Geographical Influence on Car Restraints and Alcohol (Arizona State Trauma Registry (ASTR) 2012 data)

Motor vehicle trauma (MVT) was the most common cause of injury in 2012 and accounted for 12,526 (38.42%) of cases submitted to ASTR. This fact sheet presents trends seen in MVT geography, alcohol, car restraint use, and costs.

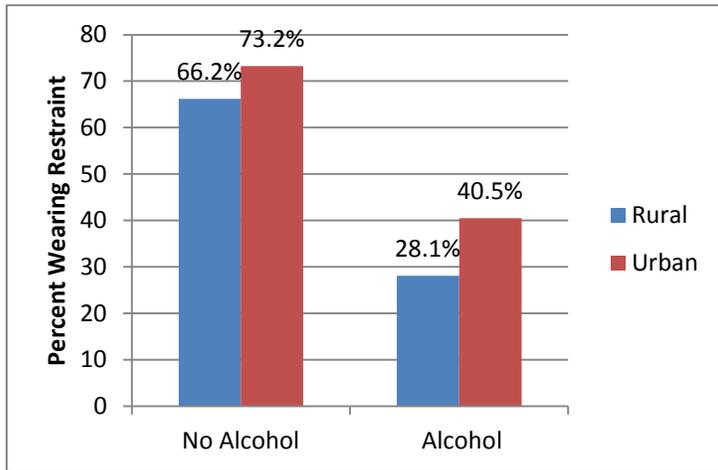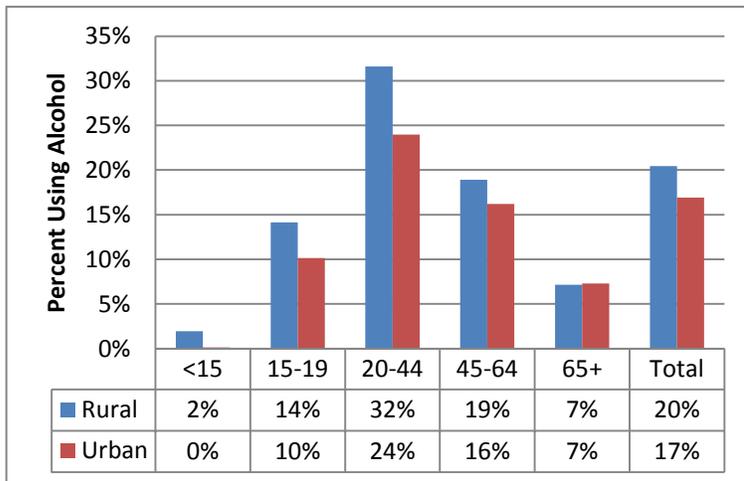### Figure 1: Rural and urban alcohol effects on restraint use

ASTR reported that car restraint use in rural counties (66%) occurred less than in urban ones (73%) while alcohol reduced car restraint use in both (rural 28% and urban 40%).

Trauma patients in rural counties were found to use car restraints less often when driving. Furthermore, car restraint use plummets in rural counties after consuming alcohol.

Figure 2: Alcohol use in occupants of motor vehicle traffic accidents by age

	<15	15-19	20-44	45-64	65+	Total
Rural	2%	14%	32%	19%	7%	20%
Urban	0%	10%	24%	16%	7%	17%

Figure 3: Median Trauma Charges by Restraint Use

Overall, about one in every six MVT-occupants involved in a crash used alcohol. Individuals 20-44 years old in rural areas had the highest proportion of alcohol use compared to all other age groups (Figure 2).

Using a car restraint in an MVT reduced the amount of trauma charges a patient incurred by 22% (Figure 3). Trauma charges increased because of more severe injuries requiring a higher level of care, longer stays in intensive care, rehabilitation, and other factors.

*Alcohol use means suspected or confirmed by the health care provider. Urban counties include Maricopa, Pinal, Pima, and Yuma counties, rural are any not listed. All patients presented to a participating hospital in 2012 and met the ASTR inclusion criteria.
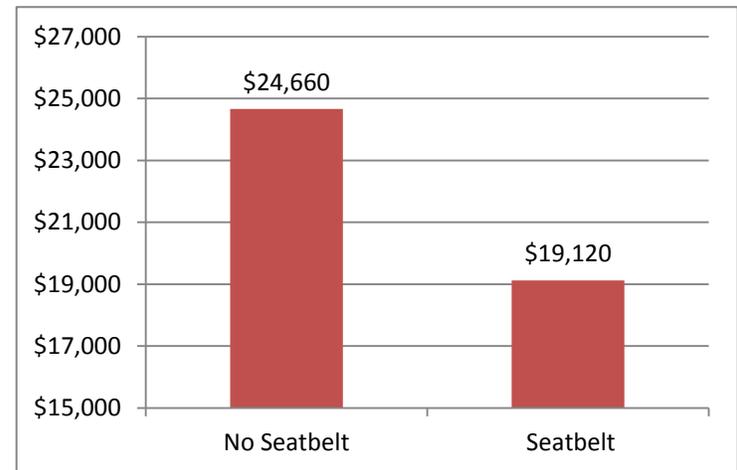
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