

### APPLYING GEODEMOGRAPHIC MARKET RESEARCH TO TRAFFIC SAFETY

Safety is, and always has been, a hard product to sell. As NHTSA becomes ever more successful in reaching a greater proportion of the population, additional gains become ever more difficult. We're left with the "hard core" unsafe drivers -- those for whom general messages have had little impact.

NHTSA has recently acquired a market research tool called geodemographics to help reach these high risk driving populations. Geodemographics links demographic and lifestyle data with different geographic units. By knowing the zip code of drivers involved in crashes, we can find out who our target audience is, where they live, and what their lives are like, and begin to develop strategies on how to reach them.

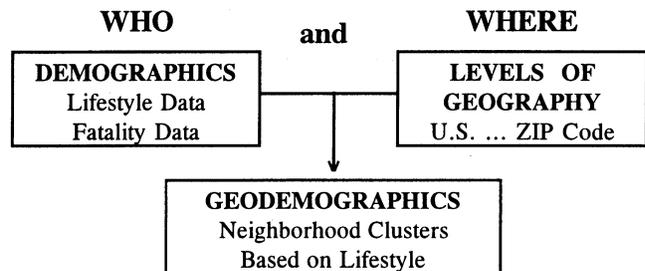
This tool was developed by the private sector to sell its products to specific audiences. It is what car companies and soft drink companies, for example, use to target young vs. old, or rural vs. urban populations. It provides information which can allow NHTSA to learn more about the underlying attitudes and beliefs of specific target groups, as well as their communication and behavioral styles, without having to collect additional data. This information can be used to guide development of messages and choices of delivery channels to reach these groups more effectively.

Geodemographics is based on a simple concept. People generally like to live in neighborhoods that are most congenial to them. The old saying "birds of a feather flock together" appears to be true for people when they make their decision about they will live. Demographically similar neighborhoods tend to share the same lifestyle patterns, no matter where they are geographically located.

The system begins with WHO, in the form of neighborhood characteristics. These are characteristics of the population of interest. They

are derived from demographic data from the Census Bureau, private sector surveys of lifestyle characteristics, consumer product preferences, media preferences, and NHTSA's fatality data.

#### GEODEMOGRAPHICS *"You Are Where You Live"*



WHO is merged with WHERE. These are geographic boundaries, reflecting where populations of interest live. Geodemographics provides data from the national level all the way down to the zip code level, with metropolitan statistical areas, states, and counties in between.

Demographic and lifestyle data (WHO) merge with geographic boundaries (WHERE) to define and locate all similar communities in the U.S. and assign them to homogeneous clusters sharing similar demographic characteristics, consuming habits, values, lifestyles, and political beliefs. These clusters are statistically developed and exhibit predictable behavior patterns.

Each of the more than 35,000 zip codes in the United States, for example, is sorted into one of 40 clusters representing different demographic, socio-economic, and lifestyle characteristics. The 40 clusters also can be grouped into 12 social groups of 3-4 clusters each to make the system easier to apply.





Each of the 12 social groups fall into one of four broad geographic types: Urban, Suburban, Town and Rural. Most of NHTSA's analyses employ the 12 social groups to characterize populations of interest. These groups are named "S1" for the most affluent suburban group or "U3" for the least affluent urban group and so on.

Market researchers have learned that what appeals to one population subgroup (affluent suburban, for instance) will not necessarily appeal to another (poor rural). Messages geared toward affluent suburbanites, therefore, have to keep the lifestyles of this subgroup in mind.

The Office of Program Development and Evaluation is using geodemographics to analyze the profile of various populations of drivers involved in crashes, using databases that contain both safety information and zip code, such as the Fatal Accident Reporting System (FARS) for fatality data or the General Estimate System for injury data. These analyses use zip codes from the driver's license, thus reflecting the driver's residence rather than the location of the crash.

Preliminary findings of drivers involved in fatal crashes from FARS show that drivers from poor rural zip codes are more likely than would be expected, based on their overall population, to be

involved in a fatal crash. Conversely, drivers from the more affluent suburban and urban zip codes are less likely than would be expected to be involved in a fatal crash. NHTSA has long known that fatal crashes tend to occur on rural roads. The geodemographic profile indicates that rural drivers are involved in these crashes, not urban or suburban drivers traveling on rural roads.

With the cluster profile of any population, geodemographics can provide information on the lifestyle, media preferences, and magazine readership that typically characterize households within that particular population. The poor rural population, for example, tends to be less educated than the more affluent suburban population. This information can help NHTSA develop program strategies and highway safety messages that are better tailored for those who need them.

Future issues of *TRAFFIC TECH* will describe how geodemographics have been applied to specific target populations identified from FARS, and the results of these analyses.

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