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# Changes in Public Perception of Gig Work During the COVID-19 Pandemic

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# WEAVE (Preparing the Future **W**orkforce for the **E**ra of **A**utomated **V**ehicles)

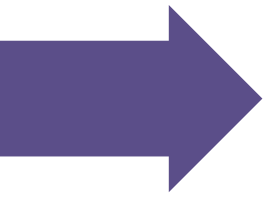
- ▶ Interdisciplinary research team located at Michigan State University and Clemson University
- ▶ National Science Foundation (NSF) funded multi-year research project
- ▶ To understand the workforce impacts of automated vehicles in the trucking, taxi, and ride-hailing industries, with the goal of preparing workers for this transition
  - COVID-19 emerged as prominent theme during our research



# Introduction

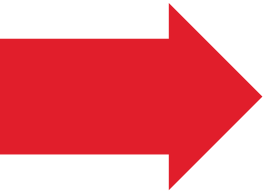
# Introduction

- ▶ “Gig work”, “sharing economy”, and “platform economy”:  
contingent, electronically mediated work
  - (e.g., Uber, Instacart, Grubhub, etc.)
- ▶ Working conditions and employee status of platform-based ride-hailing and food/grocery delivery gig workers have been criticized
- ▶ COVID-19 was a catalyst for change
  - Working conditions, regulation, & benefits
  - Accompanied by influxes of new workers and changes in demand for certain services



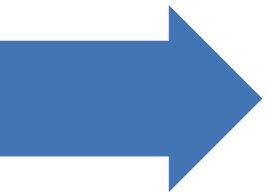
# 1,533,310 workers

In the U.S. made income through electronically mediated work in 2017 according to the BLS



# 200% rise in deliveries

Demand for couriers, restaurant, and grocery delivery increased during 2020, based on survey data from Appjobs.com



# 70% fewer Uber trips

Were being made in U.S. cities during March of 2020

**70% of gig workers  
were unsatisfied**

with COVID support provided by  
the company they work for

# Research Objectives

- ▶ If and how the public perception of gig work changed during COVID-19
  - Did the public attention towards gig work increase?
  - Did the underlying sentiment of public conversation change?
  - Are there specific issues that received more attention?

# Methods



# Data Collection

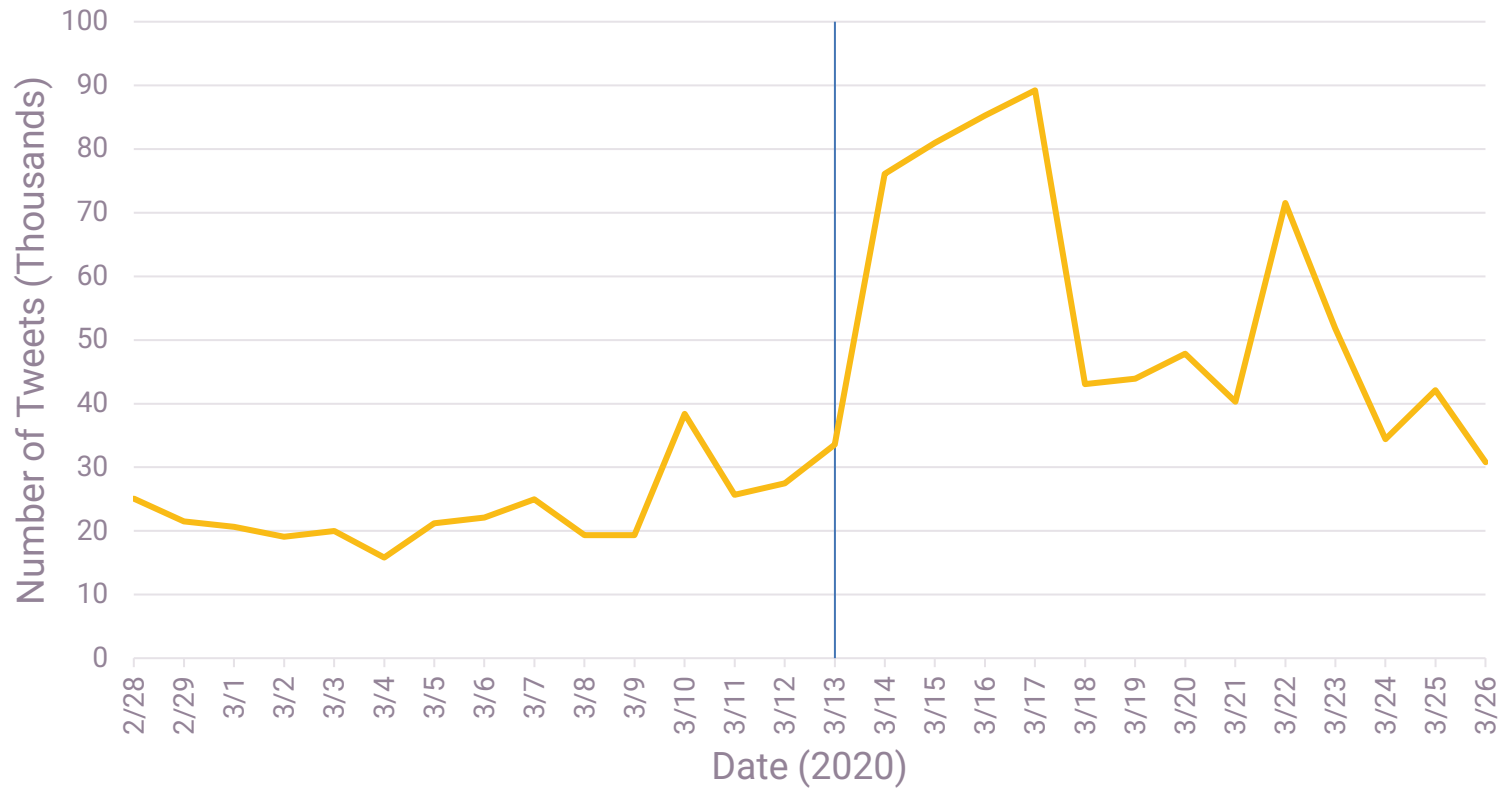
- ▶ Data acquisition and cleaning
  - Tweets flagged from Feb 28, 2020 to Mar 26, 2020
    - Including keywords associated with gig work (doordash, food and delivery, ridehailing, etc.) using Social Studio
  - 450 tweets per hour over selected period
    - 264,171 total tweets flagged
  - Removed duplicates, username matches, explicit emojis, non-English tweets, and non-U.S. tweets
  - Final sample = 23,845 tweets

# Data Analysis

- ▶ Determined underlying sentiment of tweets using Salesforce Social Studio's proprietary Sentiment Model
  - Classified tweets as either positive, neutral, or negative
- ▶ Manual coding (N= 2,321):
  - Phase 1: Tweets were coded across 9 categories: 1) personal experience, 2) informative, 3) opinion, 4) joke, 5) ridicule, 6) about drivers, 7) about company, 8) miscellaneous, and 9) not relevant
  - Phase 2: Inductive thematic analysis of tweets

# Results

# Tweets Volume Trend

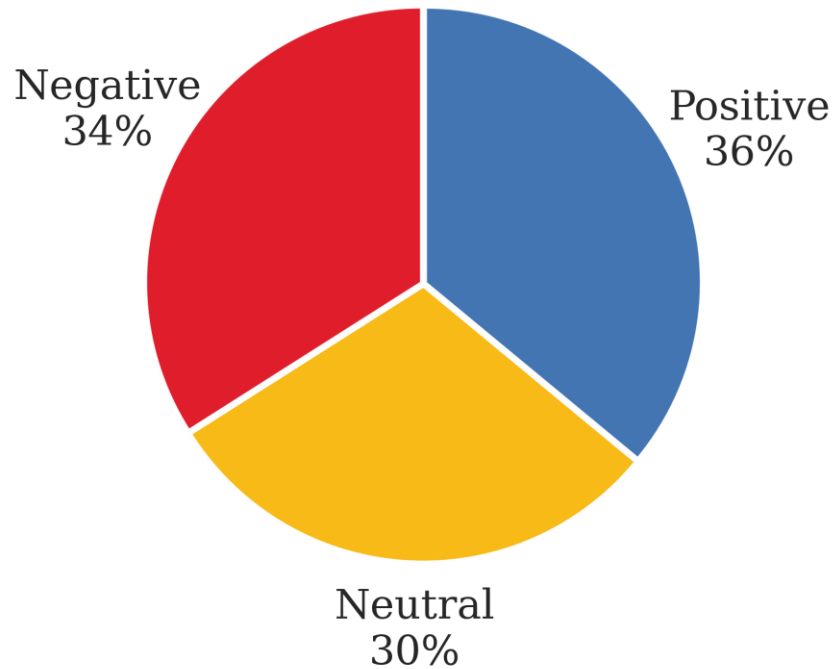


## Events of Note:

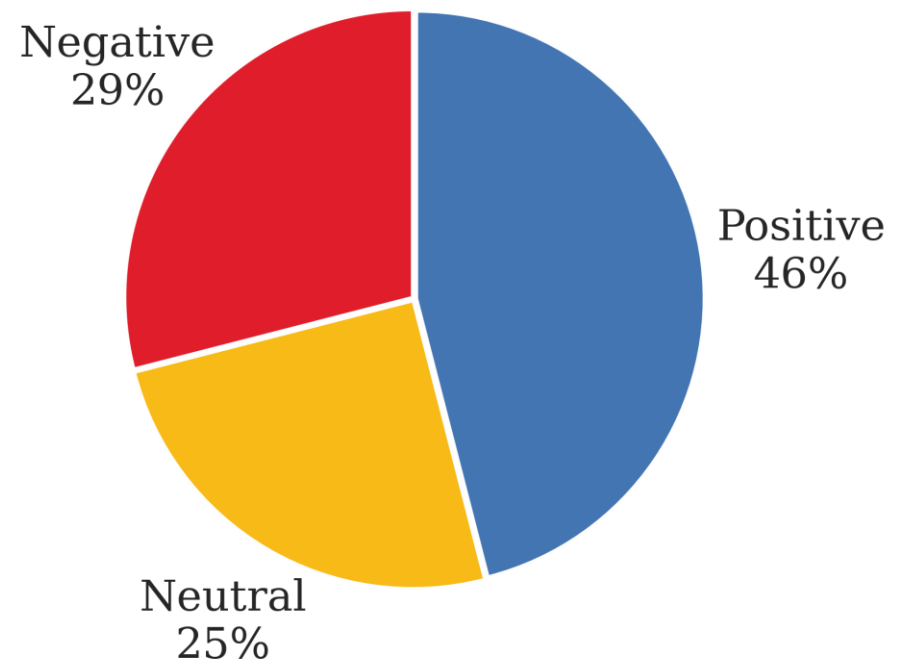
- Sharp increase in volume trend following declaration of Covid-19 as a national emergency (blue line)
- High volume trend over the following two weeks as opposed to pre-declaration levels

# Sentiment Analysis

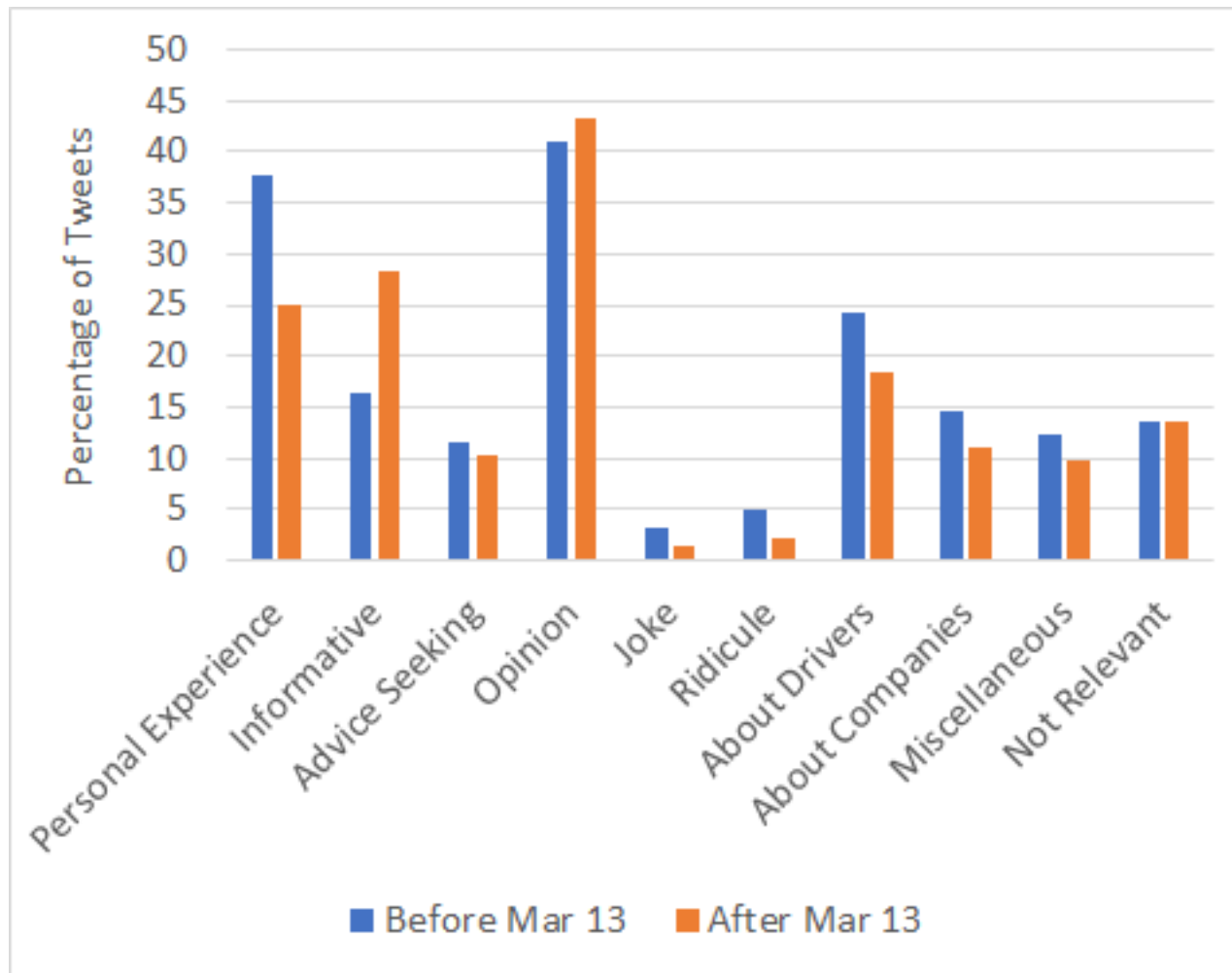
Two-week Sentiment  
Feb 28, 2020 - Mar 12, 2020



Two-week Sentiment  
Mar 13, 2020 - Mar 26, 2020



# Percentages...



## Events of Note:

- Decrease in percentage of personal experience tweets
- Increase in percentage of informative tweets

# 3 Themes Emerged

# Theme 1: Individual Accounts



[@DoorDash\\_Help](#) have used your service 4 times and still can't get a seamless delivery. Missing ingredients in food and a rude driver. Not sure how you still exist.

1:40 PM · Feb 28, 2020 · Twitter for iPhone



# Theme 2: Unity



Hey. So...

If you're getting things delivered- food, groceries, etc. - make sure you're tipping your delivery person, and tipping them well.

This may be all they've got right now, and as much as they want to be home, quarantined... they're out helping everyone stay safer.

3:56 PM · Mar 19, 2020 · Twitter for iPhone

# Theme 3: Concern for Gig Workers



If you order groceries today, realize that the delivery workers are likely “freelance” workers with NO health benefits, paid payroll taxes, unemployment or worker’s comp. Tip them in sanitized CASH so the app company can’t steal it. [#PSA](#) [#essentialworkers](#) [#instacart](#) [#labor](#)

9:49 AM · Mar 20, 2020 · Twitter for iPhone

# Discussion and Conclusions

# Discussion



## Increased public attention

- ▷ Increase in tweet volume
- ▷ Gig work moved closer to the center of the conversation



## Increased appreciation for gig workers and sense of community

- ▷ Plight of Gig Workers
- ▷ Tips
- ▷ Change from 'I' to 'We'



## Information sharing

- ▷ From individual experiences
- ▷ From restaurants

# Conclusions

- ▶ How do we value employment
  - Who were the “essential workers” during COVID?
- ▶ Will the positive conversation sustain?
  - Influence public policy
  - Support gig workers to demand for employment benefits
- ▶ What will happen post-COVID?
  - Will the positive sentiment continue?
  - How will the demand for gig workers change?

## So what?

- Our study finds that the Covid-19 pandemic moved the public discord around ride-hailing and food delivery closer to the center of the conversation.
- The focus on drivers and their essential status is likely to have far-reaching policy implications for the current political debates on their status as independent contractors.

# Future Work

- ▶ Machine learning to code the rest of the sample
- ▶ Investigating gig work public perception at the present to analyze potential changes
- ▶ Utilizing focus group data from gig workers to provide further insights on their experiences during COVID

# Thanks!

## Any questions?

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for the Era of Automated VEHICLES



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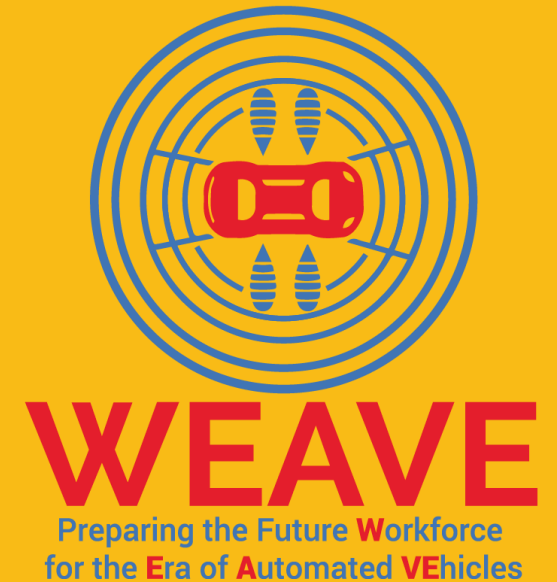
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# Thanks!

## Questions and Discussion

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