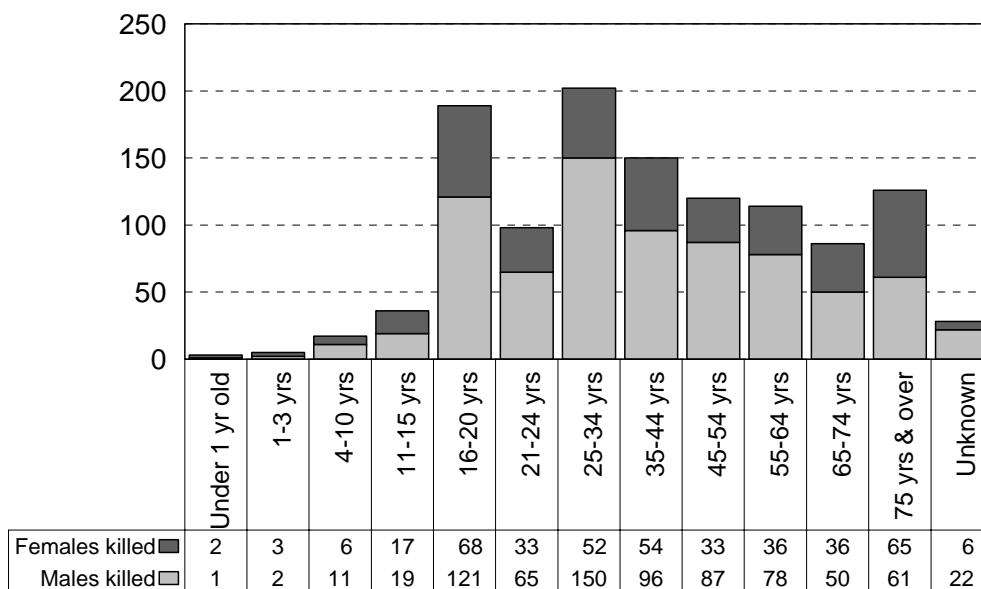


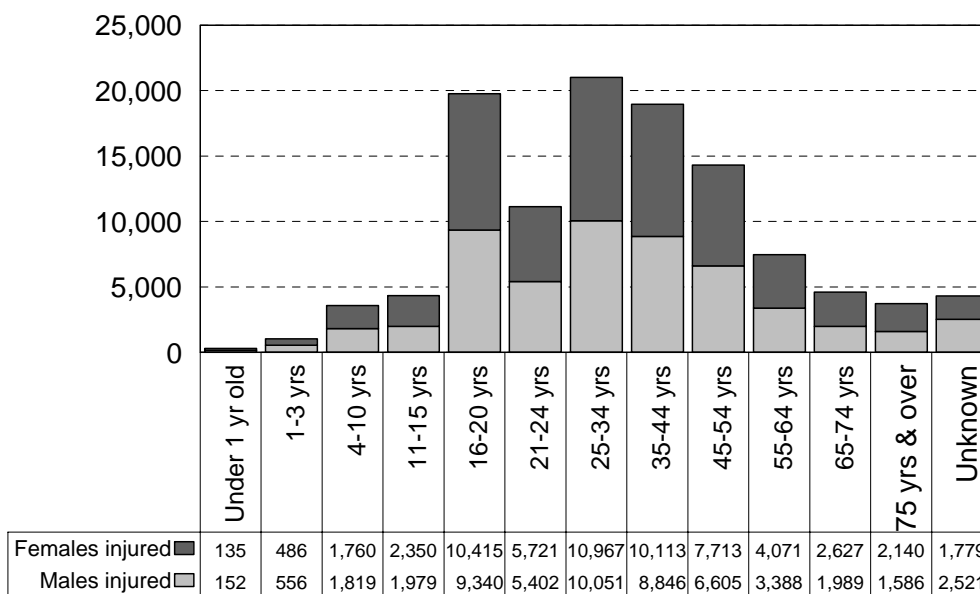
AGE AND GENDER OF OCCUPANTS KILLED & INJURED IN MOTOR VEHICLE CRASHES

Occupants Killed



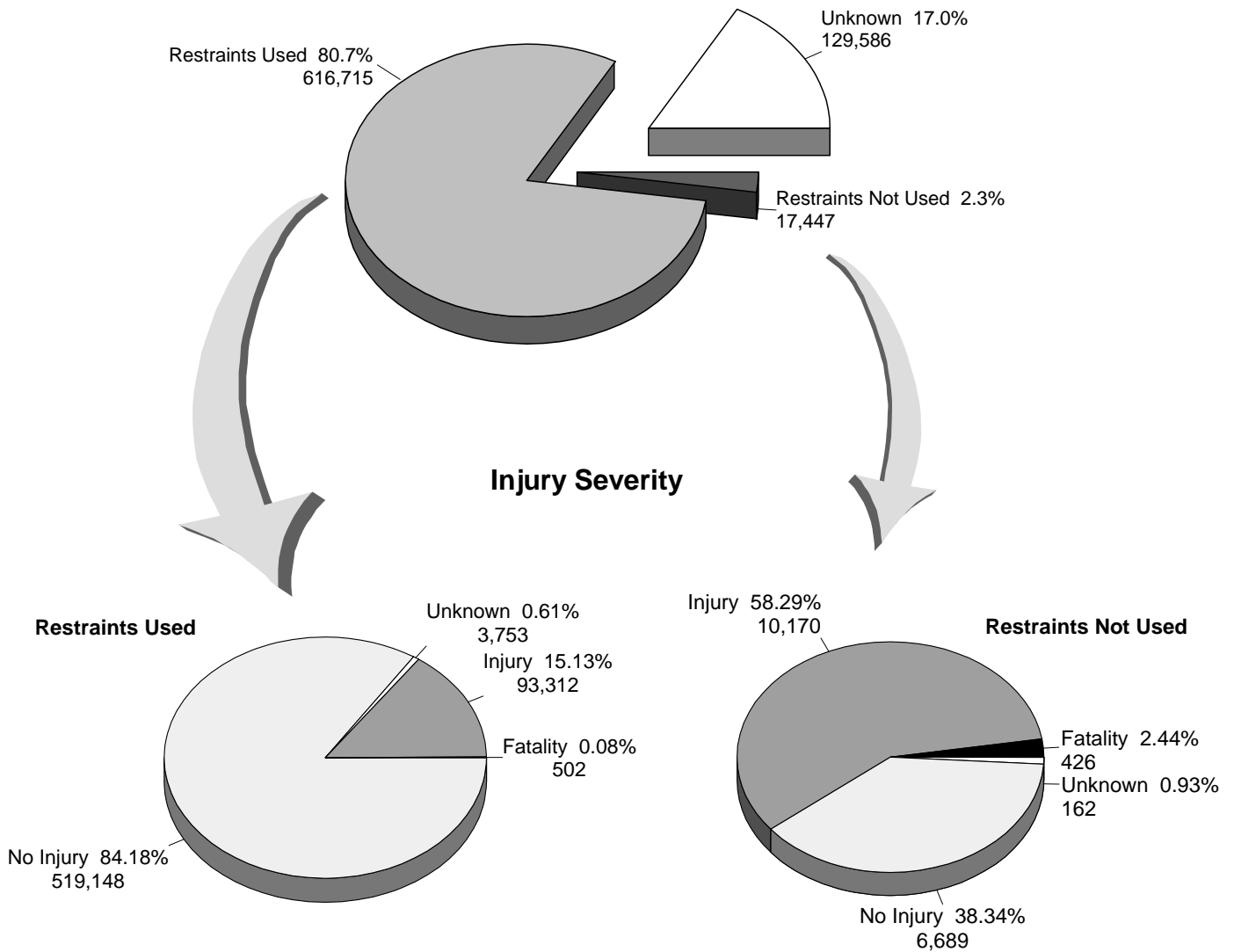
The majority (65.0%) of occupants killed in traffic crashes in 2000 were male.

Occupants Injured



The majority (52.6%) of occupants injured in traffic crashes in 2000 were female.

REPORTED OCCUPANT RESTRAINT USAGE FOR ALL DRIVERS AND INJURED PASSENGERS

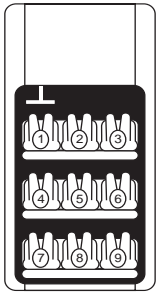


Restraint use by motorists is measured two ways: by what motorists REPORT to police at the scene of a traffic crash (reported usage), and by DIRECT OBSERVATION studies where motorists are totally unaware of the presence of researchers (observed usage). As expected, reported usage is routinely higher than observed usage.

Of the 763,748 drivers and injured passengers involved in crashes, 616,715 (80.7%) were REPORTED to be using occupant restraints.

However, a DIRECT OBSERVATION study by the University of Michigan Transportation Research Institute [15] estimated overall safety belt use was 85 percent for passenger cars, 83.1 percent for sport-utility vehicles, 83.2 percent for vans, and 71.2 percent for pickup trucks in 2000.

Occupants in crashes were thirty times more likely to be killed if they were not wearing their restraints.



MOTOR VEHICLE OCCUPANTS & INJURY SEVERITY BY SEATING POSITION AND KNOWN BELT USAGE

Seating Position	Belts Used*		Fatal	Injury			PDO
	Number	% of Total		A	B	C	
Left Front	588,663	96.2	346	4,737	13,909	50,820	518,851
Center Front	556	0.1	1	42	124	375	14
Right Front	16,880	2.8	130	1,271	3,484	11,927	68
Left Rear	2,005	0.3	3	134	449	1,383	36
Center Rear	582	0.1	3	38	163	374	4
Right Rear	2,218	0.4	10	147	473	1,586	2
Left Rear Third Seat	297	0.0	1	27	65	198	6
Center Rear Third Seat	129	0.0	2	9	34	80	4
Right Rear Third Seat	346	0.1	1	23	75	245	2
Unknown	128	0.0	1	9	15	38	65
TOTAL	611,804**	100.0	498	6,437	18,791	67,026	519,052

* Lap belt, shoulder belt or a combination of lap and shoulder belts used. Children who were coded as using or not using a child restraint device appear in separate tables on pages 162-163.

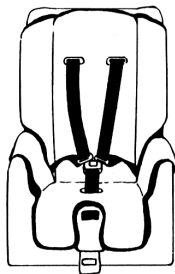
**This total does not include 3,747 occupants with unknown injury severity.

Seating Position	Belts Not Used*		Fatal	Injury			PDO
	Number	% of Total		A	B	C	
Left Front	12,265	71.7	293	1,391	2,171	1,926	6,484
Center Front	187	1.1	5	38	72	65	7
Right Front	2,154	12.6	76	481	812	775	10
Left Rear	750	4.4	16	118	188	342	86
Center Rear	259	1.5	7	51	89	112	0
Right Rear	691	4.0	14	146	193	338	0
Left Rear Third Seat	106	0.6	1	19	37	48	1
Center Rear Third Seat	55	0.3	1	14	17	23	0
Right Rear Third Seat	139	0.8	2	20	43	73	1
Unknown	505	3.0	10	71	99	290	35
TOTAL	17,111**	100.0	425	2,349	3,721	3,992	6,624

* No belts available or no belts used. Children who were coded as using or not using a child restraint device appear in separate tables on page 162-163.

**This total does not include 157 occupants with unknown injury severity.

*Michigan law requires that all persons must wear a safety belt
when riding in the front seat of a motor vehicle*



REPORTED RESTRAINT USE - CHILDREN

Michigan law requires:

Any child **under four years of age** riding in either the front or back seat of a vehicle must be in a Child Restraint Device (CRD).

Sitting in all seats excluding Left Front Seats:

Restraint Usage Children Age 0			Fatal	Injury			No Injury
	Number	% of Total		A	B	C	
Belts Used	33	11.7	0	2	5	25	1
No Belts Used	4	1.4	1	0	1	1	1
CRD Used	222	79.0	2	10	42	168	0
CRD Not Used	12	4.3	0	3	2	7	0
Restraint Failed	1	0.4	0	0	0	1	0
Unknown	9	3.2	0	0	0	9	0
Total Children Age 0	281	100.0	3	15	50	211	2
Restraint Usage Children Age 1							
Belts Used	52	17.7	1	3	14	34	0
No Belts Used	9	3.1	0	1	5	3	0
CRD Used	208	70.7	1	8	60	139	0
CRD Not Used	15	5.1	0	5	4	6	0
Restraint Failed	0	0.0	0	0	0	0	0
Unknown	10	3.4	0	1	2	7	0
Total Children Age 1	294	100.0	2	18	85	189	0
Restraint Usage Children Age 2							
Belts Used	77	22.3	0	4	21	52	0
No Belts Used	17	4.9	0	4	6	7	0
CRD Used	212	61.4	1	14	61	136	0
CRD Not Used	21	6.1	1	2	10	8	0
Restraint Failed	3	0.9	0	0	1	2	0
Unknown	15	4.3	0	3	5	7	0
Total Children Age 2	345	100.0	2	27	104	212	0
Restraint Usage Children Age 3							
Belts Used	181	47.3	1	14	52	113	1
No Belts Used	21	5.5	0	2	3	16	0
CRD Used	152	39.7	0	15	41	96	0
CRD Not Used	19	5.0	0	4	6	9	0
Restraint Failed	0	0.0	0	0	0	0	0
Unknown	10	2.6	0	0	2	8	0
Total Children Age 3	383	100.0	1	35	104	242	1

REPORTED RESTRAINT USE - CHILDREN (continued)

*Any child between the **ages of four and sixteen** must wear a safety belt when riding in either the front or back seat of a vehicle.*

Sitting in all seats excluding Left Front Seats:

Restraint Usage	Children age 4-15		Fatal	Injury			No Injury
	Number	% of Total		A	B	C	
Belts Used	5,658	78.3	22	376	1,352	3,908	0
No Belts Used	1,011	14.0	18	175	323	495	0
CRD Used	142	2.0	0	3	41	98	0
CRD Not Used	22	0.3	0	1	7	14	0
Restraint Failed	9	0.1	0	0	5	4	0
Unknown	381	5.3	6	44	115	216	0
TOTAL	7,223	100.0	46	599	1,843	4,735	0

Note: Safety equipment usage is often self-reported and may not reflect actual usage.

In a pilot study of child restraint device (CRD) use and misuse in Michigan [16] at the University of Michigan Transportation Research Institute, researchers discovered at least some degree of improper CRD use in 88.5 percent of case studies.

In a study of patterns of child restraint use [17] at the University of Michigan Transportation Research Institute, researchers found that overall child occupant restraint use for ages 0-15 in Michigan was 81.1 (+/- 1.8 percent). In addition, child occupant restraint use closely followed the driver belt use, with child occupant restraint use more than 86 percent when the driver was using a safety belt.

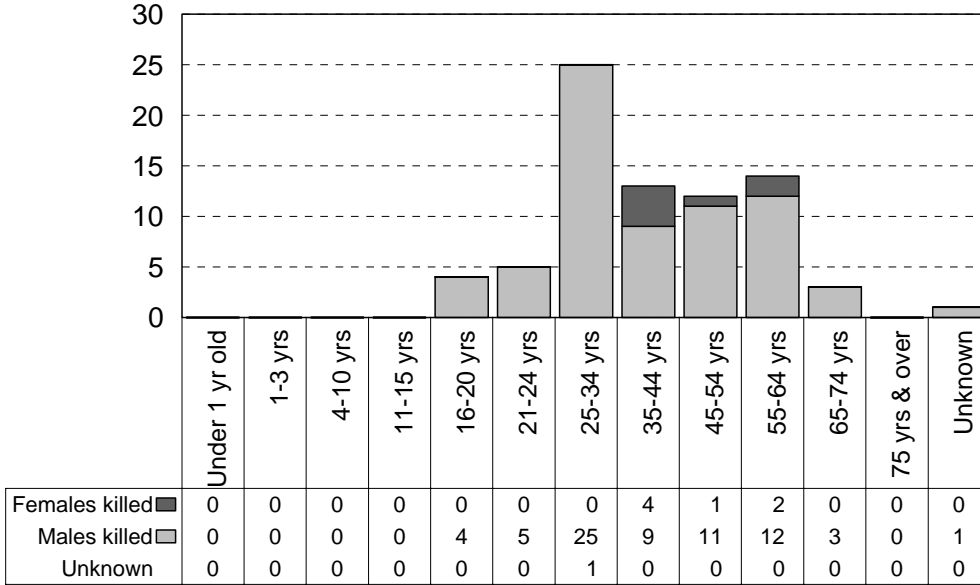
The driver of the vehicle will receive a citation for any child (under age 16) not restrained.

A vehicle can be stopped if an officer observes an unbelted front seat occupant.

Placing a CRD in the front seat is not recommended in vehicles with passenger side airbags.

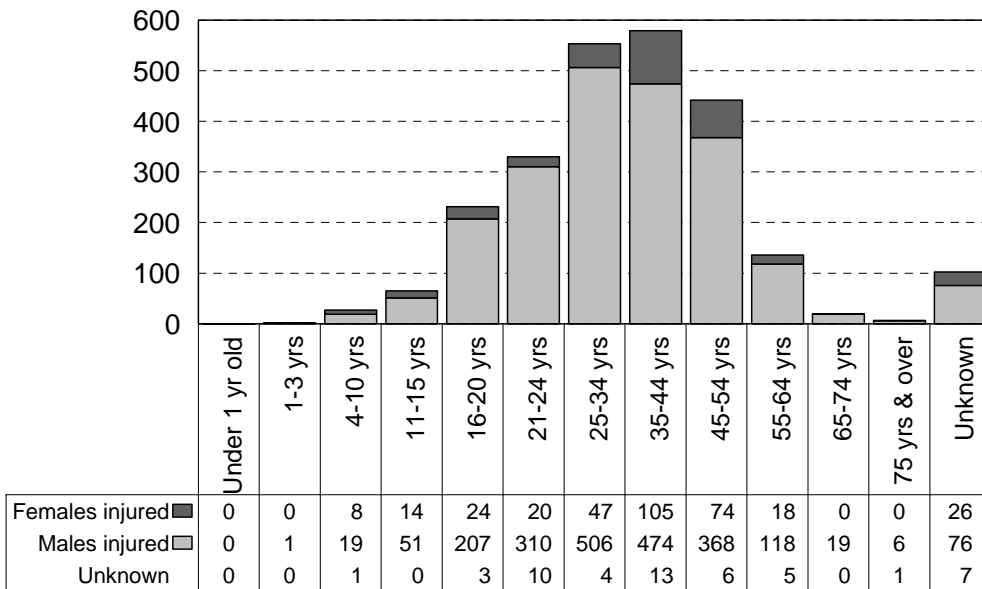
AGE AND GENDER OF MOTORCYCLISTS KILLED & INJURED IN MOTOR VEHICLE CRASHES

Motorcyclists Killed



89.7 percent of the motorcyclists killed in traffic crashes in 2000 were male.
 In comparison, 69.8 percent of all persons killed in crashes were male.

Motorcyclists Injured



84.8 percent of the motorcyclists injured in traffic crashes in 2000 were male.
 In comparison, 50.7 percent of all persons injured in crashes were male.

MOTORCYCLE HELMET USE AND INJURY SEVERITY

Helmet Worn Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	1	0	0
4 - 10 years	0	1	6	2	0
11 - 15 years	0	3	11	6	3
16 - 20 years	2	28	74	44	42
21 - 24 years	3	47	117	65	53
25 - 34 years	16	95	157	111	100
35 - 44 years	12	121	172	103	109
45 - 54 years	10	73	131	94	96
55 - 64 years	14	32	37	27	18
65 - 74 years	2	5	7	3	5
75 years and over	0	2	1	0	0
Unknown	0	1	3	1	2
Subtotal	59	408	717	456	428



Drivers killed 53
Passengers killed 6

Helmet Not Worn Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	0	0	0
4 - 10 years	0	2	2	1	1
11 - 15 years	0	2	7	5	2
16 - 20 years	1	2	7	4	2
21 - 24 years	1	5	3	1	0
25 - 34 years	1	7	2	1	3
35 - 44 years	0	6	4	1	1
45 - 54 years	1	3	2	1	0
55 - 64 years	0	0	2	1	0
65 - 74 years	0	0	0	0	0
75 years and over	0	1	1	0	0
Unknown	0	0	0	0	0
Subtotal	4	28	30	15	9

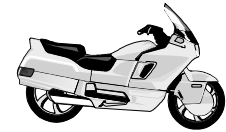


Drivers killed 4
Passengers killed 0

Helmet Use Unknown Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	0	0	0
4 - 10 years	0	3	4	7	1
11 - 15 years	0	9	13	9	8
16 - 20 years	1	17	34	24	22
21 - 24 years	1	17	54	31	43
25 - 34 years	9	46	76	62	86
35 - 44 years	1	43	83	59	67
45 - 54 years	1	44	52	48	64
55 - 64 years	0	6	20	16	19
65 - 74 years	1	2	2	0	1
75 years and over	0	0	2	0	2
Unknown	1	24	45	35	37
Subtotal	15	211	385	291	350
TOTAL	78	647	1,132	762	787

In Michigan, helmet use law (Michigan Vehicle Code Public Act 300 of 1949, Section 257.658) requires that all motorcycle riders wear a helmet. As a result, according to studies by UMTRI [18], approximately 99 percent of the motorcyclists in Michigan wear helmets when riding. The fact that most fatalities (where helmet use is known) are wearing their helmets does not indicate that helmets are not an effective safety device.

OCCUPANT INJURY OUTCOME BY VEHICLE TYPE



Vehicle Types	Killed	A Injured	B Injured	C Injured	Total KABC	% of All Crash Involved KABC Occupants
Passenger Car and Station Wagon	817	7,326	18,339	58,553	85,035	73.5
Van (Minivan) and Motorhome	66	756	1,819	6,048	8,689	7.5
Pickup	143	1,358	3,493	8,355	13,349	11.5
Small Truck (under 10,000 lbs.)	19	224	541	1,593	2,377	2.1
Motorcycle	77	628	1,086	718	2,509	2.2
Moped	7	26	94	62	189	0.2
Go Cart	1	2	8	7	18	0.0
Snowmobile	17	139	125	128	409	0.4
Off Road Vehicle	8	83	99	63	253	0.2
Other	3	53	91	156	303	0.3
Unknown	2	217	403	718	1,340	1.2
CDL Truck/Bus (breakdown below)	14	106	237	857	1,214	1.0
Total Number of Occupants	1,174	10,918	26,335	77,258	115,685	100.0

Special Note: School bus is not recorded on the UD-10 and cannot be broken out of CDL Truck/Bus.

CDL Truck/Bus Sub-category Types	Killed	A Injured	B Injured	C Injured	Total KABC	% of All Crash Involved KABC Occupants
Commercial Vehicle: Group A	5	40	95	241	381	31.4
Commercial Vehicle: Group B	6	37	56	344	443	36.5
Commercial Vehicle: Group C	0	1	11	52	64	5.3
Other Truck	1	8	20	45	74	6.1
Unknown Truck	2	20	55	175	252	20.8
Total Number of Occupants	14	106	237	857	1,214	100.0

Group "A" is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group "B" is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group "C" is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group "C" is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.