

A Novel Approach to Analyzing Public Safety Risk and Best Practices

Tuesday, October 18th | 11:00 AM

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Our Story Began One Year Ago

LMCIT and Benchmark embarked on a partnership to build and implement a data-driven risk management program to measurably improve the health, wellbeing and safety of police officers, agencies, and the communities they serve.

This program, called iMPACT, fuses data science with LMCIT's loss control operations to:

- Predict likelihood of future claims and key risk factors for each member
- Identify evidence-based loss control best practices to mitigate these risks
- Build a compelling engagement model to inspire change and improve outcomes



Part 1: Analyzing Law Enforcement Risk

What percentage of our law enforcement claims could be influenced by loss control efforts?

- None - they're all random events

- Less than 25%

- 25% to 50%

- 50% to 75%

- All of them

Part 1: Expanding our Analytic Capabilities

Analytic Capability	Benefits
1 Claims Business Intelligence	<ul style="list-style-type: none">• Identify loss trends at pool and member level• Inform Loss Control (LC) program development <u>to mitigate recurrence</u>• Engage members through data insights
2 Predictive Modeling	<ul style="list-style-type: none">• Identify <u>likelihood of future claims</u> at a member level• Understand key risk factors for each member
3 Risk Segmentation	<ul style="list-style-type: none">• Easily <u>assess member risk in context with peers</u>• Elevate LC program to focus on most impactful interventions for each member
4 Program Measurement	<ul style="list-style-type: none">• <u>Analyze benefit/ROI</u> of overall LC program and specific initiatives• Accelerate time-to-benefit for new programs• Justify member and pool investment in proven interventions

Part 1: Expanding our Analytic Capabilities

Visualization Helps us Better Understand Risk

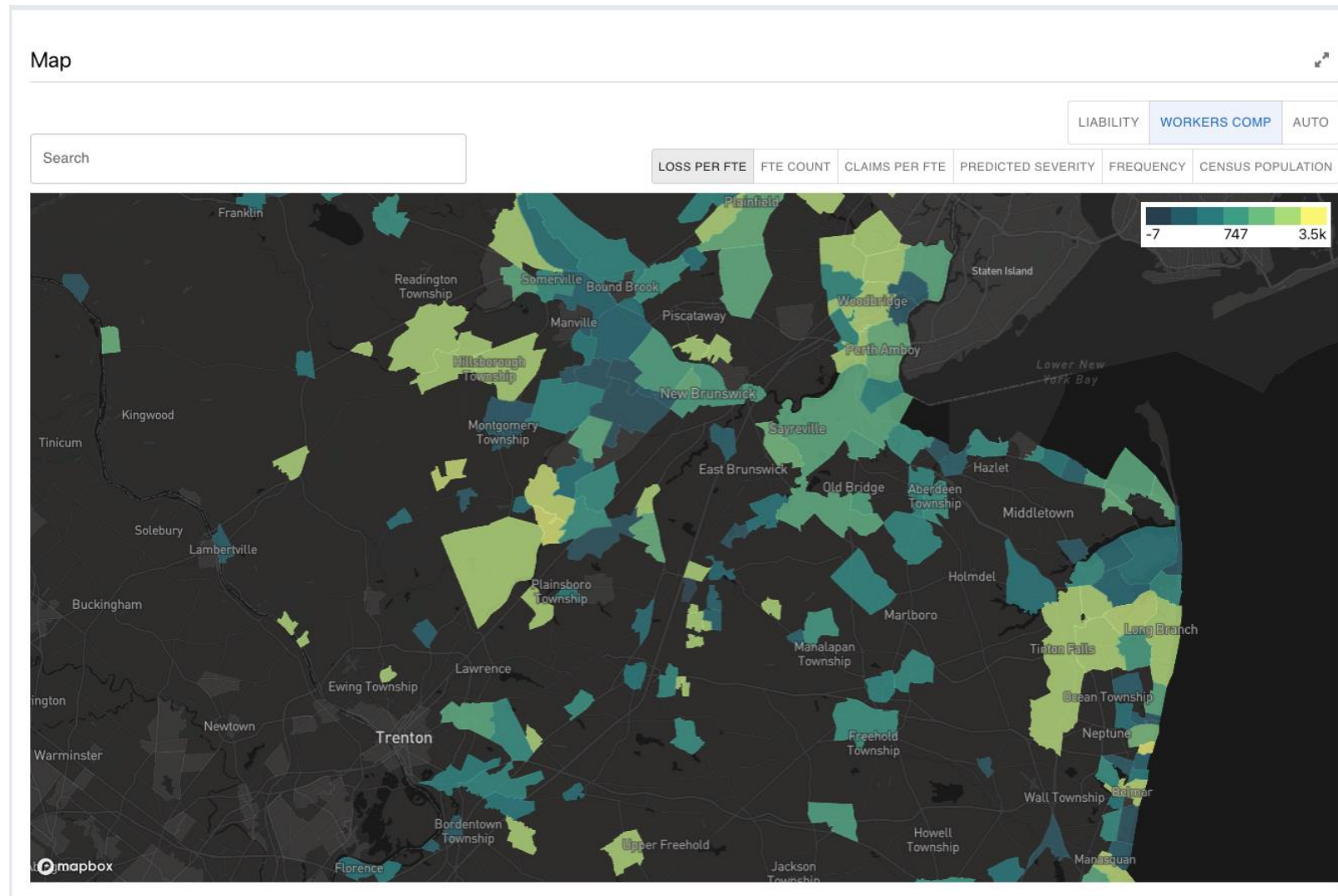


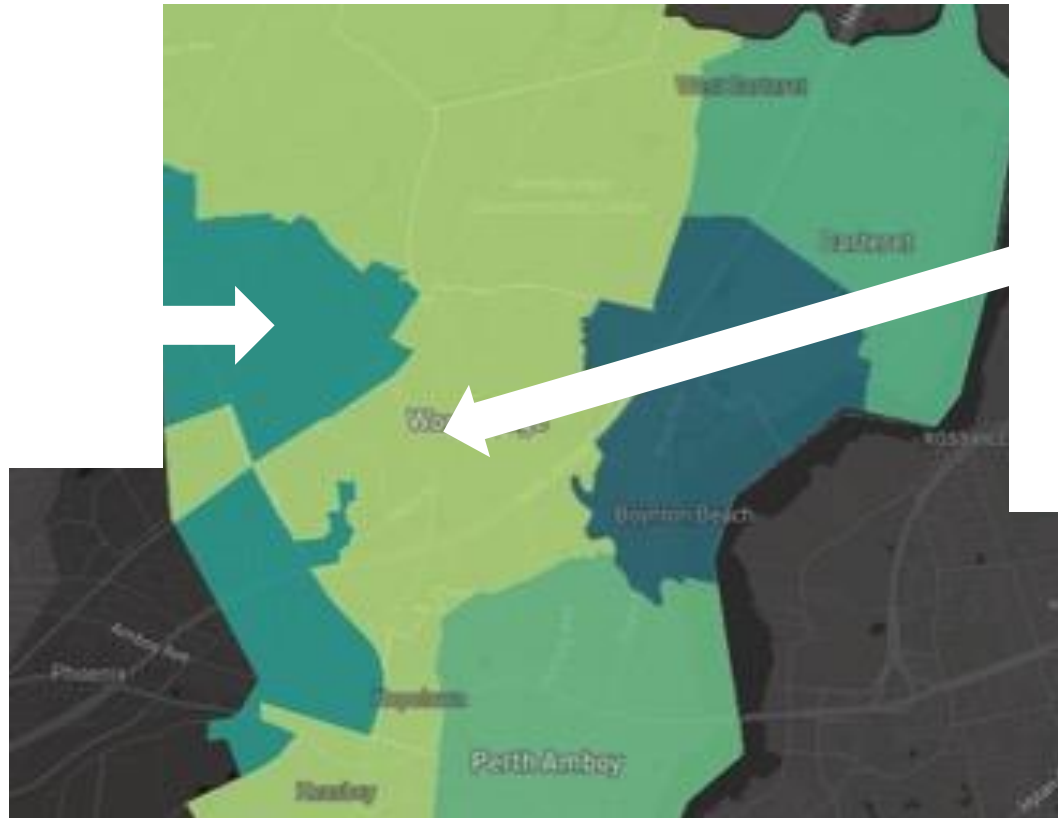
Figure 1: iMPACT™
Interactive Risk Mapping
Module

Mythbusters: Law Enforcement Risk Edition

A Tale of Two Cities

CITY 1 POLICE DEPARTMENT

Loss per FTE \$104
FTE Count 51
Claims per FTE 0.26
Predicted Severity \$5,312
Frequency 13.46
Census Population 40,731



CITY 2 POLICE DEPARTMENT

Loss per FTE \$3,899
FTE Count 58
Claims per FTE 0.36
Predicted Severity \$226,157
Frequency 21.11
Census Population 48,677

City 2 has 38x higher predicted workers comp risk per officer than City 1

Part 2: Engaging our Members

Next, we sought field level insights from our chiefs' and city leaders' perspective to validate key risk factors and identify interventions they have in practice:

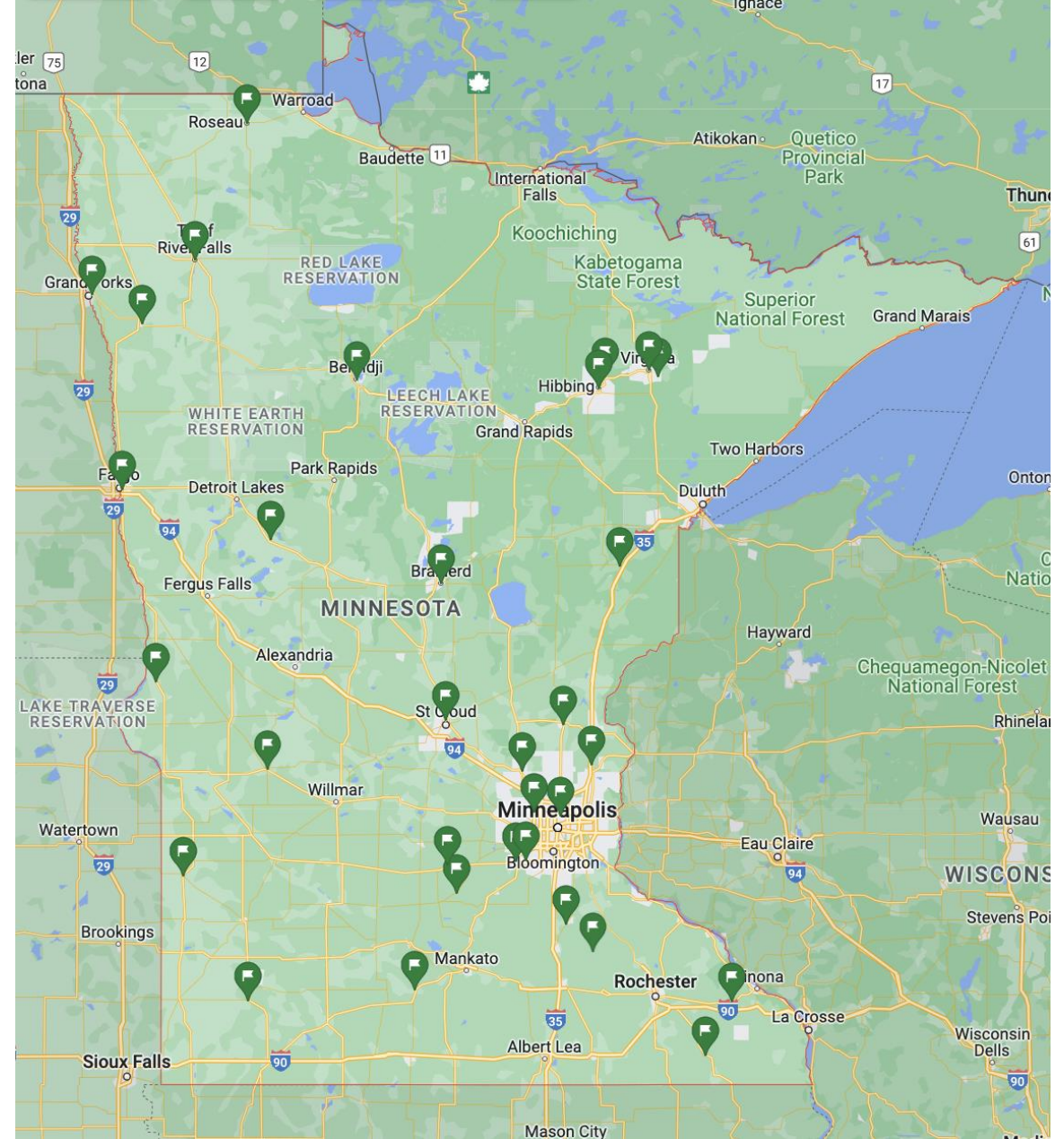
- What are they most proud of?
- What keeps them up at night?
- What are top performers doing differently?
- How can these practices be replicated?
- Are chiefs and city leaders receptive to learn from and utilize analytic-driven insights?

Part 2: Engaging our Members

So we hit the road....

- What % of chiefs and city leaders accepted our invitation to participate in a 2-hour interview?
- How many miles did we drive this summer?
- What information did we seek from our members?*

* Pilot Survey Form Included with Session Documentation



iMPACT Pilot Members

Part 2: Engaging our Members

“It was great meeting with all of you and I hope this project is a success.”

– Chief, MSP Metro Region

“This [program] is badly needed. My industry is hurting. We need to change how we do things. We need the help.”

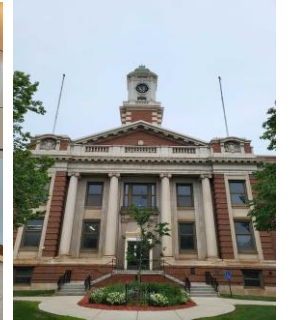
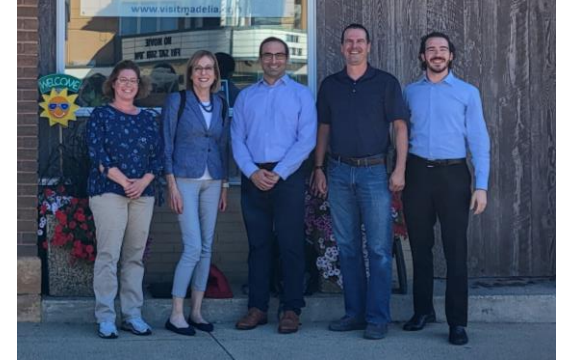
- Chief, Greater MN



“It was truly our pleasure meeting with all of you and I cannot thank you enough for taking the time to drive up here and meet with us. I am very excited about your work and look forward to hearing about your findings. I have been compiling several things your team requested and I will have them for you shortly. If there is anything else you need, don’t hesitate to ask.

Once again, we are honored to have been chosen to be part of this research project and thankful for your willingness to listen to frustrations.”

- Chief, Greater MN



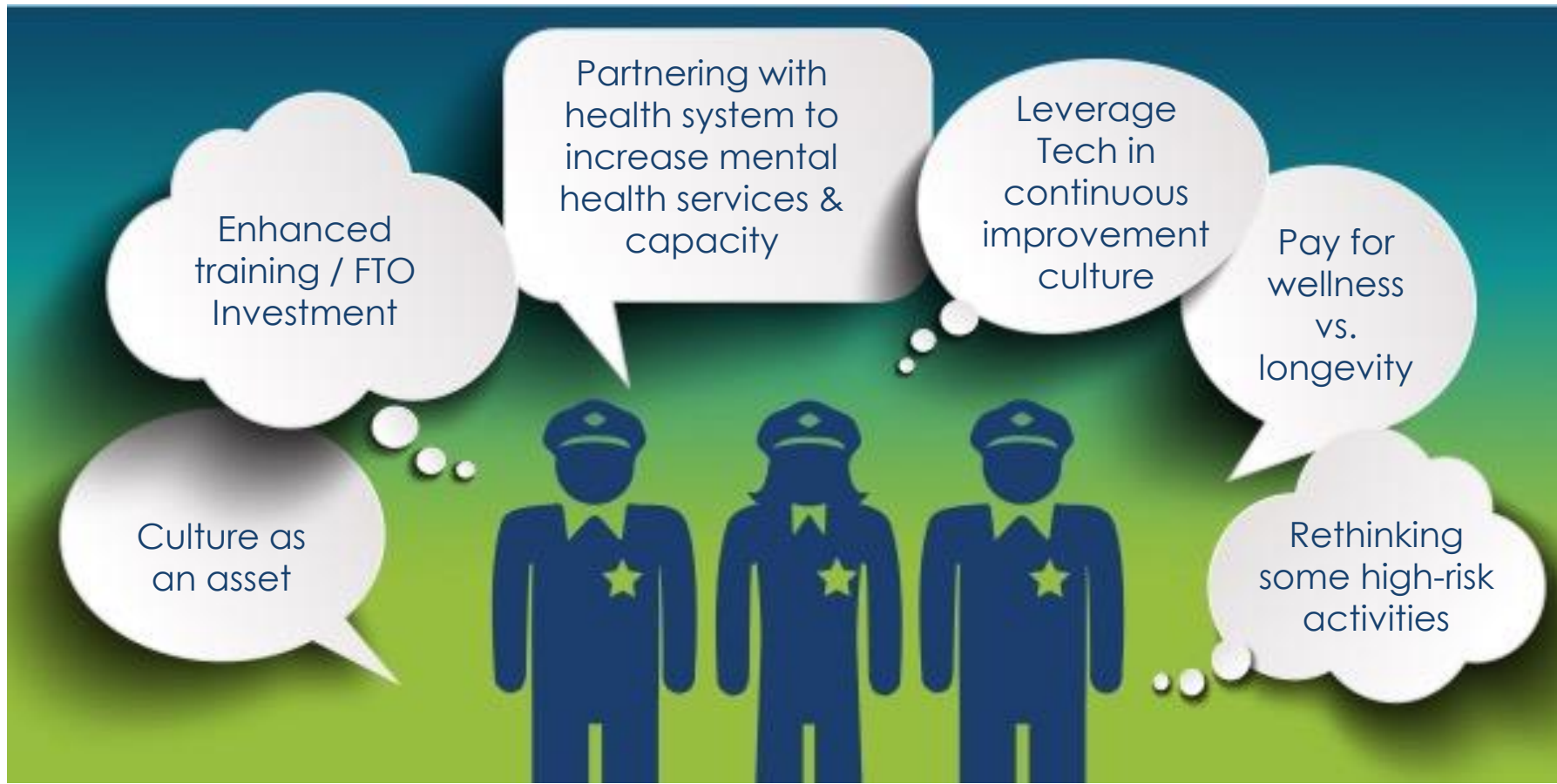
Part 3: What We Heard

Our Law Enforcement professionals and their city leaders are carrying an increasingly heavy weight. We have to meet them more than halfway to help.



Part 4: What We Learned

- Our top-performing chiefs and their cities are innovating and adapting.
- Sharing their stories is empowering and gives hope.
- It also fuels our portfolio of interventions to measure and share.



Part 4: What We Learned

Interventions Matter: Established Wellness Programs show strong significance to reduce both workers comp severity and liability severity

Workers Comp Severity	Mean	Agencies	Total Loss
Before	\$ 28,200	6	\$ 507,600
After	\$ 9,370		\$ 168,660
Total Savings for all sampled agencies			\$ 338,940
In first 3 years after implementation,	Average Savings for all agencies (per year)		\$ 112,980
	Average Savings per agency (over 3 years)		\$ 56,490

Liability Severity	Mean	Agencies	Total Loss
Before	\$ 16,100	6	\$ 289,800
After	\$ 404		\$ 7,272
Total Savings for all sampled agencies			\$ 282,528
In first 3 years after implementation,	Average Savings for all agencies (per year)		\$ 94,176
	Average Savings per agency (over 3 years)		\$ 47,088

Part 4: What We Learned

Interventions Matter: Restrictive Pursuit Policy shows strong significance to reduce both workers comp severity and liability severity

Workers Comp Severity Mean		Agencies	Total Loss	
Before Policy	\$ 109,000	8	\$	2,616,000
After Policy	\$ 53,600		\$	1,286,400
Total Savings			\$	1,329,600
In first 3 years after implementation,	Average Savings for all agencies (per year)		\$	443,200
	Average Savings per agency (over 3 years)		\$	166,200

Liability Severity	Mean	Agencies	Total Loss	
Before	\$ 16,300	8	\$	391,200
After	\$ 136		\$	3,264
Total Savings			\$	387,936
In first 3 years after implementation,	Average Savings for all agencies (per year)		\$	129,312
	Average Savings per agency (over 3 years)		\$	48,492

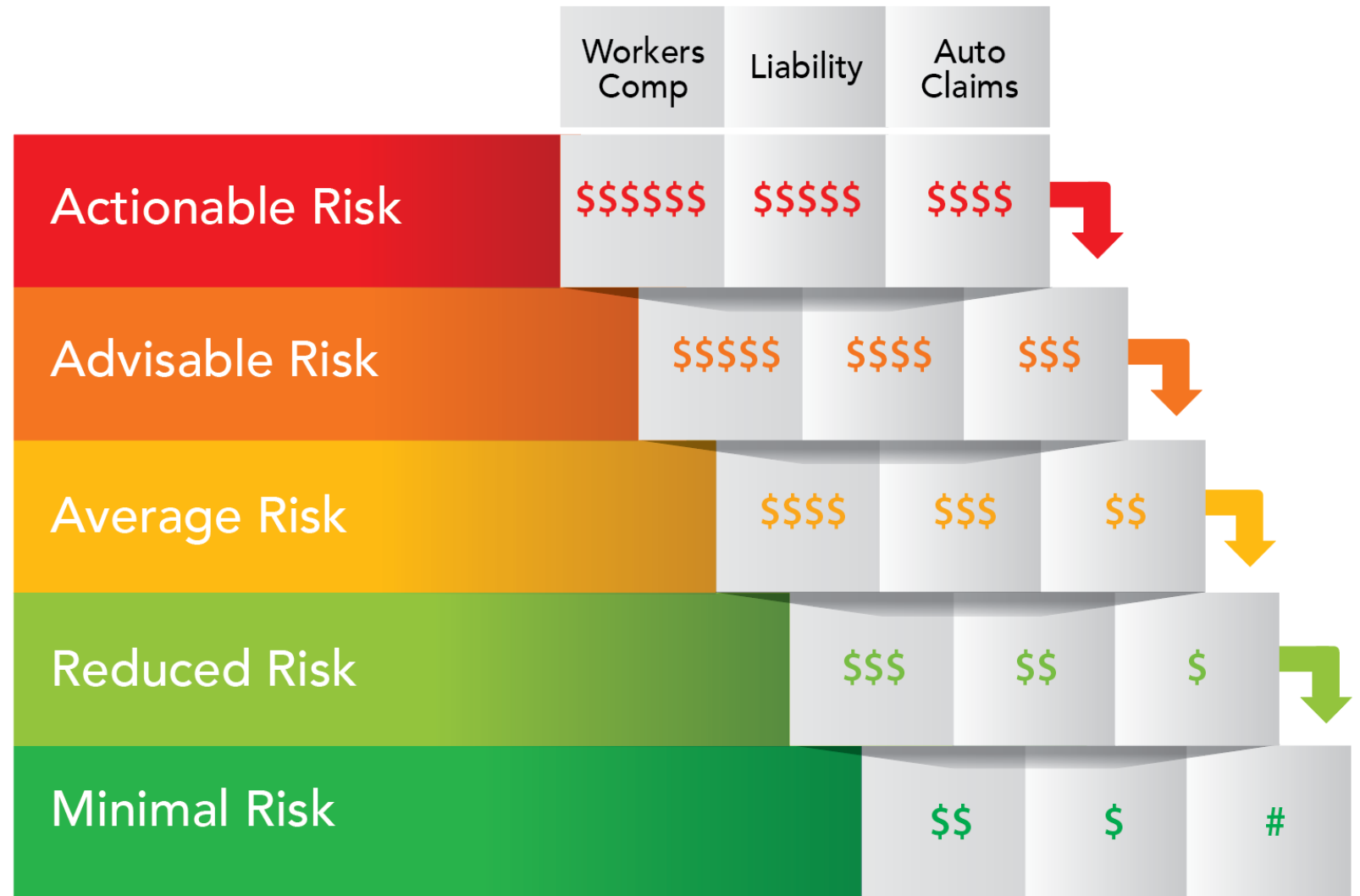
Part 5: The Opportunity Ahead

Our program goal is to help each agency reduce risk by one level.

Achieving this objective will address up to 60% of our law enforcement claims.

Initial Focal Points:

- Work Comp / PTSD
- Work Comp / Injury
- Liability



Part 5: The Opportunity Ahead

Maximize program benefit to members by:

- Encouraging / supporting broader adoption of evidence-based practices and measuring results
- Advancing risk insights with new datasets (chief tenures, staff turnover, training, shifts, etc.)
- Expanding loss control research to new / complex areas (mental health, morale, engagement, etc.)



Closing Thoughts

- We can help our law enforcement partners measurably improve the health, wellbeing and safety of police officers, agencies, and the communities they serve by applying proven principles of a data-driven risk management process
- Chiefs and City Administrative staff are willing participants in this program, and in many cases feel our work is critical to their future success.
- Evidence-based interventions matter and already exist at agencies across our state. Some are quick wins while others will require much deeper research, analysis and/or systemic support.



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