

# WORK ZONE MANAGEMENT PROGRAM

## COLLABORATIVE EFFORTS TOWARD ADDRESSING WORK ZONE SAFETY

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U.S. Department  
of Transportation

**Federal Highway  
Administration**



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# CMV DEFINITION

Federal Highway Administration (FHWA), Federal Motor Carrier Safety Administration (FMCSA), and National Highway Traffic Safety Administration (NHTSA) agreed on using the term Commercial Motor Vehicles (CMV) when referring to large trucks and buses.

Commercial Motor Vehicles are defined as those with Gross Vehicle Weight (GVW) or Gross Combination Weight (GCW) of 10,001 or more pounds.



Source: Texas A&M Transportation Institute



Source: Texas A&M Transportation Institute



# WORK ZONE DEFINITION

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An area of roadway where construction, maintenance, or utility work is occurring.

Source: [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)

# QUESTIONS

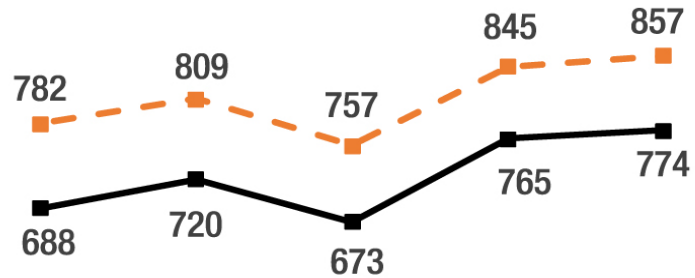
- What percentage of CMV-involved crashes occurred in work zones in 2020?
- Which 10 states had the highest number of CMV-involved crashes in work zones (2014-2018)?
- What has FHWA done to improve CMV safety in work zones?
- What else can be done?



# NATIONAL WORK ZONE CRASH DATA (2016-2020 NHTSA FARS DATA)



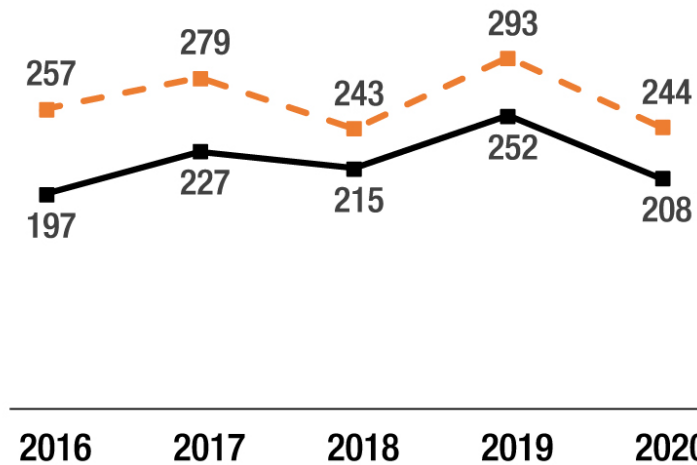
Work Zone Fatal Crashes and Fatalities



—■— Work Zone Fatal Crashes    - -■- - Work Zone Fatalities



Commercial Motor Vehicle-Involved Crashes\*

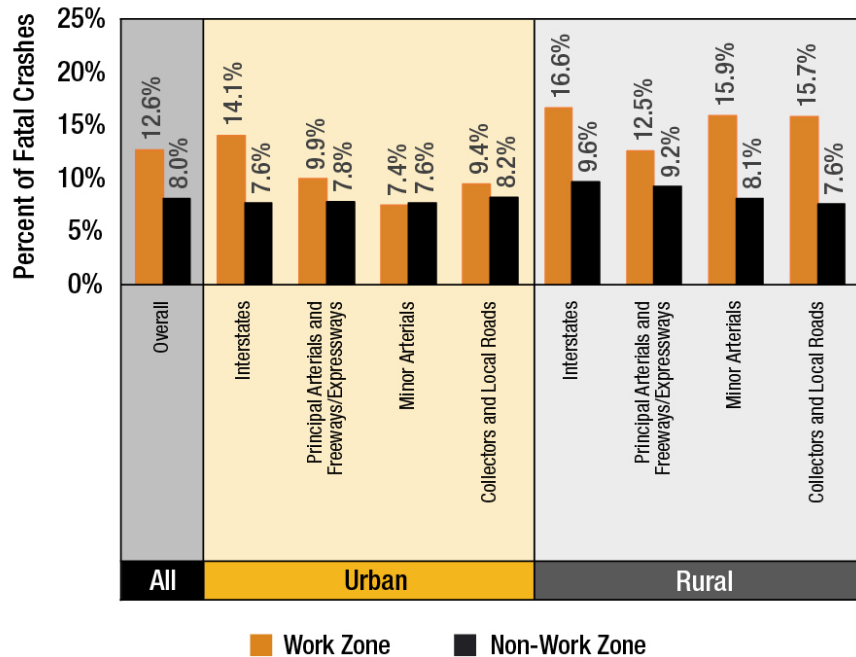


—■— Work Zone Fatal Crashes    - -■- - Work Zone Fatalities

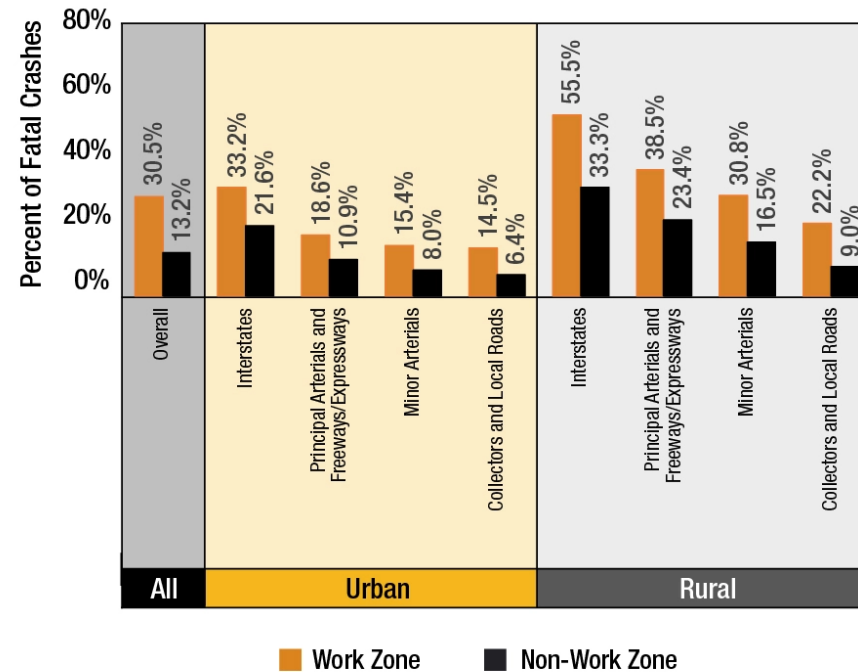
Source: [Work Zone Data — Work Zone Safety Information Clearinghouse](#)

# WORK ZONE TRAFFIC CRASH TRENDS AND STATISTICS

Driver Distraction Involvement in Fatal Work Zone and Non-Work Zone Crashes, 2018-2020 Average



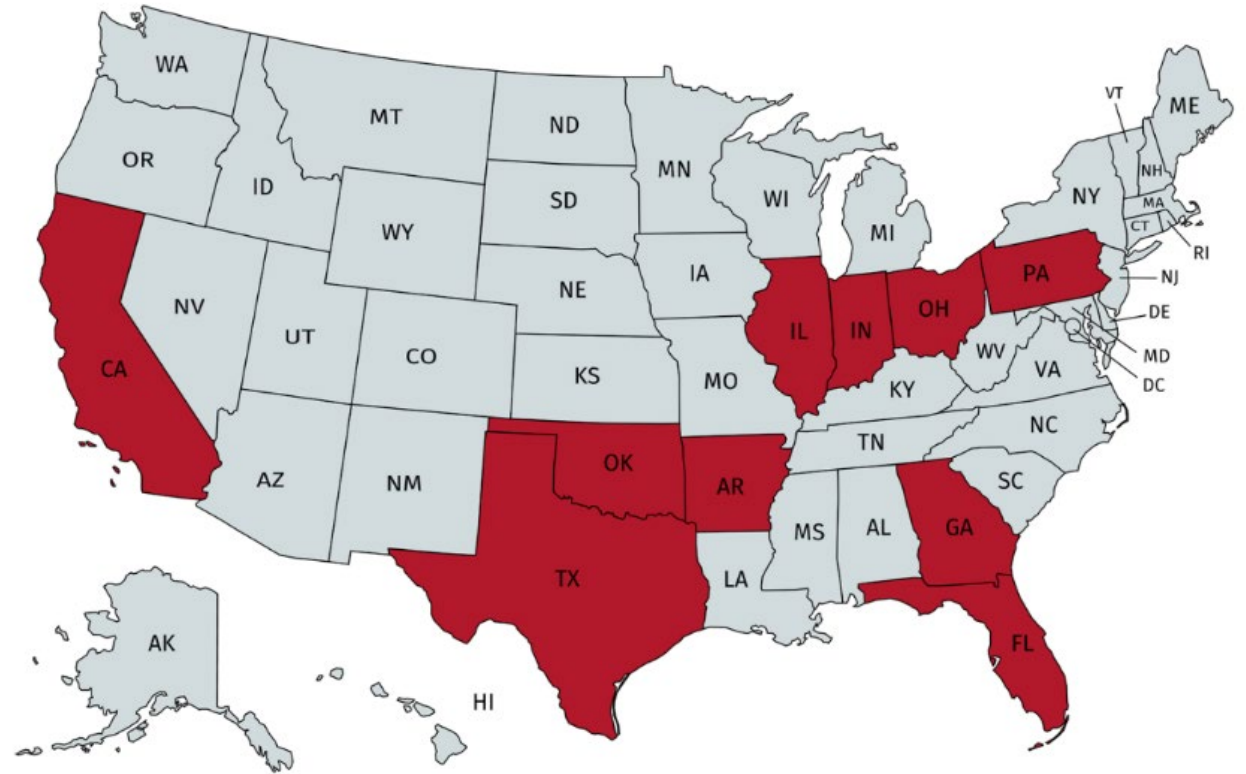
Commercial Motor Vehicle Involvement in Fatal Work Zone and Non-Work Zone Crashes, 2018-2020 Average



Source: [Work Zone Traffic Crash Trends and Statistics — Work Zone Safety Information Clearinghouse](#)

# OPPORTUNITY STATES (FHWA-WORK ZONE)

- Ten Opportunity States based on fatal crash data (2012 – 2018)
- In 2020-2021:
  - Conducted targeted state-level effort to promote CMV safety in work zones
    - Delivered 10 tailored workshops
    - Developed 10 State-specific Action Plans
  - Conducted webinar to share workshop findings and recommendations with stakeholders

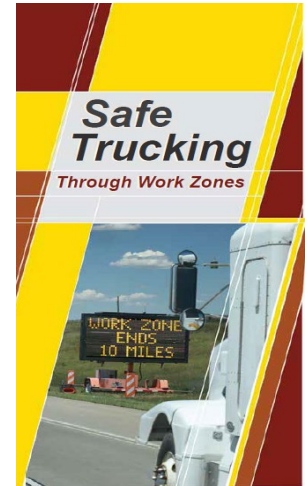


Source: ICF/Texas A&M Transportation Institute



# OTHER FHWA EFFORTS TO IMPROVE CMV SAFETY IN WORK ZONES

- FHWA Work Zone Safety Grant Program
  - American Road and Transportation Builders Association (ARTBA):
    - Design and Operations of Work Zones Strategies to Improve Large Truck Safety publication
    - Safe Trucking Through Work Zones brochure and presentation
    - Use of Smart Work Zone Technology to Improve Work Space Access Point Safety fact sheet and training
    - Designing Work Space Access Points to Better Accommodate Large Trucks fact sheet and training
    - Separating Large Trucks From Non-Truck Traffic in Work Zones fact sheet and training
  - University of Wisconsin-Madison
    - Information for Work Zone Designers - Accommodating Oversize/Overweight Vehicles in Work Zones publication and training
- Large Truck Safety in Work Zones Webinars
- National Work Zone Awareness Week (April 11 – 15, 2022)

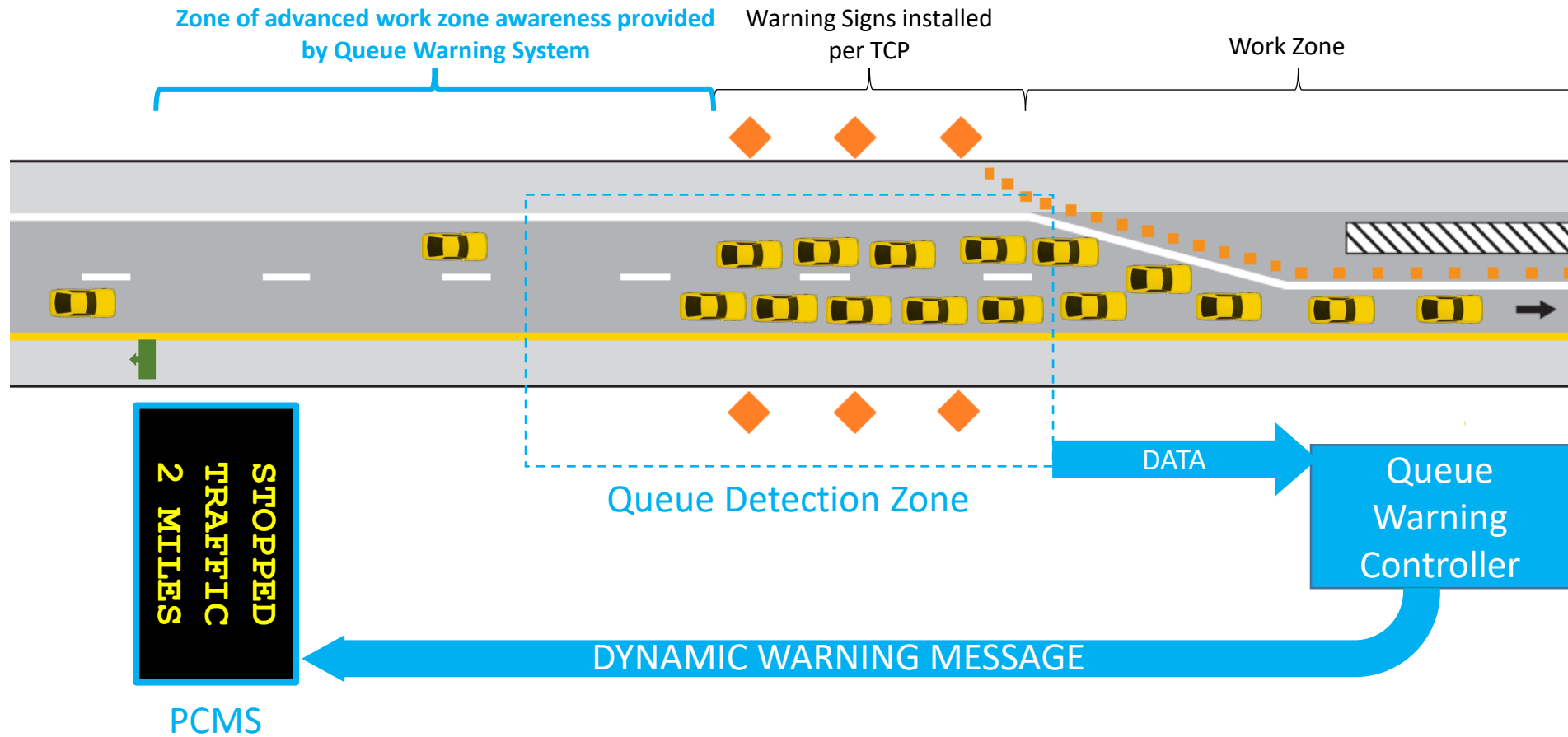




# EXAMPLES OF ENGINEERING NOTEWORTHY PRACTICES

- Including temporal effects of large trucks in impact analyses
- Using safety and mobility metrics to identify CMV safety issues
- Partnering with CMV organizations
- Planning and designing for CMVs (e.g., barrier offset, lane widths, and typical cross sections)
- Designing and evaluating work space access point to better accommodate large trucks
- Using smart work zone technology
  - Queue detection and notification
  - Work space access point warning
- Separating large trucks from non-truck traffic in work zones

# QUEUE WARNING SYSTEM (QWS)



Source: FHWA

# SMART WORK ZONE TECHNOLOGY FOR QUEUE DETECTION AND WARNING

Smart Technology Location	Reduction in Total Crashes	Reduction in Injury Crashes	Analysis Method
Illinois (2014)	24%	11%	Year-to-year comparison
Wisconsin (2018)	15%	63%	Year-to-year comparison
Texas (2016)	44%	61%	Comparisons when queuing was expected
Texas (2018)	55%	81%	Comparisons when queuing was verified

Source: [workzonesafety.org](http://workzonesafety.org)

# WORK ZONE DATA EXCHANGE (WZDX)-VOLUNTARY ADOPTION



Source: FHWA

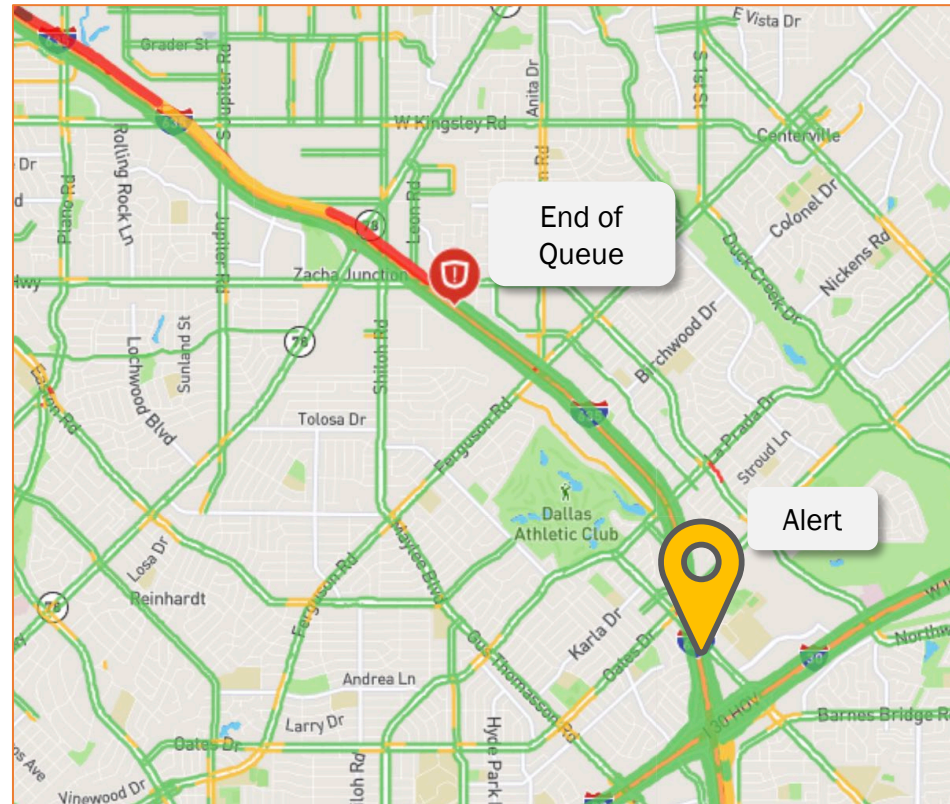
- WZDx website:
  - <https://ops.fhwa.dot.gov/wz/wzdx/index.htm>
- Join a WZ Data Working Group:
  - [AVDX@dot.gov](mailto:AVDX@dot.gov)

# NC DOT'S PILOT

## Traffic Alerts

### Dangerous Slowdowns

- Significant drop in speed ahead vs current speed
- Alert will be issued if speed drops 35 mph +
- 2 miles ahead



Source: NCDOT

### Congestion

- Delay vs. Free flow
- Alert will be issued if 3 minutes or more of delay
- 3 miles ahead



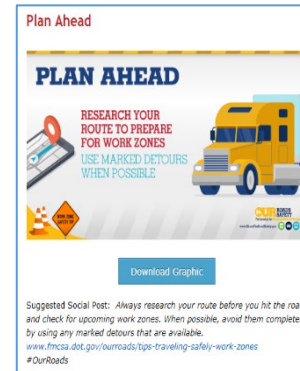
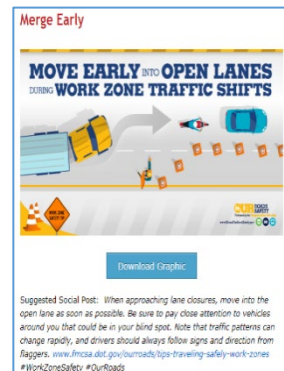


# EXAMPLES OF BEHAVIORAL NOTEWORTHY PRACTICES

- Targeted enforcement
  - Coordinating with transportation agencies to identify high-priority work zones
  - Locating upstream of active work zone access points
- Driver education
  - Speed differential hazards in work zones
  - Navigating in work zones

# FMCSA RESOURCES

- Visit the website-
  - <https://www.fmcsa.dot.gov/ourroads/work-zones-safety-tips>
- Download materials and use them at your events-
  - <https://www.fmcsa.dot.gov/ourroads/work-zone-safety-shareable-material>
  - Fact sheets, graphics, talking points, social media content (English and Spanish)





# ILDOT OUTREACH

## WORK ZONE AWARENESS

*Drive Like You Work Here*

### Work Zone Safety Tips



• Drop it and drive.

• Pay attention. Conditions can change quickly.

• Move over for workers.



• Remember: Traffic backups can occur at any time.



• Give heavy vehicles room to adjust to conditions.

• Slow down and obey speed limits.



Illinois Department of Transportation

## WORK ZONE AWARENESS

*Drive safe. Work safe. Save lives.*

### Heavy Vehicles

• Look for heavy vehicles entering and leaving work zones.



• They need more time to slow down and speed up.

• Rear ending one is as deadly as being rear ended by one.

• **Crashes are not always the heavy vehicles fault.**

In **2020**, nearly **33%** of fatal work zone crashes involved a heavy vehicle.



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Source: ILDOT



## OTHER IDEAS-CMV COMMUNITY FEEDBACK

- What is working?
- What else can be done?



# ONLINE RESOURCES

- FHWA Work Zone Management Website:
  - <http://ops.fhwa.dot.gov/wz/>
- National Work Zone Safety Information Clearinghouse Website:
  - <https://www.workzonesafety.org/>
- Commercial Motor Vehicle Safety (in Work Zones) Web page:
  - [Commercial Motor Vehicle — Work Zone Safety Information Clearinghouse](#)
- FMCSA Our Roads Our Safety Campaign-Work Zones Safety Tips
  - <https://www.fmcsa.dot.gov/ourroads/work-zones-safety-tips>

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**THANK YOU!**

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