

APPENDIX II
Range of Current Practice

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Appendix II: Range of Current Practice

This technical memorandum summarizes the results of a survey of State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) conducted to identify recent and ongoing uses of expert panels in base-case land use projections for travel demand forecasting or for analyzing the land use impacts of transportation projects. What follows is a summary information gained from the survey of current practice. It is followed by a matrix that shows how each expert panel study fits into criteria developed for case study selection.

Results from Survey of State DOTs and MPOs

This section provides summary information about the studies identified during the Task 1 survey of current practice. Some of the studies occurred quite some time in the past and have already been well documented. They are included here in order to provide an overview of what has been done. Other studies are currently underway or just beginning. For each, we describe the purpose, the manner in which experts were identified, the process of analysis, the process for conclusion, and, whether or not we recommend that it be considered as case study material.

New Hampshire: I-93

Scoping is underway for this study which is likely to begin shortly. It is being carried out by the New Hampshire DOT.

Purpose

The purpose of this study, which looks at an 18-mile corridor of I-93 from the Massachusetts state line to the I-93/I-293 interchange in Manchester, will be to analyze the secondary land use impacts for the project's Environmental Impact Statement (EIS). It is planned that the panel will be given two scenarios to consider (highway widening and a no-build).

How Identified Experts

Preliminary planning calls for an oversight committee to work in conjunction with the project's consultants to identify individuals to serve on a panel of approximately 15 members. The panel will likely include people such as developers, lenders, land use planners, academics, and individuals with longstanding familiarity of the study area.

Analysis Process

As the project is currently scoped, the panel will carry out its work in two phases. The first will involve identifying the location secondary land use impacts. The analyses will be presented and discussed during the first panel meeting, during which it is hoped that the panel will reach some level of consensus. The second phase is planned to include two rounds that will address the type and magnitude of land use impacts.

Process for Conclusion

Two rounds of question/response/feedback are planned and third round may be added if it is felt necessary. Consensus is hoped for but not required.

Recommend for Case Study?

Yes. This expert panel process meets the criteria and offers a unique opportunity to follow its progress.

Maryland: I-270/US 15

This expert panel study began in late January of this year and is being facilitated by Parsons Brinckerhoff. It was initiated by the Maryland State Highway Administration (SHA) and is part of a larger study of the corridor that has been underway since 1994.

Purpose

The purpose is to allocate household and employment forecasts to zones for three different transportation scenarios in Frederick and Montgomery Counties and to document secondary and cumulative land use impacts for an EIS.

How Identified Experts

The project's oversight committee, in conjunction with the state highway administration and the panel facilitators, identified local planners, academics, real estate developers, officials from local agencies, and other individuals.

Analysis Process

The panel has been provided with a briefing book that contains comprehensive information on land use, economic, demographic, and transportation issues for the two-county study area. The analysis consists of two phases. During the first phase, panelists are writing a brief memo which describes the general population and employment trends that would likely result from three broad future transportation options ("do nothing," highway emphasis, and rail emphasis). The memos will be summarized and the summaries returned to each panelist prior to a public meeting during which the panelists will discuss their analyses. The second phase involves the allocation of future population and employment to forecast zones according to different transportation scenarios. The results from the first allocation will be summarized and returned to each panelist to provide them an opportunity to revise the initial allocations. Depending on the outcome of the second round, a third round of allocations may be held.

Process for Conclusion

Two rounds of question/response/feedback are scheduled and third round may be added if it is felt necessary. Consensus is hoped for but not required.

Recommend for Case Study?

Yes. Like the New Hampshire study, above, this expert panel process meets each criterion and offers an opportunity to follow its progress.

Maryland: MD 32

This expert panel study is also in process and had its third panel meeting at the end of January 2001. It is sponsored by the Maryland SHA and is part of a larger corridor study begun in 1994.

Purpose

The panel is analyzing the secondary land use impacts, in terms of population and employment, of three transportation options for the two-lane portion of the corridor which runs from Route 108 to I-70 in Western Howard County. The options under consideration are a four-lane, limited-access freeway, a two-lane limited access road, or a “no-build” scenario.

How Identified Experts

The panel consists of nine members, two Carroll County developers, real estate consultants, a planning professor, the president of a non-profit land use organization, and the director of Baltimore Regional Partnership (which represents civic and environmental groups).

Analysis Process

Intended to be a series of three meetings over a period of six to eight weeks, the study has experienced difficulties that have lengthened the process. The SHA had originally intended the meetings to be held behind closed doors, but public pressure has opened them. There has also been confusion over the panel’s charge, that is, whether or not the panel should be addressing the consistency of the alternatives with the state’s Smart Growth policies. Many of these problems have been worked out and the panel is now carrying out an analysis.

Process for Conclusion

It is not yet clear how the process will be concluded.

Recommend for Case Study?

Yes. This expert panel study also meets our criteria and the fact that it has experienced difficulties may provide valuable insight.

Washington: I-5/I-205 North Corridor Study

This study was carried out by Parsons Brinckerhoff for the Washington DOT (WSDOT) in 1999 as part of a larger corridor analysis that is still ongoing.

Purpose

This panel study was initiated analyze the land use and economic development impacts of several proposed highway projects, including a new interchange on I-5 north of the Portland-Vancouver metropolitan area.

How Identified Experts

Individuals with were identified by the consultant in conjunction with WSDOT. The six-member panel included developers, land use consultants, and academics. Half of the panelists were from outside the region and were selected according to their wide-spread knowledge of the issues.

Analysis Process

Panel members, whose identities were unknown to each other until the end of the analysis, were asked to consider the impacts of proposed highway changes on three small communities along the I-5 corridor. Panelists submitted memos to the moderators, who summarized and

redistributed the summaries to each participant. Panelists were then given the opportunity to revise their original analysis.

Process for Conclusion

The number of rounds of analysis was limited in advance to two as the client was not so much seeking consensus as an analysis of the issues. Understanding the areas in which the panelists disagreed was as useful as knowing the issues upon which there was agreement.

Comments

The study was capped by a two-day public forum during which the panel presented its analysis and were questioned by the public.

Recommend for Case Study?

Yes. It meets the criteria and offers several unique features, such as the use of national experts in addition to local ones.

Wisconsin: U.S. Highway 41

This panel study was carried out in 1998 and sponsored by the Wisconsin DOT (WisDOT). The study was done as part of the EIS documentation for the “USH 41 Major Project,” which covered Oconto-Peshigo, Oconto, and Marinette Counties (WisDOT 1998).

Purpose

The purpose was to study the secondary and cumulative impacts of a highway project as part of the EIS documentation. WisDOT provides guidance on carrying out these studies and includes expert panels as one recommended option.

How Identified Experts

Experts were identified using the project mailing list and community leaders. Participants included County board members, business owners, government officials, agency heads, farmers, developers, and residents.

Analysis Process

The panel never met as a group and remained anonymous throughout the process, carrying out their analysis in a series of three “mail-back” surveys. The first survey contained several open-ended questions, the responses to which were used to help develop the second survey. The responses from the second survey were provided to panel members when they received the third and final survey. Members could review the group's second round responses and change their response in the third round of surveys.

A map coloring exercise was also done which was separate from the surveys.

Process for Conclusion

The number of rounds had been determined in advanced.

Recommend for Case Study?

Yes. Wisconsin has a long history of expert panel work. This study was carried out recently and fits the criteria quite well.

Texas: Longview MPO

The Longview MPO carried out its second Delphi Process growth allocation project in 1998 (Parsons Brinckerhoff 1998). The first was conducted in 1992 by the Longview MPO and the Texas Transportation Institute (TTI) and has been documented by TTI in *Research Report 1235-12 – Growth Allocation by the Delphi Process*. The 1998 Delphi was also summarized as part of a report for the Federal Highway Administration.¹ It is likely that Longview will be carrying out another Delphi in about one year.

Purpose

The purpose of the Longview's expert panels are to allocate the area's projected population and employment growth for the year 2015 to 219 traffic analysis zones.

How Identified Experts

The 1992 Growth Allocation Committee consisted of twenty-six members drawn from the following groups:

- Development Professionals: Planners and Engineers (6)
- Local Elected Officials and MPO Members (8)
- Land Development Industry Representatives: Realtors and Developers (6)
- Employers: Basic, Retail and Service Sectors (5)
- Bankers (1)

The 1998 Growth Allocation Panel was composed of 42 members and included individuals from the following groups:

- Development Professionals: Planners and Engineers (6)
- Local Elected Officials and MPO Members (16)
- Land Development Industry Representative: Realtors and Developers (8)
- Employers: Basic, Retail and Service Sectors (7)
- Bankers (5)

Analysis Process

Each member of the panel was provided with background information which included population and employment forecasts, a map of recent building permit activity, maps of available land, and basic census data from the GIS system. Prior to the allocation exercises, the panel filled out a survey regarding their general level of knowledge about the Longview area.

Growth allocations were then carried out using a series of four rounds of questionnaires. During rounds 1 and 2, panelists provided a growth potential rating for each of six districts. TTI staff converted the growth potential ratings to numbers using a set of equations. Following the second round, it was determined that the panel responses had not changed statistically, indicating that

¹ *Land Use Forecasting Case Studies: A Synthesis and Summary*, Prepared by Parsons Brinckerhoff for the Federal Highway Administration, U. S. Department of Transportation, June 2000.

consensus had been reached. Rounds 3 and 4 followed a similar process except that allocations were made to smaller, area-level zones.

Process for Conclusion

Consensus was defined using a statistical test that measured whether or not panel responses had changed significantly.

Comments

According to Longview MPO staff, the land use forecasts using this methodology are of high quality. Growth in the Longview MPO appears to be occurring in the locations in which it was forecasted in the 1992 process (Parsons Brinckerhoff 1998).

Recommend for Case Study?

No. The two expert panel processes have been documented in the literature.

Wisconsin: Dane County Regional Planning

This process was carried out in 1997 by the Dane County Regional Planning Commission in cooperation with the Citizens for a Better Environment.

Purpose

The panel was used to provide land use forecasts as well as a forecast of the impacts of several transportation projects on land use.

How Identified Experts

Individuals were recruited who were actively involved in land use decisions, developers, financial people and consultants. All were well-known in the region.

Analysis Process

The moderators held an all-day workshop during which the panel broke into groups of three people each. Using current land use maps and a set of stickers representing future land use demand for employment, low density housing and medium density housing, the small groups allocated growth by putting the stickers on the maps. Following a group discussion, the small groups held another round during which they revised their initial allocations. During this round, the panel also considered how their allocation would be changed if certain highways were not expanded.

Process for Conclusion

The panel reached conclusions through discussion, although time constraints limited the ability to reach a consensus.

Recommend for Case Study?

Yes. Although it does not fully meet the criterion of carrying out individual analyses, the variation could provide a useful contrast.

Michigan: Tri-County Regional Planning Commission

This expert panel study was carried out in the late 1980s by the Tri-County Regional Planning Commission in Michigan. While it does not directly deal with base case land use forecasts or impact analysis, it is an interesting application of the process.

Purpose

The purpose of this study was to the expert panel method to develop a transportation risk and consequence analysis for a hazardous materials transportation routing problem.

Two panels were convened. The first panel assessed emergency preparedness and response factors for each link in a hazmat transportation network. It also derived the relative weights to be given to each factor in the consequence portion of the analysis. A second panel assessed the relative impacts of a chlorine spill on wetlands associated with each link in the network.

How Identified Experts

Since the first two elements (emergency response factors and factor weights) were specific to the township being analyzed, the first panel was composed of police and fire “first responders” for the township, who were solicited through the township's police and fire chiefs with the assistance of their local emergency planning committee.

Experts in wetlands, water resources, and groundwater were assembled from the Tri-County staff for the second panel.

Deliberation Process

Each panel met and were given instructions on the purpose, method, and procedures to be used and the factors they should consider for their assessment. Panelists were then supplied with plots of the network and asked to rank each link on 0-10 scale independently, with 10 being the greatest risk.

After an initial ranking, panelists were given the opportunity to discuss their rankings, and modify their independent scores based on the discussion, if they deemed it appropriate. Scores were then summed and averaged for each link. A similar method was also applied to assess weights given to each factor in the consequence portion of the analysis.

Process for Conclusion

The average scores were applied as the consensus of the panels.

Recommend for Case Study?

No. The study has been published² and is now too old to carry out a case study.

Wisconsin: Variety of Impact Studies

Following a pilot study described later, four expert panel studies were carried out by the Wisconsin DOT during 1987 and 1988 (WisDOT 1987, 1988a, 1988b, 1988c).

² A paper has been published in *Proceedings of the Third National Conference on Transportation Solutions for Small and Medium Sized Communities*, Burlington, Vermont, October 9– 11, 1991.

Purpose

Each of the panels analyzed the secondary land use impacts of major highway projects, mostly bypasses, near small and moderately sized cities. The following studies were carried out:

- IH-90 to Holmen (US 53);
- Verona Bypass (US 18-151);
- Fort Atkinson Bypass (STH 26); and,
- Shawano Bypass (STH 29).

How Identified Experts

Staff from WisDOT, from both the relevant regional office and from WisDOT's Bureau of Policy Planning and Analysis, identified local citizens, officials, and business people for participation on the panels. In the case of Ft. Atkinson, WisDOT staff enlisted the assistance of city staff to identify participants. As is often the case, several panelists agree to participate and subsequently drop out of the process. The figures below represent the number of panelists who completed the primary portion of the study.

Number of Panelists:

- IH-90 to Holmen: 35
- Verona: 19
- Fort Atkinson: 25
- Shawano: 25

Analysis Process

All four of the studies operated similarly, with mail-back surveys and map coloring exercises. Each survey asked panelists to consider the impacts in the year 2010 of proposed highway projects using four questions about numerous community features (e.g., population, traffic congestion, housing, employment, tax base, and public parks). The identity of panel members remained anonymous throughout the studies. The number rounds in each study is shown below.

Number of Rounds:

- IH-90 to Holmen: Two rounds on 59 features. The second round addressed the 28 features upon which no consensus was reached in the first round.
- Verona Bypass: Three rounds had been anticipated which addressed 15 community features. The third round was called off due to problems with participation in the first two.
- Fort Atkinson Bypass: Three rounds on 15 features.
- Shawano Bypass: Three rounds on 21 features

Each of the four studies used similar criteria to determine whether or not panelists were in agreement. For a given community feature, consensus would occur if: 1) a proportion of panelists were in agreement that an impact would occur, 2) those in agreement agree on the direction of impact, and, 3) there was general agreement regarding the magnitude of direction.

Process for Conclusion

The number of iterations was predetermined, as described above.

Recommend for Case Study?

No. Enough years have passed to make a case study difficult.

Wisconsin: Validation Exercise

This expert panel study was carried out by the Center for Urban Transportation Studies at the University of Wisconsin, Milwaukee, for WisDOT, in the mid-1980s (Mulligan and Horowitz 1986).

Purpose

The panel was brought together to carry out an exercise to validate the expert panel method, particularly in terms of its usefulness for medium-sized cities.

The panel reviewed 1965 data for two Wisconsin cities (Sheboygan and Wisconsin Rapids) and were asked to predict land use and economic development changes that had occurred over the subsequent 20 years, from a 1965 perspective.

The transportation project for Sheboygan was a bypass west of the central city. For Wisconsin Rapids, the project included the widening of a rural road and a bridge addition that provided a bypass to the community.

How Identified Experts

Individuals were recruited who did *not* have familiarity with the areas in question so that they would not be influenced by development trends since 1965. Thirteen panelists were selected, including individuals from WisDOT, academia, the planning profession, and a real estate developer.

Analysis Process

Panelists were given descriptions of both cities, including information on size, government, economics, and employment locations.

Two rounds were held, the first in person and the second as a mail-back survey. The panel was asked to evaluate the impact of the transportation projects on 31 features in each community (e.g. employment, population, average work-trip lengths, congestion, aesthetics, and land values).

Process for Conclusion

The number of rounds was pre-determined as described above.

Comments

The moderators found that the results from the expert panels were fairly close to actual development, as determined by an evaluation panel that was recruited to analyze the results of the expert panel.

A larger report is also available for this study (Alan J. Horowitz, et al. *Assessment of Land-Use Impacts of Highways in Small Urban Areas*, Center for Urban Transportation Studies, July 1985).

Recommend for Case Study?

No. This study is quite old and the results have been published.

Wisconsin: 1986 Pilot Study

In 1984, WisDOT began to identify and refine reliable methods for carrying out secondary land use impact analyses for major highway projects. To that end, it carried out a pilot study from

September 1985 to October 1986 which looked at three methods: expert panels, computer-based modeling, and “quick response checklists” (WisDOT 1986).

Purpose

This study was carried out to evaluate techniques for analyzing the secondary land use impacts of highway projects. Three case study sites were selected:

1. The construction of a new highway and bridge in Eau Claire;
2. A Bypass around West Bend (US 45); and,
3. A highway expansion in the Wausau area, which included a bypass.

How Identified Experts

In conjunction with the respective district offices, WisDOT’s Division of Planning and Budget identified individuals with expertise in development patterns and land use issues through the use of interviews with “opinion leaders.” The Eau Claire, West Bend, and Wausau panels had 12, 17, and 30 members, respectively.

The panels were distinguished by the proportion of panelists drawn from the private sector (42 percent, 24 percent, and 53 percent, respectively) and representation of town officials (none, 4, and 6, respectively).

Analysis Process

The process was carried out entirely by mail-back surveys. The first round elicited the panel’s assessment of the possible impacts to numerous “community features” in categories such as population, housing, employment, traffic, property values, land use control, and quality of life. This round also included a map coloring exercise for each area.

A second round of surveys was carried out for Eau Claire and Wausau although not for West Bend. For Wausau, the panel was given summaries from the first round and asked to re-assess the impacts to only those community features about which the facilitators judged the panel was not in agreement. For Eau Claire, the second round surveys covered all the original features and a second round of map coloring was held as well.

All three expert panel studies concluded with an open workshop meeting, which included a discussion of the survey results. In Eau Claire and Wausau, the meeting included the division into small workgroups in order to develop final land use impact maps.

Process for Conclusion

The number of iterations was predetermined, as described above.

Comments

This pilot study also included carrying out an analysis using the Highway Land Use Forecasting Model (HLFM) for the Eau Claire study area. WisDOT notes that the results from this model, “taken at face value, appear to be generally compatible with the conclusions reach by the expert panel” (pg. 30).

Recommend for Case Study?

No. Enough years have passed to make a case study difficult.

New Mexico: Albuquerque, Middle Rio Grande COG

This expert panel study was carried out during the 1980s (Bajpai 1990).

Purpose

The purpose was to provide projections of future land use to be used in travel forecasts for the Albuquerque area.

How Identified Experts

The panel, called the Socioeconomic Forecast Task Group, included staff from the COG as well as private sector representatives.

Analysis Process

Each panel member assigned an “attractiveness index” to 22 superzones, for each of three development types (residential, industrial, and other) The index, with a scale of zero to ten, represents all of the factors that influence development in that zone. A value of zero indicates that there is no development potential while a score of ten indicates an almost certain probability of development.

Process for Conclusion

The assignments were carried out in a series of three votes, at which time convergence (defined as an average of all votes within a range of plus or minus 2.0), was attained. The average of these numbers became the attractiveness index which was used to allocate population and employment to each zone. The staff apportioned the allocations to traffic analysis zones using a set of equations.

Recommend for Case Study?

No. The study is quite old and has been documented in a 1990 NCRHP Report (328).

Other Studies

Many studies have been carried out which have used some form of panel, many of which can be characterized as advisory committees, review panels, or some sort of facilitated group process. During the survey of current practice, we heard from MPOs and State DOTs that have used such panels and, although we do not recommend them for case study work, we include a brief description of each, below.

Oregon: I-5 Trade Corridor Study

The Oregon and Washington State Departments of Transportation are currently undertaking a bi-state analysis of the I-5 corridor. Part of the two-year study will include a regional land use assessment which will focus on the land use impacts of adding capacity to the I-5 corridor. A committee is being called together to carry out this analysis, which is appointed by a Governor's task force. The analysis will be carried out by a group which will include local elected officials, real estate developers, and representatives from land use interest groups and the process will consist of open and facilitated discussion.

Arizona: Maricopa COG

The Maricopa COG is carrying out a series of four panel discussions in order to examine external factors and trends that or will affect transportation needs and investment priorities in the region. Each panel will consist of three or four members, including one or two from outside of the Phoenix region chosen for his or her knowledge of national trends (as well as to provide an outsider's perspective). Four issue areas will be addressed: 1) the new economy, technology, and modes of travel; 2) demographics and social change; 3) land use and urban development; and, 4) environment and resources. The COG's consultant will use the information gleaned from the discussions in order to create issue papers which will discuss potential impacts on transportation planning, policy, funding, and demand. Each of the half-day forums will include presentations by panelists, open discussions, and questions from the audience.

Colorado: Department of Transportation

The Colorado State DOT has formed a steering committee which will oversee a research project which looks at the relationship between land use and transit ridership. The purpose of the research is to identify transportation and land use components that support regional passenger rail service. CDOT has selected participants from the local MPO, a transportation management organization, city planning, the state Smart Growth office, and transit provider. The panel's charge is to select and oversee the work of a consultant who will carry out the research. The panel will meet on a monthly basis and is expected to reach decisions through consensus.

Alaska: Denali National Park

The Alaska State DOT has established a group of property owners and other local stakeholders to discuss and provide input for a project on the Park Highway at the entrance to Denali National Park. The group will assist in the development of a project design that will seek to improve pedestrian safety, access control, and the aesthetics of the road and adjoining property. The group meets on a regular basis and, working with a facilitator, will attempt to reach consensus agreements.

Montana: Department of Transportation

The Montana State DOT has used a group of experts to determine base-case land use projections for travel demand forecasting in three local planning processes: Butte (1995), Billings (1998), and Bozeman (2000). The panel represented various groups within each community which could be expected to have knowledge of where significant land-use changes could occur in the future. Panelists included a representative from the public works office, school district, power company, phone company, and the local planning office. The panels met as a group and carried out their work through open discussions.

Connecticut: Base Case Forecasting, Different Areas

The Connecticut State DOT, which no longer uses computer models for land use forecasting, employs a consensus-building group process to develop base-case land use forecasts. The group is comprised of individuals from State Departments of Health, Labor, and Motor Vehicles, the State DOT, 15 regional, and 169 local governments.

Florida: Model Task Force

The Florida Model Task Force, which is charged with establishing policy guidelines, recommending enhancements to existing practices, and adopting statewide applications, is comprised of individuals from the Florida State DOT, MPOs, and other federal, state, and local agencies. The panels meet through teleconferences as well as in person and attempt to reach decisions by consensus or by voting.

Maryland: Route 301

This study, carried out by the Maryland SHA in the early to mid-1990s, was originally intended to function much like the expert panels as defined in this study. The panel, which had been charged with allocating regional population and employment estimates to a transportation analysis zone level, was not able to agree with the overall regional population and job allocations. Instead, the panel opted to change the context population and job projections to reflect a much lower job growth in the District of Columbia and a much higher one in the outer counties. The staff subsequently did the detailed work of figuring out how these allocations might change at the zone level.

Ohio: Toledo COG

This panel study was carried several years ago out by the local MPO in order to develop land use projections for the regional travel model. The panel, consisting of 15 to 20 people, was used to develop Land Use projections for use in the 2025 Regional Transportation Plan Update. It was also intended to generate broad based involvement in the development of the projections and "buy in" by local stakeholders. Individuals with a stake in land use and regular experience in the development field were recruited to serve on the panel. A group facilitator worked to develop a consensus on the projections during two half-day sessions.

Arizona: Yuma MPO

This study was carried out by the Yuma, Arizona MPO to develop land use forecasts in order to recalibrate a travel model. The MPO formed a panel comprised of 9 to 11 citizen and agency representatives which served as an advisory committee to consultants involved with the study.

North Carolina: Wilmington MPO

The Wilmington MPO established a group of experts in order to identify the development potential of traffic analysis zones for its travel modeling process. The panel, comprised of local land use planners, as well as an employee of a local development firm, identified the attractiveness of each zone by rating several factors. The panel met once to generate the ratings and did not attempt to reach consensus. The ratings were used by MPO staff to create an index for each zone.

North Carolina: Piedmont Triad COG

This study, carried out in the early 1990s, involved three MPOs which were working together for the first time in order to analyze different growth scenarios as part of a regional transportation planning effort. This effort included travel model survey work and validation, along with tasks to establish a process for regional planning. Several committees were involved, which included a broad cross-section of interest groups and agencies. These committees provided advisory and oversight functions.

Matrix of Expert Panel Studies

The matrix below shows how each of the expert panel studies identified in the survey compare to criteria developed for selecting case study applications. The criteria are:

- The panel consists of a diverse group of individuals;
- Each panel member has equal access to high quality information;
- Each panelist carries out his or her own analysis;
- Each analysis is shared with the rest of the panel (usually anonymously); and,
- Panelists have an opportunity to revise their initial analysis after reviewing other panelist's findings.

These features served as the primary criteria for the case studies selection, in addition to the following:

- The panel was conducted recently enough to make a case study feasible; and,
- The results of the panel are not widely published.

The first five criteria above address the way in which the panel functioned and have been condensed into the first two columns below. That is, in selecting case studies for recommendation, we are most concerned with identifying panels composed of a diverse mix of individuals in which each panelist carries out his or her individual analysis, followed by an opportunity for each to review the other's work and revise his or her own. Six studies meet these criteria. The final two criteria address how long ago the study was carried out and whether or not the results were published. Six studies were either too old, had been widely published, or both. Finally, there were twelve studies that used panels more closely resembling oversight committees and review panels.

✓ = Yes, X = No

	Diverse Panel	Individual Analysis and Revision	Recent Analysis	Results Have Not Been Published	Recommended for Case Study
New Hampshire: I-93	✓	✓	✓	✓	✓
Maryland: I-270/US 15	✓	✓	✓	✓	✓
Maryland: MD 32	✓	✓	✓	✓	✓
Washington: I-5/I-205 North Corridor Study	✓	✓	✓	✓	✓
Wisconsin: U.S. Highway 41	✓	✓	✓	✓	✓
Texas: Longview MPO	✓	✓	X	X	X
Wisconsin: Dane County Regional Planning	✓	✓*	✓	✓	✓
Michigan: Tri-County Reg. Planning Comm.	✓	✓	X	X	X
Wisconsin: Variety of Impact Studies	✓	✓	X	✓	X
Wisconsin: Validation Exercise	✓	✓	X	✓	X
Wisconsin: 1986 Pilot Study	✓	✓	X	✓	X
New Mexico: Albuquerque, Middle Rio Grande COG	✓	✓	X	X	X

	Diverse Panel	Individual Analysis and Revision	Recent Analysis	Results Have Not Been Published	Recommended for Case Study
Oregon: I-5 Trade Corridor Study	✓	X	✓	✓	X
Montana: DOT	✓	X	✓	✓	X
Arizona: Maricopa COG	✓	X	✓	✓	X
Colorado: State DOT	X	X	✓	✓	X
Alaska: Denali National Park	✓	X	✓	✓	X
Connecticut: Base Case Forecasting, Different Areas	X	X	✓	✓	X
Florida: Model Task Force	X	X	✓	✓	X
Maryland, Route 301	✓	X	✓	✓	X
Arizona: Yuma MPO	✓	X	✓	X	X
Ohio: Toledo COG	✓	X	✓	✓	X
North Carolina: Wilmington	✓	X	X	✓	X
North Carolina: Piedmont Triad COG	✓	X	X	X	X

*The analysis was carried out in small groups and were revised subsequent to a large group discussion.

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