

Ethics of Politically Oriented Transportation Planning: Congruence and Conflict of Roles

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Some of the ethical implications of the involvement of transportation analysts in politically oriented planning processes, particularly in the context of urban transportation planning, are examined. The major point of departure is the concept of fragmentation of intellectual perspectives, which manifests itself among participants in the planning process, both professional and nonprofessional, and within the individual, who plays a variety of socially recognized roles. The pattern of congruences and conflicts created by the roles of professional transportation analyst, organization member, and participant in the political process is seen as the key to ethics for transportation analysts. Obligations imposed by each of these roles are identified and compared. The major conclusion is that these roles are, for the most part, congruent provided two key points are accepted: (a) that technical competence for transportation analysts consists of mastery of a variety of disciplinary perspectives and (b) that the professional's primary loyalty as a participant in the political process must be to the process itself and not to particular substantive outcomes.

Recent interest in the ethical aspects of transportation analysis seems to stem mainly from shifting perceptions of the nature of transportation decision making, particularly in urban transportation planning, and the role of transportation professionals in it. The increasing tendency to see transportation decisions as political rather than technical decisions and consequently to view transportation analysts as engaged in an explicitly political process has upset long-standing concepts concerning proper professional conduct and long-standing compromises among professional roles and the obligations imposed by them.

According to Marcuse (1), ethics "consist of a set of principles for the guidance of individual actions, extending beyond those established by positive law, and designed to promote the social good." Although some elements of this formulation are questioned in this paper, it can be adopted as a working definition of ethics. The purpose of the present discussion, then, is to derive principles to guide the actions of individual professionals in the "new" transportation decision-making process.

In seeking these principles, the first task is to describe how they operate in the lives of individuals. In so doing, we discover that there is an intimate relationship between our understanding of ethical issues and our fundamental ways of viewing the world. In the context of contemporary developments in transportation analysis, this relationship is of considerable importance: Our experience with transportation planning as a political process has not only upset our ideas of proper professional conduct but also posed a direct challenge to the understanding of social reality shared by most transportation professionals. This challenge, in turn, has implications for the way in which ethical principles are derived and applied.

The view of social reality that underlies practically all of the disciplines involved in transportation analysis is the utilitarian view, which holds (among other things) that there is something called the "public interest" or "social good"; that it may be defined as the sum total of individual utilities, properly weighted; and that, by making the proper trade-offs among conflicting values, an optimal balance among them can be achieved. This world view presupposes that the issues involved in social

conflicts are sufficiently well defined, and conflicting perceptions of them sufficiently similar, to allow explicit trade-offs and compromises. Thus, the transportation analyst's world view tends to presuppose a social and political system in which everyone agrees on the structure of the issues although they may disagree about the desirability of particular outcomes.

The ethical position that most nearly corresponds to this view is situationism. Situationism denies the possibility of a set of absolutely valid ethical rules, holding rather that each ethical principle has relative value. In each situation, the individual must employ several rules but can arrive at the optimal action by achieving the proper balance among them. Although situationism fragments individual experience into more or less discrete situations, it views individual ethical values as forming a sufficiently integrated whole to allow trade-offs among them. Thus, the situationist's view of internal conflict and its resolution is directly parallel to the utilitarian's view of social conflict. Not surprisingly, much of the current discussion of the ethics of transportation analysis has been cast in situationist terms.

Both situationism and utilitarianism must meet two very important objections. The first of these is that neither ethical nor social issues are sufficiently unified to allow explicit trade-offs to be made among values. The alternative position, which has been advocated by authors such as Kuhn (2), Koestler (3), and Churchman (4) as a description of how we think about physical reality as well as social and psychological reality, is that human knowledge is organized into more or less internally consistent systems of belief and evidence (called, by various authors, paradigms, matrices, or frameworks) that may not display any great overlap in their fundamental premises, their structures, or their sense of the significance of particular facts and issues. If this is the case, no trade-offs, compromises, or even real debates are possible since the true problem is not that the various "sides" of a social issue (or an ethical question) are in conflict but that they are never able even to encounter one another in a meaningful sense.

In the context of the open transportation planning process, the challenge to this fragmented view of social and psychological reality is quite serious since several observers of politically oriented transportation planning processes have discovered a great deal of fragmentation in the way participants view the issues. Gakenheimer (5), for instance, writing of the Boston Transportation Planning Review, comments that

Selective perceptions of the same problem can be so different as to be almost mutually exclusive in content. There are surprisingly few issues in which opposing perspectives are sufficiently congruent to constitute direct conflicts. Most topics are of interest to only one side in the argument and are disregarded by the other.

Other studies of politically oriented transportation planning processes—for instance, those by Jones and others (6) and Banks (7) on the planning activities of San Francisco's Metropolitan Transportation Commission—would

tend to confirm this impression.

The second objection is that both utilitarianism and situationism seem to imply unlimited information and unlimited ability to make use of it. To arrive at the truly optimal solution for any system (or any ethical situation), one must know everything about it. In the case of situationism, a traditional objection has been that it demands faultless, instant analysis as well as complete information. Most people, it is objected, are simply not intelligent enough to apply situation ethics, and even if they were they would lack the time and resources. Again, these are not trivial objections for the transportation analyst engaged in an open decision-making process; important decisions must often be made in a crisis atmosphere in which information is scarce and fragmentary and there is little or no time for reflection.

Where does this leave us? If we never have enough time or information to make the optimal decision and if we often find that our experiences and values are so fragmented that we cannot even cast social and ethical questions in the form demanded by situationism and utilitarianism, is it even worthwhile to discuss ethics? More to the point, if we do discuss ethics, what should be the goal of the discussion?

If we see fragmentation and complexity as the chief intellectual barriers to the development of ethics, it follows that discussions of ethics should aim at the integration of fragmented perspectives, both in the individual and in society, and at the promotion of intellectual efficiency. One way both goals can be served is by a systematic comparison of perspectives to identify areas of conflict, congruence, and noninteraction. This is a first step in the process of integration of perspectives, which would ultimately involve the ability to state one perspective in terms natural to the other and to resolve any conflicts between them; it also serves the goal of intellectual efficiency since it allows areas of noninteraction and congruence to be eliminated from consideration.

Where conflict among our values does exist, we should look on ethical discussion and situational decision making as a learning process. Situationism views each situation as unique, but even situationists do not take this assertion so seriously as to suppose that there is no resemblance among ethical conflicts. If particular conflicts tend to recur, we eventually learn to recognize them and come to develop standard operating procedures for dealing with them. A second way in which ethical discussion can serve the goal of intellectual efficiency is by identifying recurring value conflicts and developing general strategies for dealing with them.

One way of describing the fragmentation of the individual personality is through the concept of socially recognized roles. Marcuse (1) identifies role conflict as the primary ethical issue for planners, and this analysis can easily be extended to other types of transportation professionals. According to Marcuse, planners play the following roles: professional planner, client-serving professional, professional acting in the public sphere, social scientist, guild member, public servant, citizen, and human being.

In the case of transportation professionals, this scheme needs to be modified to reflect the following special conditions in the transportation field:

1. Although there is a great deal of private-sector activity in transportation, most of what gets classified as transportation analysis is carried out by or for the public sector.
2. Most activity in the field is carried on by medium- to large-scale organizations.
3. The field is inherently multidisciplinary. Trans-

portation analysts represent several different professions, and loyalties to specific professional societies and peer groups vary accordingly.

4. Current trends in the political organization of transportation decision making tend to thrust transportation professionals into roles as conflict managers and guardians of the integrity of the political process.

These considerations suggest that the key roles played by transportation professionals are those of (a) professional transportation analyst (which combines several of the roles identified by Marcuse), (b) organizational member, and (c) participant in the political process. The remainder of this paper sketches out the principal obligations implied by these roles and identifies the more obvious areas of role conflict and congruence created by them.

PROFESSIONAL TRANSPORTATION ANALYST

The role of professional transportation analyst includes not only functions analogous to Marcuse's "professional planner" but also the roles he identifies as "client-serving professional", "social scientist", and "guild member". Obligations imposed by these roles, as identified by Marcuse (1), include (a) respect for the opinion of other professionals, (b) technical competence, (c) independence of judgment, (d) allegiance to clients, (e) pursuit and publication of new knowledge related to professional matters, and (f) what Marcuse calls "guild obligations"—obligations imposed on their members by organized professions in an attempt to eliminate destructive competition.

The obligation of technical competence is central to the role of the transportation analyst as a professional. Obligations of respect for the opinion of other professionals and pursuit and publication of new knowledge are primarily supportive of the development and maintenance of technical competence in that technical competence is seen as being mastery of corporately defined knowledge, which is constantly evolving through the research activities of members of the profession. Independence of judgment and allegiance to clients, in turn, are intended to guarantee that the professional's technical competence will actually be brought to bear on particular assignments. Finally, guild obligations are intended (at least ostensibly) to provide an economic climate in which the development of technical competence and independence of judgment can flourish.

The primacy of the obligation of technical competence is obvious: The whole reason for involving professional transportation analysts in transportation decisions is that it is supposed that these decisions will be somehow better if they are informed by specialized knowledge. The individual professional's technical competence will depend on the degree of his or her mastery of some such knowledge and on the validity of the knowledge itself.

Professional knowledge bases consist of more or less coherent sets of facts, cause-and-effect relations, techniques of analysis for manipulating cause-and-effect relations, and values that say which cause-and-effect relations and facts are important. In an inherently multidisciplinary field such as transportation analysis, one finds a number of competing knowledge bases that differ in their fundamental sense of values as well as the facts and cause-and-effect relations they emphasize. Thus, fragmentation of perspective exists among transportation professionals as well as among nonprofessional participants in the transportation decision-making process.

This suggests that the most valuable sort of technical

competence in a field such as transportation analysis may not depend so much on the individual's depth of mastery of any one disciplinary perspective as on that individual's ability to master a number of them—to view the same substantive problem from the point of view of an engineer, a planner, a geographer, an economist, a political scientist, an environmentalist, and so on. Thus, the technically competent transportation analyst is defined here as one whose knowledge is sufficiently broad to permit the analyst to integrate several different disciplinary perspectives yet sufficiently deep in each to protect him or her from misunderstanding and misapplying the principles of any one discipline. Needless to say, this type of competence is rare.

The obligations of independence of judgment and allegiance to clients imply that the professional must not only possess technical competence but must also be conscientious in applying it. Allegiance to clients (or employers) dictates that, as long as the client-professional relationship exists, the professional must serve the best interest of the client. Independence of judgment means that serving the best interest of the client implies that the professional must not be content to follow the whims or prejudices of the client as to either the definition of problems or the best means of solving them; because the professional is technically competent, it is the professional, not the client, who is uniquely qualified to understand problems and prescribe solutions, even if they happen to offend the client.

This understanding of independence of professional judgment makes it one of the more controversial professional obligations. It seems a bit arrogant to claim that professionals are uniquely qualified to understand problems and prescribe solutions, especially in light of what has happened to transportation decision making in the past decade. In a sense, the problem may stem from an inadequate understanding of what is meant by technical competence. Certainly, more than mastery of a narrow discipline in a fragmented field is required. Yet we cannot utterly abandon the obligation of professional independence without abandoning professionalism as well. If professionals' technical competence does not make them uniquely qualified to understand problems related to the professional knowledge base and prescribe solutions for them, of what value is it? Nevertheless, the obligation of professional independence can lead to important role conflicts.

Professional guild obligations operate primarily to regulate relations among consultants. Their intention is ostensibly to provide an economic climate in which technical competence and independence can flourish. Their actual effect, however, has long been controversial. Since it is not clear that professional guild obligations play an important part in the pattern of role conflicts and congruences in transportation analysis, they are not discussed further here.

ORGANIZATION MEMBER

Since almost all professional activity in transportation analysis takes place in the context of organizations, the role of the professional as an organization member and the obligations that it imposes are of critical importance. The primary obligations imposed by this role are loyalty to organizational mission and loyalty to organizational authority.

The concept of organizational mission implies that organizations, particularly public agencies, are created for a purpose. The obligation of loyalty to organizational mission implies that the individual, in joining the organization, subscribes to that purpose and agrees to give it wholehearted support.

Organizational missions are usually spelled out in charters, enabling acts, and the like and are subject to some sort of consensus that goes beyond the formalities of the charter and involves the organization, its immediate political environment, higher political authority, and the public. Nevertheless, such charters and informal understandings are never so definite that there is no room for interpretation or conflict over matters of detail. Moreover, organizational missions tend to change over time, sometimes drastically.

As a result, the obligation of loyalty to organizational mission is a frequent source of ethical tension for the professional. Alienation from organizational mission may result from either changes in the mission or changes in what the individual believes to be in the public interest. In some cases, the individual may come to believe that the organization's mission is actually contrary to the public interest and, in others, that it is basically good but inadequate to the needs of society. The obligation of loyalty to organizational mission implies that individual professionals should sever ties with any organization whose mission they cannot conscientiously support.

The concept of organizational authority implies that each organization will have an internal structure that consists of legitimate authority relationships. The obligation of loyalty to authority implies that, as long as authority remains legitimate, the professional is obliged to abide by the decisions of organizational superiors. Authority ceases to be legitimate when it is exercised contrary to the organization's commonly recognized mission, when it is exercised outside the commonly recognized organizational structure, or when it is exercised in violation of positive law or human rights as normally understood by the community.

PARTICIPANT IN THE POLITICAL PROCESS

Of the roles identified here as ethically significant for the transportation analyst, that of participant in the political process is probably the least understood. In the past, many transportation analysts would have denied that this was a valid professional role. Transportation decisions were viewed as technical decisions in which "community values", if they were considered at all, were just one more variable. Even today, many transportation analysts feel uncomfortable with overtly political planning processes, hoping that, even if the planning process itself cannot be apolitical, their role as professionals can raise them above the cut and thrust of partisan conflict.

Although the ideal of professional neutrality has carried over into much of the theoretical literature on the "open" planning process (8-13), several case studies of politically oriented planning processes (5-7) cast doubt on its practicality. Rather than seeking a role that will preserve professional innocence, we must seek one that will stress professional responsibility—in particular, one in which the transportation analyst can respect the integrity of the democratic process without wholly sacrificing the ideals of rationality and economy.

One way of looking at democratic systems is as a political response to fragmentation of perspective. It is a fundamental premise of democracy that no one viewpoint can ever be known to be uniquely valid and thus that political rationality is best served by direct expression of a full range of views on any public question. If fragmentation of perspective is not to lead to chaos or stagnation, a democratic system must permit action in the face of sharp and continued disagreement on substantive issues. Democracies commonly achieve this by insisting that the primary loyalty of individuals be given

to the process rather than to particular substantive outcomes: As long as the rules of the process are followed, the individual is bound to accept the outcome as valid no matter how much he or she may disagree with it.

Although the rules will vary, depending on the situation, one fundamental rule will invariably be upheld: Political rationality, and hence the legitimacy of the process, depend on open discussion of the issues. Although fragmentation of perspectives usually precludes short-run consensus, discussion is the means by which the various perspectives on issues become known and by which they can sometimes be integrated. Without open discussion, democratic processes cease to be legitimate, and the condition on which the individual agrees to abide by the result is violated. This implies the first obligation of professionals as participants in the political process—that their primary loyalty must be to the political process itself, not to any substantive outcome, and this loyalty must include a commitment to open discussion of the issues.

Open discussion of the issues, however, does not imply unstructured discussion. It is essential to the success of democratic government that discussion lead to creative debate and that the participants' awareness of the issues and their interests in them be shaped, in part, by the political process itself. In cases in which perspectives on substantive issues are highly fragmented, the greatest danger to the democratic process is that discussion will degenerate into chaos. Such chaos can be as injurious to the legitimacy of the process as the deliberate suppression of viewpoints. In either case, the real problem is that some points of view have not been effectively heard and thus have not contributed to the decision. The professional's loyalty to the integrity of the political process must therefore include a commitment not only to open discussion but also to creative discussion.

The professional transportation analyst's commitment to open and creative discussion must avoid two extremes. The first of these is the attitude that only professional opinion is valid and that, since nonprofessionals do not really understand the issues, it is all right to patronize, mystify, or deceive them. It is never ethical for professionals—particularly those employed by public agencies, whose obligation to the integrity of the political process is legal as well as moral—to deliberately distort, misinterpret, or suppress information pertinent to a public decision. Such an action would normally imply that the professional's primary loyalty was to a substantive outcome, not to the integrity of the political process itself.

The second extreme is to deny all responsibility for the conduct and outcome of the process. In the past few years, debate on transportation issues has been marked by extreme fragmentation of perspective and has often threatened to degenerate into chaos. The involvement of professional transportation analysts in such debates, as professionals rather than as mere citizens, is altogether useless unless their expertise enables them to inject a sense of realism and order into the discussion.

In other words, too extreme an attitude of professional neutrality can be as injurious to the political process as can an attitude of technocratic arrogance. The difference between creative management of debate and uncreative manipulation of it is a subtle but crucial one. In the one case, the professional guides discussion into certain areas and away from others because this increases the productivity of the discussion; in the other, he or she does so to frustrate discussion and prejudice the outcome.

The professional transportation analyst's commitment to open and creative discussion can be expressed

in several different ways, depending on the analyst's precise role in the political process. For employees of metropolitan planning organizations, this role will often involve some responsibility for managing the political process. Although the orthodox position among planning theorists seems to be that a strong, nonprofessional decision maker is essential to the open planning process, such an individual is rarely present in practice. Consequently, the responsibility for structuring decisions, developing and transmitting information, and managing debate often falls on staff members of planning agencies.

It is virtually impossible to be truly neutral in such a position. Professional staff members must make decisions about the scale of decisions, their sequence, and the development and dissemination of information about them. None of these activities is neutral; they all tend to stack the deck in favor of some outcomes and against others. Moreover, professional staff members are normally called on to make recommendations about substantive decisions despite suggestions in the literature on planning theory that this is not their proper role. In the real world, the governing bodies of planning agencies tend to demand staff recommendations either because it is politically expedient or because they lack the time to master the details of the choices before them.

In such a situation, the professional's commitment to open and creative discussion demands moderation and fairness on the one hand and commitment to efficiency of discussion on the other. The obligation of moderation implies a duty to try to keep conflict within manageable bounds. This involves, first of all, the development by the planning agency of enough political strength to defend the integrity of the process and, if necessary, the use of that strength. It also involves a conscientious effort on the part of the conflict manager to integrate perspectives where this is feasible. This, in turn, implies that transportation planners should take political analysis as seriously as they do any other kind of technical analysis and should seek to discover patterns of conflict and congruence in the perspectives they encounter.

The obligation of fairness involves maintaining an attitude of goodwill toward all participants in the planning process even though it may often be necessary to disagree with them on particular points. When professionals do take sides, they should be honest about their reasons for doing so and should be prepared to demonstrate that they have indeed taken all points of view into account.

The commitment of professionals to efficiency of discussion implies (a) that they should seek to guide discussion away from radically unsound alternatives so that valuable time and effort will not be wasted in developing detailed information about them and (b) that technical analyses should be designed to answer pertinent questions raised in the debate, not merely to develop information for information's sake. Technical competence, understood as the mastery of a variety of disciplinary perspectives, should make the professional uniquely qualified to judge the potential pertinence of particular bits of information. Within the bounds imposed by moderation and fairness, this sense of pertinence should guide the development of technical analyses in the open planning process.

For employees of implementing agencies, participation in the planning process may well involve advocacy of particular transportation facilities or services. Although the professional in an advocacy role has an obligation to make a strong case for his or her point of view, loyalty to the integrity of the political process suggests that moderation and fairness are still essential. Advocacy must be limited by an awareness that its true

purpose is to contribute to the rationality of the political process, not to detract from it. This means, among other things, that professionals have an obligation to make their case an honest one: They are never justified in concealing their true motives or in deliberately distorting, misinterpreting, or suppressing pertinent information.

Consultants may fill a number of different roles in politically oriented planning processes. Presumably, consultants could be employed as advocates of particular positions, as developers of narrowly defined technical information, as communications specialists in the participatory process, or even as managers of the political process (the Boston Transportation Planning Review was managed by a consortium of consulting firms). If conducted openly, any of these roles could be legitimate ones in the open planning process. Consultants share their clients' obligations to promote open and creative discussion of the issues. Ideally, where consultants are employed by public agencies involved in politically oriented planning processes, there should be some sort of understanding between the consultant and the agency that spells out the consultant's responsibility in the political process.

CONGRUENCE AND CONFLICT OF ROLES

In examining the pattern of role congruence and conflict, we are primarily concerned with the question of whether a stable ethical position is possible for transportation professionals engaged in a politically oriented planning process. It would appear that such a stable position is possible—that is, that the roles we have examined are for the most part congruent—provided two key points are accepted: (a) that technical competence for transportation analysts consists of mastery of a variety of disciplinary perspectives and (b) that the professional's primary loyalty as a participant in the political process must be to the integrity of the process itself.

A strong congruence exists among the obligations of technical competence, loyalty to the organizational mission, and commitment to efficiency in political discussion. The obligation of professionals to wholeheartedly support the mission of their organizations implies an obligation to show concern for the organization's effectiveness. This, in turn, implies not only an obligation to exert reasonable effort in the organization's behalf but also an obligation to acquire and develop skills that are useful to the organization in carrying out its mission. Since the skills that make transportation analysts technically competent would normally be of utmost importance to the mission of their organizations, professionals are serving both professional and organizational obligations by increasing their technical competence.

Technical competence is also congruent with efficiency in political discussion as long as technical competence is understood to be the mastery of a variety of disciplinary perspectives. We have suggested that the goal of efficiency in discussion is one of limiting the expensive development of information to items that are realistic and truly pertinent to the debate. If the professional has really mastered a full range of disciplinary perspectives, this technical competence should be a reliable guide to what is realistic and pertinent.

Interactions among the obligations imposed by organizational membership and participation in the political process can produce either congruence or conflict, but they should be mostly congruent if organizational missions are properly understood. A strong congruence exists between organizational loyalties and loyalty to the integrity of the political process; weak organizations

(especially weak planning agencies) do not make for effective, open political processes. Internal order and efficiency are important to planning agencies not only in maintaining the political strength needed to defend the integrity of the planning process but also in reducing the tendency to chaos created by time pressures and fragmentation of perspective.

Conflict between loyalties to organizational mission and authority and the obligations of moderation and fairness in the political process usually results from the organization's failure to subordinate substantive outcomes to the integrity of the political process in determining its mission. In many cases, violation of the obligations of moderation and fairness will be *prima facie* evidence of illegitimacy in organizational missions, particularly where honesty and fairness in handling information are at issue.

This obligation to be open and honest in handling information extends to consultants who are retained by public agencies. Although acceptance of a contract obligates consultants to some degree of loyalty to their clients' missions, it does not absolve them of all concern for the legitimacy of those missions. It is a perversion of the client-consultant relationship for a public agency to employ a consultant not to tell the agency what it cannot otherwise find out but rather to tell the public what the agency wants it to hear; consultants have an obligation to discourage agencies from retaining them for such purposes. Although the possibility of such arrangements constitutes a real temptation for consulting firms, it produces no ethical conflict except in the case of individuals who suspect their organizations of engaging in illegitimate activities.

The major source of role conflict for transportation analysts is the obligation of independence of judgment. Not only does this obligation sharpen the potential conflict between individual conscience and organizational loyalties (which would exist for a nonprofessional as well), but, if improperly understood, it can also create a conflict with the obligations of moderation and fairness in the political process.

Although their obligations as human beings and as citizens play a part in the potential alienation of professionals from organizational mission, their understanding of the good of society will be shaped primarily by their professional values and the opinions of their professional peers. Thus, their obligation to support their organization's mission will most often be challenged by their perception, as professionals, that the organization's mission is illegitimate or inadequate.

Professional values and opinions may also lead the individual to believe that proposed organizational actions, although legitimate, are ill-advised. When this happens, the obligations of independence of professional judgment and loyalty to organizational mission may conflict with loyalty to organizational authority. In this case, what is at stake is organizational effectiveness. The two cases are fundamentally different: Where organizational actions are perceived as illegitimate, the professional may have an obligation to carry the dispute outside the organization; where they are merely ill-advised, disagreement should normally be confined to the organization itself.

Conflicts between professionals' independence of judgment and their loyalty to the political process will occur if they place more value on particular substantive outcomes (suggested by their professional judgment) than on the integrity of the political process. This type of conflict is less likely to occur if professionals recognize that their obligation to independent judgment depends on the reality of their technical competence and that their technical competence depends on more than

mastery of a narrow disciplinary perspective.

CONCLUSIONS

The purpose of this paper has been to analyze the pattern of congruences and conflicts created by the interaction of the transportation professional's roles as professional transportation analyst, organization member, and participant in the political process—the last role being understood as one that is created by participation in open or participatory planning processes, particularly in the context of urban transportation planning. The major conclusion of this analysis is that a fairly stable ethical position should be possible for transportation analysts engaged in open planning processes. Achievement of this position depends primarily on redefining technical competence to mean mastery of a variety of disciplinary perspectives and on an understanding among professionals that their primary loyalty should be to the integrity of the political process rather than to particular substantive outcomes.

Significant obligations imposed by the transportation analyst's role as a professional include technical competence and independence of judgment, those imposed by the role of organizational member include loyalty to the organizational mission and loyalty to organizational authority, and those imposed by the role of participant in the political process include loyalty to the integrity of the political process and commitment to efficiency in discussion.

Congruences exist among the obligations of technical competence, loyalty to the organizational mission, and commitment to efficiency in discussion. Congruences also exist between loyalty to the integrity of the political process and loyalty to organizational mission and authority provided organizational missions subordinate substantive outcomes to the integrity of the political process.

The obligation of professionals to exercise independent judgment may conflict with their obligations of loyalty to organizational mission and authority, particularly where organizational missions are perceived as illegitimate or proposed organizational actions are seen as ill-advised. Independence of judgment would normally not conflict with the obligation of loyalty to the integrity of the political process as long as the individual properly

understands the obligations of technical competence and loyalty to the political process.

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