

2012 Winter Seminar

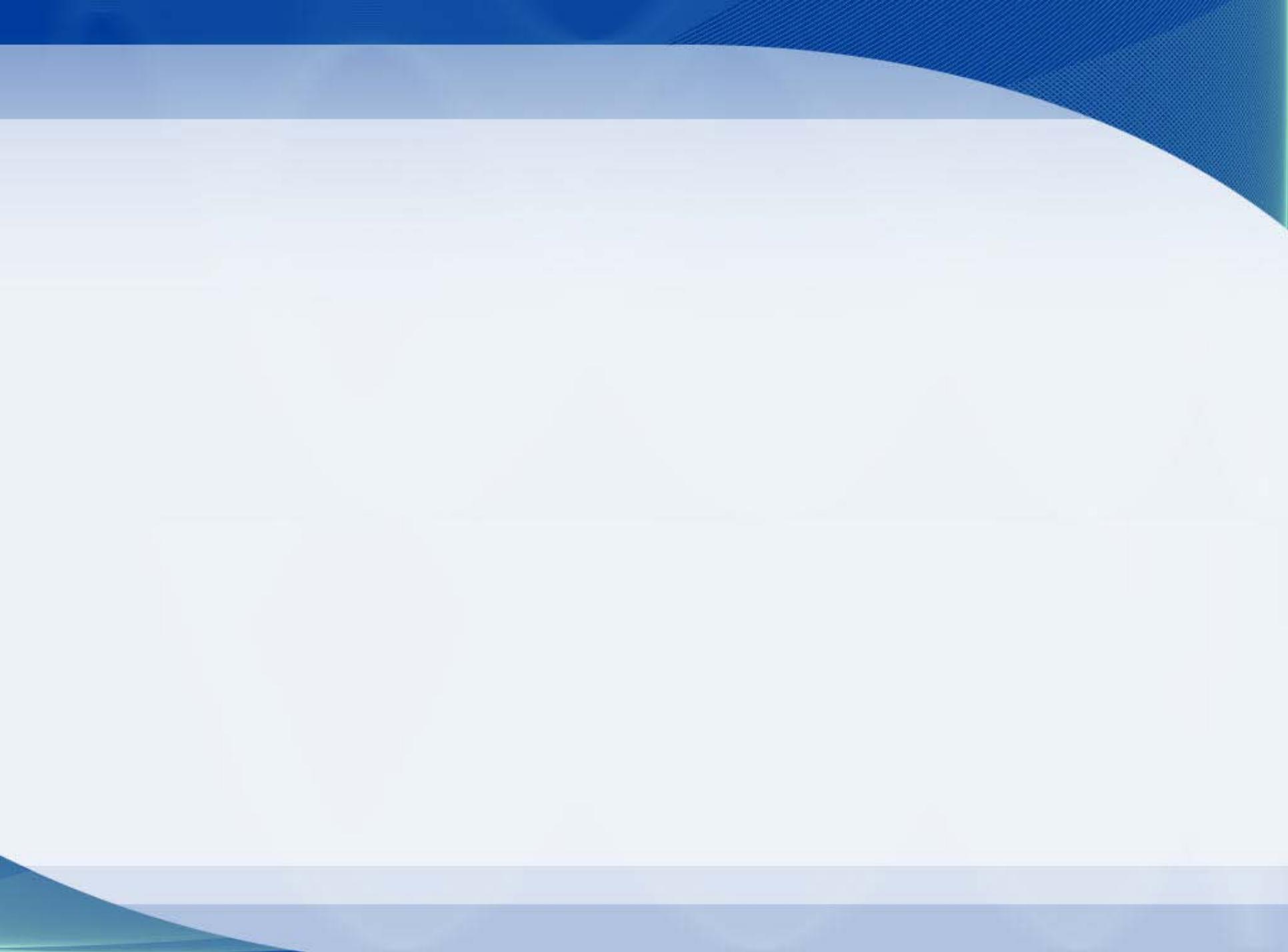


NWS La Crosse
December 6, 2012

Outline

- Introductions
- Dual Pol
- Decision Support
- Forecast Process
- Ensembles
- Office tour?





Decision Support



Decision Support

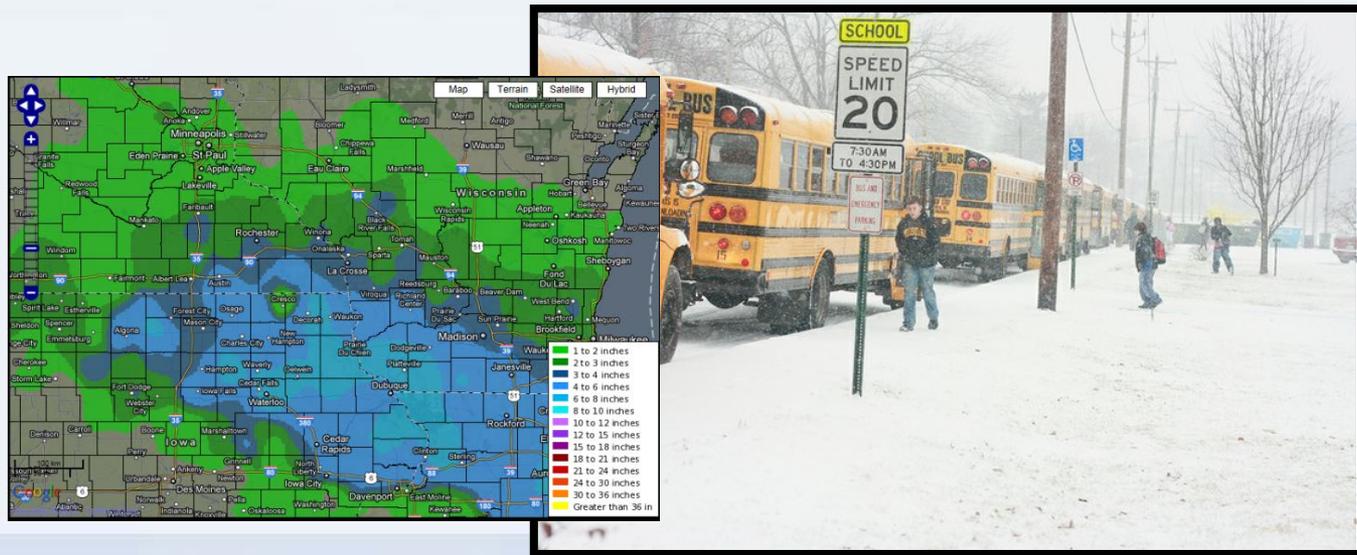
- Help partners more effectively use weather information in their planning and in real-time decision-making.
- “need critical information that helps them understand the situation and how to manage its impacts.”
- Need to know the thresholds of our partner groups.
- Can we develop tools to help them?
 - NWSChat
 - Spotter Activation Notification System (SANS)

Think Impact!

- Precipitation types, amounts, intensities
- Timing and duration
 - Start / End times, time of day, time of week
- Wind / Sky cover
- Social behavior, special events
- Challenge: Impact thresholds defined by each partner

January 20, 2012

- Snow moved in during daytime
- Advisories in place
- Heaviest snow during early afternoon when some schools decided to release early...



January 20, 2012



- Comments back from Seneca, WI schools...
 - Released students before snow became significantly worse to drive in.
 - Many back roads are not plowed for 12 hours
 - Wanted to make day as productive as possible
 - Lunch time – feed them or not?
 - For advisories...play it by ear
 - Some nearby schools were scheduled to release early anyway
 - Takes time to arrange bus drivers

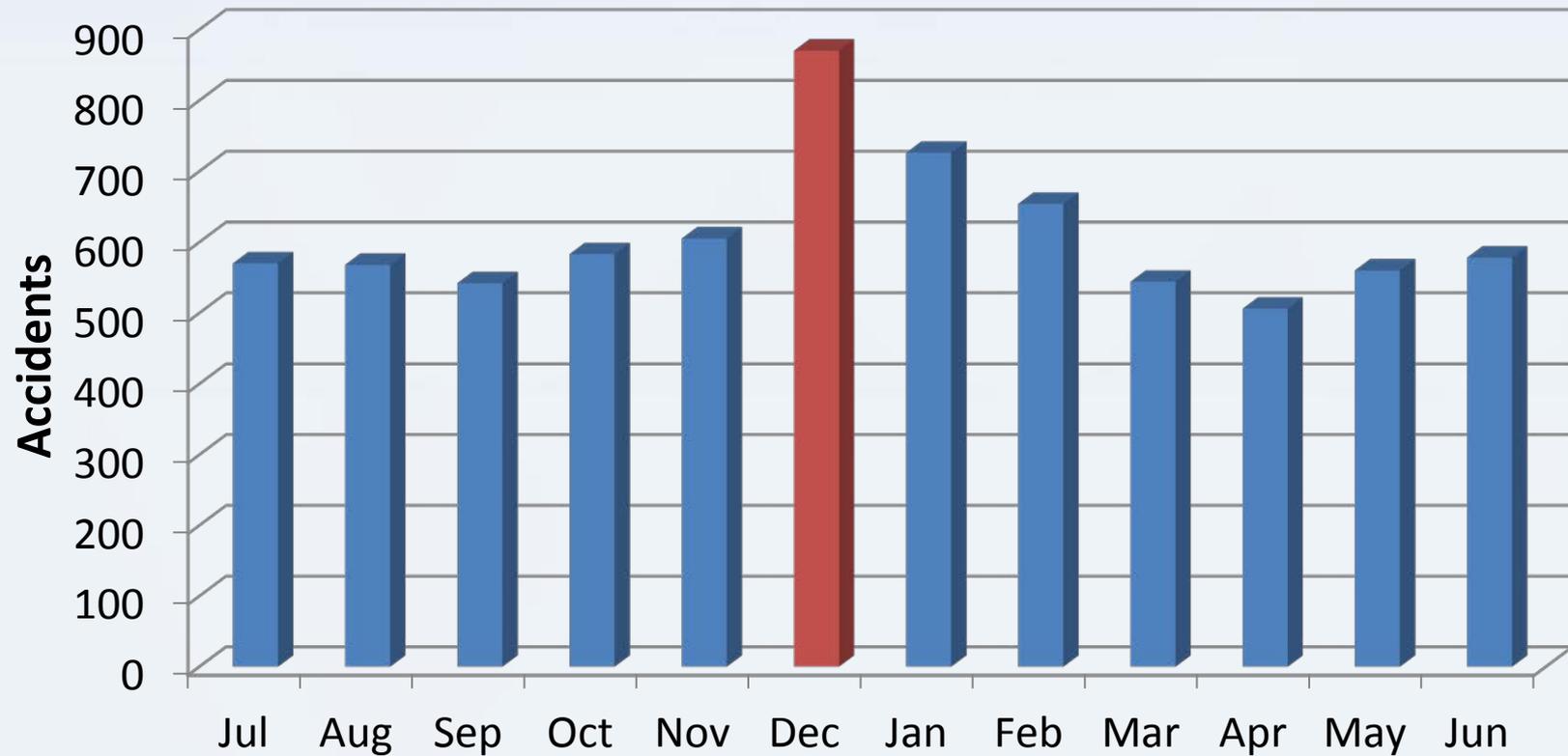
La Crosse Co. Accidents

- Daily accident numbers from La Crosse County for 2000-2012
- Compared with climate records at KLSE



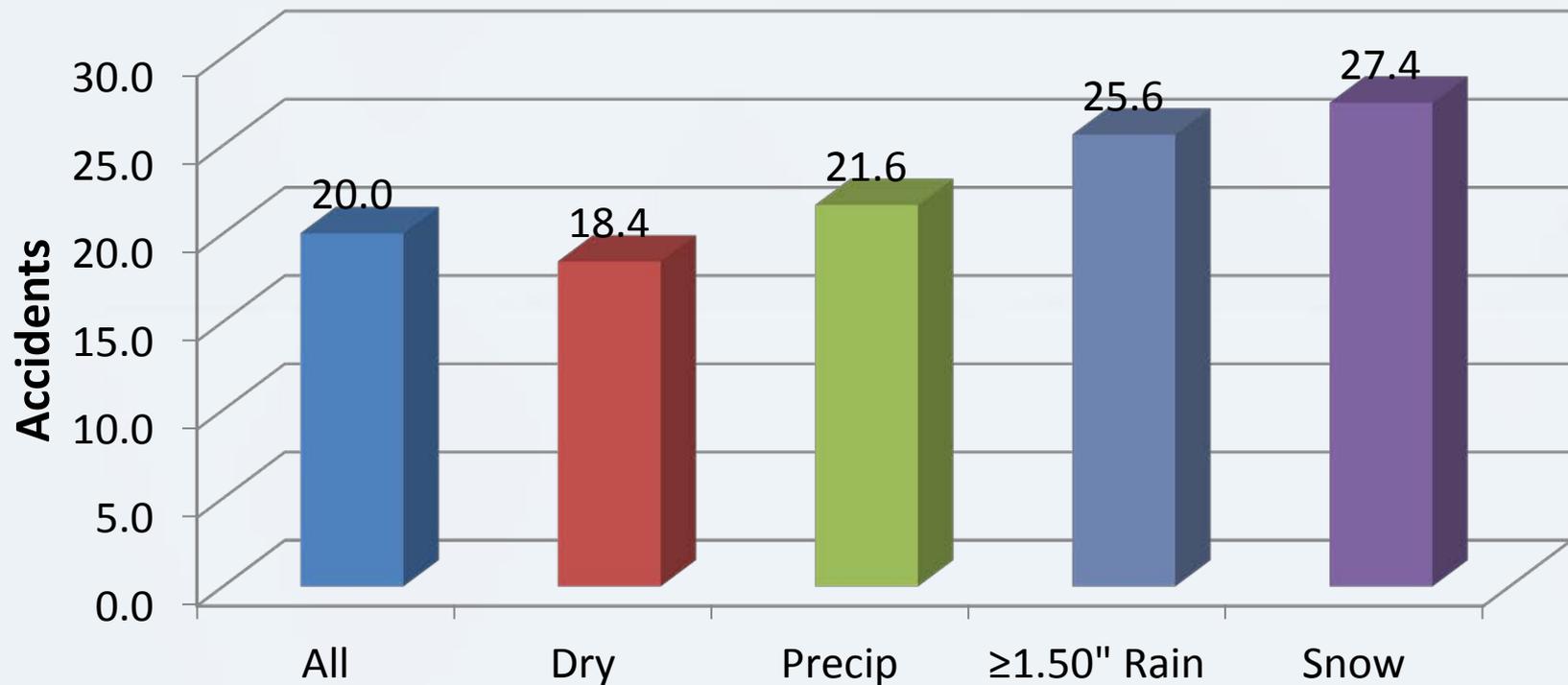
La Crosse Co. Accidents

Averaged by Month



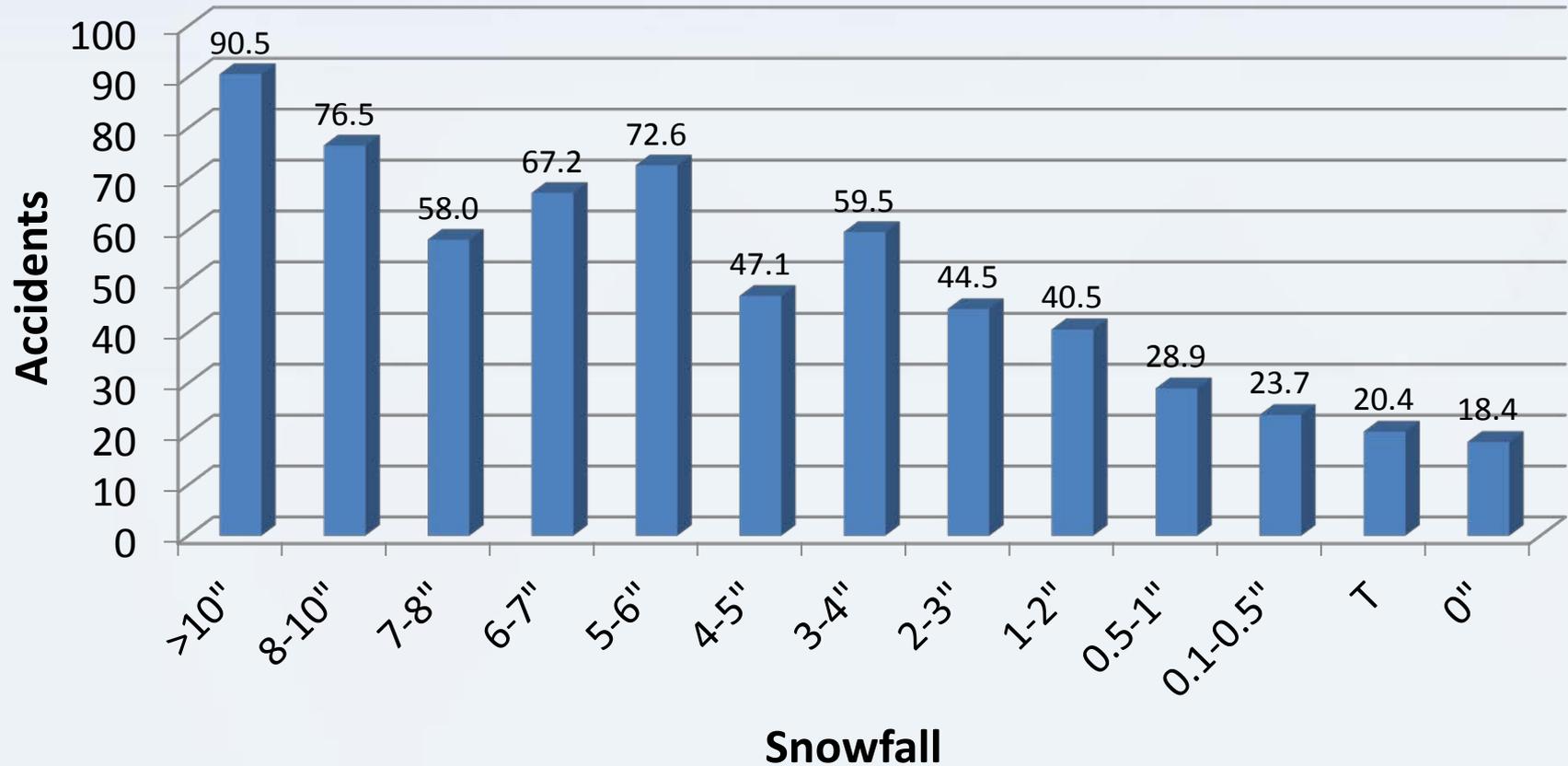
La Crosse Co. Accidents

Average Daily Accidents
2000 - 2012



La Crosse Co. Accidents

Averaged by Snowfall Range



La Crosse Co. Accidents

	Date	# of Accidents	Pcpn	Snow	Tmax (F)	Tmin (F)
★	2/24/07	177	0.32"	5.0"	32	24
★	2/6/07	109	0.11"	1.7"	7	-13
★	1/17/04	108	0.13"	0.0"	34	20
★	1/22/08	108	0.02"	0.5"	12	-9
★	12/20/00	102	0.20"	1.9"	11	-1
★	1/20/12	97	0.16"	2.5"	7	-9
★	3/18/05	95	1.20"	13.9"	30	26
★	12/18/00	94	0.43"	5.0"	12	-1
\$\$	11/25/05	93	0.17"	3.0"	20	13
	12/3/09	93	0.06"	0.9"	30	23

Top 45 Accident Days

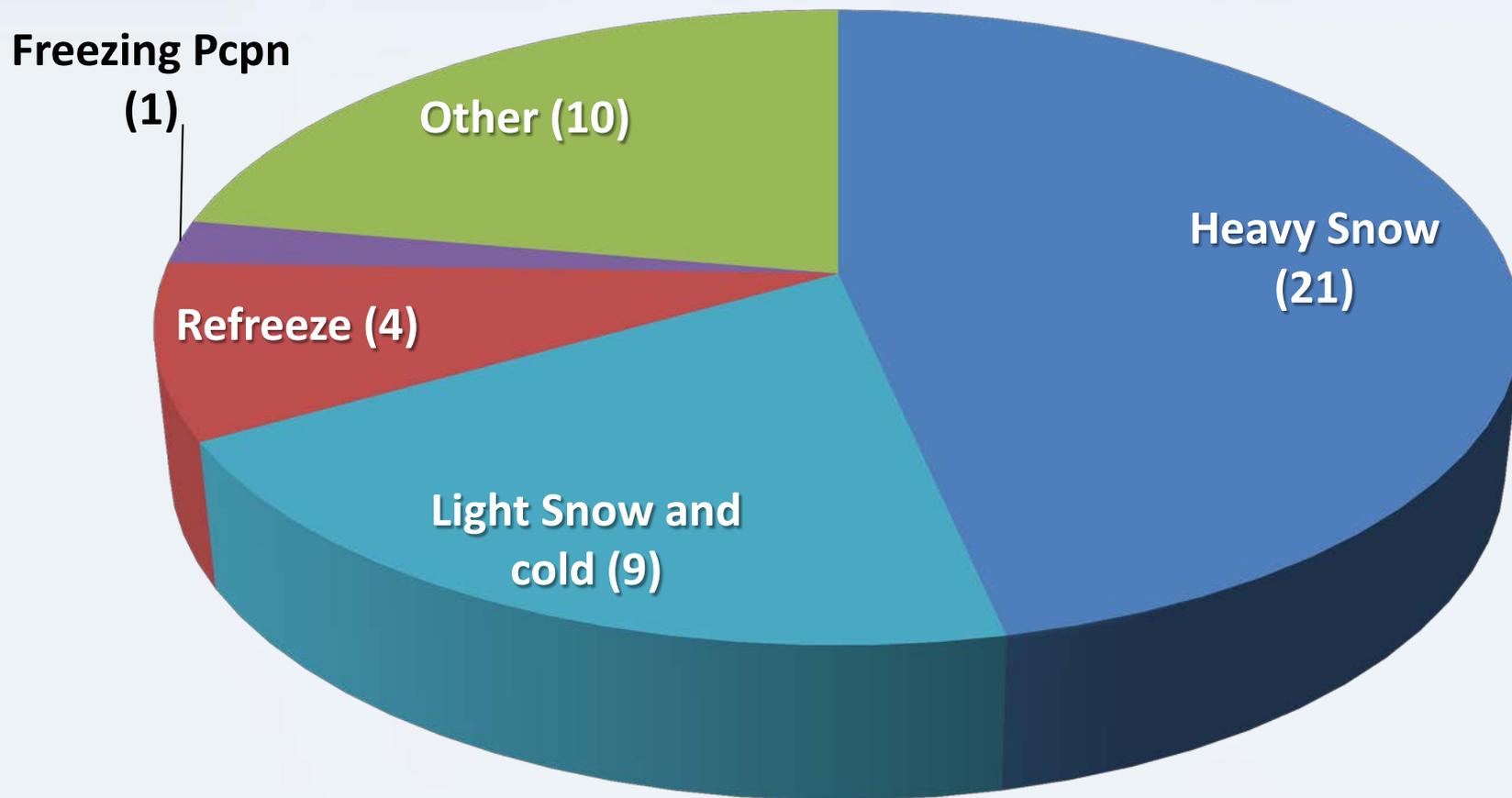
- 65 accidents or higher
- Only 4 days had no precipitation

Date	# of Accidents	Pcpn	Snow	Tmax (F)	Tmin (F)
12/13/10	85	0.00"	0.0"	7	-11
12/22/08	80	0.00"	0.0"	2	-17
12/14/10	69	0.00"	0.0"	6	-17
1/24/08	67	0.00"	0.0"	5	-22

- Magic combo (?)
 - “Bitter” cold Tmax / Tmin (refreezing)
 - Christmas shopping crowds



La Crosse Co. Accidents



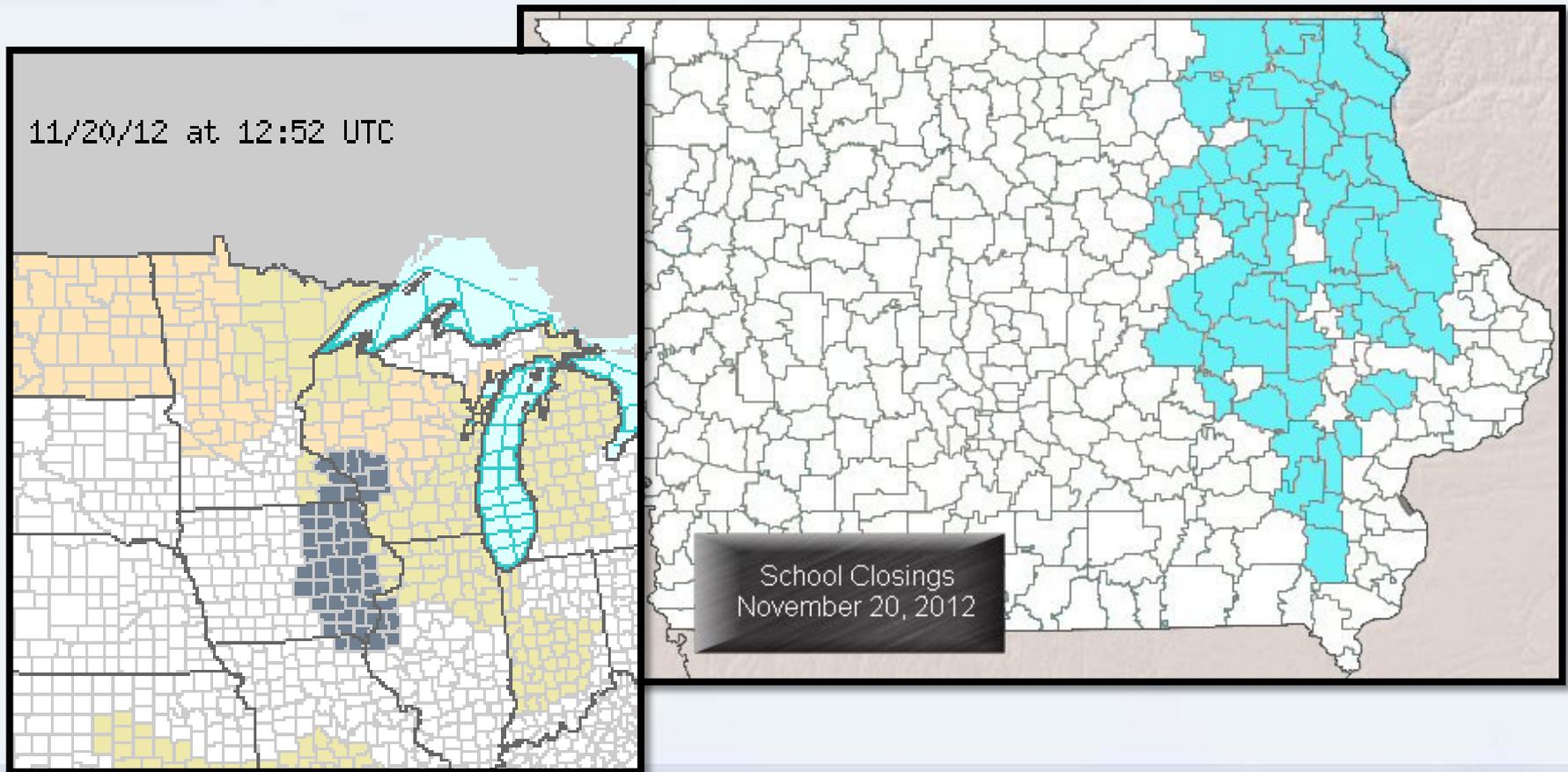
Decision Support Feedback

- Series of questions for each partner group
- Schools
- Highway / Street Depts.
- Medical Centers
- Utility Companies
- On-going project (more partner groups)



Schools

- Nearly 2/3rd use delays during dense fog



Schools

- Nearly 2/3rd use delays during dense fog
- 0°F common indoor/outdoor threshold
- 4-6 a.m. key decision making time
- 94% check the night before
- 2/3rd make decisions with other districts



Highway / Street Depts.

- Different thresholds summer / winter
- Critical chemical temps: 32°F and 15°F
- Timing (start / end) important
- Critical decision making times:
 - Winter: 5 a.m. Summer: 7 a.m.



Medical Centers

- Variety of staff members monitor weather
- Most make building announcements or pass word face-to-face
- Decision making times vary greatly
- Tornadoes and winter weather biggest threats



Utility Companies

- Ice and thunderstorm wind gusts highest threats
- Most change their operations during warning scenarios
- Most use 24-hour forecasts
- Most need post-event information



Decision Support

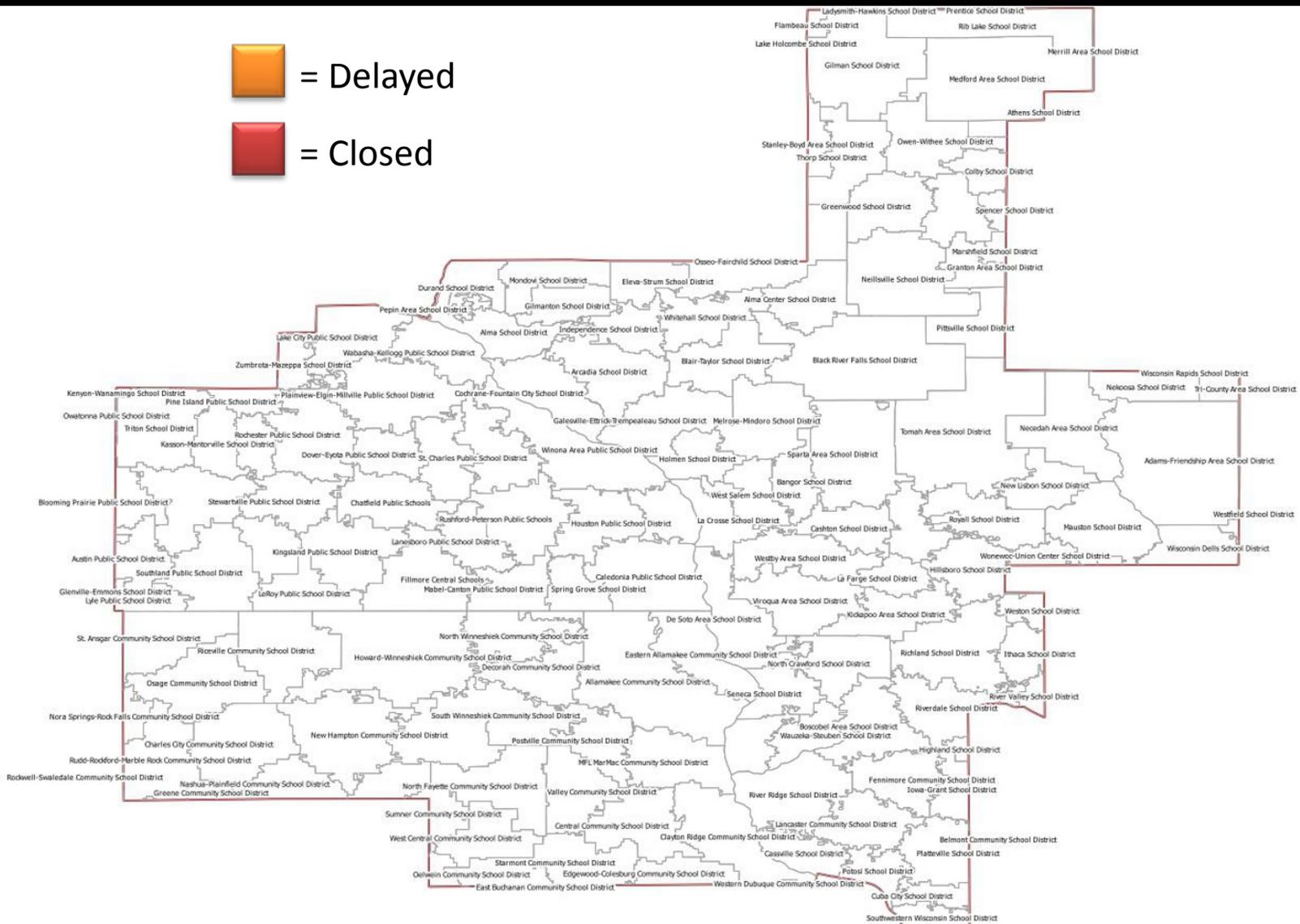
- Future partner projects
 - Media
 - Parks / Campgrounds
 - Farming / Agriculture
 - Retail
 - Railroad
 - Construction
 - Insurance companies
 - many others...



New Project?

 = Delayed

 = Closed



Social Media

- NWS relatively new to party
- Communication remains high priority
 - NWSChat still works best
- Mention / Hashtag inclusion
 - @NWSLaCrosse
 - #nwsarx



