

# Examining Response Rates in the Survey of Occupational Injuries and Illnesses (SOII)

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# Road map

- SOII background
- Response Rates for SOII
  - ▶ Importance
  - ▶ Calculation
  - ▶ Overall response rate
  - ▶ By variable
- Nonresponse Rates
- Paths towards improvement
- Discussion



# What is SOII?

- SOII – Survey of Occupational Injuries and Illnesses
- SOII is the only comprehensive survey that measures work-related injuries and illnesses in the American workplace



# Importance of Response

- Without participants responding, we would have no data
- Higher response rate leads to a better representation of the population
- Higher data quality and accuracy

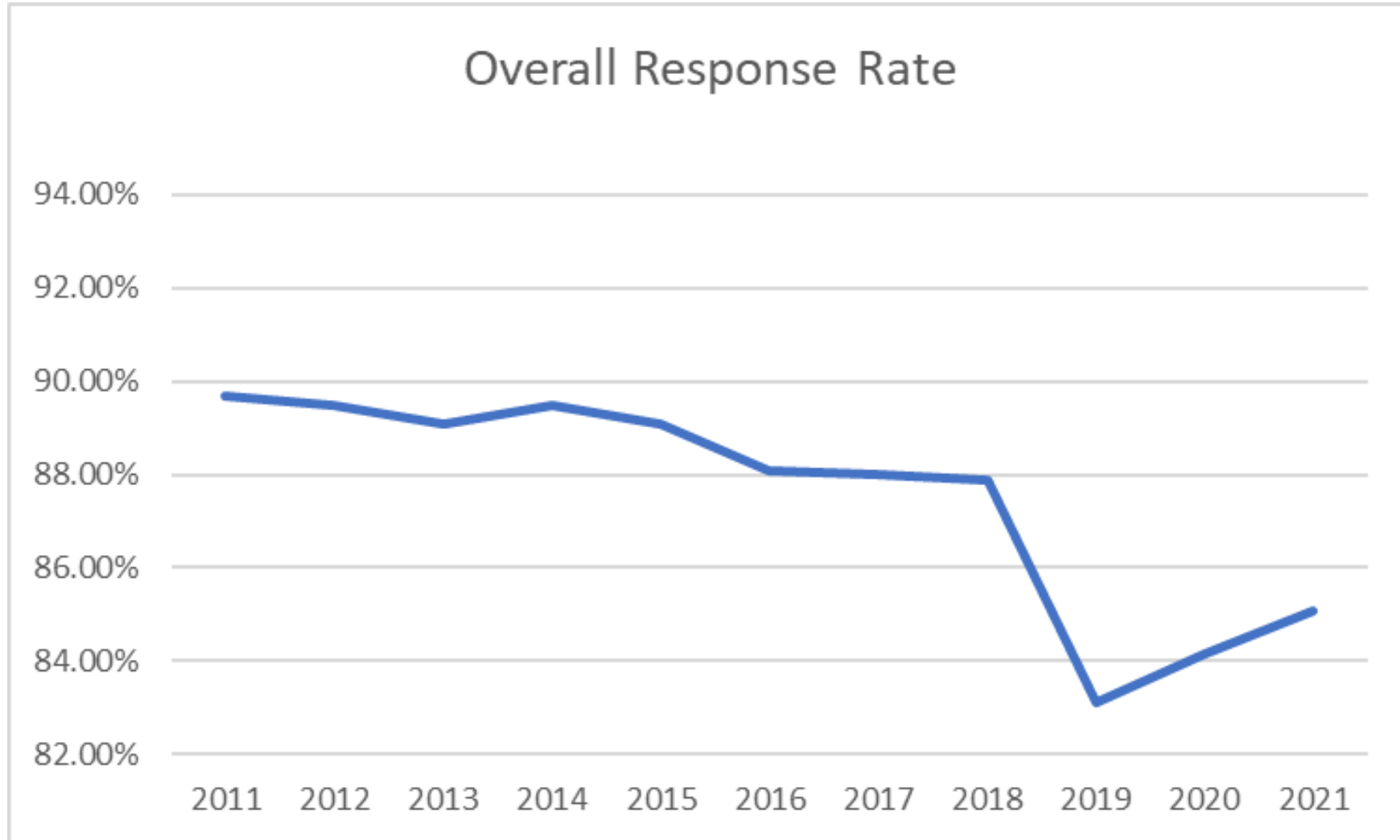


# Calculating the Response Rate

$$\text{Response Rates} = \frac{\sum_D \text{number of unweighted usable units}}{\sum_D \text{number of unweighted viable units}}$$



# Overall Response Rate



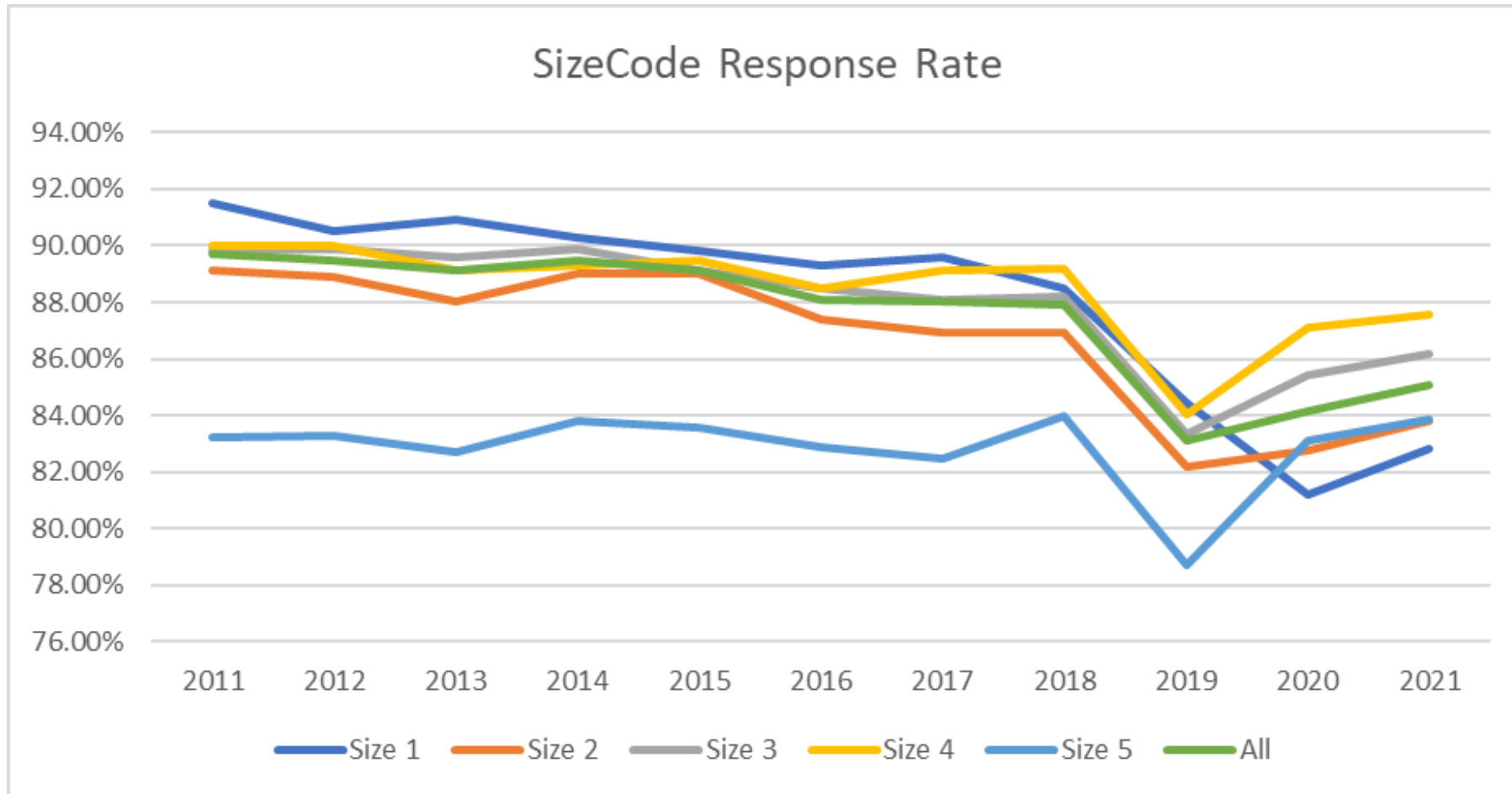
# Response Rates by Variable

- Size Code – The amount of employees within the establishment
- Super Sector – Different categories of industries
- State – Fifty states plus D.C., Puerto Rico, Guam, and Virgin Islands
- Government Report Status – Mandatory or Optional
- Ownership – State and local government, private sector





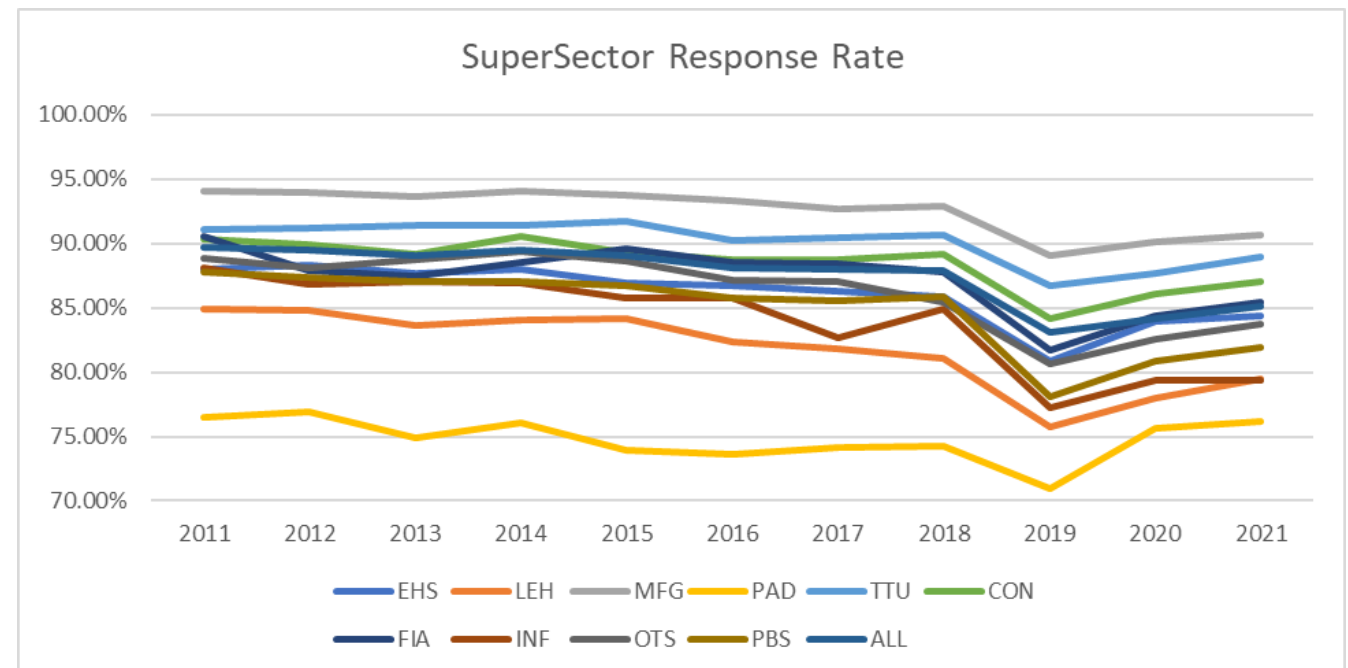
# 2011 to 2021 Response Rates by Size Code



# 2011 to 2021 Response Rates by Super Sector

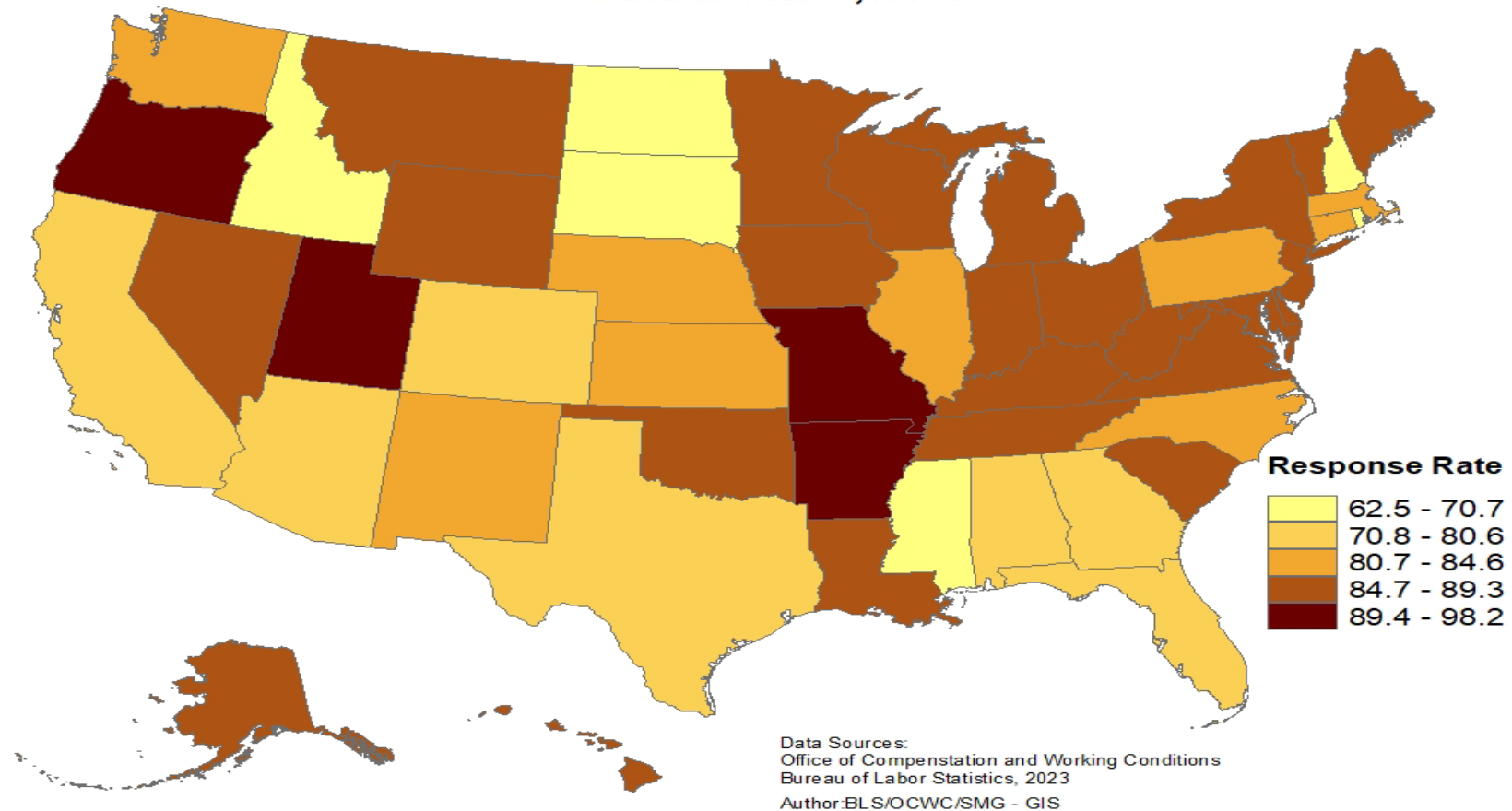
## Super Sectors

<b>MFG</b>	Manufacturing
<b>TTU</b>	Trade, Transportation, and Utilities
<b>CON</b>	Construction
<b>FIA</b>	Financial Activities
<b>OTS</b>	Other Services
<b>EHS</b>	Education and Health Services
<b>PBS</b>	Professional and Business Services
<b>INF</b>	Information
<b>LEH</b>	Leisure and Hospitality
<b>PAD</b>	Government



# Response Rates by State for 2021

Survey of Occupational Injuries and Illnesses (SOII) Response Rates by State, United States, 2021



# Looking into Particular States

## Mandatory State and Local Government Responses

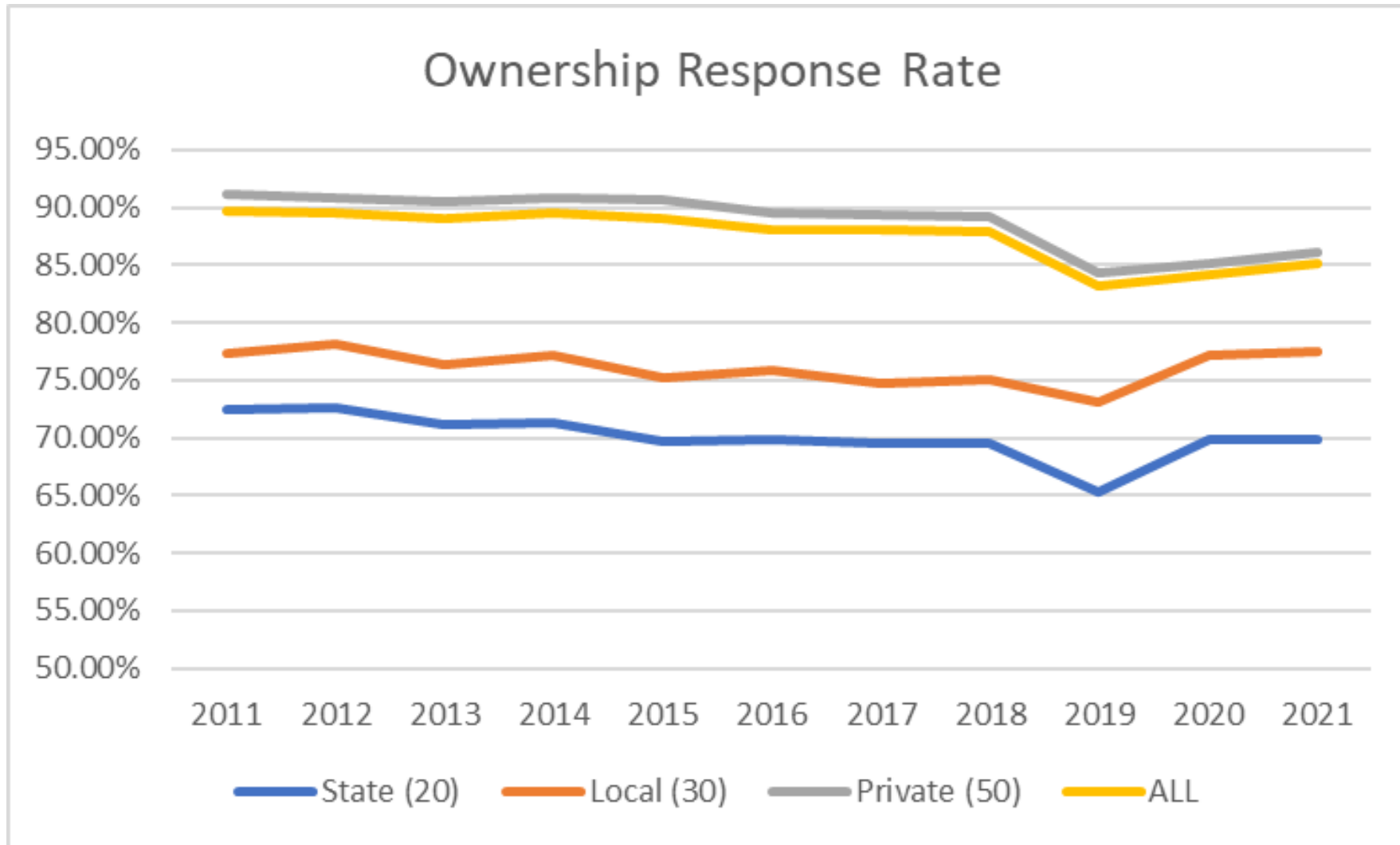
<b>State A</b>			
<b>Ownership</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>State - 20</b>	87.44%	93.33%	92.55%
<b>Local - 30</b>	75.04%	84.76%	86.26%
<b>Private - 50</b>	70.98%	79.81%	79.04%

## Optional State and Local Government Responses

<b>State B</b>			
<b>Ownership</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>State - 20</b>	7.28%	13.58%	3.07%
<b>Local - 30</b>	21.90%	19.95%	14.22%
<b>Private - 50</b>	80.38%	76.50%	81.61%



# 2011 to 2021 Response Rates by Ownership



# Nonresponse

- Optional state and local governments hold the highest nonresponse rates
- Further investigation into nonresponse bias should be analyzed with these findings



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# Suggestion 1 – Collection Methods

- How effective is one method over the other?
- Three main collection methods for gaining responses:
  - Phone
  - Mail
  - Electronic
  - Fax





# Suggestion 2 – Perform address refinement prior to sending the survey invitation

- Part of the response process model identifies who within the business should receive the survey request
- To gain accuracy for the delivery to go to the correct respondent, multiple establishment surveys engage in address refinement before sending out the survey

# Suggestion 3 – Use more and/or accelerated nonresponse follow-ups

- For the nonrespondents, increase the reminders and send them out sooner
- Timing and frequency for invitations could lead to higher responses

# Discussion



# Contact Information

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