**17. Motor Vehicle Accident Mortality In Appalachia**

Fatalities due to motor vehicle accidents have declined significantly since 1970. (Pickle et al, 1996) This decline may be at least partially attributable to improved vehicle safety, roadways, and emergency medical care, as well as improved public awareness regarding vehicular hazard, safer speed limits. However, fatalities due to motor vehicle injuries are still one of the leading causes of death among young adult and motor vehicle death rates are generally much higher for men than women. The gender disparity in motor vehicle death rates has been partially attributed to the fact that men generally drive more frequently than women and are more likely to engage in risky driving behavior. This is especially true of younger men (DHHS, 1999).

Some factors that have been associated with motor vehicle deaths include age (either young or old), vehicle and roadway characteristics, aggressive driving, and use of alcohol and/or drugs (Ibid.). Geographic variability in rate of motor vehicle death rates has been documented (Pickle et al, 1996). Higher motor vehicle death rates have been shown to exist in the Southeastern U.S. and in some areas of the Western U.S., with significant variability occurring among race/ethnic, gender, and age categories.

In this analysis we examine motor vehicle death rates among white and black men and women in two age groups; ages 35 to 64 and 65 and older. These age groups were chosen to be consistent with death rates for other causes used in this analysis. The maps presented in this section demonstrate considerable geographic variability in motor vehicle death rates among Appalachian counties. County level maps of motor vehicle death rates are presented for of black and white men and women for two age categories; 35 to 64 and 65 and older.

Both in the Appalachian region and the non-Appalachian U.S., death rates attributable to motor vehicle rank fifth among white men ages 35 to 64 and ninth among women ages 35 to 64 (Figure 6 – Section I). In Appalachia, the motor vehicle death rate ranks seventh among black men ages 35 to 64 and eighth among younger black men in the non-Appalachian U.S. Motor vehicle death rates rank last among black women ages 35 to 64 in both the Appalachian and non-Appalachian regions as well as among all elderly demographic groups.

**County-level Rates Motor Vehicle Mortality in Appalachia**

County level rates of mortality from motor vehicle are shown on pages 105-108. County-level motor vehicle death rates range from 11 to 62 death per 100,000 among white men ages 35 to 64, from 18 to 102 deaths per 100,000 among elderly white men, from 14 to 86 deaths per 100,000 among black men ages 35 to 64, from 49 to 72 deaths per 100,000 among elderly black men, 5 to 27 deaths per 100,000 among white women ages 35 to 64, from 9 to 42 deaths per 100,000 among elderly white women, from 10 to 34 deaths per 100,000 among black women ages 35 to 64, and from 13 to 16 deaths per 100,000 among elderly black women.

Fairly consistent geographic patterns evident in the distribution of motor vehicle death rates. In general, there appears to be a north-south gradient with higher death rates occurring primarily in the southern portions of the region. Although only a limited number of counties had sufficient data to generate death rates for black subgroups, the north-south gradient appears to hold for all demographic subgroups examined. Consistently high death rates generally occur in East-Central West Virginia, Eastern Kentucky, Northeastern Mississippi, and Northern Alabama.
Smoothed Motor Vehicle Accident Death Rate, 1990-1997

White Men Ages 35 to 64

White Men Ages 65 and Older

Rate per 100,000
- First Quartile (11 - 21)
- Second Quartile (22 - 33)
- Third Quartile (34 - 45)
- Fourth Quartile (46 - 61)
- High Outliers (62 - 80)
- Insufficient Data

Rate per 100,000
- First Quartile (18 - 33)
- Second Quartile (34 - 45)
- Third Quartile (46 - 61)
- Fourth Quartile (62 - 100)
- High Outliers (101 - 100)
- Insufficient Data
Smoothed Motor Vehicle Accident Death Rate, 1990-1997

Black Men Ages 35 to 64

Black Men Ages 65 and Older

Rate per 100,000
- First Quartile (14-31)
- Second Quartile (32-37)
- Third Quartile (38-55)
- Fourth Quartile (56-86)
- Insufficient Data

Rate per 100,000
- First Quartile (40-51)
- Second Quartile (52-63)
- Third Quartile (64-55)
- Fourth Quartile (56-81)
- High Outliers (62-72)
- Insufficient Data