

Farm and Rural Vehicle Traffic Crashes in Pennsylvania in 2008-09

Dennis J. Murphy, Extension Safety Specialist and Cathy Kassab, Data Analyst

This report is about public road crashes involving farm equipment, ATVs and horses and buggies. We are not aware that a report like this has ever been published with Pennsylvania data. In order to inform the public about such incidents, we describe several characteristics of crashes involving these three modes of transportation. This information can be used by farm and rural vehicle operators, researchers, educators and policy makers to better understand how crashes occur with these transportation sources.

Data on reportable crashes collected by the Pennsylvania Department of Transportation were used in this report. A reportable crash, defined by Title 75, Pennsylvania Consolidated Statutes, Section 3746(a) is:

“An incident that occurs on a highway or traffic way that is open to the public by right or custom and involved at least one motor vehicle in transport. An incident is reportable if it involves:

- Injury to or death of any person, or
- Damage to any vehicle to the extent that it cannot be driven under its’ own power in its’ customary manner without further damage or hazard to the vehicle, other traffic elements, or the roadway, and therefore requires towing.”

In 2008 and 2009, there were 800 crashes in Pennsylvania in which farm equipment, an ATV, or a horse and buggy were involved. Table 1 presents the number of each type of crash. About three times as many crashes involved an ATV as crashes involving farm equipment or a horse and buggy, respectively. Specifically, 63% of the crashes involved an ATV, while 21% involved farm equipment and 16% involved a horse and buggy.

Table 1: Number of Crashes by Type of Vehicle Involved: 2008-2009

Type of Vehicle	Number	Percent
Farm Equipment	168	21%
ATV	501	63%
Horse and Buggy	131	16%
Total	800	100%

Crash Characteristics

Figure 1 presents the number of vehicles involved in crashes involving farm equipment, an ATV, or a horse and buggy. Over one-half (59%) of the ATV crashes were single vehicle crashes. In contrast, only 14% of the crashes involving farm equipment and none (0%) of the crashes involving a horse and buggy were single vehicle crashes. About three-fourths (77%) of the crashes involving farm equipment and nearly all (95%) of the horse and buggy crashes involved two vehicles. A substantial percentage (39%) of ATV crashes also involved two vehicles. Nearly one-tenth (8%) of crashes involving farm equipment involved three or more vehicles. Only 5% of horse and buggy crashes and 2% of the ATV crashes involved three or more vehicles. Overall, 40% of farm equipment, ATV, and horse and buggy crashes involved one vehicle, 56% involved two vehicles, and 4% involved 3 or more vehicles.

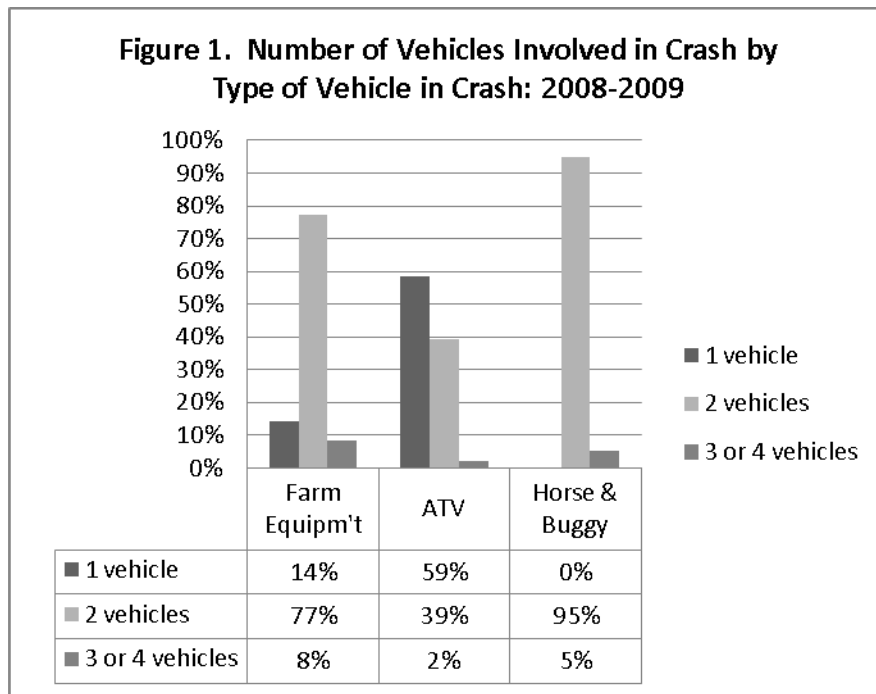


Table 2 presents the other types of vehicles most likely to be involved in farm equipment, ATV, and horse and buggy crashes. Only crashes involving more than one vehicle were included in the calculations for this table. Automobiles were most likely to be involved in multiple-vehicle crashes with farm equipment, ATVs, or horse and buggies. About one-half of these crashes involved an automobile. Small trucks and SUVs were also frequently involved in crashes, with a greater number of small trucks involved in crashes than SUVs. Between 12% and 19% of the crashes involved a small truck or SUV. Vans were involved in 11% of the crashes with horse and buggies, but less frequently involved in crashes with farm equipment and ATVs. Another ATV was involved in 11% of the crashes with an ATV.

Table 2: Other Vehicles Involved in Multiple-Vehicle Crashes by Type of Vehicle in Crash: 2008-2009

Type of Vehicle	Farm Equipment (n=144)		ATV (n=208)		Horse & Buggy (n=131)	
	Number	Percent	Number	Percent	Number	Percent
Auto	82	57%	95	46%	63	48%
Small truck	28	19%	35	17%	20	15%
SUV	17	12%	26	12%	23	18%
Van	7	5%	12	6%	15	11%
Motorcycle	9	6%	11	5%	7	5%
ATV	0	0%	22	11%	0	0%
Large truck	6	4%	3	1%	5	4%
Other	2	1%	2	1%	2	1%

Column totals do not sum to 100% due to multiple types of other vehicles involved in some 3 or 4 vehicle crashes.

Table 3 presents the percentage of crashes involving farm equipment, ATVs, and horse and buggies by the month in which they occurred. The largest percentage of crashes for farm equipment occurred in May through July, October, and November, and to a lesser extent, in September and December. The fewest crashes involving farm equipment were in March and April. For ATVs, on the other hand, crashes were more likely to occur in May through September, and to a lesser extent, in March and April. The fewest ATV crashes occurred in the winter months, December through February. Horse and buggy crashes occurred most often in July through October and December, and to a lesser extent in May and June. Horse and buggy crashes were least likely to occur in November. Overall, farm equipment, ATV, and horse and buggy crashes were most likely to occur in May through September, and least likely to occur in January and February.

Table 3: Month of Crash by Type of Vehicle Involved: 2008-2009

Month	Farm Equipment		ATV		Horse & Buggy		Overall	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
January	10	6%	14	3%	9	7%	33	4%
February	10	6%	10	2%	8	6%	28	4%
March	5	3%	43	9%	7	5%	55	7%
April	5	3%	45	9%	8	6%	58	7%
May	16	10%	63	13%	10	8%	89	11%
June	18	11%	62	12%	11	8%	91	11%
July	25	15%	73	15%	15	12%	113	14%
August	11	6%	74	15%	15	12%	100	12%
September	15	9%	51	10%	13	10%	79	10%
October	20	12%	27	5%	17	13%	64	8%
November	19	11%	22	4%	5	4%	46	6%
December	14	8%	17	3%	13	10%	44	6%
Total	168	100%	501	100%	131	101%	800	100%

Some totals do not sum to 100% due to round-off error.

Table 4 presents additional characteristics of crashes involving farm equipment (see similar data for ATVs and horse and buggies on Tables 6 & 7). About one-half (47%) of the crashes involving farm equipment were angle/sideswipe collisions, and another 28% were rear-end collisions. Most (71%) of the crashes involving farm equipment occurred in daylight, although a substantial percentage (23%) occurred in the dark. Most crashes involving farm equipment occurred on the roadway (83%). Road conditions were dry for 85% of the farm equipment crashes. Similarly, there were no adverse weather conditions for 89% of the crashes. A trailer was attached to farm equipment involved in 30% of the crashes.

Table 4: Characteristics of Crashes Involving Farm Equipment: 2008-2009

Characteristics	Number	Percent
<i>Type of Collision</i>		
Rear-end	47	28%
Head-on	9	5%
Angle/sideswipe	79	47%
Hit fixed object	16	10%
Hit pedestrian	2	1%
Non-collision	15	9%
Total for Type of Collision	168	100%
<i>Illumination</i>		
Daylight	119	71%
Dark	38	23%
Dusk	9	5%
Dawn	2	1%
Total for Illumination	168	100%
<i>Relation to Road</i>		
On roadway	139	83%
Shoulder/roadside	20	12%
Outside trafficway (in area not meant for vehicles)	6	4%
Other/Unknown	3	2%
Total for Relation to Road	168	101%
<i>Road Condition</i>		
Dry	143	85%
Wet	13	8%
Sand/mud/dirt/oil/ or gravel	1	1%
Snow/slush/ice	11	6%
Total for Type of Roadway Surface	168	100%
<i>Degree of Urbanization</i>		
Rural	105	86%
Small urban area: Pop. up to 49,000	3	2%
Urbanized area: Pop. 50,000 +	14	11%
Total for Degree of Urbanization	122	99%
<i>Weather</i>		
No adverse conditions	150	89%
Rain/snow/fog	18	11%
Total for Weather	168	100%
<i>Trailer Attached to Farm Equipment Involved in Crash</i>		
No trailer attached	118	70%
Trailer attached	50	30%
Total for Trailer	168	100%

Some totals do not sum to 100% due to round-off error.

Referring to Table 5, the majority of crashes involving ATVs were collisions resulting from a fixed object being hit (32%) or an angle/sideswipe collision (27%). Another 30% of the ATV crashes occurred in other ways, primarily as non-collisions. The majority (62%) of the crashes involving ATVs occurred in daylight, with another 31% occurring in the dark. Also, the majority of crashes involving ATVs occurred on the roadway (60%), although another 31% occurred on the shoulder/roadside (off trafficway; on vehicle area). Road conditions were dry for 84% of the ATV crashes. Similarly, there were no adverse weather conditions for 92% of the crashes. Most (80%) occurred in rural areas.

Table 5: Characteristics of Crashes Involving ATVs: 2008-2009

Characteristics	Number	Percent
<i>Type of Collision</i>		
Rear-end	30	6%
Head-on	27	5%
Rear-to-rear (backing)	1	0%
Angle/sideswipe	133	27%
Hit fixed object	161	32%
Other (i.e., non-collision)/unknown	149	30%
Total for Type of Collision	501	100%
<i>Illumination</i>		
Daylight	309	62%
Dark	156	31%
Dusk	35	7%
Dawn	1	0%
Total for Illumination	501	101%
<i>Relation to Road</i>		
On roadway	301	60%
Shoulder/roadside	158	31%
Outside trafficway (in area not meant for vehicles)	38	8%
Other/unknown	4	1%
Total for Relation to Road	501	100%
<i>Road Condition</i>		
Dry	421	84%
Wet	33	7%
Sand/mud/dirt/oil/ or gravel	28	6%
Snow/slush/ice	13	3%
Other	6	1%
Total for Type of Roadway Surface	501	101%
<i>Degree of Urbanization</i>		
Rural	143	80%
Small urban area: Pop. up to 49,000	9	5%
Urbanized area: Pop. 50,000+	27	15%
Total for Degree of Urbanization	179	100%
<i>Weather</i>		
No adverse conditions	461	92%
Rain/snow/fog	39	8%
Unknown	1	0%
Total for Weather	501	100%
<i>Trailer Attached to ATV Involved in Crash</i>		
No trailer attached	499	100%
Trailer attached	2	0%
Total for Trailer	501	100%

Some totals do not sum to 100% due to round-off error.

Referring to Table 6, most of the crashes involving a horse and buggy were angle/sideswipe (47%) or rear-end (44%) collisions. About two-thirds (65%) of the crashes involving a horse and buggy occurred in daylight, although a substantial percentage (33%) occurred in the dark. Nearly all (95%) of the crashes involving a horse and buggy occurred on the roadway. Road conditions were dry for 84% of the horse and buggy crashes. Similarly, there were no adverse weather conditions for 87% of the crashes. Most (81%) occurred in rural areas.

Table 6: Characteristics of Crashes Involving Horse and Buggy: 2008-2009

Characteristics	Number	Percent
<i>Type of Collision</i>		
Rear-end	58	44%
Head-on	8	6%
Angle/sideswipe	62	47%
Hit fixed object	2	2%
Non-collision	1	1%
Total for Type of Collision	131	100%
<i>Illumination</i>		
Daylight	85	65%
Dark	43	33%
Dusk	2	2%
Dawn	1	1%
Total for Illumination	131	101%
<i>Relation to Road</i>		
On roadway	125	95%
Shoulder	4	3%
Roadside (off trafficway; on vehicle area)	2	2%
Total for Relation to Road	131	100%
<i>Road Condition</i>		
Dry	110	84%
Wet	15	11%
Snow/slush/ice	6	5%
Total for Type of Roadway Surface	131	100%
<i>Degree of Urbanization</i>		
Rural	91	81%
Small urban area: Pop. up to 49,000	4	4%
Urbanized area: Pop. 50,000+	17	15%
Total for Degree of Urbanization	112	100%
<i>Weather</i>		
No adverse conditions	114	87%
Rain	11	8%
Snow	5	4%
Rain and fog	1	1%
Total for Weather	131	100%
<i>Trailer Attached to Farm Equipment Involved in Crash</i>		
No trailer attached	131	100%
Trailer attached	0	0%
Total for Trailer	131	100%

Some totals do not sum to 100% due to round-off error.

Table 7 presents the gender and age distribution of drivers of farm equipment, ATVs, and horse and buggies involved in crashes. The vast majority of farm equipment, ATV, and horse and buggy drivers involved in a crash were male (97%, 85%, and 88%, respectively). Drivers of farm equipment involved in a crash were, on average, 40 years old, while ATV drivers involved in a crash were 29, on average. The average age for horse and buggy drivers involved in a crash was 31 years. The younger age of ATV and horse and buggy drivers involved in a crash is illustrated by the fact that 37% of ATV drivers and 30% of horse and buggy drivers were 19 years old or younger. Moreover, 12% of ATV drivers were no older than 14 years. In contrast, only 17% of farm equipment drivers involved in a crash were 19 or under, with 2% being 14 years or younger. On the other hand, 17% of farm equipment drivers involved in a crash were 60 or older, compared to 6% of ATV drivers and 9% of horse and buggy drivers involved in a crash.

Table 7: Age and Gender of Drivers of Farm Equipment, ATVs and Horse and Buggies Involved in Crash: 2008-2009

	Farm Equipment		ATV		Horse & Buggy		Overall	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Gender								
Female	3	2%	66	13%	15	12%	84	11%
Male	151	97%	441	85%	110	88%	702	88%
Unknown	1	1%	10	2%	0	0%	11	1%
Total	155	100%	517	100%	125	100%	797	100%
Age (in yrs)								
14 and under	4	2%	65	12%	8	6%	77	10%
15 –19	23	15%	128	25%	29	23%	180	23%
20 – 24	17	11%	91	18%	28	22%	136	17%
25 – 29	14	9%	53	10%	16	13%	83	10%
30 – 39	21	14%	80	15%	10	8%	111	14%
40 – 49	24	15%	52	10%	11	9%	87	11%
50- 59	25	16%	18	3%	12	10%	55	7%
60 – 64	8	5%	3	1%	2	2%	13	2%
65 -69	9	6%	3	1%	2	2%	14	2%
70 – 74	3	2%	7	1%	3	2%	13	2%
75 and older	7	4%	17	3%	4	3%	28	3%
Total	155	99%	517	99%	125	100%	797	101%
Average age (mean)		40		29		31		31

Some totals do not sum to 100% due to round-off error.

Table 8 presents the maximum severity level of injuries sustained in the crash. No one was injured in about one-half (44%) of the crashes involving farm equipment. In another 24% of the crashes, the injuries were minor. In contrast, only 5% of the ATV crashes resulted in no one being injured, and only 12% resulted in the minor injuries. Over one-half of the ATV crashes resulted in moderate or major injuries (30% and 24%, respectively). There was a fatality in 7% of the ATV crashes. For horse and buggy crashes, 22% resulted in no injuries, with 37% resulting in minor injuries. A death occurred in 5% of the horse and buggy crashes, and in 2% of the farm equipment crashes.

Table 8: Maximum Severity of Injuries Sustained in Crash Involving Farm Equipment, ATVs and Horse and Buggies: 2008-2009

Max. Severity of Injuries	Farm Equipment		ATV		Horse & Buggy		Overall	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No injuries	74	44%	23	5%	29	22%	126	16%
Killed	4	2%	36	7%	7	5%	47	6%
Major injury ¹	9	5%	118	24%	12	9%	139	17%
Moderate injury ²	21	13%	150	30%	27	21%	198	25%
Minor injury ³	41	24%	109	22%	48	37%	198	25%
Injury/Unknown severity	18	11%	62	12%	8	6%	88	11%
Unknown	1	1%	3	1%	0	0%	4	0%
Total	168	100%	501	101%	131	100%	800	100%

Some totals do not sum to 100% due to round-off error.

¹ Major injury: Incapacitating injury; requires transportation from scene

² Moderate injury: Non-incapacitating injury; some form of medical treatment or hospitalization

³ Minor injury: Can be treated by first-aid application

Causes of Crashes Involving Farm Equipment, ATVs and Horse & Buggies

Table 9 presents the prime factors in the collisions involving farm equipment, ATVs, and horse and buggies. The various prime factors leading to the crash are grouped by the source of the prime factor in Table 9, that being driver action, environment/roadway, pedestrian action, or vehicle failure. Over two-fifths of the farm equipment crashes were due primarily to improper driving actions, including at least one vehicle driving too fast for conditions or careless passing or lane change. The results were fairly similar for ATV and horse and buggy crashes, although careless passing or lane change was not as relevant a factor. For horse and buggy crashes, making an improper or careless turn was a prime factor in 11% of the crashes.

Table 9: Prime Factor in Collision Involving Farm Equipment, ATVs and Horse and Buggies: 2008-2009

Prime Factor	Farm Equipment (n=168)		ATV (n=501)		Horse & Buggy (n=131)	
	Number	Percent	Number	Percent	Number	Percent
<i>Driver Action</i>						
Driver was distracted	5	3%	11	2%	10	8%
Driving using hand-held phone						
Driving using hands-free phone						
Making illegal U-turn			2	0%	2	2%
Making improper or careless turn	9	5%	24	5%	14	11%
Turning from wrong lane	1	1%				
Proceeding w/out clearance after stop	8	5%	6	1%	9	7%
Running stop sign	1	1%	19	4%	2	2%
Running red light			3	1%	2	2%
Failure to respond to Traffic Code Device			1	0%		
Tailgating	3	2%	7	1%	2	2%
Sudden slowing or stopping	2	1%	4	1%		
Illegally stopped on road						
Careless passing or lane change	20	12%	5	1%	11	8%
Passing in no passing zone	4	2%	1	0%	1	1%
Driving wrong way on 1-way street			7	1%		
Careless or illegal backing on roadway	4	2%	1	0%		
Driving on wrong side of roadway	6	4%	22	4%	1	1%
Making improper entrance to highway	5	3%	24	5%	5	4%
Making improper exit to highway			1	0%	1	1%
Over or under compensation at curve			20	4%	1	1%
Speeding	7	4%	19	4%		
Driving too fast for conditions	20	12%	114	23%	18	14%
Failure to maintain proper speed	2	1%	4	1%	3	2%
Driver fleeing police (police chase)			6	1%		
Driver inexperienced			36	7%		
Failure to use specialized equipment	4	2%				
Affected by physical condition	4	2%	32	6%	6	5%
Other improper driving actions	32	19%	84	17%	24	18%
Unknown	1	1%	15	3%	1	1%

Prime Factor	Farm Equipment (n=168)		ATV (n=501)		Horse & Buggy (n=131)	
	Number	Percent	Number	Percent	Number	Percent
<i>Environment/Roadway</i>						
Sudden weather conditions						
Other weather conditions	1	1%	1	0%		
Deer in roadway			5	1%		
Obstacle on roadway			1	0%		
Other animal in roadway			5	1%	3	2%
Glare	2	1%			3	2%
Slippery road conditions (ice/snow)	4	2%	3	1%	1	1%
Substances on roadway			1	0%		
Soft shoulder or shoulder drop off			1	0%		
Other roadway factor			1	0%	1	1%
Other environmental factor					4	3%
<i>Pedestrian action</i>						
Walking, running, jogging, playing or cycling			3	1%		
<i>Vehicle Failure</i>						
Tires	1	1%	2	0%		
Brake system	2	1%	2	0%	1	1%
Steering system	3	2%	1	0%	1	1%
Suspension			1	0%		
Power train	1	1%	4	1%		
Headlights						
Signal lights						
Other lights	3	2%			3	2%
Driver seating/control					1	1%
Trailer hitch	2	1%				
Wheels	1	1%				
Trailer overloaded	1	1%				
Improper towing	4	2%				
Unknown	5	3%	2	0%		
TOTAL	168	101%	501	97%	131	104%

Some total do not sum to 100% due to round-off error.

Figure 2 groups the various prime factors of the crash by the source of the prime factor, that being driver action, environment/roadway, pedestrian action, or vehicle failure; these percentages are broken down by whether the crash involved farm equipment, ATV(s), or a horse and buggy. Driver action was the most likely source of the prime factor leading to the crash in all three types of crashes. However, nearly all (93%) of the ATV crashes were due to driver action, compared to 86% of horse and buggy crashes and 82% of farm equipment crashes. One in seven (14%) farm equipment crashes were due to vehicle failure.

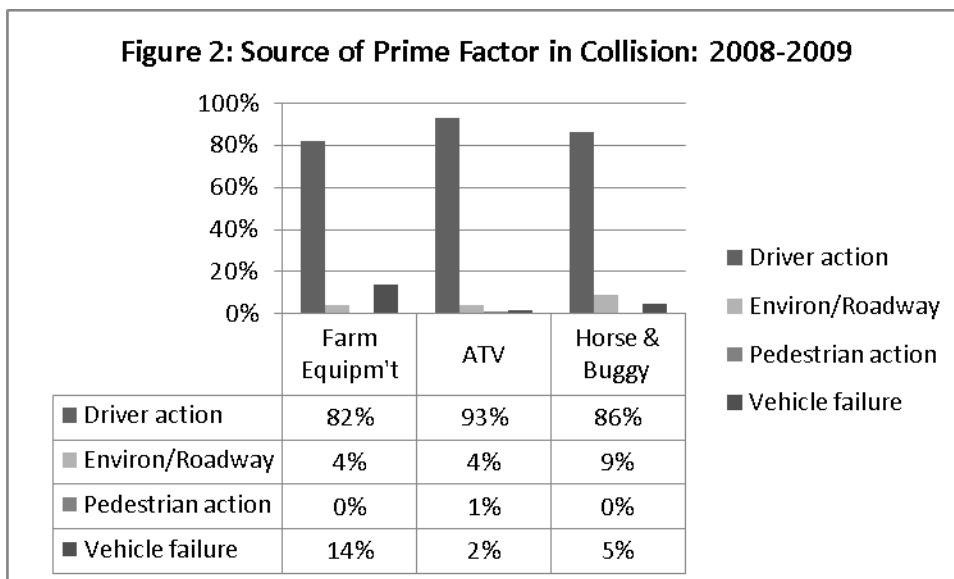


Table 10 presents the percentage of farm equipment, ATV, and horse and buggy crashes which involved aggressive driving, a drinking driver, a distracted driver, or a driver using a cell phone, regardless of whether these actions were the prime factor in the crash. The table also reports on the percentage of crashes which were speeding related or a vehicle overturned, or in which any of the crash participants were not wearing a seat belt. While some of the characteristics of the crash reported in Table 10 are similar to the categories in Table 9, the results differ because the results in Table 9 report solely on the prime factor in the crash.

Over one-half of the farm equipment and ATV crashes involved aggressive driving (54% and 56%, respectively); about one-third (34%) of the horse and buggy crashes involved aggressive driving. One-quarter (25%) of the ATV crashes involved a drinking driver. This percentage was much lower for farm equipment and horse and buggy crashes (3% and 7%, respectively). Very few of the farm equipment or ATV crashes involved a distracted driver (5% and 3%, respectively); none (0%) of these crashes involved a driver using a cell phone. About one-tenth (9%) of the horse and buggy crashes involved a distracted driver, but only 2% involved a driver using a cell phone.

Nearly two-fifths (38%) of the ATV crashes were speeding related. About one-fifth (21%) of the farm equipment crashes were speeding related, and 18% of the horse and buggy crashes were speeding related. At least one of the crash participants, in at least one of the vehicles, was not wearing a seat belt in 14% of the farm equipment crashes. This was the case in 8% of the horse and buggy crashes, and only 1% of the ATV crashes. Over one-quarter (28%) of the ATV crashes resulted in an overturned vehicle. An overturned vehicle occurred in 8% of the farm equipment crashes and 2% of the horse and buggy crashes.

Table 10: Characteristics of Crashes Involving Farm Equipment, ATVs, and Horse and Buggies: 2008-2009

Characteristic	Farm Equipment (n=168)		ATV (n=501)		Horse & Buggy (n=131)		Overall (n=800)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Aggressive driving	91	54%	279	56%	44	34%	414	52%
Drinking driver	5	3%	126	25%	9	7%	140	18%
Distracted Driver	8	5%	16	3%	12	9%	36	4%
Driver using cell phone	0	0%	1	0%	2	2%	3	0%
Speeding related	35	21%	190	38%	23	18%	248	31%
Anyone in crash unbelted	23	14%	5	1%	11	8%	39	5%
Overturned vehicle	13	8%	142	28%	3	2%	158	20%

Figure 3 illustrates the percentage of farm equipment, ATV, and horse and buggy crashes occurring within each of the four Cooperative Extension regions – West, Central, Northeast, and Southeast. The largest percentage of farm equipment crashes occurred in the Southeast region (45%), followed by the West (27%). The distribution of ATV crashes were more evenly distributed across the four Cooperative Extension regions. About one-third (32%) of the ATV crashes occurred in the West, and 27% occurred in the Northeast. About one-fifth occurred in the Southeast and Central regions (22% and 20%, respectively). The largest percentage of horse and buggy crashes occurred in the Southeast region – 55%. An additional 24% of the horse and buggy crashes occurred in the West.

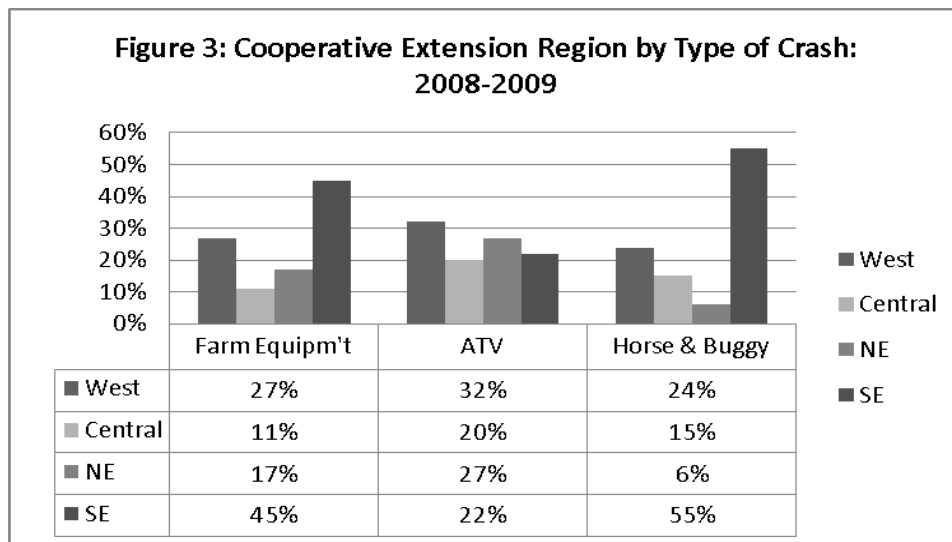


Table 11 presents a breakdown of the farm equipment, ATV, and horse and buggy crashes occurring within each of the counties within the four Cooperative Extension regions.

Table 11: Crashes Involving Farm Equipment, ATVs, and Horse and Buggies By Cooperative Extension Region and County: 2008-2009

Region/County	Farm Equipment (n=168)		ATV (n=501)		Horse & Buggy (n=131)	
	Number	Percent	Number	Percent	Number	Percent
<i>West</i>						
Allegheny	1	2%	8	5%	0	0%
Armstrong	0	0%	7	4%	0	0%
Beaver	2	4%	3	2%	0	0%
Butler	4	9%	12	7%	0	0%
Clarion	0	0%	11	7%	3	10%
Crawford	8	18%	16	10%	6	19%
Erie	5	11%	5	3%	0	0%
Fayette	6	13%	26	16%	0	0%
Forest	0	0%	0	0%	0	0%
Greene	1	2%	10	6%	0	0%
Indiana	3	7%	8	5%	7	23%
Lawrence	1	2%	6	4%	2	6%
Mercer	4	9%	8	5%	7	23%
Venango	1	2%	10	6%	2	6%
Warren	2	4%	14	9%	4	13%
Washington	3	7%	7	4%	0	0%
Westmoreland	4	9%	10	6%	0	0%
Total for West	45	99%	161	99%	31	100%
<i>Central</i>						
Bedford	2	11%	6	6%	0	0%
Blair	2	11%	4	4%	0	0%
Cambria	0	0%	10	10%	2	10%
Cameron	0	0%	1	1%	0	0%
Centre	2	11%	8	8%	2	10%
Clearfield	1	5%	25	26%	0	0%
Clinton	0	0%	5	5%	3	15%
Elk	4	21%	9	9%	0	0%
Fulton	0	0%	2	2%	0	0%
Huntingdon	2	11%	2	2%	0	0%
Jefferson	0	0%	5	5%	3	15%
Juniata	1	5%	1	1%	1	5%
McKean	0	0%	7	7%	0	0%
Mifflin	0	0%	1	1%	8	40%
Potter	2	11%	1	1%	1	5%
Somerset	3	16%	11	11%	0	0%
Total for Central	19	100%	98	99%	20	100%
<i>Northeast</i>						
Bradford	4	14%	20	15%	0	0%
Carbon	0	0%	7	5%	0	0%
Columbia	4	14%	2	2%	0	0%

Table 11: Crashes Involving Farm Equipment, ATVs, and Horse and Buggies By Cooperative Extension Region and County: 2008-2009

Lackawanna	0	0%	9	7%	0	0%
Luzerne	1	3%	15	11%	0	0%
Lycoming	4	14%	4	3%	0	0%
Monroe	0	0%	12	9%	0	0%
Montour	2	7%	1	1%	0	0%
Northumberland	5	17%	6	4%	3	38%
Pike	0	0%	6	4%	0	0%
Schuylkill	1	3%	14	10%	0	0%
Snyder	0	0%	0	0%	2	25%
Sullivan	0	0%	4	3%	0	0%
Susquehanna	1	3%	15	11%	0	0%
Tioga	2	7%	4	3%	0	0%
Union	2	7%	1	1%	3	38%
Wayne	3	10%	8	6%	0	0%
Wyoming	0	0%	6	4%	0	0%
Total for Northeast	29	99%	134	99%	8	101%
<i>Southeast</i>						
Adams	2	3%	4	4%	0	0%
Berks	9	12%	4	4%	0	0%
Bucks	3	4%	9	8%	0	0%
Chester	5	7%	3	3%	6	8%
Cumberland	4	5%	2	2%	2	3%
Dauphin	1	1%	2	2%	2	3%
Delaware	1	1%	2	2%	0	0%
Franklin	10	13%	10	9%	3	4%
Lancaster	20	27%	5	5%	52	72%
Lebanon	3	4%	3	3%	5	7%
Lehigh	0	0%	5	5%	0	0%
Montgomery	1	1%	4	4%	0	0%
Northampton	4	5%	4	4%	0	0%
Perry	2	3%	2	2%	2	3%
Philadelphia	2	3%	40	37%	0	0%
York	8	11%	9	8%	0	0%
Total for Southeast	75	100%	108	102%	72	100%