

ABA Projected Impacts and Budget for Storm Damage

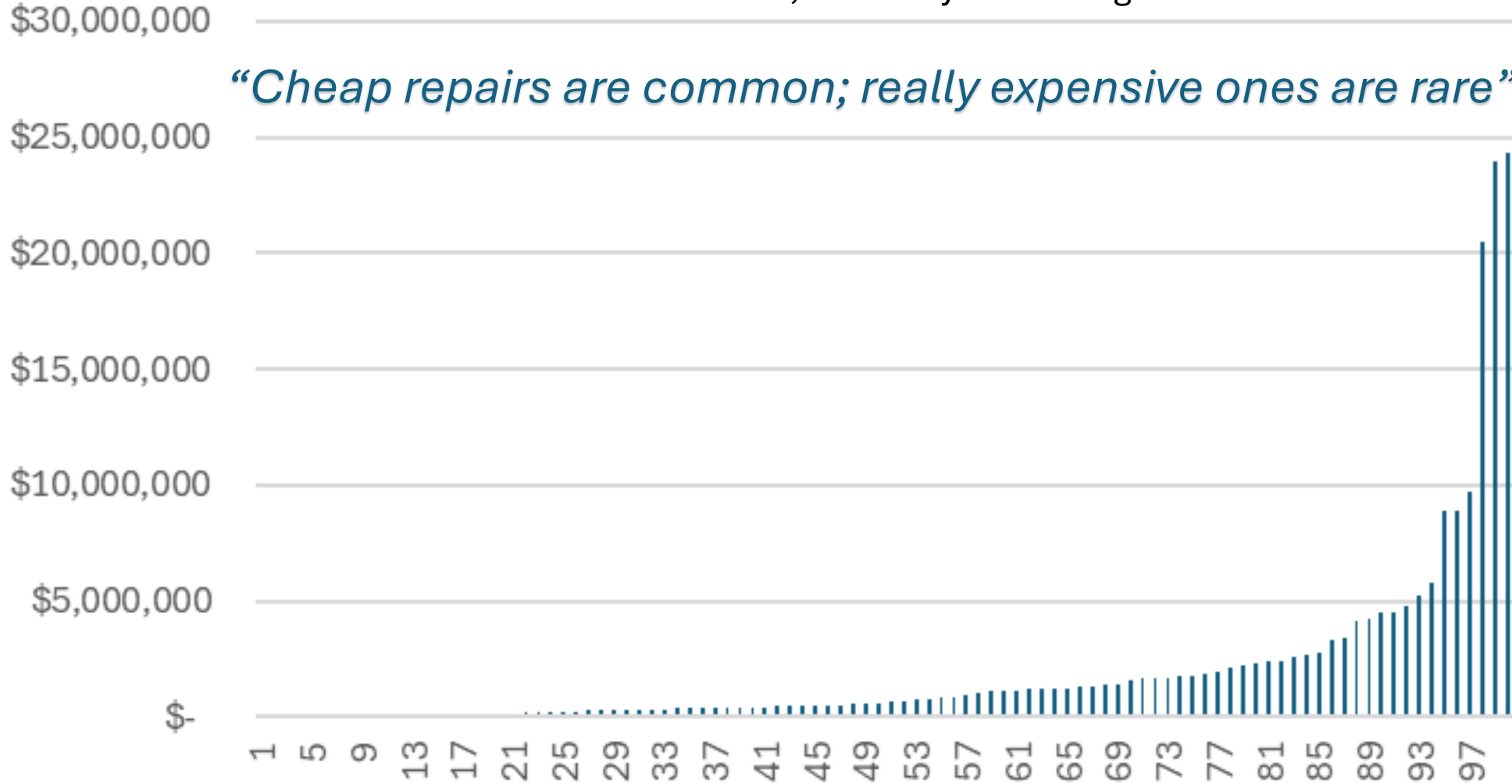
Based on CMP repair incidence and costs

Costs for CMP Storm Repairs

100 Maine storms 2018-2022, sorted by increasing cost to CMP

“Cheap repairs are common; really expensive ones are rare”

CMP Repair Cost Per Storm



Costs for CMP Storm Repairs

100 Maine storms 2018-2022, sorted by increasing cost to CMP

CMP Repair Cost Per Storm

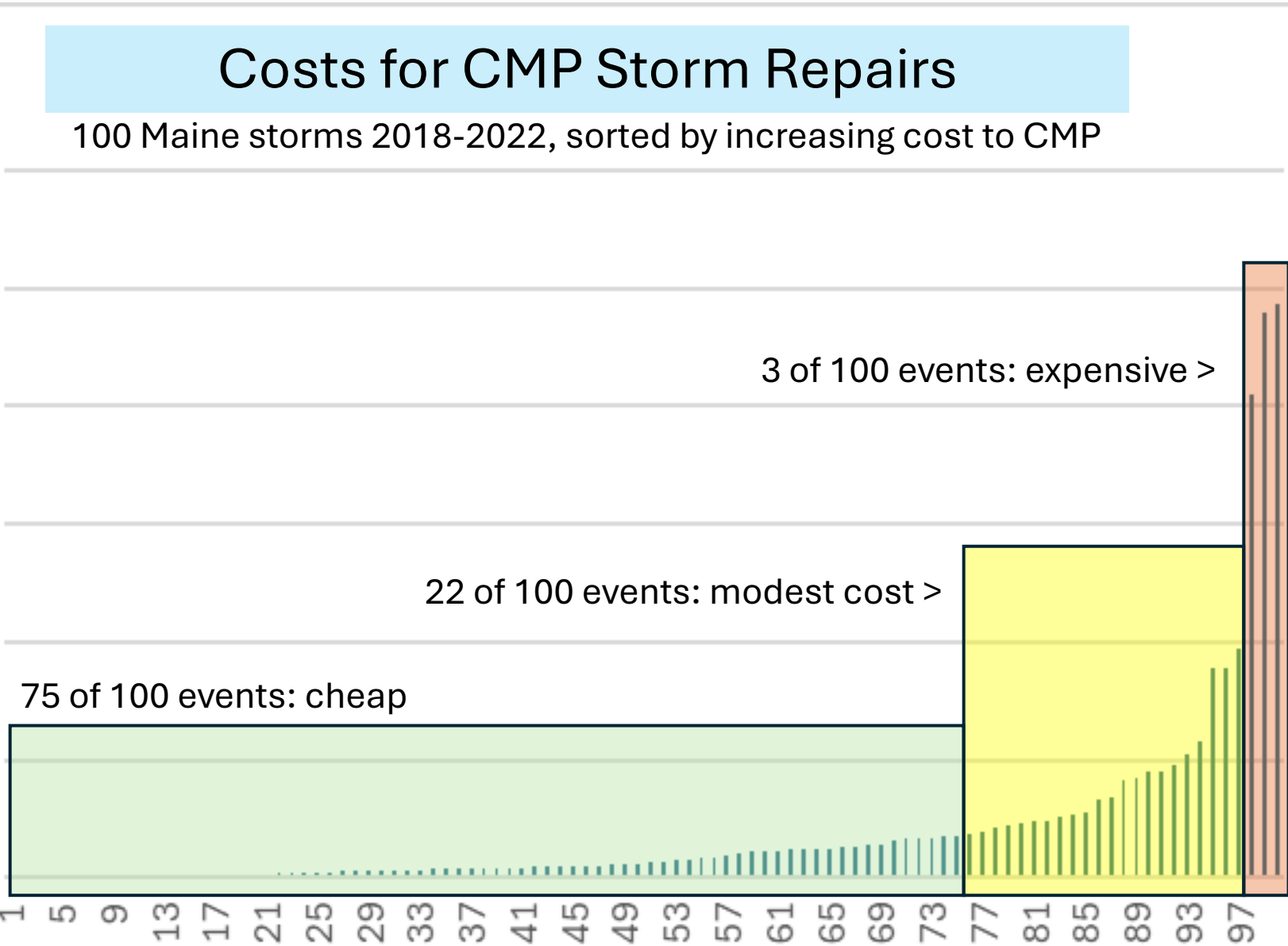
\$30,000,000
\$25,000,000
\$20,000,000
\$15,000,000
\$10,000,000
\$5,000,000
\$

1 5 9 13 17 21 25 29 33 37 41 45 49 53 57 61 65 69 73 77 81 85 89 93 97

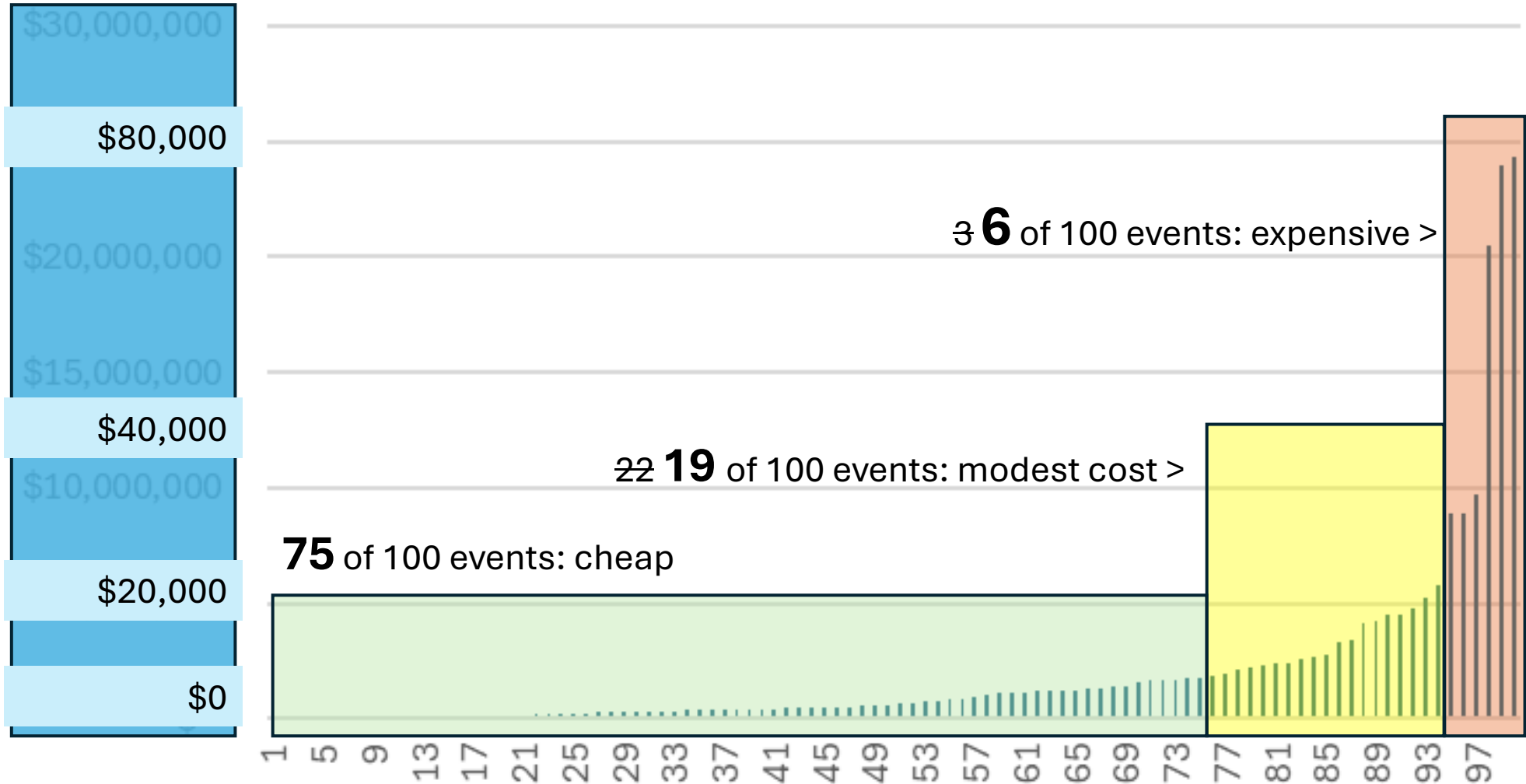
75 of 100 events: cheap

22 of 100 events: modest cost >

3 of 100 events: expensive >



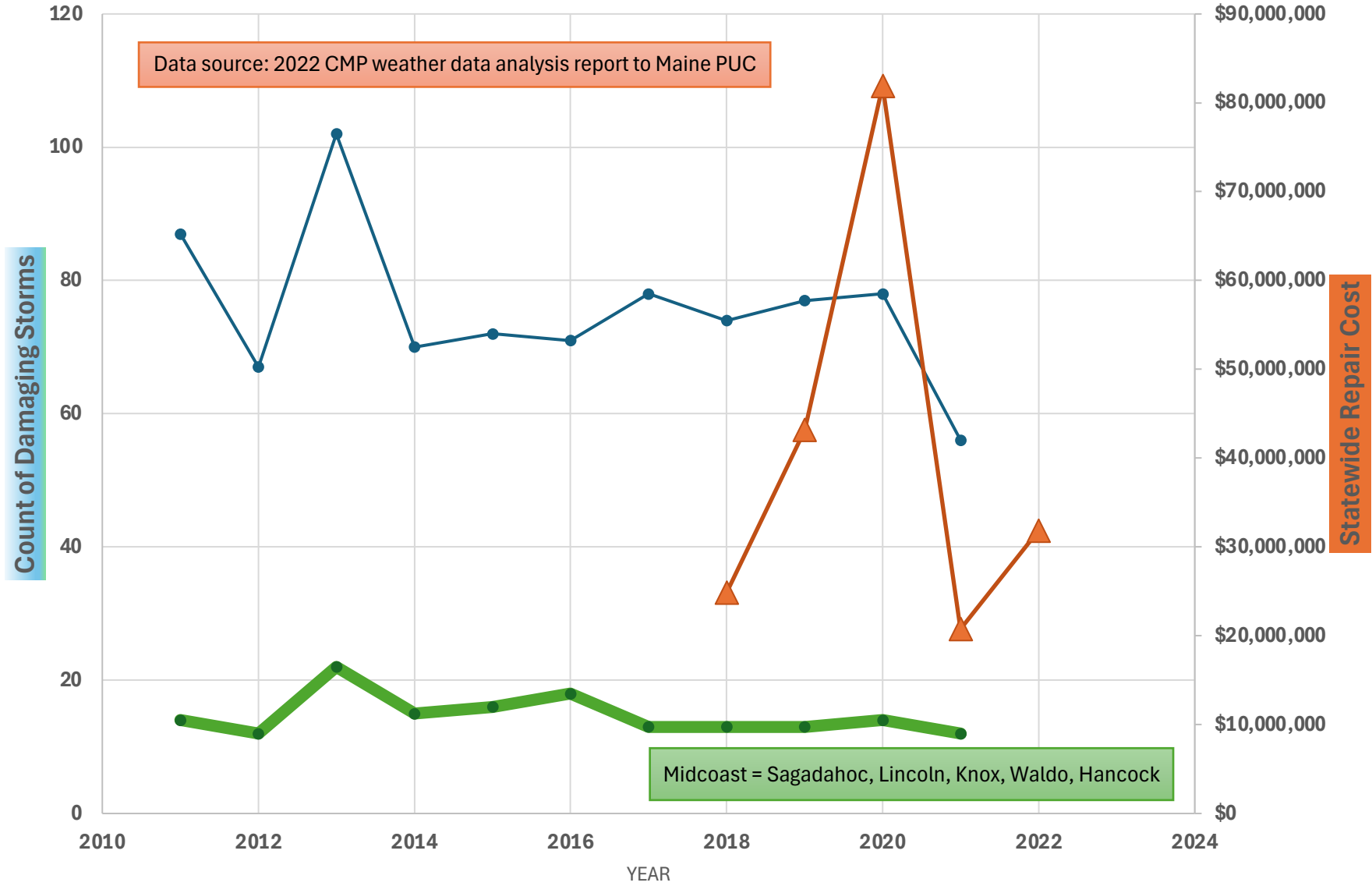
Using CMP storm repair costs as proxy for ABA



ABA Storm Impact Planning

		Impacts		Mitigation	
Annual Damage Case	Planned-For Frequency	ABA Repair Cost, \$	Subscriber Outage Days	Repair Costs	Service Outage
Low	75% (15 of next 20 years)	\$20,000	30s x 1d x 5 = 150 sd	Budget \$20k.	Subscriber-accessible hotspot. Info & training on workarounds.
Medium	20% (4 of next 20 years)	\$40,000	Low + 100s x 3d x 2 = 750 sd	Add \$8k budget. (20% of \$40k)	As above, plus possible repair service contract / retainer.
High	5% (1 of next 20 years)	\$80,000	Medium + 200s x 6d x 1 = 1,950 sd	Add \$4k budget. (5% of \$80k)	As above, plus possible repair service contract / retainer.
Catastrophic	0% (not in next 20 years)	>\$160,000	200s x 60d x 1 = 12,000 sd	Unbudgeted. FEMA? Maine?	None additional.
Notes			200s x 365d = 73,000 sd	Budget \$32k/yr. Excess to reserve, deficit from loan or Town.	

CMP Annual Damaging Storm Counts and Repair Costs

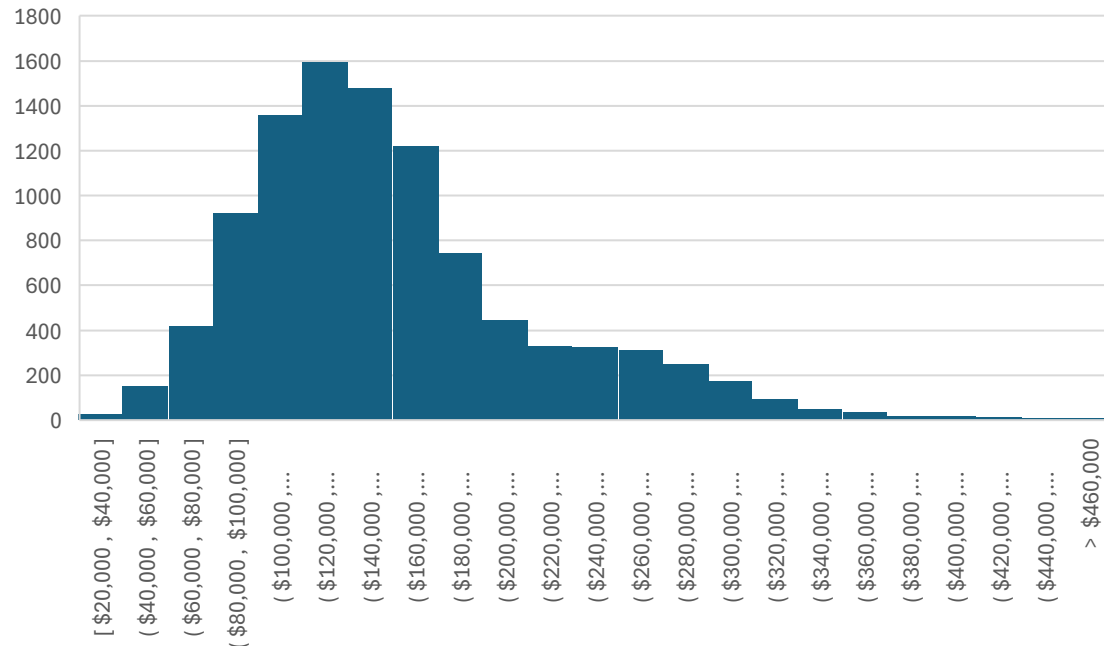


● Stormcount Maine ● Stormcount Midcoast ▲ Statewide CMP Repair Cost

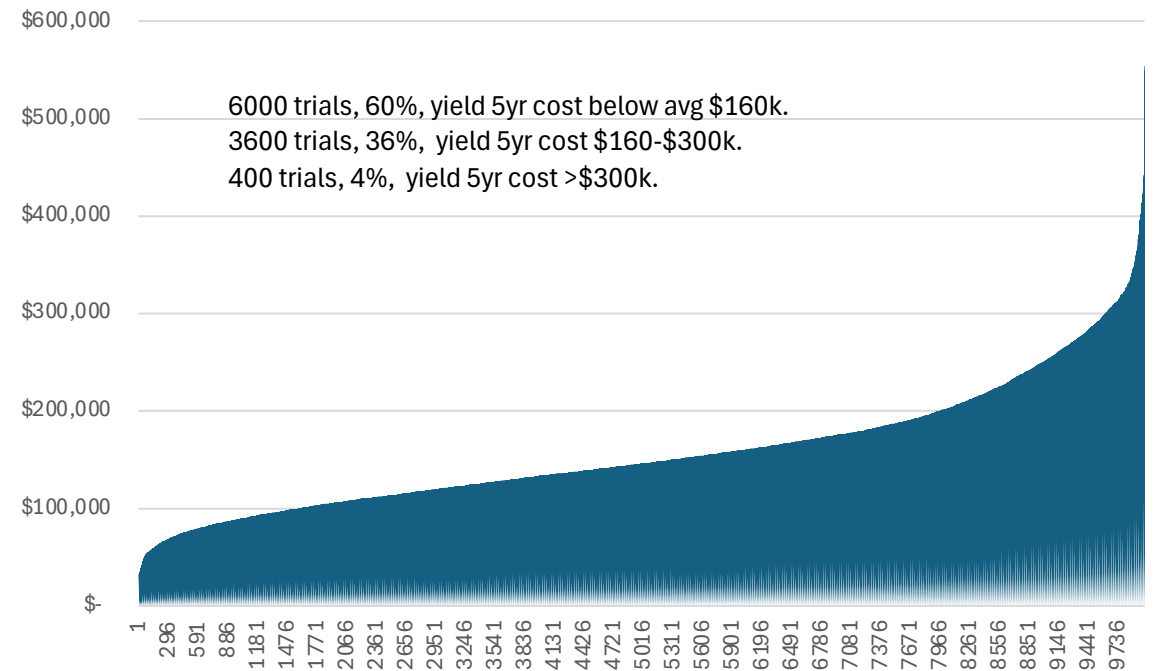
“\$32k/yr sounds reasonable for a budget ...

- But what if there are multiple bad years in the first 5?
- How likely is that?
- How much could it cost?”

Possible 5yr costs given \$32k avg annual cost; 10000 cases



5-Year Cost Sums: 10,000 trials



Number of weather events
 (potentially *power-system-damaging* events)
 (CMP data reported to Maine PUC)

CMP Region	Season	YEAR											
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Northern (Mtns)	Cold	4	14	9	13	14	10	9	13	13	18	16	12
Northern (Mtns)	Warm		14	12	16	7	10	9	14	9	6	11	6
Northern (Mtns)	Non		1	1	2	0	0	0	1	2	1	0	3
Inland Plains	Cold	3	12	8	16	13	10	10	13	13	13	9	9
Inland Plains	Warm		12	8	11	5	9	9	9	7	7	6	6
Inland Plains	Non	1	2	2	3	0	0	2	1	2	1	4	1
MidCoast	Cold	3	10	4	13	11	11	7	9	7	5	6	6
MidCoast	Warm		2	6	5	2	4	6	2	6	4	3	5
MidCoast	Non	1	2	2	4	2	1	5	2	0	4	5	1
South	Cold	1	8	5	8	7	9	5	7	8	9	6	2
South	Warm		10	8	10	9	8	9	6	7	8	11	5
South	Non		0	2	1	0	0	0	1	0	1	1	0

CMP Statewide Repair Costs by Day of Year (0-365), 5 years 2018-2022

