

**2006-2021
Lebanon NH
Pedestrian and Bicyclist crash data
(Provisional)**

LPBAC Presentation,
February 1, 2022
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Aim of data collection and analysis

Aim: To tabulate and analyze data on crashes involving pedestrians and bicyclists in Lebanon City with the intent to:

- **Look for patterns**
- **Measure trends**
- **Identify any common causative factors**
in order to recommend interventions to prevent future crashes.
- **DATA FOR ACTION!**

Data sources used, 2006-2021

- 2006-2019: Lebanon Police Dept. reports with 16 variables
- 2020: Lebanon Police Department report with 12 variables
 - Missing important information needed for analysis, including
 - Details of location (e.g. Parking Lot, Crosswalk, Driveway)
 - Detailed description of crash
 - Severity of injury
- 2021: Lebanon Police Dept. report with 15 variables
- 2015-2019: Lebanon Fire Department EMS report for Incident type “323” (only pedestrians), with 5 variables
 - Compared reports with LPD data and following additional crashes involving pedestrians found:
 - 2015: 2 crashes (January, October)
 - 2016: 1 crash (November)
 - 2019: 1 crash (November)
- Awaiting Lebanon Fire Dept. EMS Report for 2020 and 2021
- **All data provided to LPBAC through Lebanon Planning Office.**

2021 crash data overview

Number	Month	Ped/Bike	Type—Location	Comments
21-001	April	Ped.	Other—West Lebanon	Work-related
21-002	July	Ped.	Intersection—Route 120	
21-003	July	Ped.	Parking Lot —Home Depot	Ped. age=>65 years
21-004	Sept.	Bike	Moulton Ave. —near LMS	E-bike
21-005	Nov.	Ped.	Intersection—I-89 Exit 20	Crossing against light
21-006	Nov.	Ped.	Parking Lot —Staples	Ped. age=>65 years
21-007	Dec.	Ped.	In Crosswalk —Hanover St.	Ped. wearing headphones
21-008	Dec.	Ped.	In Crosswalk —Evans Dr.	Same location as 2018 fatal crash

Source: Lebanon Police Dept. data provided to LPBAC through Lebanon Planning Office.

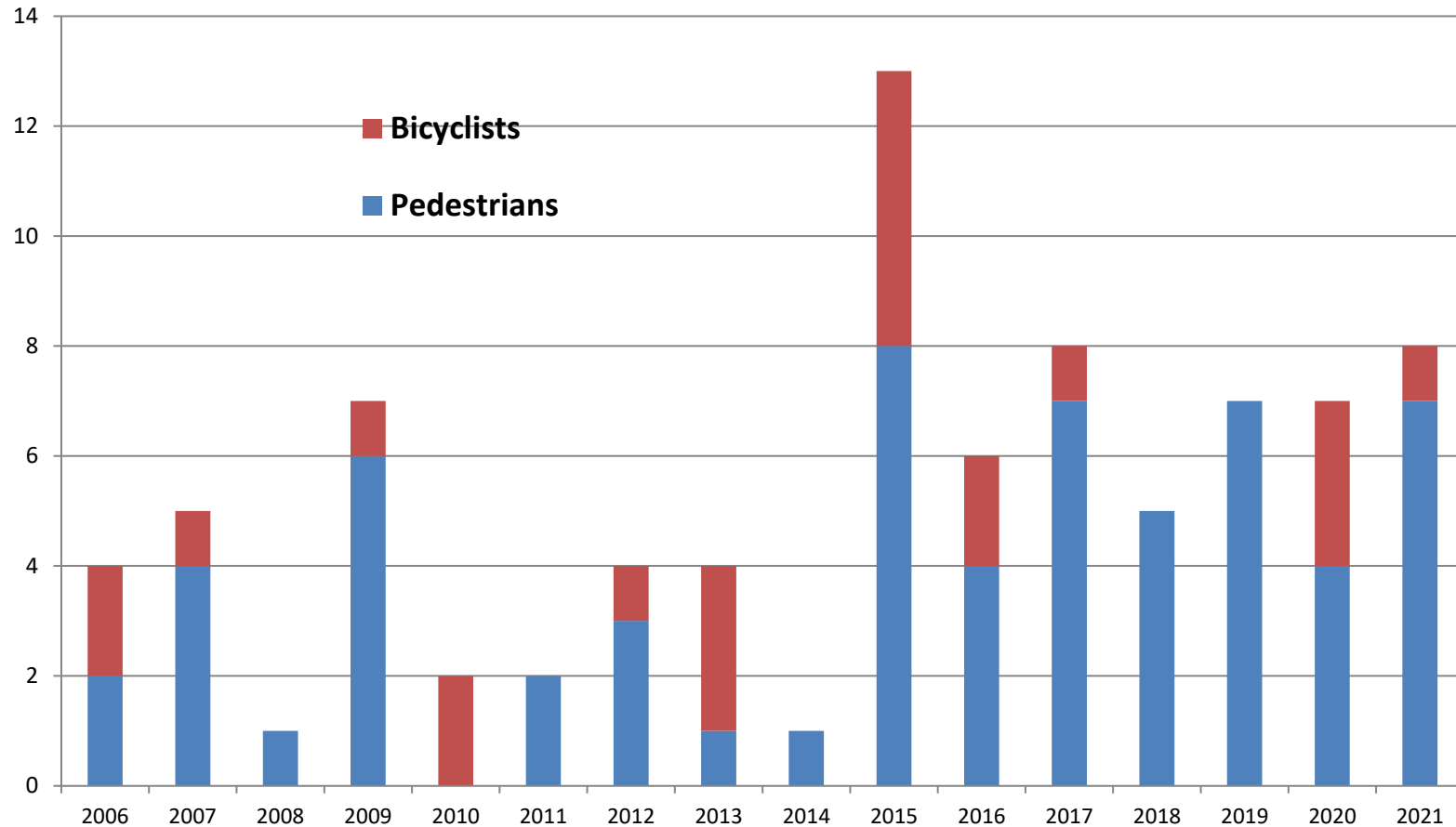
No. of Lebanon NH Crashes Involving Pedestrians and Bicyclists, 2006-2021*

Year	Pedestrians	Bicyclists	Total
2006-2010	13	6	19
2011	2	0	2
2012	3	1	4
2013	1	3	4
2014	1	0	1
2015	8	5	13
2016	4	2	6
2017	7	1	8
2018	5	0	5
2019	7	0	7
2020	4	3	7
2021	7	1	8
Total	62	22	84
Average/year	3.9	1.4	5.3

* Includes LFD EMS data: Pedestrian-involved crashes in 2015 (2), in 2016 (1) and in 2019 (1).

Source: Leb. Police Dept. data & Leb. Fire Dept. EMS data provided to LPBAC through Leb. Planning Office.

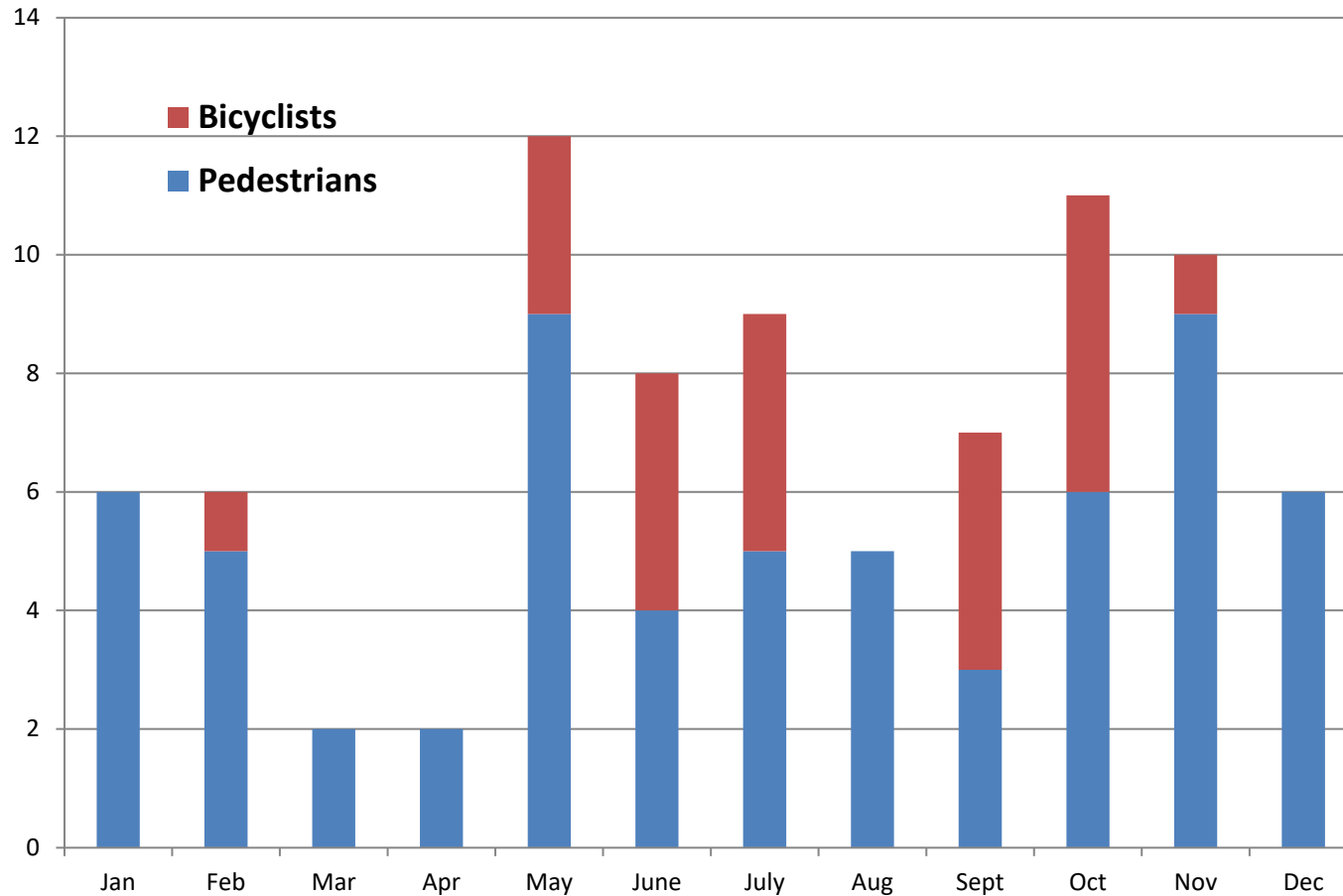
Crashes involving pedestrians and bicyclists, by Year, Lebanon NH, 2006-2021* (n=84 crashes)



* Includes LFD EMS data: Pedestrian-involved crashes in 2015 (2), in 2016 (1) and in 2019 (1).

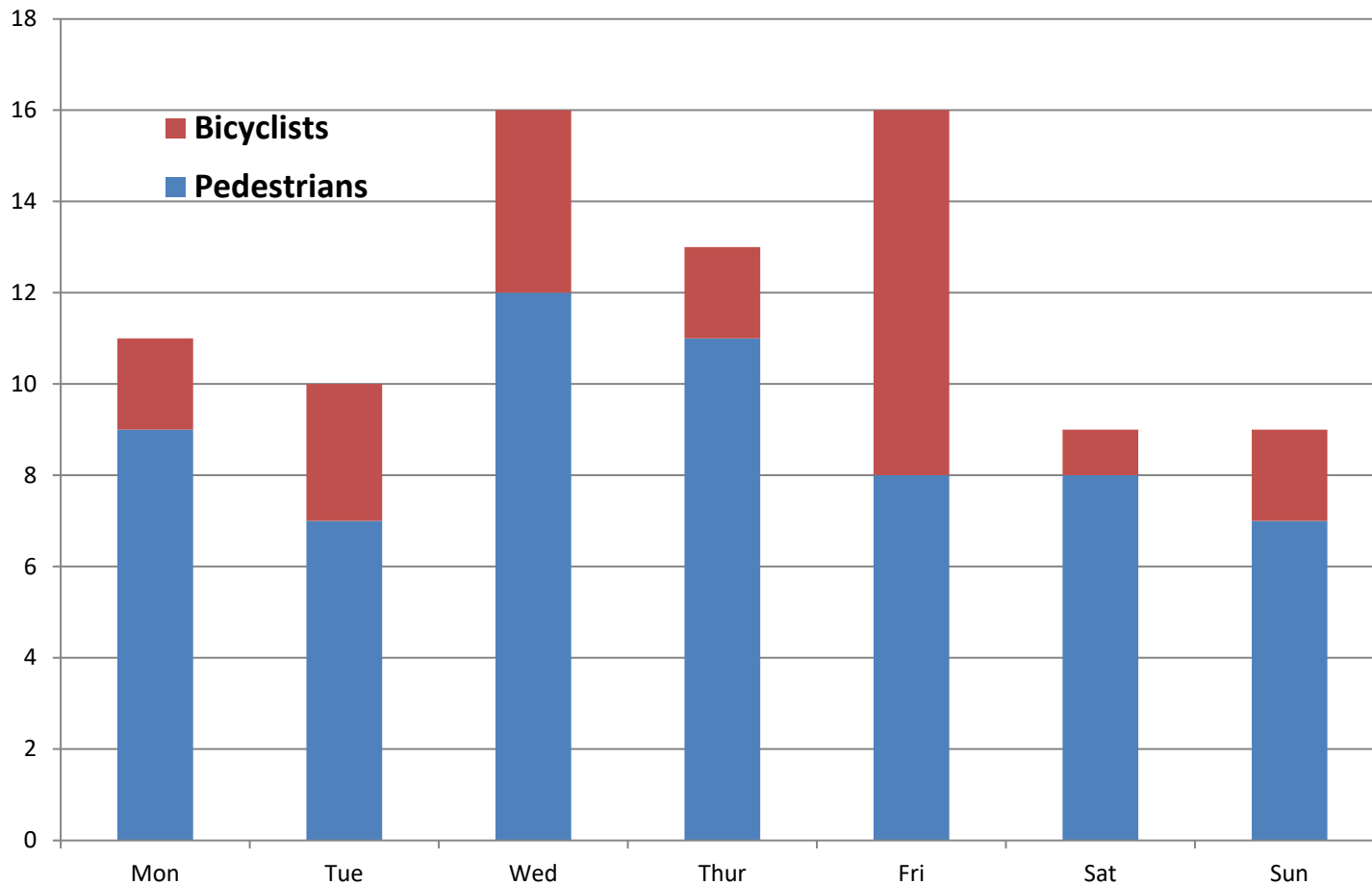
Source: Leb. Police Dept. data & Leb. Fire Dept. EMS data provided to LPBAC through Leb. Planning Office.

Crashes involving pedestrians and bicyclists, by Month, Lebanon NH, 2006-2021* (n=84 crashes)



Source: Leb. Police Dept. data (2006-2021); and Leb. Fire Dept. EMS data (2015-2019) provided to LPBAC.

Crashes involving pedestrians and bicyclists, by Day of the week, Lebanon NH, 2006-2021* (n=84 crashes)



Source: Leb. Police Dept. data (2006-2021); and Leb. Fire Dept. EMS data (2015-2019) provided to LPBAC.

Crashes involving pedestrians and bicyclists, by Time of Day, Lebanon NH, 2006-2021 (n=84)

Crash Time of day:

- **Pedestrians: During daylight = 42 (68%):**

8:00 am to 11:00 am = 7 crashes

11:00 am to 3:00 pm = 20 crashes

3:00 pm to 6:00 pm = 15 crashes

- **Pedestrians: Dusk or after dark = 20 (32%)**

- **Bicyclists: During daylight = 20 (91%):**

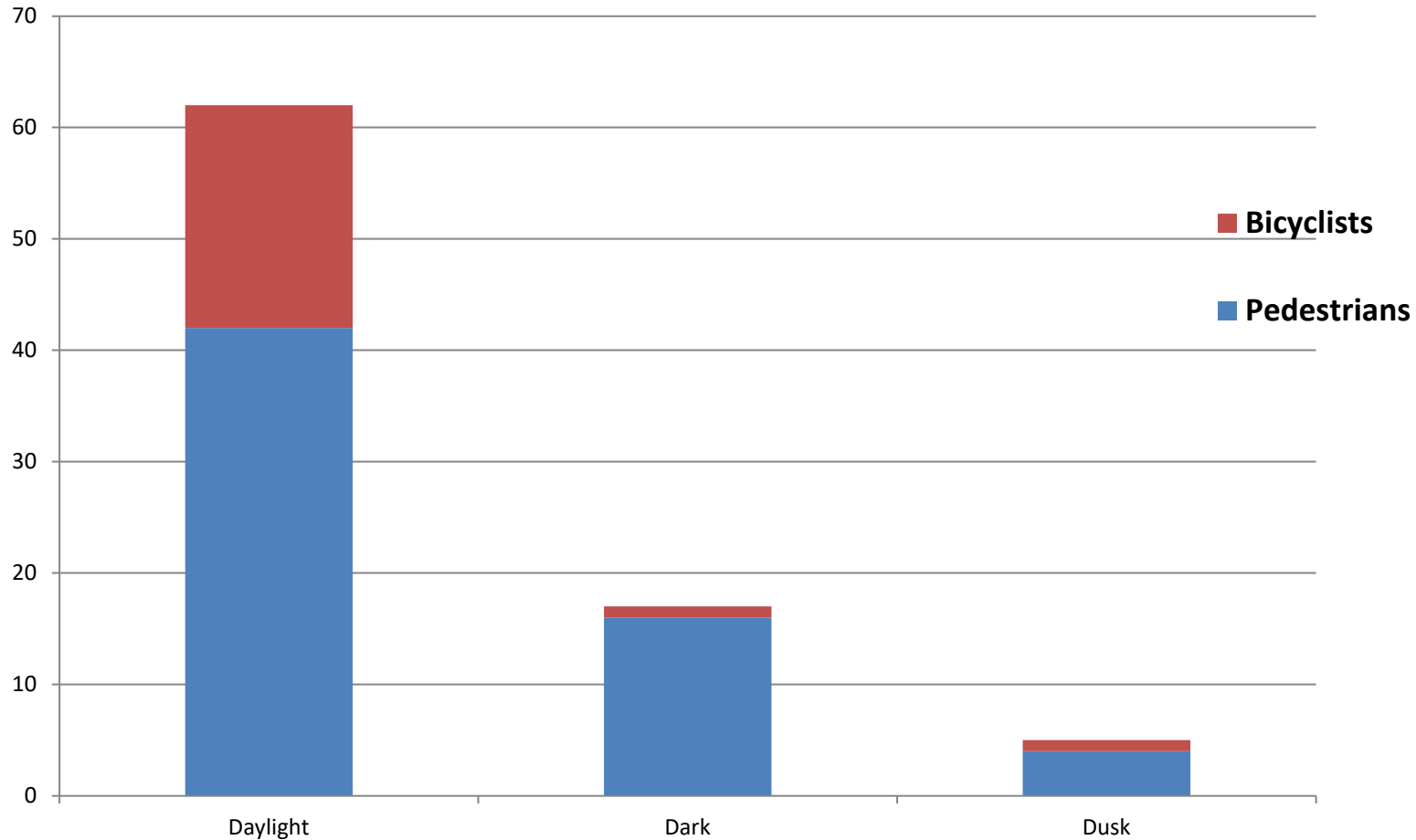
Sun-up to 12:59 pm = 6 crashes

1:00 pm to sundown = 14 crashes

- **Bicyclists: Dusk or after dark = 2 (9%)**

[Most common bike crash time around 5 pm = 7 crashes]

Crashes involving pedestrians and bicyclists, by Light conditions, Lebanon NH, 2006-2021* (n=84 crashes)



Source: Leb. Police Dept. data (2006-2021); and Leb. Fire Dept. EMS data (2015-2019) provided to LPBAC.

Crashes involving pedestrians and bicyclists, by Light conditions, and by year, Lebanon NH, 2006-2021* (n=84 crashes)

	</=2015	2016-17	2018-19	2020-21	TOTAL
Daylight: Ped	20	9	8	5	42
Dark/dusk: Ped	8	2	4	6	20
Daylight: Bike	13	3	0	4	20
Dark/dusk: Bike	2	0	0	0	2

NOTE: “Dusk” starts from around sundown.

“Dark” starts from 30 minutes after sundown.

Source: Leb. Police Dept. data (2006-2021); and Leb. Fire Dept. EMS data (2015-2019) provided to LPBAC.

Injury severity of crashes involving Pedestrians, Dusk or Dark, as % of Total Pedestrian injuries, Lebanon NH, **2006-2019**

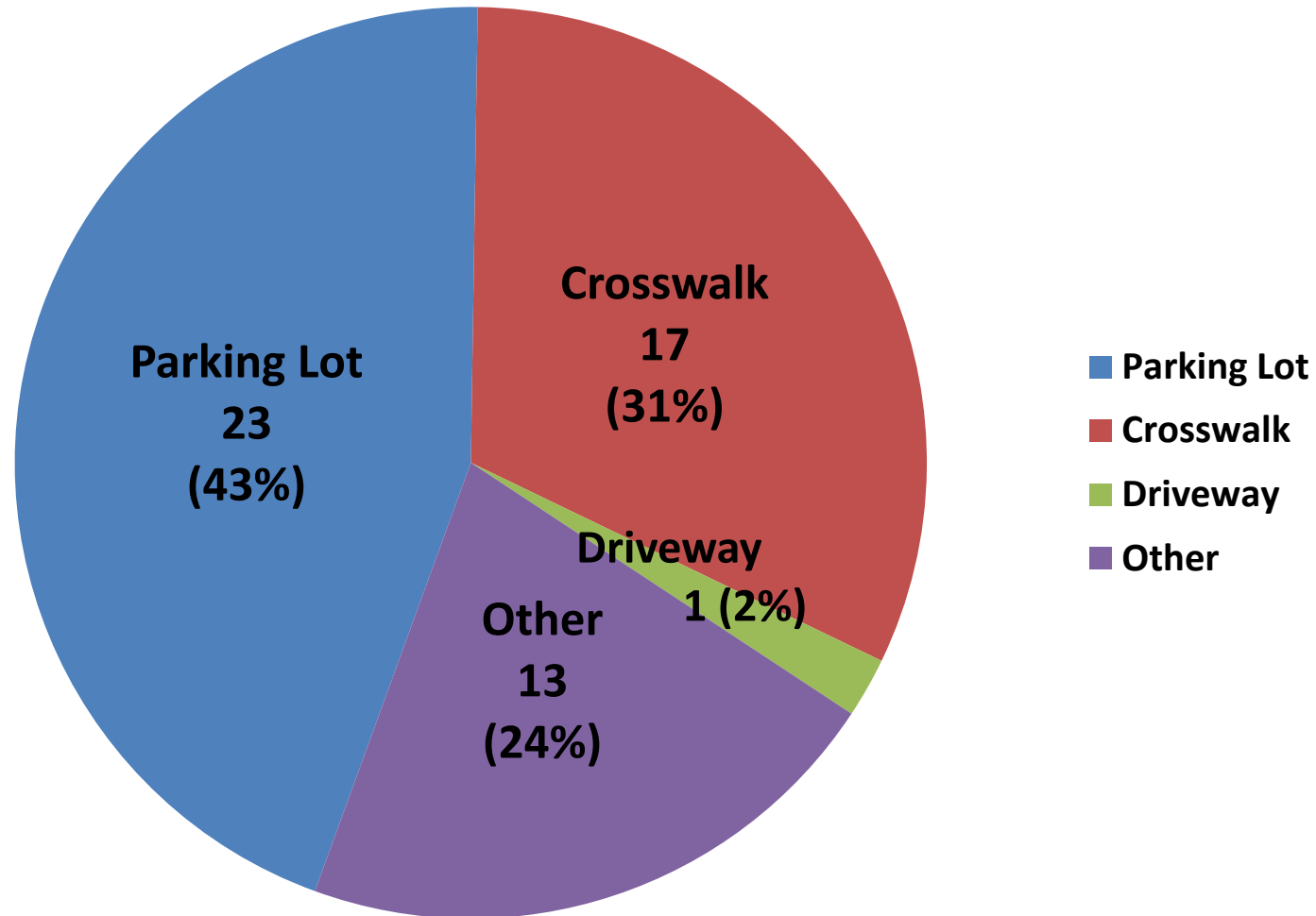
Injury type	No. of Ped. crashes when Dusk/Dark	No. of Ped. crashes TOTAL	% of Crashes when Dusk/Dark
None	0	4	0.0%
Slight	4	21	19.0%
Moderate	5	13	38.5%
Serious	2	6	33.3%
Fatality	1	1	100.0%
Unknown	2	2	100.0%
Total	14	47	29.8%

NOTE: 1 pedestrian fatality in 2010 not included in LPD data and not shown in chart.

LPD data for 2020 and 2021 did not allow analysis of injury severity.

Source: Lebanon Police Dept. data provided to LPBAC through Lebanon Planning Office.

No. and Per Cent of crashes involving Pedestrians, by Type of Location, Lebanon NH, 2006-2021 (n=54)



NOTE: Main location shown. If overlap (e.g. crosswalk within parking lot), only one location selected.

Source: Lebanon Police Dept. data 2006-2019, 2021 provided to LPBAC through Lebanon Planning Office.

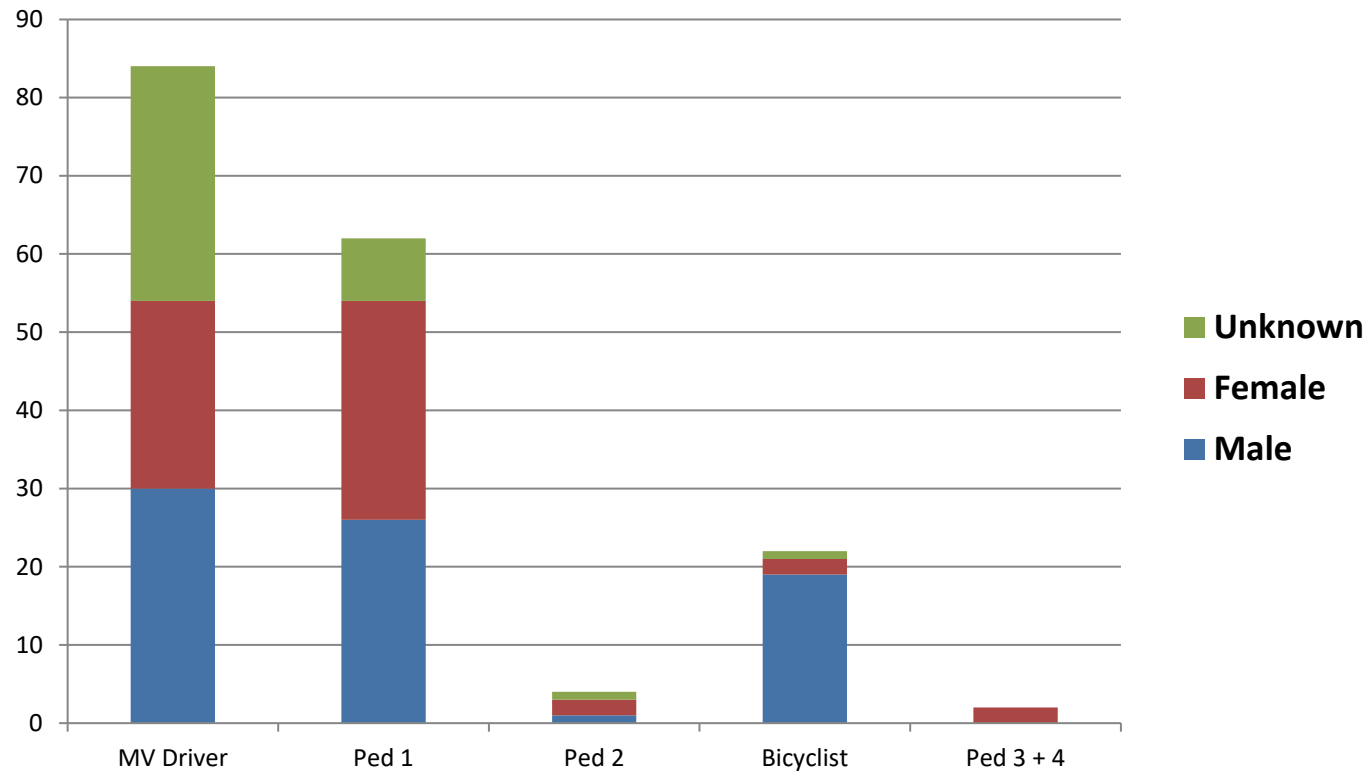
Crashes involving Pedestrians, by Age, Lebanon NH, 2016-2021 (n=34 crashes)

Year	Number of Total crashes	Avg. Age Park.Lot	Avg. Age All Peds	Comment
2016	4	71.0	63.5	2 crashes: age NA
2017	7	68.8	59.3	
2018	5	45.5	39.7	1 crash: 2 peds, (Total=6 peds)
2019	7	57.0	55.5	1 crash: age NA
2020	4	NA	56.0	
2021	7	71.0	45.6	
2016-2021 Average (in years)		63.0*	51.8	
2016-2021 Median (in years)		70*	56	
2016-2021 Range of ages		(7 to 95 years*) (7 to 95 years)		

- NOTES: 1) Age data not available for the years before 2016.
 2) *Parking lot crash avg./median age only for 2016-2019 and 2021.
 Parking Lot information not available for 2020.

Source: Lebanon Police Dept. data provided to LPBAC through Lebanon Planning Office.

Crashes involving pedestrians and bicyclists, by Gender, Lebanon NH, 2006-2021 (n=84 crashes)



**NOTE: Some crashes involved more than one Pedestrian: Total of 68 Pedestrians in 62 crashes.
Gender not known for 8 pedestrians involved in crashes.
Gender of Motor Vehicle Driver not available for 2020-2021.**

Source: Leb. Police Dept. data (2006-2021); and Leb. Fire Dept. EMS data (2015-2019) provided to LPBAC.

Analysis/discussion - Pedestrians

- **Increased number of crashes from 2015 to 2021.**
- **Another crash at Evans Drive/Hanover St. intersection crosswalk in 2021 – same location as 2018 fatal crash.**
- **Largest number of crashes involving pedestrians in May and November.**
- **Dusk and Dark is most dangerous time for pedestrians.**
 - **Increased risk of crashes for pedestrians at dusk/after dark.**
 - **Greater risk of more serious injuries to pedestrians in crashes at dusk/after dark.**
- **Parking lots and crosswalks remain locations with most crashes involving pedestrians.**
- **Seniors are pedestrians at most risk.**
 - **Average age of pedestrians hit in all crashes = 51.8 years**
 - **Average age of pedestrians hit in Parking Lots = 63.0 years**
- **Pedestrian crashes on every day of the week – most on Wednesday (12 crashes), followed by Thursday (11).**

Analysis/discussion – Bicyclists

- **3 Bike crashes reported in 2020, and 1 in 2021, after none reported in 2018 and 2019.**
- **First e-bike crash reported -- in 2021.**
 - **Near Lebanon Middle School**
- **Largest number of Bike crashes in October (5), followed by June (4), July (4) and September (4).**
- **No Bike crashes reported for colder months of Dec., Jan., Mar., April from 2006-2021.**
- **Except for 1 crash each in February and November, all crashes involving bicyclists from May to October.**
- **Most dangerous day for Bike crashes is Friday.**
- **Most common Bike crash time is around 5pm, possibly on commute home**
- **19 out of 21 bicyclists involved in crashes were male.**
 - **The gender of one bicyclist was not shown in the data.**

Possible interventions – for discussion

- **Reduced Motor Vehicle speed limit (25mph) within the City established! Need to evaluate impact**
- **Communicate risks and ways to prevent crashes**
- **Pedestrian education focused on:**
 - Need for caution in Parking Lots, and when crossing street -- even in crosswalk.
 - Increased risk of being involved in crash after dark
 - Higher risk of injuries if involved in crash after dark
 - Higher risk of crash involvement and injury for seniors
 - Special materials for children and seniors
- **Bicyclist education**
- **Driver education highlighting greater attention required in parking lots and when approaching crosswalks.**
- **Increased signage (for MVs/pedestrians)**
- **Road Safety Surveys/Assessments**