

## Hints for writing a successful paper for the TRB Public Transportation Planning and Development Committee (AP025)

Every year the TRB transit planning committee receives a large number of papers that report on research progress. The committee encourages development of the state of the art in transit planning and offers these hints as ways to present your research in the best way possible. Over time, we have observed issues that often come up in the review process that affect the paper outcome. Based on that experience, we have identified some common problems and compiled some hints for better papers that can be used when conducting your research and reporting the results.

### Literature review

All research reviewed by the committee needs a good literature review. Failure to do this is usually a fatal flaw. At a minimum consult past work published and/or presented by TRB and TCRP before setting off. Each is easy to search. They will lead you to other material that will help you in your research. Copies of TRB publications are usually available at universities affiliated with TRB, and government agencies that oversee transportation such as a Ministry of Transport or state Department of Transportation. Individual papers published in the TRR are accessible online to authors of papers being prepared for consideration for presentation and/or publication by TRB. New research should build on the insights and experience of past work. Do not look only at material that appears on the internet. Useful work has been done pre-internet; an effort should be made to go back to look to see if there has been something relevant to your research.

### Only a case study ("show and tell")

We can learn a lot from a good case study of how a service or procedure has been implemented, but a paper about it should be more than just a description of what you did. Look for lessons learned from your case study that can be applied to other places, look for techniques that can be generalized, and make the paper useful to people in other places that may have similar problems.

### Big model, little application

Theoretical work to optimize such things as network design of nodes and links, route spacing, stop location, feeder services and the like will use complex models that take multiple pages and equations to explain. Bear in mind that this work can be a challenge to some reviewers and take special effort to explain the model assumptions and constraints in simple terms. It is especially important to have a realistic example to illustrate how the model works. It is much better to use a real location with larger data to aid in understanding how the model can work in complex situations. If you wish merely to present the theory behind the model, perhaps TRB Committee AP025 is not the proper venue for your work.

## 48 **Jargon and acronyms**

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50 When we do research we often use shortcuts internally to describe parts of our work.  
51 The problem is that the reviewers of the paper don't know the terms that you use.  
52 Check your paper to make sure that you don't overdo shortcut terms and properly  
53 define them in both the abstract and the paper.

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## 55 **Confusing paper organization**

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57 Be clear how your paper is organized and use headings extensively to lead the reader  
58 through the paper. Although each paper is unique and some may require a different  
59 organization, most papers tend to follow the following sequence:

- 60 • Describe the problem,
- 61 • State your objectives,
- 62 • Review past work and the literature,
- 63 • Describe your approach and assumptions,
- 64 • Describe the data used,
- 65 • Discuss the results and limitations, and
- 66 • Draw conclusions.

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## 68 **Conclusions are too broad**

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70 Be very careful that your conclusions are fully supported by your work and avoid  
71 speculation as to why the results are what they are. Papers get poor reviews when the  
72 authors take their results and speculate too far into what the research means. Stick to  
73 the facts that the research demonstrates. Make sure the conclusions you draw are  
74 backed up by the actual analysis and not speculation. Check the title of the paper and  
75 the abstract to be sure that they are not too general and accurately reflect what you  
76 actually did.

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## 78 **Language issues**

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80 The committee receives papers from throughout the world. This is great in that we can  
81 learn much from people in different situations. However, authors need to bear in mind  
82 that the language used by TRB is English and a simple translation can lead to an  
83 awkward presentation. This can get in the way of a review as it can take considerable  
84 effort to understand what has been done. It is very useful to have a native speaker of  
85 English and/or technical editor to look at the paper to clarify the language.

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## 87 **Ridership and level of service; Which is cause and which is effect?**

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89 Sometimes research will use data on users, transit service and the community to find  
90 underlying factors that affect transit usage. This may be done using a variety of  
91 approaches. This research typically shows a strong relationship between ridership and  
92 level of service. Thus it is suggested that by increasing the level of service, more  
93 ridership will result. The problem with this conclusion is that transit level of service is  
94 typically set to accommodate the demand for the service; it is an effect of ridership, not

95 its cause. If you are doing any statistical analysis or model fitting, be sure that the  
96 factors you include are truly causal. Understand what is a cause and what is an effect.  
97 It helps to talk about your work with transit agency planning staff to avoid such  
98 problems.

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### 100 **Multiple papers, single topic**

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102 Sometimes the committee sees multiple papers from the same project, sometimes in  
103 the very same year. The first paper is “An approach to ... based on a review of the  
104 literature”, the next paper is “Results from ...”, then another paper “Further results  
105 from...”, etc. In some cases authors have duplicated substantial portions of previous  
106 papers into their next paper. It is recognized that for some people, such as academics,  
107 a long list of publications is desirable. Nonetheless paper reviewers can be skeptical of  
108 this tactic. Make sure that each paper makes a new contribution to the state of the art  
109 and practice.

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### 111 **The mode share myth**

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113 Often papers begin by quoting some general statistics about the role of transit in a  
114 community, that it is “only X% of the trips”. This is usually is a meaningless number that  
115 depends on what one chooses for the denominator. X% of what? All trips at all times  
116 even in areas with no transit services? It affects the credibility of the research and  
117 usually adds nothing to the paper. People who conduct transit research need to  
118 understand that when transit service is targeted to specific areas and/or user groups,  
119 mode shares can be high. What are needed is good transit planning strategies to make  
120 usage even higher in specific markets and for specific market segments.

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