

Texas MPO Resiliency Survey Results

Matthew Miller, Texas A&M Transportation Institute
Presentation Before the State of Texas Resiliency Working Group,
April 27, 2021

Presentation Overview

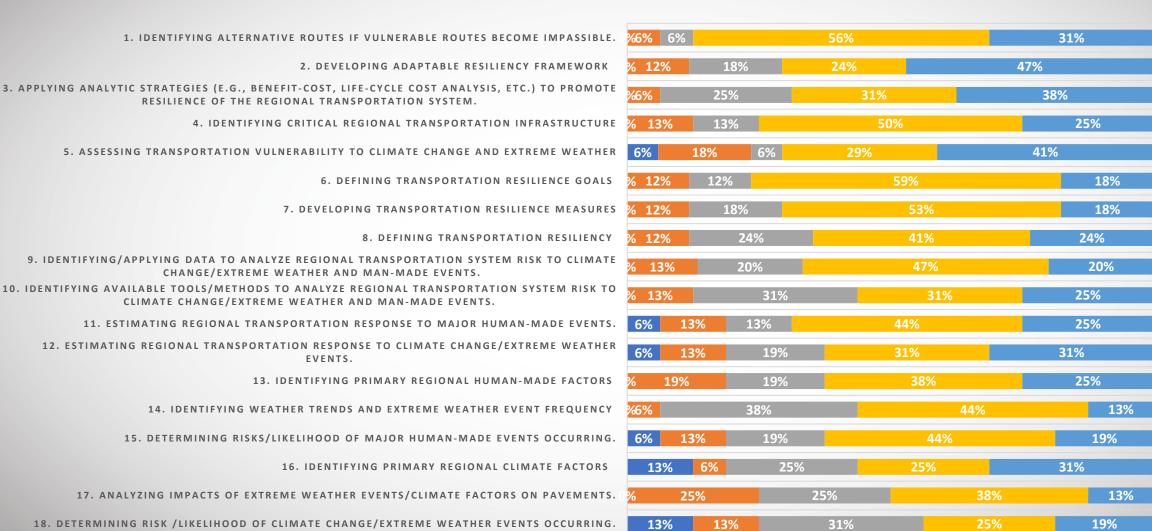
I: Review of Survey Results

II: Review of Poll Everywhere Results

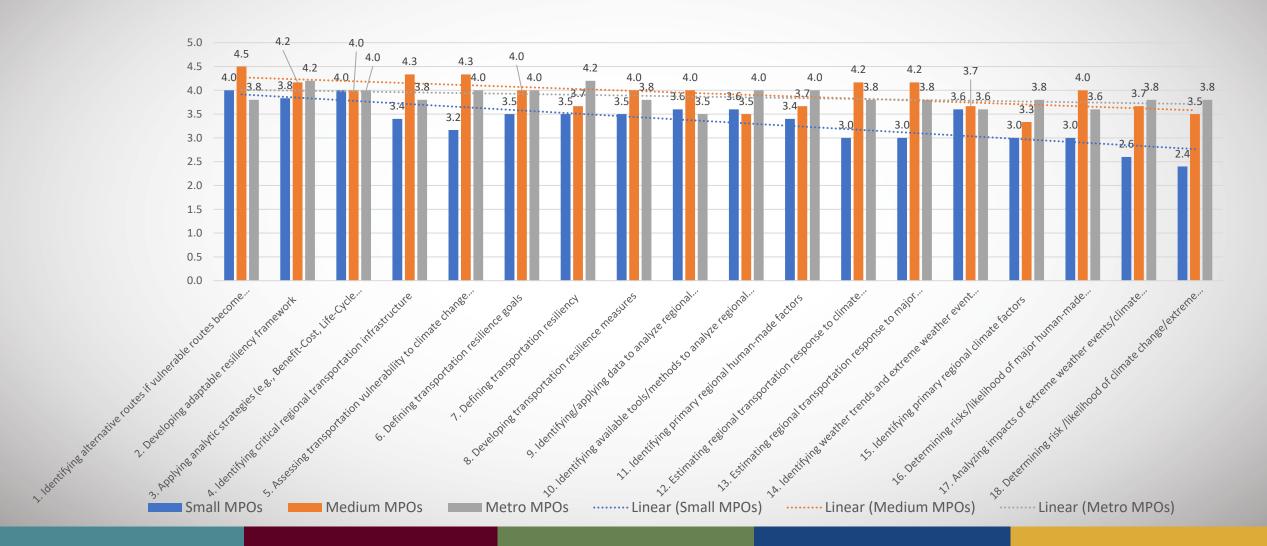
Overall Ranking of Resiliency Priorities

(1 being lowest, 5 being highest)





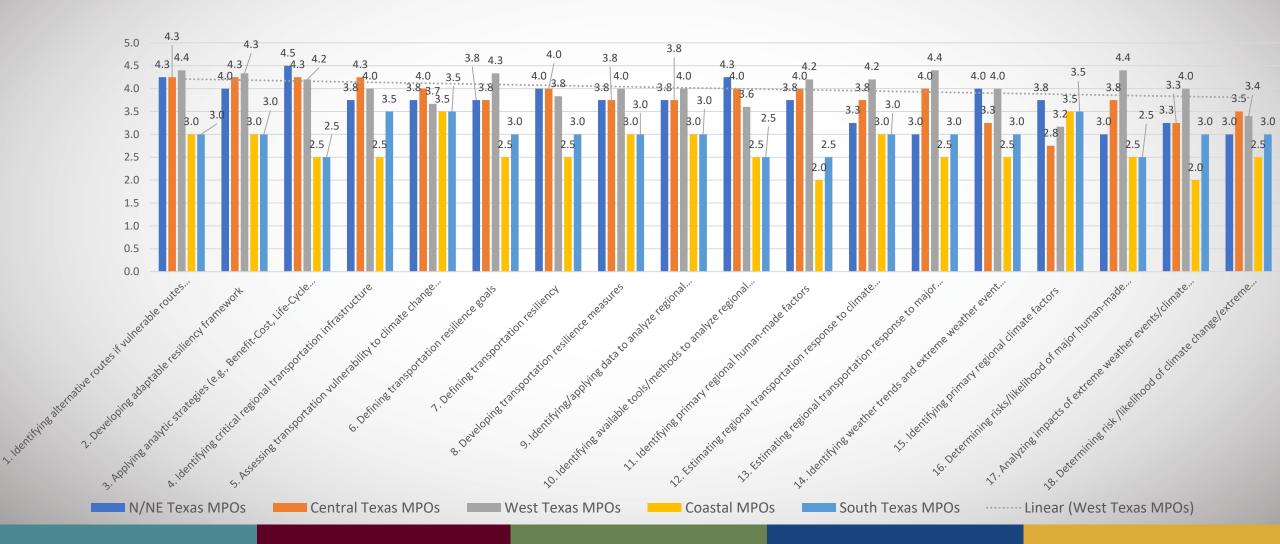
Overall Ranking of Resiliency Priorities by Small, Medium, and Metro MPOs



Top 5 Comparison by MPO Size

				•				
	Overall		Large		Medium		Small	
1.	Identifying alternative routes if vulnerable routes become impassible.	4.12 1.	Developing adaptable resiliency framework	4.2	 Identifying alternative routes if vulnerable routes become impassible. 	4.50 1	 Identifying alternative routes if vulnerable routes become impassible. 	4.00
2.	Developing adaptable resiliency framework.	4.05 2.	Defining transportation resiliency	4.2	2. Assessing transportation vulnerability to climate change and extreme weather	4.33 2	Applying analytic strategies (e.g., Benefit-Cost, Life-Cycle Cost Analysis, etc.) to promote resilience of the regional transportation system.	4.00
3.	Applying analytic strategies (e.g., Benefit-Cost, Life-Cycle Cost Analysis, etc.) to promote resilience of the regional transportation system	4.00 3.	Defining transportation resilience goals	4	B. Identifying critical regional transportation infrastructure	4.33 3	Developing adaptable resiliency framework	3.83
4.	Identifying critical regional transportation infrastructure	3.87 4.	Assessing transportation vulnerability to climate change and extreme weather	4	I. Developing adaptable resiliency framework	4.16 4	. Identifying weather trends and extreme weather event frequency	3.60
5.	Assessing transportation vulnerability to climate change and extreme weather	3.82 5.	Identifying primary regional human-made factors	4	transportation response to climate change/extreme weather events.	4.16 5	Identifying/applying data to analyze regional transportation system risk to climate change/extreme weather and manmade events.	3.60

Overall Ranking of Resiliency Priorities by Geographic Distribution



Poll Everywhere Follow up from March 30th Meeting

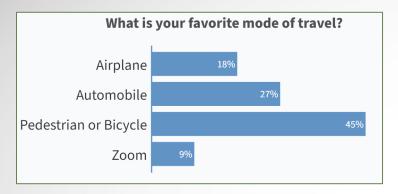
Time Frame Question

change/extreme weather events occurring.

	Average Score (Out of 5)	Short-term (< 2 year)	Medium-term (2 to 4 years)	Long-term (>4 years)	Staff Resources	Funding / Costs	Order of Completion	Knowledge Resources/Technique Description/Case Studies Available
1. Identifying alternative routes if vulnerable routes become impassible.	4.12	40%	60%	0%				
2. Developing adaptable resiliency framework.	4.05	20%	40%	40%				
3. Applying analytic strategies (e.g., Benefit-Cost, Life-								
Cycle Cost Analysis, etc.) to promote resilience of the regional transportation system	4.00	10%	30%	<mark>60%</mark>				
4. Identifying critical regional transportation infrastructure	3.87	<mark>50%</mark>	40%	10%				
5. Assessing transportation vulnerability to climate change and extreme weather	3.82	<mark>60%</mark>	20%	20%				
6. Defining transportation resilience goals.	3.82	80%	0%	20%				
7. Defining transportation resiliency	3.76	<mark>70%</mark>	10%	20%				
8. Developing transportation resilience measures	3.76	<mark>60%</mark>	20%	20%				
9. Identifying/applying data to analyze regional transportation system risk to climate change/extreme weather and man-made events	3.73	40%	<mark>50%</mark>	10%				
10. Identifying available tools/methods to analyze regional transportation system risk to climate change/extreme weather and man-made events	3.68	40%	40%	20%				
11. Identifying primary regional human-made factors	3.69	30%	30%	<mark>40%</mark>				
12. Estimating regional transportation response to climate change/extreme weather events.	3.69	20%	30%	<mark>50%</mark>				
13. Estimating regional transportation response to major human-made events.	3.69	30%	<mark>40%</mark>	30%				
14. Identifying weather trends and extreme weather event frequency	3.63	<mark>50%</mark>	10%	40%				
15. Identifying primary regional climate factors	3.56	30%	30%	40%				
16. Determining risks/likelihood of major human-made events occurring.	3.56	30%	30%	<mark>40%</mark>				tems that were click
17. Analyzing impacts of extreme weather events/climate factors, and human-made events on regional transportation assets (e.g., bridges, pavements).	3.38	30%	20%	<mark>50%</mark>			C	omplete by some IV 3, 4, 6, 7, 9, 12,
18. Determining risk /likelihood of climate change/extreme weather events occurring.	3.25	30%	30%	<mark>40%</mark>				

re clicked as ome MPOs: 9, 12,

Poll Everywhere Questions





Would it be helpful to have a central repository of resiliency tools, data, techniques, best practices, roles and responsibilities, etc., on a Sharepoint or website?



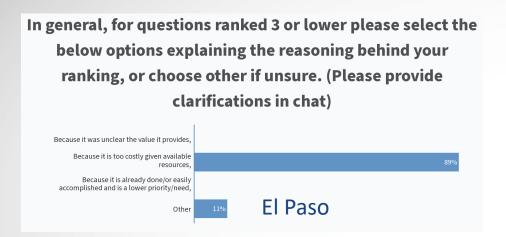
Would you be interested in dividing up into regions with similar climate and geographical features (e.g., coastal, Central, South, Northwest (Panhandle), and Western regions)?



MPO Top Concerns

- 1. Funding (5/10)
- 2. Data (3/10)
- 3. Priority (3/10)
- 4. Buy-in (2/10)
- 5. Climate (2/10)
- 6. Staffing (2/10)
- 7. Planning (2/10)
- 8. Implementation
- 9. Actionable
- 10. Mandate
- 11. Enforcement
- 12. Emergencies
- 13. Growth

Poll Everywhere Questions





Other

Abilene

Thank You!



Matthew Miller

Urban Analysis
505 E. Huntland Dr., Suite 405
Austin, TX 78752
mmiller@tamu.edu
703-732-0756