

Transportation Demand Management Research KNOWLEDGE PAPER

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Our Destination—Exceptional Quality of Life

What We Know:

Like many Transportation Demand Management (TDM) agencies across America, Arlington County Commuter Services (ACCS) has been viewed as a necessary part of the County's transportation system—the communications and services “software” that made the transportation “hardware” (extensive road and transit infrastructure, pedestrian and bicycle-friendly environment) work. For many, this “connection” just made sense, and it wasn't necessary, or perhaps even possible, for

ACCS to document a direct return on investment beyond quantifying the number employer-based TDM programs it managed or Metrocheck tickets it disseminated.

While County stakeholders were comfortable with the group's performance based on its considerable volume of activities or outputs, ACCS leadership wanted more. They took a bold step to quantify the direct

impact TDM programs have on the County—to reposition and elevate the perceived role and importance TDM played in Arlington County. This was accomplished by building a resident research-inspired model of how transportation services and mobility (and *de*

facto, ACCS) affected the overall quality of life of Arlington County residents. Using a standard 15-minute County-wide resident survey, coupled with multivariate analyses of the resulting data, ACCS documented the relationship between citizen's ratings of their quality of life and their satisfaction with the transportation system, and the relationship between positive ratings of the transportation system and maintaining access and mobility.

Multivariate analysis is a standard analytical technique that allows researchers to examine data in more depth than can be obtained from basic survey cross-tabulations. Multivariate analysis seeks to identify relationships among multiple variables or factors. It can identify the primary drivers of specific attitudes, perceptions, or behaviors. It affords a way to identify any “underlying” dimensions or themes in perceptions and behavior.

A 2006 Study of Arlington County residents found that they are quite satisfied with their quality of life as 88% rated it a 4 or 5 on a scale of 1 to 5 (with 5 being the highest). Respondents were asked to rate a dozen or so quality of life attributes including employment, recreation, housing, access to healthcare, and transportation system services. Six out of the twelve attributes were found to have a direct “causal link” to the high quality of life ratings. Once the statistical relationship was established between citizen's ratings of



Walkability and easy access to public transportation contribute to the high quality of life in Ballston.



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their quality of life with their satisfaction of Arlington County's transportation system, ACCS' research team uncovered the predominate drivers of resident satisfaction with transportation—the relative unrestricted freedom to go anywhere in the County at any time—access/mobility.

While many of the citizens across the Washington Metro area find their mobility constrained by sprawling suburban residential developments totally dependent on vehicular travel, Arlington County residents find getting around Arlington—their *access/mobility*—relatively much easier. The more residents appreciated this “mobility benefit” of living in the County, the higher their level of satisfaction with the County's transportation system. In turn, the more residents' were satisfied with their transportation system, the higher they rated their satisfaction with their quality of life. Using a multiple regression, it was determined that for every point increase in the rating of “transportation system and services,” overall quality of life ratings increases

by 0.078 (a statistically significant amount compared to other measures).

As part of the County's agency responsible for transportation, this information put ACCS in the driver's seat. ACCS promotes mass transit, walking, biking, carpooling, vanpooling, telecommuting, and other options that reduce the demand for vehicular travel, lessen congestion and air pollution, and ultimately improve accessibility and mobility within the County. With this causal model linking access and mobility with transportation system satisfaction and transportation satisfaction with quality of life ratings, ACCS can rightfully claim it plays a direct and meaningful role in protecting and enhancing Arlington County's residents' quality of life.

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This type of research study can help every TDM-agency demonstrate with unassailable evidence the real contribution TDM makes to the quality of life in their respective region. This, in turn, can elevate the importance of TDM in transportation planning and help to direct required funding to make even a bigger impact in the future.



Rosslyn is an important transportation hub for Arlington residents, visitors and commuters.



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