

# Use of various types of data in decision-making: A transportation case study in Seattle, Washington, USA

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Access to outdoor recreation settings can be defined and operationalized in many different ways, including access through transportation methods that enable people to visit recreation areas. This roundtable discussion paper focuses on understanding residents' preferences for a potential transportation method from a major urban setting (the Seattle-Metro area) to the western, more accessible fringes of the Mount Baker-Snoqualmie National Forest (MBS), in the US state of Washington. The study involved a series of quantitative studies, focusing on MBS users and non-users. These themed studies focused on race and ethnicity using constraints and negotiation strategy (Covelli, Burns, Graefe & Dong, 2007), understanding low income users, summer visitors (Burns, Caplinger & Chuprinko, 2013a) and winter visitors (Burns, Caplinger & Chuprinko, 2013b). The current study built upon these previous studies, using a qualitative methodology, to understand access preferences for alternative transportation systems of Seattle-Metro area residents. To develop an effective, efficient alternative transportation system to keep the MBS accessible to a diversifying population in the Seattle-Metro area, managers sought to hold a series of focus group meetings with community members. The primary emphasis for this set of focus group meetings was access to the MBS via potential alternative transportation methods. Participants in three meetings were varied, and included local, interested residents, leaders of non-profit entities (YMCA, Mountains to Sounds Greenway, etc.) and others. Researchers then took several variables into account when determining potential focus group meeting locations. First, the areas should have low survey response rates. Second, the areas should be within an accessible distance to one of the major MBS corridors on which data was collected. A third variable was median household income. This was used in order to seek community members that may be deterred from using the MBS because of financial limitations. Lastly, since a goal of the study was to make the forest accessible to the diverse Seattle population, race and ethnicity also served as determining variables. Once the zip codes were analyzed by the GIS, researchers used data from the King County GIS (KCGIS) Center and City-Data ([www.city-data.com](http://www.city-data.com)) to seek out specific neighborhoods within zip code blocks to hold possible Focus Group meetings. Two zip code blocks yielded a lack of visitor a response. However, upon further investigation these two zip codes were omitted from the list of possible locations because they did not fit the aforementioned criteria. The first zip code block, 98195, was omitted because this zip code was used for the University of Washington campus only. Therefore, this block lacked any form of permanent residence. The second zip code block, 98039, included those residents that reside along the shores of Lake Washington in the Medina community. The median household income in this predominantly white community was over \$175,000.

## Conclusions

The role of transportation was clearly important to all of the participants, and the participants were all in agreement that transportation is merely a method of increasing access to the MBS, and should be considered as such. Much discussion focused on the "social" nature of transportation, or transportation sociology. The group reported several different transportation schemes that had been implemented over the past 10-15 years—all with little success. It is important to realize that people recreating are doing so on their own free will

and on their own free time. Accordingly, these transportation barriers act as constraints for recreating on the MBS. Several transportation specific challenges and potential solutions were identified. Although transportation systems are an integral part of the solution to increasing access, USFS and Forest-scale policies may present a problem. There is a link between transportation and USFS Special Use Permitting (SUP) policies and processes. Much discussion focused on the “social” nature of transportation, or transportation sociology. The group reported several different transportation schemes that had been implemented over the past 10-15 years—all with little success. It is important to realize that people recreating are doing so on their own free will, on their own free time. The three major constraints for recreation are lack of money, lack of time, and transportation. A person may be willing to ride a bus to work, or a car pool to work, even if it is a cold and crowded bus, or if it is a van pool that runs at an inconvenient time...but people will not accept these conditions to participate in outdoor recreation. If we address only the infrastructural issues related to transportation, we may lose sight of the overall goal—to increase use of the MBS through increasing access with alternative transportation systems. An understanding and adherence to this simple process shows that transportation plays a huge role in the outdoor recreation experience. It is incumbent upon recreation resource managers and researchers to continue pushing for more access for all US residents to achieve a high quality recreation experience.

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## References

- Burns, R.C., Caplinger, C., and Chuprinko, T. (2013). 2012 Mount Baker-Snoqualmie National Forest Alternative Transportation Summer Survey. Submitted to USDA Forest Service, Region 6, Mount Baker-Snoqualmie National Forest, 78 pages.
- Burns, R.C., Caplinger, C., and Chuprinko, T. (2013). 2012-2013 Mount Baker-Snoqualmie National Forest Alternative Transportation Winter Survey. Submitted to USDA Forest Service, Region 6, Mount Baker-Snoqualmie National Forest, 55 pages.
- Covelli, E., Burns, R. C., Graefe, A., and Dong, E. (2007). Perceived constraints by non-traditional users on the Mt. Baker-Snoqualmie National Forest. Proceedings of the 2006 Northeastern Recreation Research Symposium. General Technical Report NRS-P-14; (pp 422-429). Bolton Landing, NY. Newton Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 613 p.