

Executive Summary of  
Lisa Klein's *The Major Investment Study as a Planning and Policy Tool*  
Massachusetts Institute of Technology

TU-1997-Tear 3

Thesis Supervisors: Nigel H. M. Wilson, Frederick P. Salvucci

Summary Author: Noah Berger

September, 1998

Lisa Klein's *The Major Investment Study as a Planning and Policy Tool* (TU-1997-Year 3) approaches the question of the effectiveness of the federal Major Investment Study (MIS) requirement (adopted in 1993) from two different perspectives. First, she applies a general examination of the context, meaning and intent of the MIS requirement in its universal application and its effectiveness in achieving its goals. Second, she applies this analysis to the particular case of the MIS requirement's potential contribution to the planning for future extensions of *Tren Urbano* in San Juan, Puerto Rico.

Klein begins by setting the context for the establishment of the MIS requirement by chronicling the history of federal involvement in the transportation planning process prior to the 1991 passage of the Intermodal Surface Transportation Efficiency Act (ISTEA), out of which the MIS requirement was formulated. Klein argues that starting with the Federal Highway Act of 1962, and evolving further through the National Environmental Policy Act (NEPA) of 1969, the Urban Mass Transit Assistance Act and Clean Air Act of 1970 (as well as subsequent amendments), and

finally ISTEA in 1991, federal transportation policy has placed an increasing emphasis on the following four priorities:

- Increasing local input through increased local (metropolitan) decision making authority;
- Incorporating non-transportation goals and objectives (including social, land use, economic, and environmental);
- Shifting to a greater valuation of transit with respect to the private auto;
- Recognizing that transportation exists within a fiscally constrained environment.

Klein then goes on to argue that it was very much within this federal planning context that MI was adopted in 1993 in the Final Rule on Metropolitan Planning. As Klein notes, MIS was issued jointly by the Federal Transit Administration (FTA) and Federal Highway Administration (FHWA)—as such, it is not statutory. Its objective is to implement the transportation policy articulated by Congress in ISTEA (and reflected in the four objectives articulated above) in a manner consistent with NEPA and the Clean Air Act.

MIS is required prior to any “major transportation investment,” which is measured both in terms of cost and impact. Its focus is at the corridor level, and as such lies between the comprehensiveness of a Long Range Plan and the precision of an Environmental Impact Statement (EIS). MIS requirements mandate that the process be conducted in a collaborative fashion with participation by the major potential stakeholders in the study and that it explores a range of alternative solutions. The ultimate goal of the MIS study process is the selection of a locally preferred alternative to address the given transportation problem in terms of design concept and scope.

Having identified MIS’s context and mission, Klein then teases out five major features of MIS: (1) Cooperation among agencies and public participation, (2) Incorporation of broad goals and objectives, (3) Multimodal planning, (4) Local decision-making, and (5) Flexibility. These five features, Klein argues, support the four policy principles identified above that came to full fruition with the passage of ISTEA. In characterizing MIS, Klein makes a point of noting that the MIS process does not occur in a vacuum. She writes that for the process to be useful, it must be well-integrated with other mandated processes, particularly the Long Range Plan and environmental review process (NEPA).

Having spelled out the objectives and procedures stipulated by MIS, Klein then evaluates its success in fulfilling its mission. In this vein, she weighs the potential benefits of MIS with potential drawbacks. First, she notes that while the collaborative and participatory emphasis of MIS does seem to be an effective means of allowing greater local input and introducing non-transportation goals, it also saddles local administrators with the difficult task of managing a highly participatory, consensus-building process. As Klein observes, managing such a process requires extensive commitments of time and dedication and will exist in tension with more facile, less participatory decision-making processes.

Another potential trouble area Klein identifies is that MIS does not specify accepted standards of measure for the less quantifiable non-transportation objectives it prioritizes. To cite one example, she notes that while MIS offers an opportunity to link land use and transportation planning, research in this area has not yet accepted measures or methods of analysis. Similarly, the links between economic development and infrastructure development are not well understood. This problem, she concludes, is most likely a short term problem that will be overcome by interdisciplinary research and does not outweigh the benefits of the expanded scope that MIS champions.

Another potential problem area identified by Klein concerns who will assume leadership in carrying out the MIS process. As MIS does not identify which agency is to lead the process, Klein believes that leadership will often fall to the MPO. While this makes sense in so far as the MIS must be coordinated with the Long Range Plan and TIP, this may be problematic where MPOs are not modally unbiased. As Klein notes, transit interests have historically been underrepresented on MPO boards, while highway interests usually have higher representation through state Departments of Transportation and local elected officials who often have highway responsibilities which are not commonly acknowledged.

She also identifies MIS's flexibility as a double-edged sword. While the flexibility in the requirement can increase local input by allowing the process to be crafted to meet local needs, it comes at the cost of unclear expectations, the potential for inconsistent administration and enforcement, local limits for accepting flexibility, and reduced opportunities to leverage the promotional principles, as well as a lack of resolution between MIS and NEPA.

She also cautions that the MIS process needs to acknowledge what she terms the “political reality model.” According to Klein, the MIS, like the rest of the planning process, is based on a rationalist model of strategic analysis and decision-making which supposes that projects evolve out of clearly defined problem statements linked primarily to transportation problems. In reality, however, transportation projects are often conceptualized in response to a range of political forces and impetuses. To deny these forces in the MIS process would be to fail to accurately assess the problem at hand.

Regarding the principle of fiscal constraint, Klein warns that while the MIS’s focus on management and the maintenance of existing systems is appropriate to current fiscal realities, this focus should not create a disincentive to plan large-scale projects where they are justified. One possible resolution to this problem that Klein suggests would be to counter the potential to disadvantage large-scale projects by conducting the MIS on two tracks: One would follow a fiscally constrained path, while the other would follow an unconstrained “vision” path.

Finally, Klein notes that it is imperative that MIS not work at cross purposes with NEPA, as well as other federal requirements, or add a redundant layer of bureaucracy to the review process. At the most extreme level, the two processes may be in legal conflict with each other. In order to better coordinate MIS and NEPA, Klein suggests incorporating MIS into the environmental review process itself, whereby MIS would serve as the first step in the environmental review process, prior to the DEIS and FEIS.

Ultimately, Klein notes that many of the potential challenges to MIS are due to the relative rigor and newness of the process. In large measure, resolution can be expected as greater experience with the process develops. To expedite this process, she suggests that local experiences should be shared beyond their respective regions, and that FTA and FHWA should catalog best-cases and other information to help regions taking on an MIS. In the final analysis, the value of MIS depends on the agenda of the region employing it. As she remarks, the MIS requirement probably will not greatly change practices in regions where there is no established interest in MIS’s underlying principles, but it does offer greater opportunities to leverage them where there is a critical level of interest and some additional justification is necessary.

Following her general evaluation of the MIS requirement as a tool for federal policy, Klein then turns to an analysis of MIS as applied to the local level—specifically, she looks at the role MIS is

likely to play in planning the proposed extensions for *Tren Urbano* in San Juan, Puerto Rico. She begins by providing a history of *Tren Urbano* and the transportation context of San Juan, as well as a review of the proposed extensions. She identifies the following four potential extensions: (1) a short extension of Phase I to Minillas (identified as Phase IA) just north of the Phase I terminal, (2) an extension to Carolina, (3) an extension to Old San Juan, and (4) an extension to the Airport.

Klein notes that the application of the MIS process to the proposed *Tren Urbano* extensions offers to strengthen local planning and, at the same time, introduces new complexities. In addition, political and institutional factors unique to Puerto Rico help to simplify the process in San Juan. One simplifying factor is that the transportation planning and implementing agencies in Puerto Rico are centralized under the Secretary of Transportation, who heads the Department of Transportation and Public Works (DTOP), which has authority over the Puerto Rico Highway and Transportation Authority (PRHTA) and the Metropolitan Bus Authority (AMA). PRHTA also acts as the MPO for the San Juan region. Furthermore, the multimodal nature of PRHTA makes it particularly well-suited to leading the MIS process. Additionally, since San Juan is an attainment area for all National Ambient Air Quality Standards, San Juan need not worry about how MIS relates to air quality conformity.

Klein identifies several opportunities presented to San Juan by the MIS process, including the opportunity to set extension priorities; scan for corridors which may have been overlooked (she identifies three possible corridors to examine: (1) serving Carolina via PR-26 from the Airport, (2) a parallel extension to the current Phase I serving Plaza Las Americas and terminating in the vicinity of Centro Medico, a southern extension to Caguas); identify the full range of technologies to be considered (including heavy rail, light rail, regional rail, or bus) and to rework highway plans for corridors which overlap the proposed *Tren Urbano* extensions (she cites the Carolina-PR-3/PR-66 corridor as an example).

Klein argues that prior to the actual MIS process, pre-MIS analysis will also allow planner to gather and process information in a forum which is not highly public. The intent, she argues, is not to hide information, as most of it will eventually become public during the MIS process; rather, the less public pre-MIS analysis may facilitate more effective management of the MISs by directing attention to the most viable alternatives in the MISs themselves. Klein adds that the

pre-MIS analysis can also be useful for addressing system planning issues which span multiple corridors and thus do not fit neatly into the MIS framework.

Klein argues that the flexibility and broad outreach of MIS gives *Tren Urbano* the opportunity to build a considerable constituency and range of support for the system. This is particularly important given the political context of transportation in San Juan. MIS offers an opportunity to include the Planning Board, which has control over land use planning and could thus direct efforts to reserve right-of-way or otherwise shape land uses to anticipate rail extension, to participate in the study. Likewise, by promising consideration of local and non-transportation goals, Klein argues that the mayors of the affected municipalities are likely to be more involved in the planning process. As a result, it ought to be possible to anticipate and address the mayors' individual concerns in a way which reduces the need for public displays of political power at the later stages of the planning process when it could erode support for the preferred alternative. More of a challenge, however, will be gaining support from the nine municipalities in the San Juan region not directly served by *Tren Urbano*. Likewise, it is unclear at what level publico drivers will choose to involve themselves in the process—an important factor given the importance of publicos to the entire transportation system in San Juan.

Other concerns for Klein include getting and sustaining public participation in a region without much history of public involvement. Particularly in this context, there is also a tension regarding when to initiate the MIS process for each corridor: While it is most cost effective to conduct simultaneous MISs, this strategy runs the considerable risk of creating public expectations that will not be realized in the near future.

Other questions that, according to Klein, need to be resolved include the question of what should constitute a specific corridor (*e.g.* should the Airport and Old San Juan extensions be considered one corridor or two?), and how can the MIS process be framed so as not to give the appearance of having prejudged what the preferred alternative should be?

Having looked at the application of the MIS process to San Juan, Klein then works back outward, with a reflection on how what the MIS process in San Juan illustrates about the MIS requirement at the general level. She argues that the San Juan case illustrates linkages between the policy and planning sides of the MIS process by showing that the local planning opportunities offered by MIS are directly related to those areas where the requirement shows the most promise as a policy

tool and that many of the policy concerns have impacts at the planning level. She argues that, as borne out by the San Juan case, the most useful aspects of MIS seem to be its emphasis on collaboration among agencies and its legitimization of the use of broad goals and objectives in evaluating alternatives. Also, the San Juan case illustrates potential problem areas in initiating MIS—however, as described in her recommendation for San Juan, many of these concerns can be addressed through modification to the MIS requirement while leaving the basic structure intact.

Klein concludes with a note on reauthorization of ISTEA. This section is now mostly irrelevant, however, following the passage of TEA-21 this year (1998).