

SOME PROBLEMS WITH ACCESSIBILITY STANDARDS:
A PARTIAL EMPIRICAL TEST FOR WORK, SHOPPING,
AND SCHOOL TRIP STANDARDS: COMMENT

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I applaud the authors' attempts to question rules of thumb which are often developed without much evidence and used with even less discretion. But in addition it is important to consider some of the more important socio-economic changes which have occurred in this country since the promulgation of the accessibility standards in 1948.

Let me cite a few statistics which, even if the standards were valid in 1948, would most certainly them to question in 1972.

First, the tremendous increase in per capita income in the U.S. has resulted in widely expanded auto ownership. In 1950 the U.S. had 1 car for every 3.75 people. Twenty years later, the ratio has changed to 1 car for every 2.3 people. In 1950, about 4 persons in every 10 was a licensed driver. Today nearly 6 out of every 10 is licensed.

This enormous change in importance of the private automobile is reflected in urban population density patterns. In 1950 the average density of urbanized areas in the U.S. was 5,400 persons per square mile. Since that time urbanized density has fallen to about 3,400 persons per square mile, a drop of nearly 40 percent. This decrease is not only a reflection of decreases in density in our central cities but is also a phenomenon of suburban living as well.

These are just a few of the great number of statistics and indicators which clearly point out that the values, goals, and the entire life style of Americans is undergoing rapid and enormous change.

Therefore, assumptions about the desires and needs of Americans for elements such as accessibility need constantly to be questioned for they rapidly become out of date. Assumptions made 25 years ago about the needs and desires of Americans predate the flight to the suburbs and the demise of the central city, the full impact of the automobile and the VA and FHA housing programs, Brown vs. the Board of Education and Dr. Martin Luther King and Watts, and the enormous post-war increase in affluence--I agree then that there is a real need to reexamine rules of thumb in any area dealing with individuals needs and desires.

However, it is my experience that among urban transportation planners, few use or are even aware of the existence of the APHA standards--but that could very well be a result of my own inadequate sample rather than a reflection of the true case. In any case, a documentation of the wideness of use of the APHA standards would certainly improve the importance of this paper. Should the case be as I suspect--that is--less than widespread use of these standards--it may have been more useful for the authors to have gone directly to the development of their own standards, given the obsolescence which has almost certainly crept into the APHA standards. I am encouraged to note that the authors imply that the development of more viable standards may be their next step.

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Having discussed the direction of the study, let's now turn to what I feel are some problems with the work.

At the very first the authors decline to test the AOHA standards against the criteria on which they were based--"avoidance of fatigue, protection from traffic and other accident hazards, and positive encouragement to use the facilities." They contend for instance, that protection from traffic and other accident hazards has little to do with individual desires to be closer or further from destinations. I cannot accept this contention particularly with regard to the elementary school trip. Parents are concerned with the exposure of their children to physical hazards on their way to and from school.

I equally disagree with the suggestion that positive encouragement to use facilities is not directly related to desires to be closer or further.

Instead of using these APHA criteria to test the standards, the authors developed their own criteria. Hence they say, "The paper provides only a partial test of these three accessibility standards, and are based on our own criteria of consumer attitudes toward accessibility rather than the original APHA criteria."

But then I think it is legitimate to ask the question, "What has been shown? --that standards based on APHA criteria are inaccurate because they fail to meet those criteria? Or that standards based on APHA criteria are incorrect because they fail to meet some other criteria which they were not designed to meet? And if the latter is the real hypothesis, has much more been accomplished than the knocking down of one's own straw man?"

However, let us accept the authors' hypotheses and proceed to the survey.

The authors find that only about 17 percent of households violate the work trip standard, 9 percent violate the shopping trip standard, and 6 percent the school trip standard. Of those violating the work standard, about half don't care, and of those violating the shopping and school standard about 70 percent don't care. While these percentages show that a high proportion of those violating the standard are satisfied the data still shows that of the total sample, 91 percent either meet the work trip standard or are not satisfied that they don't; 94 percent either meet the shopping trip standard or are not satisfied that they don't; and 96 percent either meet the school trip standard or are not satisfied that they don't. But then the authors conclude, "In summary, accessibility standards recommended by APHA largely fail to reflect the accessibility desires of the sample..." While the authors say they find too many people who exceed the recommended maximum express no desire to be closer, the finding that only 9 percent, 6 percent, and 4 percent violate the working, shopping, and school trip standards respectively, and are happy about it, denies rather than confirms the authors' conclusions.

I found the sensitivity analysis used at the end of the paper to be particularly useful. I was troubled upon my original reading of the paper with the problems of aggregating 1,476 samples from 43 different cities, and I don't know how many different neighborhoods--ghetto-expensive urban redevelopment--suburban areas--high-rise apartments, etc. The findings that, by and large, the effect of such variables as household location, race, auto ownership, and so forth on accessibility desires is minimal, is most interesting. It is important here to point out, however, that the work trip data was restricted to households with employed heads. This in itself introduces a racial and socio-economic bias, given the wide differences in unemployment rates for selected groups.

In summary, while I encourage the testing of rules of thumb, especially those which are alleged to sit on such weak foundations, improvement in the paper could be made by a better documentation as to the importance of this particular rule of thumb.

Secondly, it seems unfair to test a standard based on certain specific criteria against other criteria not specifically designed for. This restructuring of the criteria, while possibly necessary in view of the data, opens the analysis to serious questions of validity.

Thirdly, the conclusion that the recommended APHA standards fail to reflect desires does not seem to be borne out by the findings--over 90 percent of the sample either fall within the three standards or are not satisfied with their accessibility.