning project.

Sea-Tac CIP was placed under the management of King County and was assigned to the community planner for the Burien area, the large incorporated area that is adjacent to and most affected by the airport facility. The community planner became the project coordinator for the CIP and brought many existing contacts with various community groups and individuals. This provided an initial and continuing link between the community and the two agencies involved in the study. The county used area members of the Environmental Development Commission (EDC), the 104-member citizen body that was advisory to the county council, as initial organizers of the citizen activities and meetings. They were to work with several members of the zone 3 committee, who were organized to put pressure on the Port of Seattle to pursue compensation measures such as acquisition of impacted properties.

At the beginning of the study, a community office was set up to serve as a focal point of the CIP for the duration of the project. The establishment of the community office provided a visible sign of commitment to the community and served as a vital communication and activity center for the entire participation program. This was possible since the project focused on a smaller geographic area than that in the transit study.

The Metro program set up the transit liaison committee as a link between citizens and policy makers, and the Sea-Tac study initially designated that two citizens be selected to serve as voting members of the policy advisory committee. This committee was the main policy-making body for the project-related decisions and was made up of key policy makers from the two local agencies and the Federal Aviation Administration,

representatives from the four consulting firms, and citizen representatives. The citizen representatives were not chosen because they shared viewpoints of the two agencies. Rather, through the strength of the zone 3 committee's opposition to the port and the EDC commitment to citizen participation in county government, these persons were selected to serve on the policy advisory board. In the sixth month of the project, two additional members of the community were added to the policy advisory committee at the recommendation of the CIP members and staff.

Two committees were set up by the CIP staff to focus citizen efforts on the areas of primary concern: the airport and the urban development plans, i.e., the noise and water and land use problems. Citizens joined the group of their choice and determined their own priorities and activities. The CIP staff provided technical assistance and guidance and helped to prepare and transmit formal reports and communications between the citizens and the agencies.

Early in the project, citizens undertook a community survey of expressed concerns and an aesthetic survey of the area. Three half-hour video-tape programs on the environmental studies were produced by CIP staff and citizens and local audio-visual experts as part of a series of five educational-feedback programs. These classes were held in seven elementary schools and were set up and run by citizen members of the CIP.

One of the major inputs by the CIP was a definition of preferred futures for the community. Citizens were divided into four groups according to their stated interests and initially worked separately in defining community needs and desires and institutional constraints in the areas of urban development, water quality and drainage, airport planning, and noise abatement. These inputs were translated into program ideas that were then developed into program choices and combined into compatible program sets. From these, preferred alternative future plans were defined for the community by CIP participants. A newspaper type of tabloid was published and distributed through local newspapers, explaining the alternatives and asking for feedback on an attached questionnaire. Although the response rates were too low to ascertain any firm trends in community opinion, this activity did persuade the port and the county to define and articulate alternatives at this point in the planning process. In these activities and others, citizens gained a more thorough understanding of and experience in the process and the content of the planning project.

To provide maximum access to information on the project to the community, newsletters and fact sheets on various studies and phases of the project were sent to over 1,000 community residents and agency personnel by the CIP staff and volunteers. In addition, articles were placed in local newspapers, providing progress reports on the project. Displays were placed in local art fairs, in the library, and at schools to provide visible information on the project.

The strategy followed in this program was based on citizen determination of their own activities and input into the planning process. (This is in contrast to the Metro program.) To facilitate citizen access to the program, meetings were generally held in the evening in the local community office, local schools, or at a citizen's home. Meeting times, location, and agenda were flexible to meet the needs of the citizens involved, and this promoted sustained activity by a core of interested citizens. The Sea-Tac CIP and Metro strategies differed in that Metro was not flexible to citizen schedules and desires.

CIP structure seemed to be more flexible because the issues were highly visible and important to the community; therefore, citizens were initially motivated to seek effective ways in which to influence Port of Seattle and King County government policy-making processes that affected them directly. Citizen-volunteer activity was necessary to implement the program since project funds allocated to the CIP only provided for a small staff and minimal resources for surveys and educational programs. It was not possible in the Sea-Tac program, as it was in the Metro program, to conduct a low-profile program. Because of the intense concerns and opinions in the community toward the issues involved, there had to be opportunities for citizens to air their grievances and to develop working relationships with the agencies. This was based on mutual trust, something that has been achieved only partially.

CITIZEN ROLES AND THEIR IMPACT ON PLANNING

Metro

As stated previously, the citizen role in this program was for the most part to advise on basic policy. Through the group tasks and individual questionnaires in the citizen meetings, people had the opportunity to respond to basic policy issues such as the type of transit system and operating agency that had already been shaped by the policy makers. This helped the policy makers verify the political acceptability of their desires. Within the framework of the formal participation program, citizens played their most active role in the area of operational policy in such decisions as route design, fare structure, and scheduling of buses. When asked in the survey to explain the ways in which citizens' ideas and suggestions changed or influenced the plan, over 61 percent of the citizens and 90 percent of the planners mentioned physical aspects alone or in combination with financial policy, for example. Two of the planners stated that citizens did not really have any influence at all in determining the shape of the plan since basic policies that constituted the really important foundation blocks of the process were decided before citizens became involved. Specifically, citizen input in route selection was used and resulted in an increased number of routes connecting suburban communities and east-west sections of Seattle. Early development of improved service levels was given priority above original consultant plans to develop capital facilities.

As mentioned earlier, the CTC successfully lobbied for changes in basic policy issues of the proposed plan. This citizen influence, exerted outside of the framework of the formal participation process, was applied directly to the decision makers by citizens who had participated in the program and wanted to change the consultants' plan so that it could be accepted and supported by the citizen vote. Thus, the low-profile strategy of the citizen participation program did not last after the formal planning process was completed. Given a chance for more influence during the Metro hearings on the proposed plan, citizens initiated their own activities to make changes in some of the basic policy areas. The changes that resulted became, in effect, campaign promises that Metro has had to keep. This has presented some problems. The promise for no diesel buses has been hard to fulfill since there exist few alternatives to diesel-fueled vehicles at this time.

In summary, although the consultants and policy makers agreed about the appropriate role for citizens in the planning process, citizens active in the CTC did not stay within the parameters of this role. Rather, they wanted to make some of the perceived faults in the proposed plan visible and to press for changes. Probably, more citizen participation in the definition of their role would have promoted development of a recommended plan that would have more accurately reflected citizen desires.

Sea-Tac

The citizen role is more difficult to determine in this program primarily because the two agencies involved did not agree on the appropriate role for citizens in their respective planning processes. Traditionally, the Port of Seattle has not incorporated citizen input into their planning and decision-making model. However, threat of litigation against the port by citizens adjacent to the airport and the waterfront facilities has caused the port to seek more input from citizens in the area. On the other hand, the King County Division of Land Use Management has had a substantial amount of experience in working with citizens in the past in updating area land use plans. Before the study was begun, it had established a community planner in the area and, thus, was developing ongoing relationships with individuals and groups within the community. The division has promoted a partnership working relationship with citizens concerning land use issues.

The existence of a community planner in the Burien community also provides a contrast with the Metro program, in which many communities had to be served by the

community planner program and there was no ongoing contact with these communities between the five meetings. The community planner served as a vital link between citizens and decision makers, sometimes acting as an advocate for community interests and at other times advocating the agencies' points of view to citizens. This provided citizens with more access to information about influencing the decision-making process. The four citizen representatives on the policy advisory committee produced a similar effect: The policy makers received direct input from citizens and were accountable to the community through the citizen representatives. The formal citizen participation program in the Metro study did not have this direct accountability. This came only when the CTC was formed and put strong pressure on the Metro council for changes in the recommended plan to make it acceptable for voter support.

Citizen activities in the Sea-Tac CIP focused on these activities of the project that directly affect the community: noise, water quality, and land use. In this program, citizens and CIP staff worked together to develop information and education programs for the larger community, surveys of community opinions, and translation of these opinions and concerns into recommended goals and programs for community and agency consideration. Although this same process was followed in the Metro program, it only involved public transportation and was done by the planners and not by the citizen participants.

Citizens influenced the planning process in the Sea-Tac project in several ways. First, initial citizen input indicated to the port that citizens were not willing to wait for 18 months for any action in resolving the noise impact problem. Thus, within the first 6 months of the project, the port started developing acquisition plans for areas immediately adjacent to the airport. Second, citizen activity in the CIP demonstrated to the two agencies the need for establishing an ongoing citizen participation process in the community. King County already has a community planner assigned to the area; the Port of Seattle has recently set up a community office initially to assist in the acquisition process and later to provide a link between the community and the Port of Seattle.

SUMMARY AND CONCLUSIONS

The analysis of these two programs reveals that, in fact, the design of citizen participation strategies tends to reflect differences in (a) the nature and scope of the issue, (b) the definition of the client group, and (c) the perceived role of the citizens.

The transit study represented a single focus, low-profile issue that was regional in nature. The client group was defined as registered, regular voters; their role as perceived by both policy makers and planners was advisory, particularly with regard to basic policy issues. The citizen participation strategy was designed to maintain a low profile, apparently to keep the transit proposal from becoming a political issue in the election campaign. The citizen's role was predetermined and was structured to obtain input that would fit within the defined parameters of the proposed transit plan. Some citizens who had participated in the formal participation program did pursue change in several of the basic policy issues through the CTC. This shows that the consultants' recommended plan was not entirely acceptable even to some of the citizens who had attended the citizen meetings. This seems to indicate that at least 30 to 40 citizens desired a larger role than was provided to them through the formal citizen participation program.

The airport study focused on several issues that were highly visible in their impacts on the local community; some of these were regional in nature and scope. The client group was defined as property owners and residents of zone 3, the noise-impacted area adjacent to the airport facility. The role of citizens was perceived as advisory by the Port of Seattle but was seen more as partnership by King County. The citizen participation strategy, as developed by the King County community planning staff, sought to direct already stimulated citizen interest and concerns into constructive input and influence on the policy-making processes of the two agencies. The CIP structure was flexible, so that community-defined concerns formed the basis of the program. The citizen's role was not totally predetermined, and citizens did achieve considerable in-

fluence over some basic policies such as acquisition efforts by the Port of Seattle and community planning efforts by King County. In this program, the community planner acted partly as an advocate for community interests and also as a communication link between citizens and the two agencies.

In both citizen participation programs, it was intended that citizens would primarily have a role in middle-range or operational policy decisions. Metro and the Port of Seattle had already tentatively formulated the major policies that shaped the outcome of the planning studies. However, in both cases, citizens attempted and succeeded in forcing changes in some of these policies (e.g., the no-diesel bus issue and the early acquisition issue).

Most significantly, in both cases, the citizens' efforts resulted in a commitment by the agencies to establish an ongoing citizen participation program in the community. This has important implications for developing citizen participation strategies and for determining appropriate roles for citizens in policy-making processes. In the two studies cited, citizens were seen initially as having a less influential role in basic policy issues than in operational policy or physical aspects of the planning process. However, as citizens gained knowledge of the planning issue, they wanted a more definitive voice in basic, nonspatial policy issues, not only in the planning study but also in the ongoing policy-making processes of the agencies concerned.

Through the transit citizen participation program, 30 to 40 citizens developed increased capabilities and expectations regarding their legitimate role in the policy-making process and, therefore, tried to influence policy through the CTC. Of these people from the CTC, 10 or more are now members of a Metro citizens' advisory committee, the ongoing citizen participation component of Metro transit.

Particularly, the residents who lived adjacent to the airport and became involved in the Sea-Tac CIP had more experience and knowledge about the Port of Seattle's activities and their impacts on the area. However, the CIP helped further train these and other citizens by channeling their inputs effectively into the policy-making process. As a result, more residents of the area have been put on the county's EDC, and the Port of Seattle has begun to establish an ongoing citizen participation program in the area.

These findings indicate that experience in citizen participation of any sort trains citizens for more responsible roles in policy-making processes. The task of planners and policy makers is to continue to develop more flexible strategies for citizen participation that allow participants to assume more responsible roles and to use their capabilities to their potential.

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DISCUSSION

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Curry's paper briefly reports on two typical single-function, ad hoc processes: One was slightly more comprehensive and loosely structured; the other was narrow and planner defined.

The language of the report is inappropriate when one considers the subject matter: People in the community become clients, and we train and recruit them. If these words and other planning jargon were used with citizens I know, such a program would be through before it was started.

I also would have preferred more analysis and less direct reporting, particularly on how each program could have been improved and on whose values and priorities were considered and whose were ignored. Changes in public policy should always seek to achieve greater equity. Did these programs recognize this purpose?

Washington has traditionally been a populist state in which citizens actively write initiatives and referendums and seek legal redress when they are displeased with their governments. My first reaction to participating in a discussion about a western port district or county or Metro transit was that it would not be relevant to the processes in more densely populated areas of the United States. We in the state of Washington are a few generations behind the rest of the country in transportation and land use planning. We are ahead on the critical concerns of the rest of the nation because our rate of growth, population, and urban density are less. In fact, critics in our area often exclaim that the Puget Sound region should benefit from the experience and problems of more complex areas so that we can be prevented from making the same mistakes.

The process of most public involvement programs seems to indicate and tell more about the governmental agencies' true feelings toward citizens than any reports or evaluations of the products. Curry has written the middle of two stories, for which I must share some beginnings and partial endings.

The Sea-Tac program was a first citizen participation effort for a port district that had a poor image in the area. [It had never involved citizens in any of its port development projects, including a mammoth 300-ft-high (91-m) grain terminal located on the Seattle waterfront that blocked all views of adjacent residences and spewed grain dust into the air.] The district's airport program is the first time a major airport in the United States has become involved in a joint planning effort with the adjacent community. (That in itself tells a great deal about the state of the art of airport planning.)

The surrounding community is unique, too, because it is the largest [137,000 people and 44 miles² (114 km²)] urbanized, unincorporated area in the United States that receives all its services from separate special districts or the King County government.

Community interests have focused around quality schools; the school district provides the boundaries of the local community. The area resisted any attempt to plan or incorporate as more land was developed until, after a recent expansion of the Sea-Tac Airport, the threat of a limited-access state highway through the community and a major water drainage problem became apparent. The symptoms grew into a public crisis, and government reacted with a public involvement program.

The port had a problem. The \$200 million expansion of this major airport had been completed and the surrounding community was threatening litigation over the noise impacts from larger jets landing and taking off.

The Sea-Tac effort started in March 1973, and in September 1973 the five-member, \$1/year port commission announced an interim land acquisition program to purchase 600 homes at an estimated cost of \$16 million. That request for funds from the Federal Aviation Administration has not been acted on; no purchases have been made. In fact, federal criteria will have to be changed before any money will be available for noise impacts. It is hoped that expectation levels have not been falsely raised, as so often happens with citizen efforts. The port has made no commitment to a continuing citizen effort in its airport planning, except to an advisory committee of users.

The Metro project was also developed after major decisions had been made or judged

to be out of bounds for public discussion. Metro also had another problem. Two previous rail transit elections that needed 60 percent voter approval had failed in 1968 and 1970, and the public consensus was that a third loss would rule these transit possibilities out permanently. Therefore, the aim of the Metro bus transit program was to develop positive voters who would vote for a 0.3 percent increase in the countywide sales tax. A carefully structured program of community meetings, with ad hoc groups of citizens, focused on the transit service in the local community and never on the plan for the metropolitan community. There were no discussions of how to coordinate local land use plans to transit system plans or any consideration of the impact of a rapidly expanding commuter highway system on transit ridership and operating costs. Many joked about the phony participation in minor technical problems, scheduling, and other issues, including the color of the buses. They did not participate in the broad policy and system conflicts and land use issues. Such participation might have been acceptable to some if there had been a guarantee that multimodal transportation policies and plans would be discussed elsewhere. To this day, they have not been resolved, and many major projects in the area are awaiting their resolution.

The 1990 Puget Sound regional transportation goals, policies, and plans have never been adopted by the Metro transit policy makers, and the fight between the transit operating agency and the regional planning agency continues.

The regional citizen's participation advisory committee, of which I was a member when the transit study was undertaken, observed a few of the Metro community meetings and sent recommendations on improving and broadening the process to discussions of more critical concern. Our suggestions were rejected by the consultant and never proposed to the Metro council.

Central city citizens felt left out of the process since most of the meetings were outside of the city and at times and places inconvenient for transit users. Others complained that the geographic areas were too large to be called a community and did not relate to a traditional community of interests or to a city. Some believed that the suburbs were given more meetings because there was a better voter turnout. Actually, Metro had reasoned that the central city residents did not need to be convinced of the need for transit because they would be relieved of a bankrupt city transit system.

The nature of the agencies involved had a significant impact on the types of programs they supported. What was lacking in both of these efforts was any involvement in the due process of our political system. Citizens had no opportunity to carry on a dialogue with their elected representatives at the beginning of the process, nor any time throughout the program. Many participants thought that decision makers were interested and that it made a difference for the citizens to contribute their valuable time and effort. As a result, perhaps it is because of strategies like those described in the paper that citizens are participating less.

Government efforts on the whole for the past 10 years of citizen participation have been lost in a maze of goal setting, projects, ad hoc advisory committees, technical advisory committees, and bureaucratic jargon. Academic efforts have evolved games, obscure panels, model strategies, community attitude surveys, and computer programs. The output from citizen efforts is often frustration or a wild form of guerilla warfare between the citizens and their government, and it has not changed political institutions and conventions that need profound change.

AUTHOR'S CLOSURE

Gunby's discussion begins with several challenging criticisms of the approach and content of the paper. The terminology criticized (i.e., client, train, and recruit) was used for a specific purpose: to emphasize the role of citizens as the agencies involved view them rather than as the citizens or I view their role in the planning and decision-making process. Although the criticism of the lack of recommendations for improving the subject programs is certainly valid, the stated and intended purpose of the paper was

to show how the goals for citizen participation programs vary by agency, the type of planning situation, and the nature of the decision-making process. Admittedly, both programs were in need of changes to provide citizens with a greater voice in decisions that affect them.

The remainder of Gunby's discussion does not criticize; it supplements the account of the two planning processes and their citizen participation programs. These comments add depth and perspective to the paper. However, it is rather disappointing that the beginning discussion was not more fully developed into a critique of the author's analysis of the two citizen participation programs. Unfortunately, Gunby's knowledge of and experience in citizen participation seem to be underutilized in this discussion of the paper.

CITIZEN PARTICIPATION IN LOUISVILLE AIRPORT SITE SELECTION

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The Louisville and Jefferson County Air Board formed a citizens' advisory committee in October 1971. A major contribution of the interaction of these two groups was the formation of a site evaluation committee whose responsibility was to choose the best of several alternative sites for the location of a new airport serving the Louisville region. This paper discusses the way in which the evaluation committee used a certain methodology in the decision-making process. The committee first determined the criteria by which the relative attractiveness of potential airport sites could be evaluated. A criteria utility vector was established by ranking and rating techniques. An effectiveness value was assigned to each alternative for each criterion. Total site utility was obtained by multiplying the effectiveness values by the criteria weights. The principal conclusion reached is that a group of interested and informed citizens and experts can successfully apply a somewhat sophisticated evaluation technique to community decision making. The technique allowed for the consideration of community social and economic values, environmental concerns, and technical data that the committee thought were relevant.

•SOUND planning practice requires effective citizen participation at all levels of the planning process and extraordinary involvement in community decision making of those citizens affected by such planning. A prerequisite for funding major projects at either the federal or state level is development of a statement of community values and certification that the project is in accord with the goals and objectives of the citizens and part of the rational program of community development.

Several years ago, the necessity of planning for improved aviation facilities to serve the Louisville region became apparent to the Louisville and Jefferson County Air Board. It was anticipated that improvements could consist of major expansion of the existing airport, Standiford Field, or construction of an entirely new airport. It was equally apparent that any decisions about aviation facilities must provide for adequate and effective community involvement.

The approach in Louisville was to identify a group of citizens who were interested in development of their community and, perhaps, had some influence with other members of the community at large. It was hoped that such a group would be geographically, socially, and economically representative of those citizens affected in some way by any proposed airport project. The result of these early efforts was formation of a citizens' advisory committee (CAC) representing 11 Louisville area counties in Kentucky and Indiana. Subsequent expansion of this committee resulted because of the recommendations of current membership and an open-membership policy. Any resident of the Louisville region who wanted to participate in aviation facilities planning was (and still is) granted membership in the CAC. Extensive documentation of the formation of the CAC and its planning activities has been published previously (1, 2).

These planning activities reached a critical stage during the summer of 1972. The air board staff was able to reduce 28 potential sites to 9 sites considered the most feasible and advantageous. The air board, in conjunction with the CAC, assembled a site evaluation committee (SEC) to select the best of nine proposed sites. The activities of the SEC were divided into two parts: In phase 1 (October 1972), four of the

nine sites were selected for more detailed analysis (and the expansion of Standiford Field was analyzed); in phase 2 (August 1973), the best site was selected.

This paper presents the methodology and procedures used by the SEC in selecting the best site for a new airport to serve the Louisville region.

SITE EVALUATION COMMITTEE

Background and Purpose

The initial meeting of the SEC was held on October 17 to 19, 1972. At that time, the air board had devoted $3\frac{1}{2}$ years of preliminary planning to an examination of future air transportation needs in the Louisville region. It was evident that other factors added several dimensions to the problem of air travel needs. These included

1. The economic importance of rebuilding Louisville as a major transportation center,
2. The related importance of developing an adequate buffer zone (including compatible and coordinated industrial and commercial facilities) to provide environmental protection, and
3. The importance of accommodating projected metropolitan growth in the area near the airport.

Efforts of the Louisville and Jefferson County Air Board continue to reflect these concerns. A built-in assumption of the airport project has been that expanding and updating air transportation facilities will be a significant economic decision for both the specific region and the state. Standiford Field currently enplanes approximately 1 million passengers and handles about 130,000 aircraft operations annually. The air board staff used Federal Aviation Administration (FAA) forecasts, the history of activities at Standiford Field, and regional economic trends to forecast aviation facility needs for the Louisville region. Much of this work has been documented in a report on Standiford Field. The forecasts anticipated that by 1984 annual enplanements will total about 2.5 million, and aircraft operations about 218,000. In 2000, 6.7 million enplanements and 429,000 operations are expected.

The forecasts also indicate that, theoretically, Standiford Field will become saturated with air traffic in the late 1970s; by the early 1980s, the level of service provided to the air traveler by the present facility will be intolerably poor. Ground access and many other facilities at Standiford Field soon will be unable to meet the demand. Expansion of Standiford Field to meet demands until 1990 has been estimated at over 300 million in 1970 constant dollars, over and above the cost of detrimental effects on the community due to expansion of the field and intensified aviation activity. At its present location, the airport has little, if any, room for growth, and has many incompatible neighboring land uses.

Several additional elements of the planning process have been brought into sharp focus by growing national attention, such as the concern that all facilities refrain from any unnecessary environmental damage. A new airport facility must be designed as a constructive element to offset and control some of the sprawl associated with growing metropolitan areas. Uncertainties about the energy crisis and its impact on air transport must also be addressed. Most assuredly, these and other factors will continue to provoke considerable discussion and have significant impact on the deliberations and decision-making functions of both the air board and the CAC.

In 1972, the planning process had advanced to the crucial phase of selecting a best alternative site. This selection had to be based on the best available data about the region's and state's projected needs: expand Standiford Field, build a new airport, or, perhaps, do nothing. The impact of this decision will be far-reaching.

Organization

The SEC was made up of 26 members in phase 1 and 24 members in phase 2. The two general groups of membership included

1. Members of the CAC who, as a group, had kept an open line of communication with the air board on matters concerning air facilities before the phase 1 meeting. The CAC elected 15 of its members to serve on the SEC.
2. Nationally recognized airport and planning experts. Eleven representatives participated in phase 1 activities, and 9 in phase 2. These were persons of stature and prominence, recognized leaders in their respective fields.

Thus, the SEC represented the merger of two seemingly diverse groups of individuals:

1. Area citizens who knew about air facilities planning and its more general ramifications and who were vitally interested in and concerned about the social, economic, and environmental impact of the facility on the region, its land, and its inhabitants; and
2. Professional airport managers and planners who were aware of the socioenvironmental impact of their decisions in general and who were vitally concerned about safety, efficiency, and a plethora of technical details relative to the planning, design, and operation of a major air facility.

The two groups were unified by the common goal of selecting the best possible site. They complemented each other with their special concerns and contributed to their mutual effectiveness through discussion and the frank interchange of ideas.

Investigation of Potential Sites

Twenty-eight potential sites were investigated during the planning period before the phase 1 meeting. The Urban Studies Center of the University of Louisville was contracted to apply the techniques of environmental analysis to the Louisville region. The analysis suggested 3 of the sites; the air board proposed the other 25. The processes described later in this paper were used to reduce these to nine sites considered feasible and advantageous. Six of these nine sites were located to the east and northeast of Louisville, one south of Louisville, and two north of Louisville in Indiana. These locations are shown in Figure 1.

The functions of the SEC were to reduce the nine sites to three at the phase 1 meeting in October 1972 and to select the best site at the phase 2 meeting in late August 1973.

EVALUATION COMMITTEE ACTIVITIES

Schedule

The phase 1 meeting of the SEC was held on October 17 to 19, 1972. On the evening of October 17, questions were answered about the evaluation process and the methodology to be used. The committee was instructed to reduce the nine possible sites to the best three, and the goals and objectives of the committee were clarified.

The phase 2 meeting of the SEC was held on August 28 to 31, 1973. The schedule of activities lasted 1 full day longer than the phase 1 meeting. As before, on the first evening, questions were answered, and the committee was instructed to select the best among the alternatives proposed by the air board:

1. To construct new airport facilities at one of the four rural sites (Smithfield, Shelbyville, Bellview, and Finchville) selected in phase 1,
2. To expand Standiford Field, or
3. To do nothing.

Although the schedule for phase 2 was more extensive than for phase 1, the following major steps were common to both phases:

1. Review and modification of the criteria deemed important in airport site evaluation.
2. Ranking and rating of the criteria to establish relative importance through assignment of a numerical weight to each criterion.
3. Critical review of each alternative site, including a field inspection trip.
4. Evaluation of each alternative site to determine how well a particular criterion might be satisfied by that alternative. This evaluation was performed for all alternatives, one criterion at a time.

The activities for each phase follow.

Phase 1

After the initial orientation session in phase 1, the committee was presented with a suggested list of 15 criteria. These were the criteria used by the air board to reduce the 28 potential sites to 9 feasible sites. The committee discussed, restructured, and altered the criteria until a final set of 10 was developed. At the time the criteria were established, the members had not been exposed to detailed information about any site. This enabled establishment of an objective criteria set that, theoretically, could be applied to any proposed airport site.

The committee then undertook the ranking and rating exercises to establish each criterion's relative weight or criteria utility vector. The committee, after reviewing the results, was given the option to perform a second iteration, but declined to do so.

Site maps were distributed to the committee members, and general discussions relative to each site were initiated. Each member viewed the nine sites during a series of helicopter flights. Although the field trips did not provide the type of technical data required to evaluate the sites objectively, they did provide a nucleus of information for all committee members regardless of their backgrounds. Moreover, the site visits stimulated a great deal of discussion and interaction among the members and allowed those members who did not normally work with maps and technical data to become familiar and more comfortable with the technical material used in the evaluation process.

After the field trips, many ground-level slides were shown of the nine sites. The members were able to recognize topographic features, existing site development, and other factors such as vegetative cover and erosion problems.

The air board staff set up a series of displays graphically depicting available data relative to the established set of criteria. Notebooks containing other types of data were prepared and distributed to the members. While viewing the displays and leafing through the notebooks, the members asked many questions and engaged in continued discussion. It was this exchange of information and ideas that built the basis for each individual's later evaluation of the nine sites.

The evaluation process was conducted in steps during which each criterion was presented with related data for all sites so that all nine sites could be evaluated relative to that criterion. This provided consistency of evaluation for the nine sites and reduced the possibility of members confusing the issues of one criterion with another. At the conclusion of the evaluation process, the committee was satisfied with its efforts and decided that a second iteration would not be necessary.

Phase 2

In phase 2, the committee began by reviewing the 10 criteria. Two were eliminated, and a new one added. Then, the ranking and rating techniques were applied, and the criteria utility vector was established.

All of the procedures in phase 1 apply equally to phase 2. An added feature was a set of three-dimensional scale models, one for each site. Each model was 4 ft² (0.4 m²) and reflected real-world conditions on plots of about 211,000 acres (85 000 hm²) at a scale of 1 in. (2.5 cm) = 2,000 ft (610 m). Inserts showing the 8,000-acre (3200-hm²) airport site at various stages of development were available for each model.

Another development concerned the do-nothing alternative. The committee decided they could not recommend this alternative because growth in the Louisville region is inevitable as is associated growth in the need for air transportation services. Thus, although six alternatives were presented to the committee, only five were evaluated.

For both phases, arrangements for meeting rooms and hotel accommodations were made in proximate locations. This created an environment in which members could interact both socially and formally. Losses due to travel time and other functions were kept to a minimum.

SITE EVALUATION

Relevant Criteria

Initially, the significant factors in choosing a site for a major airport were determined. These factors may be goals, such as preservation of the natural environment; site requirements, such as air space and soil conditions; accessory features, such as availability of ground access; and socioeconomic impact factors, such as the needs of people displaced by the airport. All of the above and other similar factors were collectively termed criteria.

Although one site will satisfy a given criterion to a greater extent than another and vice versa, a given criterion may be more, equally, or less important than another in considering an air facilities plan. Thus, it is not enough merely to determine what constitutes an appropriate set of criteria; a weighted hierarchy of that set is equally necessary.

The first task of the SEC was to establish a weighted set of site evaluation criteria. The procedure is as follows:

1. Professional planners establish a tentative set of criteria,
2. The criteria evaluation group discusses and modifies the set until a new criteria set agreeable to all participants emerges,
3. The evaluation group weights the criteria by the ranking and rating methods (described later),
4. The evaluation group discusses the results of the weighting exercise, and
5. Each group member is given the opportunity to reevaluate the initial weighting in a second iteration.

The SEC followed this procedure. The initial set of 15 criteria had been used by the air board in reducing the 28 sites studied to the 9 considered by the SEC. These 15 criteria were

1. Airspace;
2. Distance to airport users;
3. Economic impact;
4. Financial impact;
5. Governmental and institutional considerations;
6. Highway access availability;
7. Land cost;
8. Urban transit availability;
9. Natural environment;
10. Noise impact and approach obstructions;
11. Rail access availability;

12. Relocation impact;
13. Soil, topography, and drainage;
14. Water and sewage utilities; and
15. Other utilities.

Using these as a starting point, the committee reviewed, modified, and restructured the set and, as a result, agreed to the following criteria in phase 1:

1. Airspace,
2. Utilities,
3. Engineering and obstructions,
4. Natural environment,
5. Relocation impact (human factors),
6. Noise and other human environmental impacts,
7. Ground access availability,
8. Total project cost,
9. Economic impact, and
10. Governmental and institutional considerations.

At the first meeting of the phase 2 SEC, members were given the 10 criteria as developed and used in phase 1. The members were instructed to consider these criteria and modify them, if necessary.

During the discussions on determining the criteria, the committee decided that, since there were no major engineering problems or any similar difficulties relating to utilities, these two items (formerly criteria in the phase 1 evaluation) should be considered only from the standpoint of costs and should be included in the criterion of total project cost.

The committee also had difficulty in defining governmental and institutional considerations as to the jurisdictional, attitudinal, and financial aspects. It was decided, then, that financial feasibility be considered as a separate criterion. Thus, two criteria were eliminated and one added.

These criteria are self-explanatory to a certain extent, and thus will be discussed later in the paper. In any program of this kind, the exact meaning of each criterion is specified by participant discussions.

Ranking the Criteria

The ranking technique is essentially a classification of the criteria into quantitative categories. Complete discrimination in rank is asked of each judge in that only one criterion is to be placed in each category. The technique assumes the existence of equal intervals of importance between criteria.

A ranking form was distributed, and each judge was asked to place a raw rank in the space provided beside each criterion on the list. The most important criterion was to receive a raw rank of 1; the second most important a raw rank of 2. This continued through the list of n criteria. So that the most important criterion would have the highest weight, the raw rankings had to be converted before the weights associated with each criterion were calculated. Thus, a converted rank of $n - 1$ was assigned to the criterion with a raw rank of 1; a converted rank of $n - 2$ to the criterion with a raw rank of 2, and so on.

A composite rank R_j was determined for each criterion by summing the converted ranks of the judges:

$$R_j = \sum_{i=1}^m R_{ij} \quad j = 1, 2, \dots, n \quad (1)$$

where

R_j = composite rank of criterion j ,
 $R_{i,j}$ = converted rank of criterion j established by judge i ,
 n = number of criteria, and
 m = number of judges.

The composite ranks thus determined were normalized in the following manner:

$$u_j = \frac{R_j}{\sum_{j=1}^n R_j} \quad (2)$$

where u_j is the composite weight or utility value associated with the j th criterion. Of course, the summation of the u_j from $j = 1$ to n must equal 1.

Rating the Criteria

The rating scale technique is probably the most popular of the procedures used for collecting individual judgments. A numerical rating scale was used, but the descriptors normally associated with integer values on the scale were not used. A set of descriptors that would not bias the judges could not be determined.

Generally, the list of criteria to be weighted is placed in columns down the right side of the page. A rating scale marked in units continuously from 0 to 100 (bottom to top) is placed at the left side. A rating of 0 indicates there is no value associated with a given criterion; a rating of 100 is the highest value. Any value in the unbroken continuum may be assigned to any criterion. The judge assigns a rating by simply drawing a line from the criterion to an appropriate point on the rating scale.

The data are then treated in much the same way as the ranking data. However, there is no need to convert the rating data because the highest valued criterion receives the highest rating. A composite rating V_j is determined for each criterion by summing the ratings of the judges:

$$V_j = \sum_{i=1}^m V_{i,j} \quad j = 1, 2, \dots, n \quad (3)$$

where each term is the same as in the ranking techniques. The composite ratings or utility values associated with each criterion are determined by normalizing:

$$u_j = \frac{V_j}{\sum_{j=1}^n V_j} \quad (4)$$

Criteria Utility Vector

The rating and ranking techniques resulted in the generation of two utility vectors. So that the best features of both techniques were combined, the two vectors were averaged to produce a third vector, the average utility vector (Table 1). The average utility

vector was the only one used in subsequent calculations of total site utility.

After the utility values had been calculated and checked, the committee reviewed and discussed the results. In both phases 1 and 2, the members were satisfied with the results and decided that no additional iteration would be necessary.

Discussion of Factor Ranking

Environmental factors ranked high in the committee's deliberations in both phases. Noise and other human environmental impacts ranked first and second in phases 1 and 2 respectively; natural environment ranked third in both phases. Ground access moved from second to first in order of importance. Thus, accessibility and environmental concerns are the most important factors relative to airport site location.

Project cost ranked ninth in both phases. The relative importance of these criteria reflects a nationwide trend in the attitude toward large public works projects that considers accessibility and environmental feasibility more important than cost. This is because economically infeasible projects probably will not be implemented but environmentally infeasible projects might.

Information on Criteria

After the criteria had been weighted, each member visited the location and saw slides of each site. During this period, the air board staff and consultants prepared displays, information, and data for each site relative to airspace, utilities, engineering and obstructions, natural environment, relocation impact (human factors), noise and other human environmental impacts, ground access availability, total project cost, economic impact, governmental and institutional considerations, and financial feasibility. Information on these criteria follows:

1. The airspace analysis was conducted by the FAA. Data included distance to nearby airfields, adverse effects on nearby airfields (e.g., severe restriction or elimination of types of approaches to various runways), and evaluation of the site based on airspace utilization.
2. Data on utilities included distance to the nearest source of utility services and cost estimates for extensions and construction of sewage treatment facilities.
3. Engineering data consisted of a description of topography, soil conditions, and depth to and character of bedrock and a brief description of drainage features and problems in the vicinity. Obstructions were mainly radio and TV towers penetrating the airspace but also included such items as power lines that cross or are close to a site. The cost of removing these obstructions was also included.
4. Information about the natural environment included the physiographic subregion, an estimate of the ability of the area to support various amounts of development, natural environmental hazards, and any natural resource issues in the area.
5. Data about relocation impact (human factors) consisted of an estimate of the number of people, dwelling units, businesses, schools, and churches that would have to be relocated at each proposed site.
6. Reports on noise and other human environmental impacts estimated the number of people, dwelling units, businesses, schools, and churches located within various composite noise ratio (CNR) contours at each site. The CNR attempts to analytically evaluate the extent to which noise is objectionable and includes such factors as decibel range, frequency, and time of day for various noises expected at the airport. Supposedly, people cannot tolerate CNR values above 115 and find any value over 100 somewhat objectionable.
7. Ground access information was provided about distance to the airport, highway access, rail access, and rail rapid transit. Current and 1995 estimates of distance and travel time were given from the site to downtown Louisville and to the 1972 center of user activity. The distance to major highways, the calculated volume-to-capacity

ratio of those routes, and any currently proposed improvements in the vicinity were also given. The distance to, condition of, and present volume on nearby railroads and on nearby rail track systems acceptable for public transit use were presented.

8. The estimated construction cost in 1972 constant dollars was given for the various components at each site, such as land acquisition, grading and drainage, water and sewage, pavement, and terminal structures.

9. For each county in which an airport site was located, economic impact was based on population, wholesale and retail sales, per capita income, labor supply, and property taxes lost because of the airport.

10. Data on governmental and institutional considerations included the number of cities, counties, schools, and school districts either wholly or partly located within various CNR contours in the vicinity of the site. The analysis of public and news media reaction to each of the proposed sites consisted of the percentages of pro, con, and undecided viewpoints of both newspaper readers and CAC participants living in the affected counties.

11. Financial feasibility data included a detailed cash flow analysis showing anticipated revenues and expenditures, bonded indebtedness, and cash on hand for each year of the 20-year planning period.

Effectiveness Values

When the effectiveness values were determined, committee members considered one criterion at a time. For example, in working with ground access, each member assigned an effectiveness value to each of the sites based on how well he or she thought each site would fare relative to that criterion. A value of 1.0 implied that all aspects of that criterion could be adequately and efficiently provided for, 0.0 implied an impossible provision, and 0.5 implied that the site held no particular advantage or disadvantage relative to the criterion. The average effectiveness value is represented by e_{ij} ($i = 1, 2, \dots, s$ and $j = 1, 2, \dots, n$), where e_{ij} is the average effectiveness value assigned to the i th site for the j th criterion by the judges. In phase 1, there were 26 judges, 9 sites ($s = 9$), and 10 criteria ($n = 10$). In phase 2, there were 24 judges, 5 sites ($s = 5$), and 9 criteria ($n = 9$). In both phases, the total individual effectiveness values for a particular site-criterion combination were averaged to produce the average effectiveness values.

The average effectiveness values may be arrayed in an effectiveness matrix of s rows (number of sites) by n columns (number of criteria). In generalized vector notation, the effectiveness matrix may be represented by $[E]$. The values of the effectiveness matrix for sites in phase 2 are given in Table 2.

Site Utility Vector

The total effectiveness of a site is determined by multiplying the values of effectiveness matrix by those of the criteria utility vector. The product is a site utility vector in which each entry represents the utility of an individual site or, as stated above, the total effectiveness of a site.

The product mentioned above is actually the summation of the products formed by multiplying the average effectiveness with which a site satisfies a criterion by the utility value of that criterion. This may be stated as

$$U_i = \sum_{j=1}^n e_{ij} u_j \quad i = 1, 2, \dots, s \quad (5)$$

where

U_i = total utility of site i ,
 e_{ij} = average effectiveness of site i in satisfying criterion j , and
 u_j = utility value of criterion j .

Because the summation of u_j over j must identically equal 1, and the maximum value for e_{ij} equals 1, then the maximum value for any U_j is also equal to 1. Thus, a perfect site would have a value of 1, and a totally worthless site would have a value of 0. Obviously, most sites will have utility values >0 and <1.0 , probably in a range from 0.3 to 0.7. The calculation of U_i was completed for each site, and the site utility values were compared.

Equation 5 may be stated in a generalized vector notation as follows:

$$[E] [u] = [U] \quad (6)$$

where

$$[u] = (M_1, M_2, \dots, M_j, \dots, u_n)^T \quad (7)$$

is a column vector whose components represent the utility values associated with each of the n criteria, and

$$[U] = (U_1, U_2, \dots, U_i, \dots, U_s)^T \quad (8)$$

is a column vector whose components represent the total utility associated with each of the s sites, and $[E]$ is the $s \times n$ effectiveness matrix defined previously.

The total site utility of each site for phases 1 and 2 and the overall rank of each site's effectiveness value are given in Table 3.

COMMITTEE RECOMMENDATIONS

Phase 1

The committee members considered several factors when they reviewed the results of the intensive 2-day evaluation:

1. Five sites were ranked fairly close together at the top of the list (Table 3);
2. The fifth-ranked site, Simpsonville, was not in an environmentally acceptable area;
3. The first and third-ranked sites, Smithfield and Shelbyville, were in such close geographical proximity that they overlapped; and
4. The three top-ranked sites were in the same general area.

After these factors were carefully reviewed, the committee recommended that the air board carry out detailed studies of the four top-ranked sites, instead of three as was the original intention, because of the almost identical locations of the first and third-ranked sites.

The air board staff and consultants studied these four sites and the expansion of Standiford Field for the next 10 months in preparation for the phase 2 meeting.

Table 1. Criteria utility vector values.

Phase 1				Phase 2			
Evaluation Criteria	Ranking	Rating	Average	Evaluation Criteria	Ranking	Rating	Average
Airspace	0.1110	0.1282	0.1196	Airspace	0.0949	0.0958	0.0954
Utilities	0.0380	0.0171	0.0276	Economic impact	0.1250	0.1235	0.1242
Engineering obstructions	0.0887	0.0897	0.0892	Financial feasibility	0.0926	0.1023	0.0975
Natural environment	0.1218	0.1256	0.1237	Governmental and institutional considerations	0.1042	0.1074	0.1058
Relocation impact	0.1171	0.1231	0.1201	Ground access	0.1400	0.1350	0.1375
Noise and other impacts	0.1332	0.1462	0.1397	Natural environment	0.1296	0.1265	0.1280
Ground access	0.1203	0.1274	0.1238	Noise and other impacts	0.1493	0.1233	0.1363
Total cost	0.0848	0.0786	0.0817	Relocation impacts	0.1123	0.1145	0.1134
Economic impact	0.0923	0.0855	0.0889	Total cost	0.0521	0.0717	0.0619
Governmental and institutional considerations	0.0928	0.0786	0.0857				

Table 2. Effectiveness values for sites in phase 2.

Sites	Criterion								
	Airspace	Economic Impact	Financial Feasibility	Governmental and Institutional Considerations	Ground Access	Natural Environment	Noise and Other Impacts	Relocation Impacts	Total Cost
Finchville	0.4460	0.6440	0.6616	0.5700	0.6612	0.6252	0.7552	0.6560	0.71
Shelbyville	0.6120	0.6832	0.6052	0.4896	0.6116	0.4572	0.7280	0.6612	0.64
Smithfield	0.6672	0.6488	0.5880	0.4600	0.5092	0.2828	0.6316	0.5656	0.61
Bellview	0.7696	0.6284	0.5940	0.4140	0.3740	0.5860	0.5900	0.6612	0.59
Standiford	0.7696	0.5048	0.3740	0.5980	0.8296	0.8396	0.1948	0.2240	0.37

Table 3. Site utility vector values.

Phase	Site	Overall Utility	Rank
1	Simpsonville	0.5541	5
	Westport	0.4254	6
	Charlestown	0.3803	8
	Finchville	0.5608	4
	Shelbyville	0.5740	3
	Hays Flats	0.3755	9
	Smithfield	0.5870	1
	Bellview	0.5777	2
Paynesville	0.3956	7	
2	Finchville	0.6402	1
	Shelbyville	0.6411	2
	Smithfield	0.5447	4
	Bellview	0.5721	3
	Standiford Field expansion	0.5328	5

Phase 2

After the results were reviewed, the committee offered the following recommendations to the air board:

1. The best site for a proposed new airport facility is Finchville (Table 3);
2. The existing Standiford Field should be used to maximum capacity in providing air service to the region;
3. A regional authority, established by the Kentucky State Legislature, should assume control of the air facility;
4. The regional authority should seek acquisition or land banking of an alternate site by using appropriate state or federal resources;
5. The land required for the recommended Finchville site should be acquired but used as is until construction becomes necessary; and
6. If and when a new major airport becomes operational, all scheduled air carrier service should be conducted from there.

SUMMARY AND CONCLUSIONS

In the site evaluation and selection used by the Louisville and Jefferson County Air Board, members of the SEC drew up a set of criteria considered important to airport site location, weighted those criteria, and evaluated how well each site met the criteria. This enabled calculation of an overall site utility value that was the decision rule for site selection.

Several general conclusions may be drawn from the site evaluation methodology:

1. Active citizen involvement beginning in the early planning stages of any public project is indispensable to the planning process. Active citizen involvement not only is a requirement of legislative statute but also provides for interaction between planning agencies and citizens.
2. The evaluation methodology discussed is important in community decision making, primarily because of the reliable quantification of value judgments resulting from its use.
3. A committee of interested and informed citizens can reach a consensus on a delicate public issue by applying the evaluation methodology.

The data were subjected to several statistical analyses (2, 3), and almost every statistical test was affirmative in that it served to confirm the ability of the committee members to perform the many tasks demanded by the evaluation methodology.

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DISCUSSION

Joan Allen

Having served on the CAC in Louisville, Kentucky, from 1971 to 1973, I submit the following observations regarding the effectiveness of the methodology discussed in the paper. An evaluation of the process for using citizen input and an analysis of the inadequacies in this process are also presented.

In early 1971, the CAC was initially formed specifically for working with the air board to determine the need for a new airport serving the metropolitan Louisville area and to select a site when this need was established. Membership in the CAC was open and so stated at every meeting, and eventually membership was made up of 300 active participants from a regional population of nearly 1.5 million.

Since the members came from throughout the Louisville-Jefferson County area, few knew each other or were aware of the variety of talents available in the group. Thus, when formal organization of the group began, there was not much chance for meaningful elections. Therefore, several names were offered by the air board, and the CAC generally agreed to support the leadership of these people.

The task force formed under the CAC began the educational phase of the project. Although each task force was free to operate on its own and to use independent sources in the educational process, much of the educational material came from the air board.

As the time approached to come to a decision on the airport, the CAC elected 15 members and 11 aviation experts to serve on the SEC. The results of their interaction would be offered to the Kentucky State Legislature as an informed proposal indicating the direction that seemed most advisable for the benefit of the people of that area.

For 3 days, the SEC deliberated and were provided with ample opportunity for personal interaction and education. Since the qualifications of the citizens were in non-allied fields, each, of necessity, depended on the information presented by the air board. Each member undoubtedly retained his or her peculiar prejudice regarding the decision ahead and would presumably have expressed this prejudice in the decision-making process. However, as the paper describes, a set of objective criteria was established, and subsequent decisions were quantitatively measured against these criteria. This process reduced the opportunity for emotional decisions to override the rational approach. The unique quantitative features of this approach to citizen involvement set it apart from the traditional way in which citizens participate. The result was a decision that all participants felt they could support.

However, several problems arise concerning citizen participation. The extent of the actual authority of citizen groups as they interact with policy makers, urban specialists, and the political leaders of the community must be defined. This position was never adequately delineated in the Louisville Airport site selection methodology, and the failure to determine this could doom future citizen groups to engage in mere rhetorical proposals. For example, after the SEC had reached its final decision, the Kentucky State Legislature accepted and then quietly tabled the proposal. A political and financial power group apparently had effectively blocked the decisions and the work of the CAC. As a result, 2 years of citizen participation proved to be a somewhat frustrating experience.

Establishing the parameters of the role of the citizen in this type of participation leads to another problem in urban involvement. There was a noticeable lack of minority-group representation in the CAC. Although the proportion of minority representation to the entire metropolitan area population was acceptable, this ratio appears too low when it is compared with that based on the Louisville population. All cities have finite financial resources, and diversion of funds to a particular project must be justifiable from a humanistic viewpoint as well as from a strict economics perspective. Since the majority of urban planning measures (i.e., urban renewal and public transit systems) most intimately affect the lives of those who can least affect any portion of these decisions, a mandate arises to include these groups in such planning.

I submit that, until the problem of the authority of the citizen group is dealt with, there will be little or no participation of minority urban people in open citizen partici-

pation. In Louisville, although open membership in the CAC was announced, it was not realized. A growing apathy to such media announcements occurs among minorities, since they feel little or no response to their needs can come from such membership involvement. Therefore, creative and genuine measures must be used to ensure their participation in such groups. If this is not accomplished, intense and increasing disenfranchisement will result and lead ultimately to further disruptive forces operating in cities where such planning without representation is occurring.

Another issue to be dealt with is the misuse of the citizen forum as a propagandizing platform for specific interest groups equipped with the expertise and finances to obtain a "group-think" result. It is extremely difficult for a group of citizens of diverse backgrounds and orientations to deal abstractly with a group of experts.

The Louisville CAC was made up of a group of relatively uninformed citizens and emerged with an almost unanimous agreement on an issue about which the group had had only superficial knowledge. The educational process for the CAC was handled by the air board, which had ample time, finances, expertise, and facilities available to them. In this situation, the potential manipulative capability of this type of forum becomes quite evident. Without adequate availability of counterpoint views obtained from independent sources, such citizen groups might be used to merely rubber-stamp prior determinations of any specific interest group.

Although the methodology in the paper proposes real advances in the evaluation and use of citizen input, it is vital that the problems discussed above be solved if the citizen's views and advice are, in reality, wanted and needed by the decision makers. If citizen forums are to be regarded as a placebo for the area populace, they have no real place in the structure of decision making.

AUTHORS' CLOSURE

Allen has made several significant points in her discussion:

1. The authority of citizen groups involved in public works processes should be better defined;
2. Minority groups must have a role in decision-making processes, particularly those affecting their lives, and their participation must be actively sought; and
3. Although the results of the CAC deliberations in the Louisville airport site selection process were supported by the participants, it became obvious to them that the participation process could be manipulated.

Citizen participation is often used in an advisory role to an entity (in this case, the Louisville airport authority) that may not, by law, delegate its decision-making responsibilities. It seems, therefore, that citizen groups will not be in a position to make final decisions on major public works projects. However, they can and should influence the decision process. The degree to which they will be able to influence decisions should be articulated at an early point in the process. However, it must also be recognized that little can be done to guarantee that influencing role; only the credibility of the decision-making body can ensure it.

We concur with Allen that minorities must be represented in decision processes, particularly those that will affect their lives. We also support the belief that extra effort must be made to solicit minority involvement. However, we can only caution that participation for which a struggle must continuously be exerted is often not genuine and, therefore, can be counterproductive.

Finally, it is our belief that the credibility and active interest of the decision-making body supporting the citizen participation process can ensure against its being manipulated. However, we also believe that the credibility and active interest of the community has an equal effect in discouraging manipulation. This is not to say that citizen participation processes cannot be manipulated. We contend that only by mutual respect, cooperation, and involvement between the decision-making body and the community in general can this manipulation be minimized or eliminated.

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