

Presented by:

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**ONE SIZE DOES NOT FIT ALL**

# Northern Michigan



## *24 Counties of Northern Michigan*

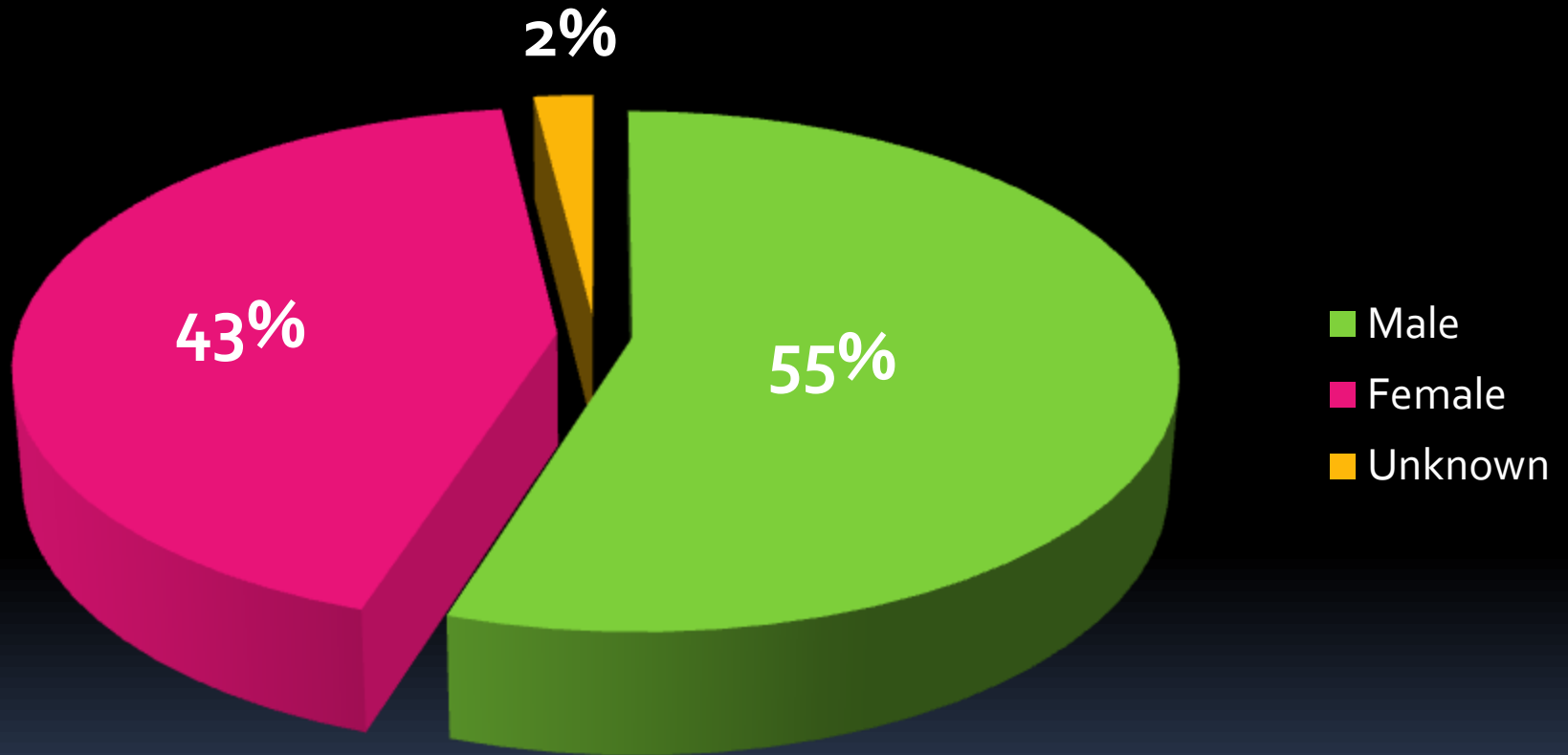
- |                |              |
|----------------|--------------|
| Alcona         | Leelanau     |
| Alpena         | Manistee     |
| Antrim         | Mason        |
| Benzie         | Missaukee    |
| Charlevoix     | Montmorency  |
| Cheboygan      | Ogemaw       |
| Crawford       | Osceola      |
| Emmet          | Oscoda       |
| Grand Traverse | Otsego       |
| Iosco          | Presque Isle |
| Kalkaska       | Roscommon    |
| Lake           | Wexford      |

# Burden of Injury

State of Michigan (83 Counties) Northern Michigan (24 Counties)		Estimated Mileage (Billions)	All Crashes	Injury Crashes	Deaths	Total Crash Rate	Injury Crash Rate	Death Rate
Interstate Routes	State	30.4	36,700	7,515	124	120.7	24.7	.4
	NM	1.9*	870	149	1	<b>457.9</b>	<b>7.8</b>	<b>.5</b>
U.S. & Michigan Roads	State	21.1	89,214	16,674	332	422.8	79.0	1.6
	NM	1.3*	9,397	1,286	44	<b>722.8</b>	<b>98.9</b>	<b>3.3</b>
County & City Roads	State	53.1	198,260	35,361	628	373.4	66.6	1.2
	NM	3.2*	13,493	1,898	38	<b>593.1</b>	<b>59.3</b>	<b>1.2</b>
Total	State	104.6	324,174	59,550	1,084	309.9	56.9	1.04
	NM	6.4	23,760	3,333	83	<b>371.3</b>	<b>52.0</b>	<b>1.3</b>

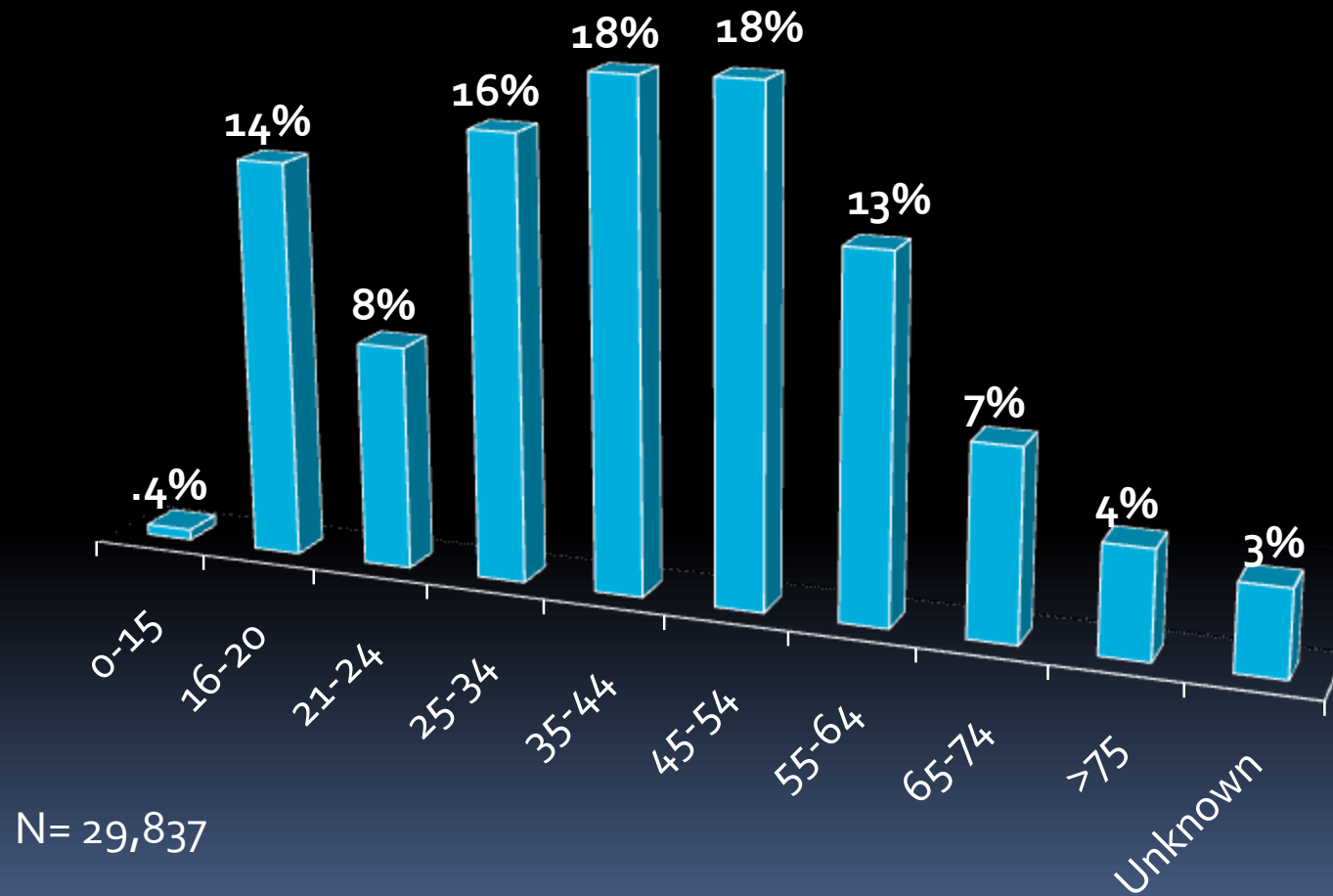
*Table 1* provides a breakdown of estimated vehicle mileage, crashes, death rates (deaths per 100 million vehicle miles), and crash rates (crashes per 100 million vehicle miles) for the major roadway types in Michigan. All rates are lowest on interstate routes. 2007 estimated mileage figures were provided by the Michigan Department of Transportation. \*Northern Michigan data were unavailable through MDOT and have been calculated using estimates of 30, 20 and 50% of 6.4 million TVM.

# Gender Distribution

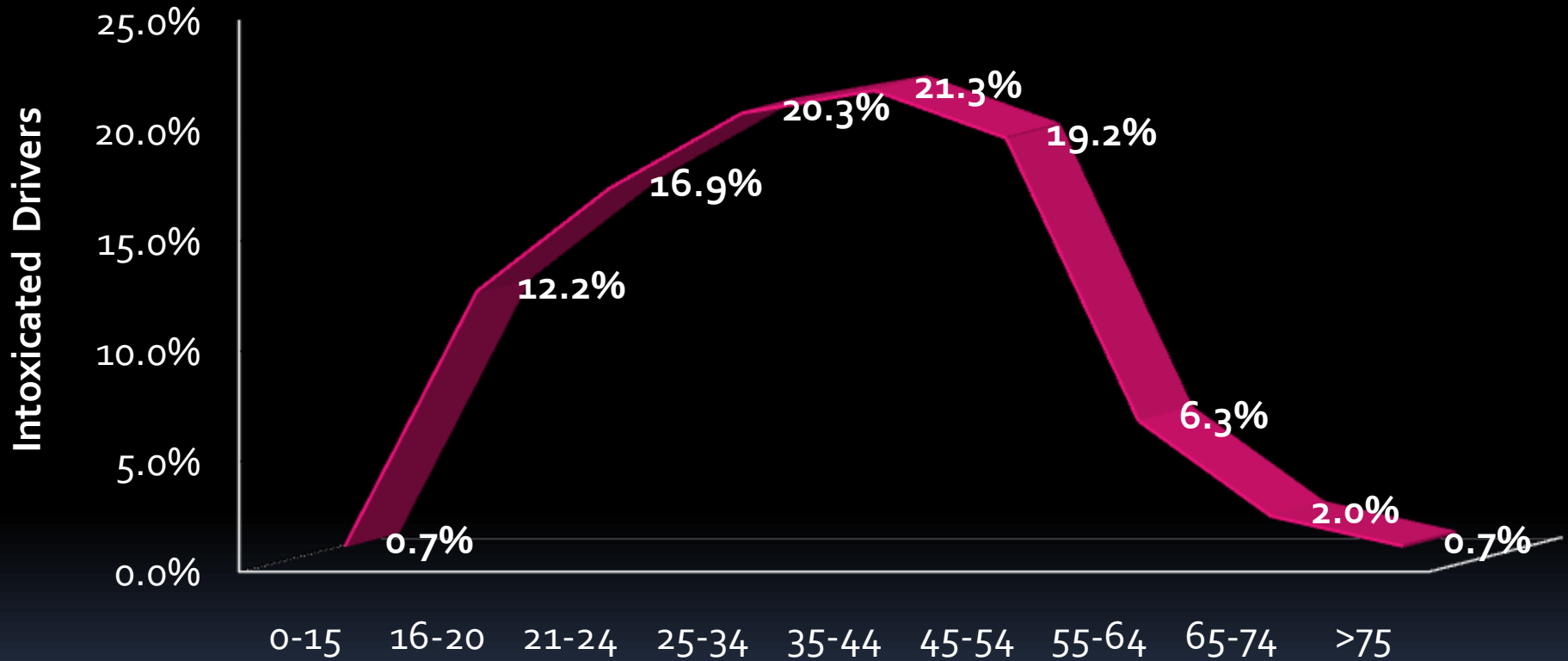


N=29,837

# Age of Drivers Involved in All Crashes

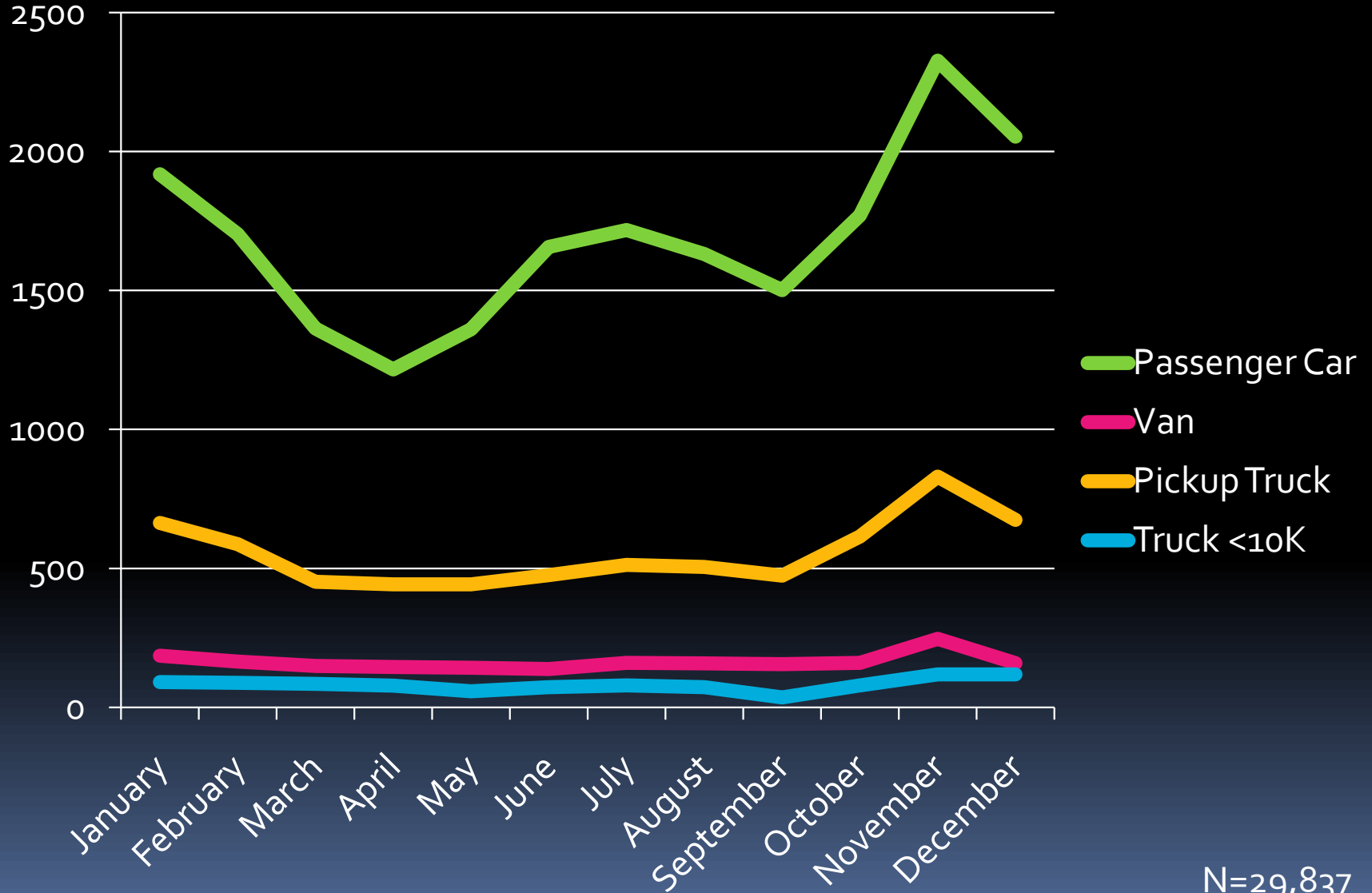


# Age of Drinking Drivers Involved in MVC



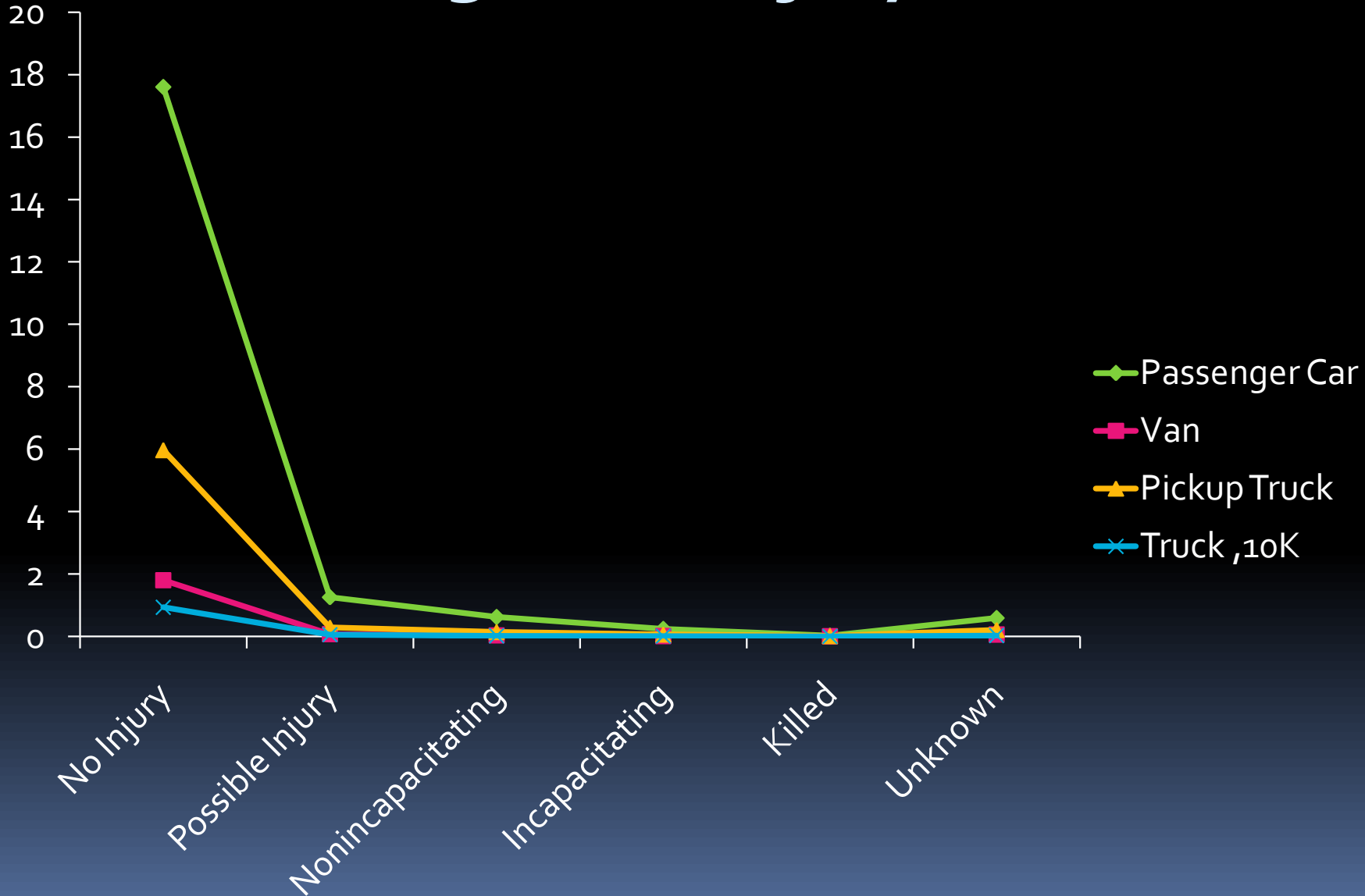
■ n = 882

# Season MVC Trends



N=29,837

# Degree of Injury



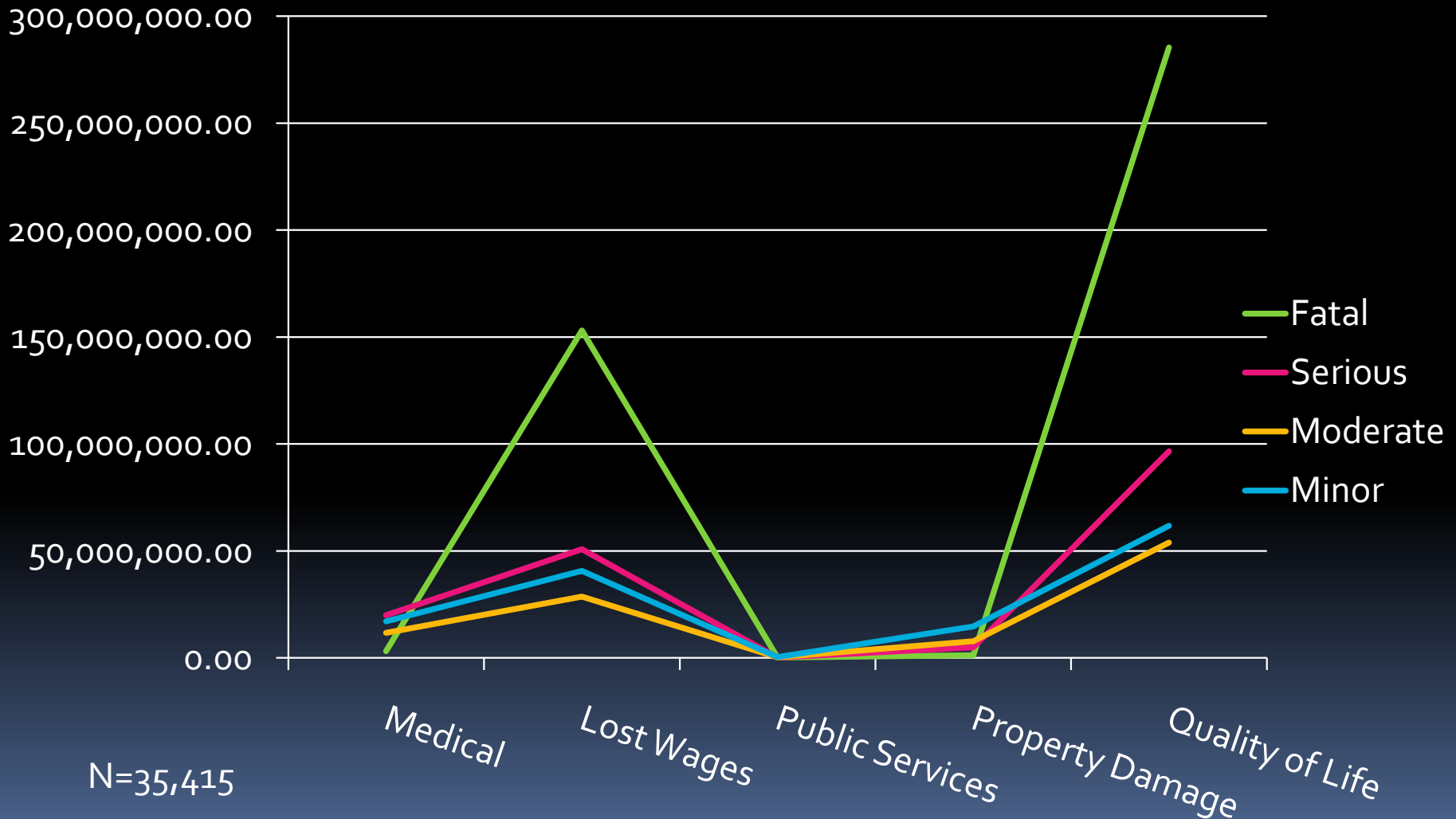


# Annual Cost of MVC: Michigan

## Costs Per Police-Reported Motor Vehicle Crash in Michigan 2004

	Fatal	Serious Injury	Moderate Injury	Minor Injury	Property Damage
Medical Care	\$28,926	\$24,366	\$6,896	\$5,150	\$164
Future Earnings (Lost Wages)	\$1,443,491	\$63,292	\$16,788	\$12,298	\$546
Public Services	\$895	\$190	\$123	\$106	\$33
Property Damage & Loss	\$11,033	\$5,986	\$4,562	\$4,453	\$1,594
<b>Subtotal: Monetary Costs</b>	<b>\$1,484,344</b>	<b>\$93,833</b>	<b>\$28,369</b>	<b>\$22,007</b>	<b>\$2,339</b>
Quality of Life	\$2,692,099	\$118,019	\$31,596	\$18,689	\$585
<b>Total (Comprehensive)</b>	<b>\$4,176,443</b>	<b>\$211,852</b>	<b>\$59,965</b>	<b>\$40,695</b>	<b>\$2,924</b>

# Economic and Social Burden



# MVC Risk Factors

- *No Trauma Level I facilities*
- Excessive speed (13%)
- Alcohol (3%)
- Irresponsible drivers (16%)
- Hazards (43%)
- Diverse road user mix (2%)
- Unregulated local/county roads (57%)
- MV-Deer crashes (16%)
- Motorist distractions (1%)

**MCHUMOR.com** by T. McCracken



"Hey, John! Were you just trying to get me on my cell?"

# Current Interventions

- Michigan mandatory seatbelt law
- Network for Employers Traffic Safety (NETS)
- Assessing Community Traffic Safety (ACTS)
- Secondary road patrol grants
- Governor's Highway Safety Advisory Commission
- Michigan Traffic Safety Summit

# Proposed Intervention

- **Specific Aim:** Decrease the morbidity and mortality associated with MVC in Northern Michigan
- **Hypothesis:** A multifaceted intervention will decrease the incidence of MVC
- The specific aim will be accomplished through:
  - Amendment to Bill 117: Change in rural speed limit policy through legislation
  - Public Health Education: Transportation, law enforcement and decision maker education on the public health perspective of injury prevention
  - Establish and Expand Coalition/Partnerships (Traffic Safety Committees): Local road commissions, MDOT, law enforcement, medical, political leaders/judicial, public health and the community advocates
  - Workplace Driver Education: Curriculum development to include rural MVC risk factors and operator accountability

# Select the Criteria

<b>Interventions</b> (The 1-3 ranking is based on the experience of personal interactions with local and state transportation authorities)	Effectiveness	Efficiency	Acceptability	Affordability	Political Feasibility	Sustainability	Total
Bill 117 Amendment	2	2	3	3	3	3	<b>16</b>
Expand Driver Workplace Education	1	1	2	3	3	2	<b>12</b>
Public Health Education	2	1	2	1	2	2	<b>10</b>
Establish & Expand Partnerships	3	2	1	3	2	2	<b>13</b>

*The goal is not to implement and apply one specific solution to the complex problem of motor vehicle crashes in rural Northern Michigan, but to take a systematic and strategic approach to injury prevention incorporating all of the proposed options.*

# Anticipated Outcomes

- Amendment to Bill 117 enacted into law
- Improve collaboration and communication among transportation authorities at the state and local levels
- Improve the health and safety of rural communities in Northern Michigan by decreasing the annual incidence of MVC
- Changing the perception of injury prevention from reactive to proactive



# Program Challenges

- Improving stakeholder awareness/acceptance of the cultural differences and community needs of rural Northern Michigan as compared to the population dense urban areas of the state
- Marketing of the public health core values/philosophy

# Questions?



"Speeding? Of course I was speeding!  
I have to make over a billion deliveries  
in one night!"