EconWorks Expert Task Group 2017 Q4 Meeting Minutes

Tuesday, December 12, 2017 • 9:00 – 3:30 PM Eastern

American Association of State Highway and Transportation Officials Office

444 N Capitol St. NW – Room 381 - Washington, DC 20001

Call in: 866-203-7023 Code 8980060415

ATTENDEES (in Bold):

Members	Liaisons & Others
• **Alan Dybing, *North Dakota State University*** • **Mac Hughes-Cromwick, *American Public Transportation Association*** • **Ben Gruswitz, *Delaware Valley Regional Planning Commission*** • **Kelly Gwin, *Georgia DOT*** • **Jeff Harris, *Utah DOT*** • **Bill Keyrouze, *Association of Metropolitan Planning Organizations*** • Subrat Mahapatra, *Maryland State Highway Administration* • Sebastian Montagne, *North Carolina DOT* • **Ben Orsbon, *South Dakota DOT*** • **Steve Polzin, *University of South Florida*** • **Eric Randall, *Metropolitan Washington Council of Governments*** • **Joseph Schofer, *Northwestern University*** • **David Schwartz, *Kansas DOT*** • Jeff Sudmeier, *Colorado DOT* • Kevin Verre, *Nevada DOT*	• **Mara Campbell, *CH2M*** • Ryan Endorf, *Federal Highway Administration* • **Brian Gardner, *Federal Highway Administration*** • **Steve Fitzroy, *Economic Development Research Group, Inc.*** • **Lei Zhang, *University of Maryland*** • **Eirini Kastrouni, *University of Maryland*** • **Cui Qingbin, *University of Maryland*** • **Paul Schonfeld, *University of Maryland*** • **Dorothy Parnian, *University of Maryland*** • **Rahil Saeedi, *University of Maryland*** • **Liana Montoya, *University of Maryland*** • **Matthew Hardy, *AASHTO*** • Pam Hutton*, AASHTO* • **Stefan Natzke, *Federal Highway Administration*** • **Jen Smoker, CH2M** • **Valentin Vulov, *Federal Highway Administration***

Summary of Topics

1. Welcome and Rollcall
2. Review Agenda
3. FHWA-Volpe Webinar Activity Report
4. University of Maryland Update
5. Update and Functionality of Web Based Tools
6. Long Term Approach for EconWorks
7. Final Questions/Topics
8. Wrap-up and Adjourn

SUMMARY

1. Welcome and Rollcall – Matt Hardy

Matt Hardy welcomed everyone to the last face to face meeting of the ETG as well as those who were participating via conference call. He thanked them in advance for their participation as today was going to be a critical meeting to ensure the successful next steps for EconWorks.

2. Review Agenda – Matt Hardy

Matt invited all the participants to introduce themselves both in person and on the phone line. Matt prefaced the meeting reminding participants that SHRP2 funds would be ending in November 2018 and the EconWorks product would need a new way to remain sustainable. He outlined the agenda for the face to face meeting, gave housekeeping tips including fire drill instuctions (which were used later that morning). He then introduced Brian Gardner, FHWA, and turned the meeting over to him to allow him to give his presentation on EconWorks participation and active engagement activity report.

3. FHWA/Volpe Webinar Activity Report – Brian Gardner

Brian thanked Matt for the opportunity to present Volpe's analysis of email bulleting interaction and webinar participation with EconWorks this year. He began by showing results of emails sent to announce new resources, upcoming webinars, and other information relevant for users of EconWorks. His graphs and diagrams are posted on the slides. Brian then discussed webinar registrant data and information derived from registration to the EconWorks Volpe webinars. More data was also presented on webinar participants from information obtained during the in-webinar polling conducted by the EconWorks team.

Highlights of the data included:

- MPO's generally showed the most interest;
- Titles given by participants varied so there were a significant number of people who did not fit the measured categories
- 54% of the State DOT's were represented in participation.
- Participants generally liked the webinars and were positive about the self-based training although there was no polling of people who may have watched the recorded webinars at a later date.

Matt thanked Brian for the update and presentation. He opened the conversation up to the ETG members for comments and questions. Everyone appreciated the input and found the information to be useful and informative as they move forward with EconWorks.

4. University of Maryland Update – Eirini Kastrouni and Lei Zhang

Matt introduced Lei Zhang of University of Maryland (UMD) who then introduced the University of Maryland team. Lei gave opening remarks and set the stage for how UMD has completed the 20 case studies as well as the curriculum development. He then invited various members of his team to present different parts of the presentation.

Lei began by reviewing the Project Objectives UMD focused on. They have developed a more complete EconWorks database by selecting and conducting appropriate Case Studies. The meta analysis tool will be updated after new Case Studies are added. They are creating an EconWorks Program within the National Transportation Center at the University of Maryland for institutional knowledge, information exchange, training in Case Study development, and ex-post analysis. UMD is committed to fostering the scholarly inquiry needed to keep the U.S. at the forefront of ex-post and case-based research for the interactions between transportation investment and economic development. Lei showed how the project remains on time using the task schedule matrix. UMD has completed the addition of the 20 new Case Studies to the database, developed their course modules to enable faculty to teach EconWorks to students with relative ease, and prepared interactive, how-to training materials for practitioners. They are looking forward to seeing these applied.

As an update to the Case Study work, Lei reviewed the valuable feedback provided by the ETG regarding project selection which included the following:

- ✓ to maintain balance between reinforcing and expanding certain database categories;
- ✓ to understand the EconWorks target audience and users (to focus on small and medium sized projects that do not require a separate Economic Impact Analysis),
- ✓ to work with interested agencies who want to incorporate EconWorks into their practice, and
- ✓ to ensure selected Case Studies do not create additional gaps.

He reviewed the sources where Case Studies were found and clarified the definition of projects considered Currently Eligible as able to be immediately pursued for development as well as Currently Ineligible as those outside the scope (Mega-Projects), too soon from their opening date or incompatible with current project types (thereby creating new empty cells in the database).

He noted the selection criteria for Case Studies including those most likely to be used for by DOTs, MPOs, smaller-sized projects particularly in underrepresented project types (Transit/Intermodal), projects representing national geographic coverage, those that will fill currently empty cells, projects that include Public-Private Partnerships (P3s), and those that show increasing density in application-rich project categories. He then reviewed the current matrix and what is represented.

Lei introduced Eirini Kastrouni, who continued the presentation outlining some of the obstacles they had to overcome during case study development. The most challenging aspect of Case Study development has been outreach with hard to identify points of contact for older projects, frequent employee turnover due to retirement and/or relocation, and the strong need for a local champion to facilitate the Case Study data gathering process.
In conducting interviews, they learned it was important to understand the field of knowledge of the interviewee and ask the right questions; utilize each interviewee's connections to identify the next suitable person to be interviewed; properly assess the amount of time required to collect the necessary information; and understand the time to be allocated on job-related questions and research. Regarding the data collection, UMD found it is harder to obtain consistent data for projects built prior to 2000; tax- and business-related data have been the hardest to obtain in a consistent fashion; and local-level data has been challenging to collect (data availability issues for smaller cities/towns).

Eirini then expressed some of the lessons learned from the Case Study development and analysis. They are as follows:

1. There is a significant importance of exploring the connection, but the connection does not necessarily exist between some employment growth and transportation improvements [Pioneer Crossing];

2. Projects need to be combined with supporting land use policies and investment incentives to have the best impacts;
3. Even small-scale transportation projects can have significant impacts on the economy when cities invest in long-term planning and provide the right business development incentives [Veterans Memorial Drive];
4. A transportation project that is mainly pursued in response to existing demand does not have as much of an economic impact as a project that is pursued based on forecasted future demand;
5. In the absence of supporting policies and long-term economic development planning, business development takes longer than expected to happen;
6. Completing a project in phases as funding becomes available can have negative impacts on public perception and economic development.

UMD continued discussing several of the Case Studies in depth. Members of the ETG were keen to discuss the data presented on jobs and various ways that data was or could be analyzed or interpreted from the Case Study reports. There was consensus that a more uniformed and consistent way to describe the jobs and report them was necessary to reduce confusion and build credibility with the case study documentation.

Paul Schonfeld and Dorothy Parnian along with Lei presented the development of the UMD educational materials, course modules, and a specific training formats of both the undergraduate course on the Case Study tool and meta-analysis tool, and the graduate module on the wider economic benefit tool. They specified how the EconWorks training would instruct students as well as train them to understand and analyze the potential economic impacts of a given project. They spent time discussing how students would be guided to develop their own Case Studies (which with oversight could potentially lead to submission-worthy material for the EconWorks Case Study database). Dorothy demonstrated the characteristics of the current training modules as they apply to adult learners and there was some discussion of how to adapt the videos to keep adult learners engaged.

After a fire alarm and early lunch break, the group returned to a conversation on steps moving forward to improve the current EconWorks database. UMD suggested new Case Study development should include a minimum of 3 Case Studies per category and there was discussion on whether to focus on poorly-represented project categories for expansion versus already represented categories for depth of data as both are needed.

Future development of additional modules for undergraduate and graduate courses and continuing professional education courses should include:

- ✓ Expande the course materials with additional undergraduate and graduate modules that cover case study development and EconWorks suite of tools use (case study and wide economic benefit tools);
- ✓ provide guidance on using EconWorks to help estimate the effects of proposed projects;
- ✓ present the theoretical background and quantitative relations used in EconWorks for estimating economic effects of transportation projects;
- ✓ provide additional guidance on anticipating and overcoming various difficulties in the preparation of new EconWorks cases; and
- ✓ provide guidance on using data from previously developed EconWorks cases in analyzing new transportation projects and assessing the effects of previously implemented projects.

UMD presented a comprehensive plan for where and how to insert EconWorks curriculum into current and future education programs both in undergraduate and graduate courses. They outlined where each module could fit. They also proposed regional one day training workshops and blended learning courses.

Questions and Discussion:

- It was noted the relationship between land use and transit system planning makes a significant difference in the economic impacts that accrue from investments in transit. There needs to be a clear relationship between land use policy and investment incentives.
- Members discussed light rail projects as 'low hanging fruit' and questioned the added value of street car projects. Outcomes are important to consider when using cases as examples for future planning so good and bad examples have value. Street car projects often have issues so past lessons learned will help future project consideration.
- There was some discussion around the acceptable amount of variation when adding multiple projects to a cell. Members encouraged UMD to consider the metrics within each cell – particularly regarding transit projects. Variances in cells may show a need for more cases.
- If there are areas where there is uncertainty (autonomous vehicle impact for example) it is important to provide evidence based policy decision making. For example, TSMO would also provide a high impact without construction and might need to be considered as an option.
- It was noted that there are now double the number of Case Studies to analyze and show where concurrent issues are being addressed.
- Thoughtful analysis across case studies is valuable and worth the resources to enable seeing results from a high level. Using statistical analysis, it is possible the sample size would inhibit a broader view. The Meta analysis is applied in collapsing categories and there will be broader lessons learned ex post analysis in 3-4 months. Meta analysis will be looked at when recalibrating the tool. Consistency in Case Study analysis will distinguish new economic benefits from redistributed benefits (taken from another region or location within a region). End users want to know the impacts on specific communities so there needs to be a disclaimer of the possibility of redistribution since these are not wide spread regional analyses. It needs to be clear that the Case Study shows hard evidence of benefits from the specific project to the local area.
- Wisdom must accompany knowledge in appreciating the complexity of the analysis and managing expectations of the tool. Planning and development are important together to show economic benefits.
- The types of output are important and it should be clear that these Case Studies are focused on transportation. It was reiterated that it is so important to find the right person to interview and to promote the Case Study. People in small communities who can consult on past projects can be difficult to find.
- The framework for adding Case Studies will remain consistent with PlanWorks.
- There was a conversation around identifying Case Studies that are diverse and not just collecting success stories that communities want to emphasize.
- Steve clarified that the dollar values are adjusted but the narratives are not.
- The group spent time discussing the Case Study job number assessments. In small communities UMD had to rely on locals for job data. Types of jobs need to be identified as a direct or otherwise related to the project. There must be care in representing job numbers clearly as people will interpret what they see and will need very clear explanations of what is being proposed.

- Jeff Harris of Utah DOT stated that the jobs numbers were a distracting turn off and would be questioned by future DOT users. It was suggested that the focus of economic benefits be broader than just the job category.
- Participants discussed the training and how best to market the materials. It was recommended that the self-directed training be divided into shorter segments.
- The participants encouraged not overselling EconWorks, as it's not as comprehensive as other software available, but clearly make the possibilities understood. Both tools should be clearly defined so people can consider a variety of uses as stand-alone and as incorporated into other tools. It would be helpful to articulate the broader applications for users.

5. Update and Functionality of Web Based Tools – Steve Fitzroy

Matt then thanked the UMD team for their great contribution to EconWorks. He then introduced Steve Fitroy, EDR Group, to give an update of the WEB based tools that are underway. Steve began his presentation by reviewing how the Analysis tools have helped DOTs/MPOs use real data to analyze economic benefits for project decision making. These tools uncover the economic returns for transportation investments. The current tools have some distinctive requirements that may be potential barriers to users. The fact that users must download the tools and accompanying user guide, therefore leaving the website may be a major negative for the potential users. There are four tools currently in the Wider Economic Benefits (WEB) system. Following the priority directions of the ETG, EDR plans to redesign them, convert them to a WEB-based system, provide a better user interface – one that guides the user through the process and does not require downloading of spreadsheets, and integrate the results of computations prepared by users automatically into an accounting framework, hence eliminating one of the spreadsheets provided in the current set of spreadsheets. Since many of the WEB tools require inputting, a lot of the same information and data would be used to create the desired outputs. The tools will be interconnected. EDR anticipates that one of the largest benefits of taking the tools from Excel-based to WEB-based is being able to use the data in multiple tools. EconWorks provides these tools and other tools through an updated and robust EconWorks website that currently houses all four Analysis tools, plus 130 case studies. The transition will provide an interactive and responsive web based format that is consistent with the design, look and feel of the current case study database.

The specific tasks required for the conversion include:

1. initial coordination, development of system architecture,
2. design of user-facing interfaces for each tool, input requirements, reports and output, programming of background computations, verification of results, updating of documentation, and
3. integration and testing within the EconWorks operating system.

The process will allow updates to the documentation including: revised documentation to address re-designed input requirements, instructions for log-in and use of tools, guidance on how to save, copy and recall past work, updated instructions for use of accounting tool, updated screen shots and images to reflect revised graphics, revised designs and screens in documentation, new screens showing data entry process for each tool, and technical documentation for use by future site administrators. The project is scheduled to be finished by the end of March 2018.

Steve spent time explaining the benefits of hosting EconWorks tools on an embedded iframe protocol. Use of an application program interface (API) to help users incorporate EconWorks into their other tools was discussed, but is not part of the current implementation plan. He then showed new data input, display and output using screen shots of the prototypes developed for the reprogrammed WEB tools, and walked through how the tools would be accessed and applied. He included alerts and fail-safe processes that would direct users when they were potentially applying the tools incorrectly for their desired outcomes.

Questions and Discussion:

- ETG members were very excited about the progress and believes this transition will enable more users – and be much more user friendly.
- It was noted that through marketing efforts and on the website, it needs to be clear what "tools" are available and the "new" data saving functionality. Having to reenter data every time was a significant inconvenience, so this feature should be extremely compelling.
- Members asked to consider including design tweaks (such as providing spreadsheets to support data entry) and ways to support sensitivity testing for "power users" who want to test multiple options or scenarios based on alternative sets of assumptions.
- Everyone was asked to provide input on the set up and functionality.

6. Long Term Approach for EconWorks – Matt Hardy

Matt thanked Steve for the work and reminded the ETG that input is needed soon, as they hope to get the WEB tools up and running by Spring 2018. He then facilitated a conversation on next steps with the ETG as well as EconWorks. Matt updated the ETG by saying he has received great interest from the Standing Committee on Planning to establish a pooled fund to continue EconWorks and case study development. He commented that the states must buy in to the benefits and take ownership of EconWorks Pooled Fund Study for success moving forward. This fall, he presented each state DOT with a consideration to keep EconWorks going – with participation being $20,000 over 5 years ($4,000 per year) and FHWA has committed $100,000 – (approximately $20,000 per year). The ETG would finish their role as official ETG members after the Spring conference call, but would serve as a resource to the Pooled Fund Members.

Questions and Discussion:

- A member inquired about the actuary costs to produce a case study – the rate of new Case Study development is anticipated to be 6-8 new Case Studies per year at a price of about $15,000 per Case Study and an expense of $20,000 per year to host the web site.

- A member inquired about refreshing cells in the database, namely, if there is a clear notion of what people are doing -- can resources be focused on refreshing cells to make the Case Study Database more focused with more depth. This is discussed and would be something ultimately the Pooled Fund Members would have to direct.

- A member suggested the group consider what might be soon available (in terms of tools similar to EconWorks) in the private sector. Everyone discussed this and agreed that regardless of the tools, the Case Studies are unique to anything the market is developing and would not soon become obsolete.

- It is important to work to embed this philosophy into all university programs "how to think like this". UMD wants to collaborate as much as possible with other UTCs to facilitate this change in culture and thinking of transportation students. They will consider reaching out to Colorado and Utah to consider a more formal collaboration going forward.

- It was confirmed upon questioning that EconWorks for the time being will remain grouped with PlanWorks and TravelWorks.

- APTA and AMPO suggested they might also contribute to a Pooled Fund with the states to support the future of EconWorks.

- UMD was given a few suggestions for more data collection including working with TIGER Projects although that federal data is often difficult to obtain.

7. Final Questions/Topics
Matt thanked everyone for their participation and asked the ETG members if there were any additional questions or topics they would like to discuss. None were elevated.

8. Wrap-up and Adjourn
Matt suggested the next and final wrap of call for this ETG would be in Spring. (Confirmed for Tuesday, March 27th 1:00 EST).

NEXT STEPS/ACTION ITEMS
- CH2M will post presentations and will distribute minutes, save the date, and any further follow up.
- CH2M will email ETG:
    - To review Web Based Tools screens from Steve's presentation and provide feedback.
    - To get the course material uploaded for ETG input/comment.
- Next ETG Conference Call will be Tuesday, March 27, 1:00-2:00 EST.

Meeting Materials
- ETG Meeting Agenda
- Slides of Meeting Presentations