



SAFE-D
SAFETY THROUGH DISRUPTION

MICROMOBILITY REGULATION BEST PRACTICES REVIEW

(aka Scoot Now, Regulate Later)

Project Number: TTI-05-04

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MICROMOBILITY REGULATION BEST PRACTICES REVIEW

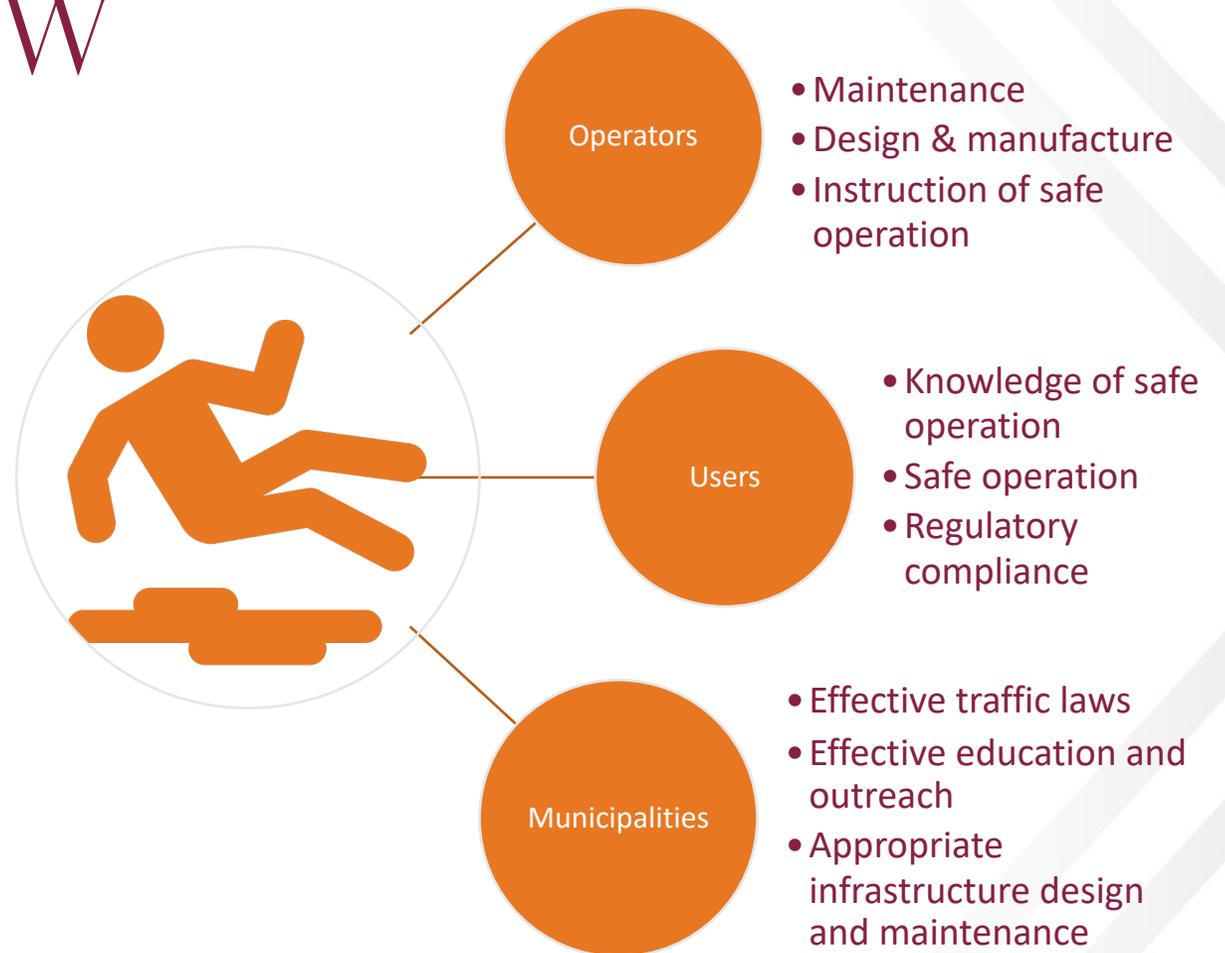
- Project Overview: Scope and Questions
- Methodology
- Findings
- Future Research

PROJECT OVERVIEW

- **Scope:**

- United States
- Shared Use Rental Fleets

- **Big Question:** What is the relationship, if any, between e-scooter regulation, safety, and legal liability?



METHODOLOGY

- Literature Review
- Jurisdiction Criteria & Selection
- Legal and Regulatory Inventory/Analysis

RESEARCH QUESTIONS



Safety issues



Safety regulations



State preemption



Rider education & licensing



Traffic laws



Standards compliance



Infrastructure design



Communication of regulations



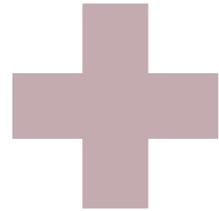
Enforcement



Effectiveness

LITERATURE REVIEW FINDINGS: SAFETY DATA

Austin Public Health Department. Dockless, Electric Scooter-Related Injuries. April 2019.



Electric Scooter Injuries and Hospital Admissions in the United States, 2014–2018



ER injury data (but NO CAUSES!)

LITERATURE REVIEW FINDINGS:

Major Issues

- Injuries and fatalities/causes of harm
- Regulatory authority
- E-scooter equipment safety
- Non-regulatory measures
- Regulatory measures
- Government liability

FINDINGS: JURISDICTION SELECTION

Criteria

- Levels of Restriction
- Geographic
- Pilot phase
- Ban/restricted areas
- Permits/Caps
- Data
- Safety analyses

Jurisdictions

- Los Angeles, CA
- Chicago, IL
- Dallas TX
- San Francisco, CA
- Portland, OR
- Miami, FL
- Bellevue, WA

FINDINGS: REGULATORY AUTHORITY

Federal

- Regulated by CPSC
- No safety standards released

State

- Inconsistent to nonexistent
- State traffic laws/vehicle codes govern via authorization of local govt. to regulate through permitting.

Local

- JX over public ROW → permitting, pilot, demonstration
- Control of equipment standards
- Mandate maintenance & inspection schedules
- Traffic laws & licensing

FINDINGS: CITY SAFETY STUDY DATA

issue	Los Angeles (x2)	San Francisco	Chicago	Portland	Dallas	Miami	Bellevue
Injuries/incidents	407 collisions	32 injuries	171 ER visits	No fatalities	N/A	N/A	2 collisions
Helmet use	1 fatality	12% (low)	9% ("often")	"low"	N/A	N/A	N/A
Analysis	No identifiable trend	Injuries decreased since permitting began	Decreased from prior year of 192 visits	Owners wear helmets, renters do not	N/A	N/A	0 reports by operator

LITERATURE REVIEW REDUX

Injury type

lower extremity and head injuries,
likely due to low helmet use

Causes

“unspecified falls... loss of user control,
collisions with motor vehicles, and
pavement issues”

FUTURE RESEARCH

- | | |
|------------------------------|--|
| Detailed crash data | <ul style="list-style-type: none">• Guided discussions with city officials and operators |
| Filed lawsuits | <ul style="list-style-type: none">• Nationwide scan of lawsuits |
| Insurance requirements | <ul style="list-style-type: none">• Guided discussions with insurance providers |
| Terms of use & liability | <ul style="list-style-type: none">• Legal analysis of service agreements |
| User knowledge | <ul style="list-style-type: none">• Focus groups with riders |
| Infrastructure harmonization | <ul style="list-style-type: none">• Guided discussions with federal regulators and infrastructure designers |

QUESTIONS?

THANK YOU!

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