

# Vaccine Intentions and Herd Immunity Report

April 2021

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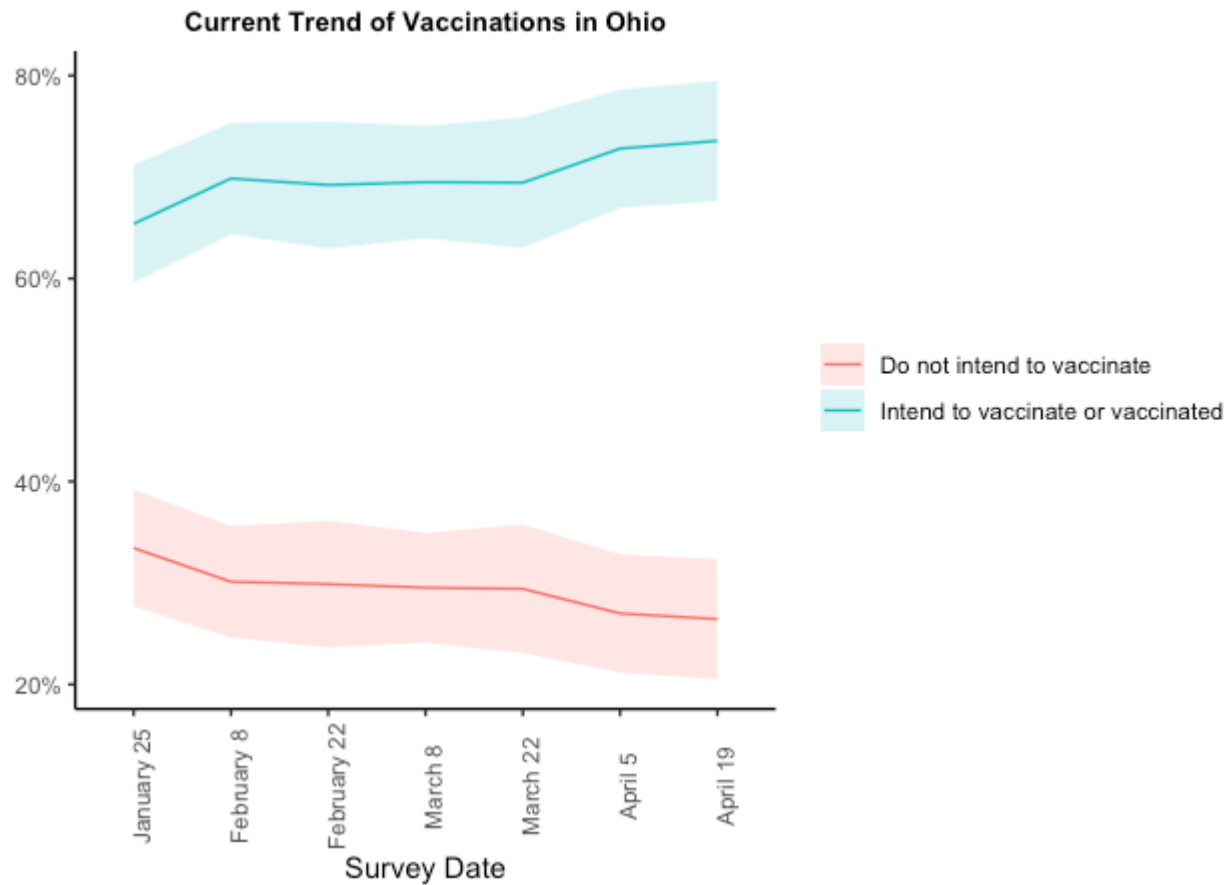
**THE OHIO STATE UNIVERSITY**

CENTER FOR HEALTH OUTCOMES AND  
POLICY EVALUATION STUDIES

# Economic Forecasting and the Pandemic

- **All** major commercial economic forecasts include the key condition of “depending on the path of the pandemic”
- Herd Immunity is the pandemic endgame
- Current herd immunity threshold:
  - 80% or higher; exact threshold is moving target
  - Estimates are rising due to emergence of the new variants/mutations
- Ohio COVID-19 Dashboard (4/23):
  - 38% of all Ohioans have started their vaccinations
  - 28% of all Ohioans have completed their vaccinations

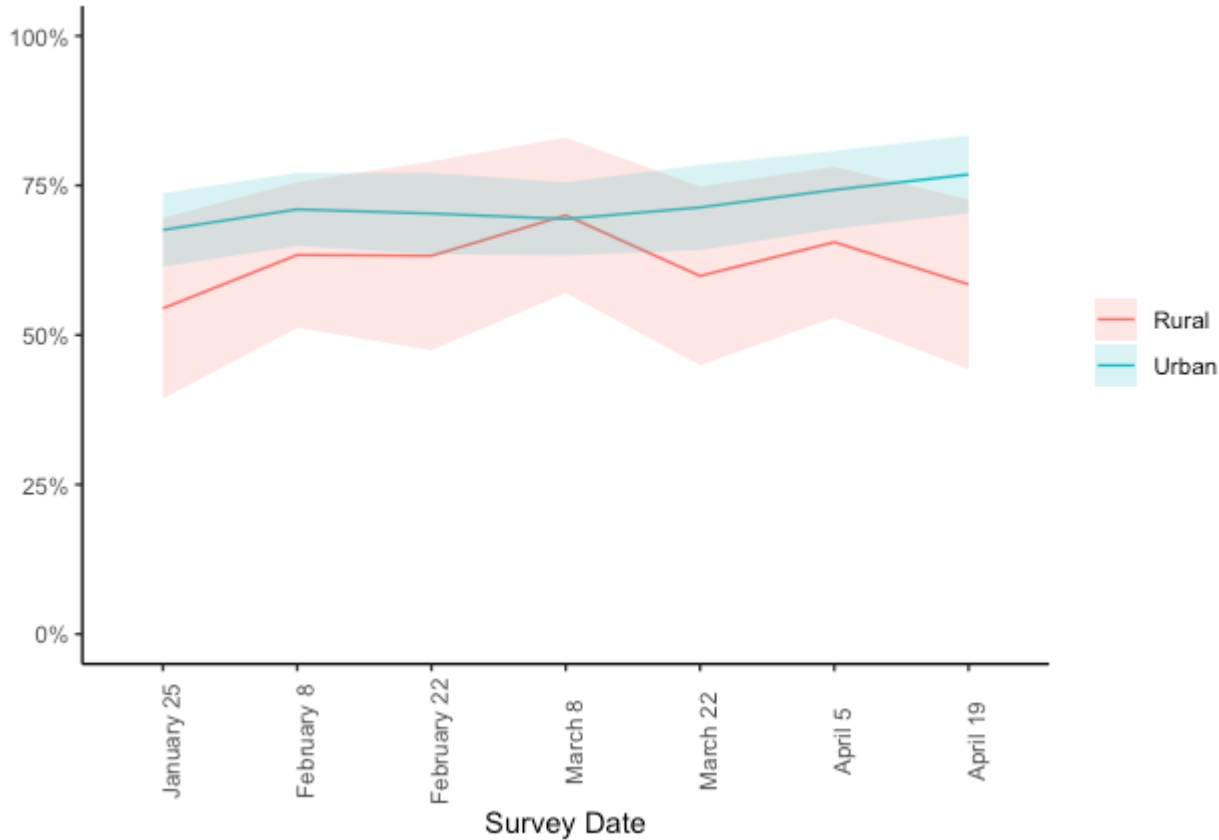




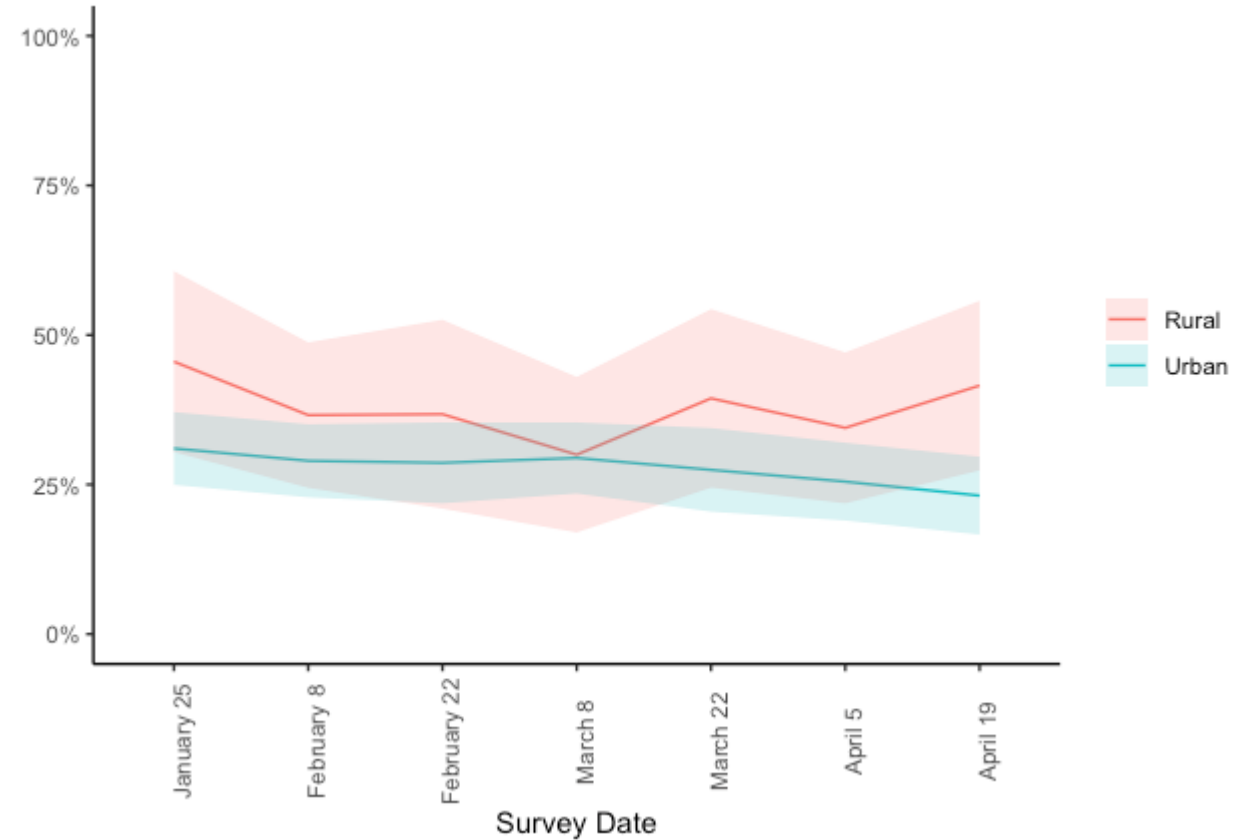
- Question: Are we on the path to Herd Immunity?
- 79% of Ohio adults 19 years and older are vaccinated or intend to be vaccinated
- Has increased over the last month, but likely just short of needed



Ohioans Vaccinated or Intend to Vaccinate (Rural vrs Urban)



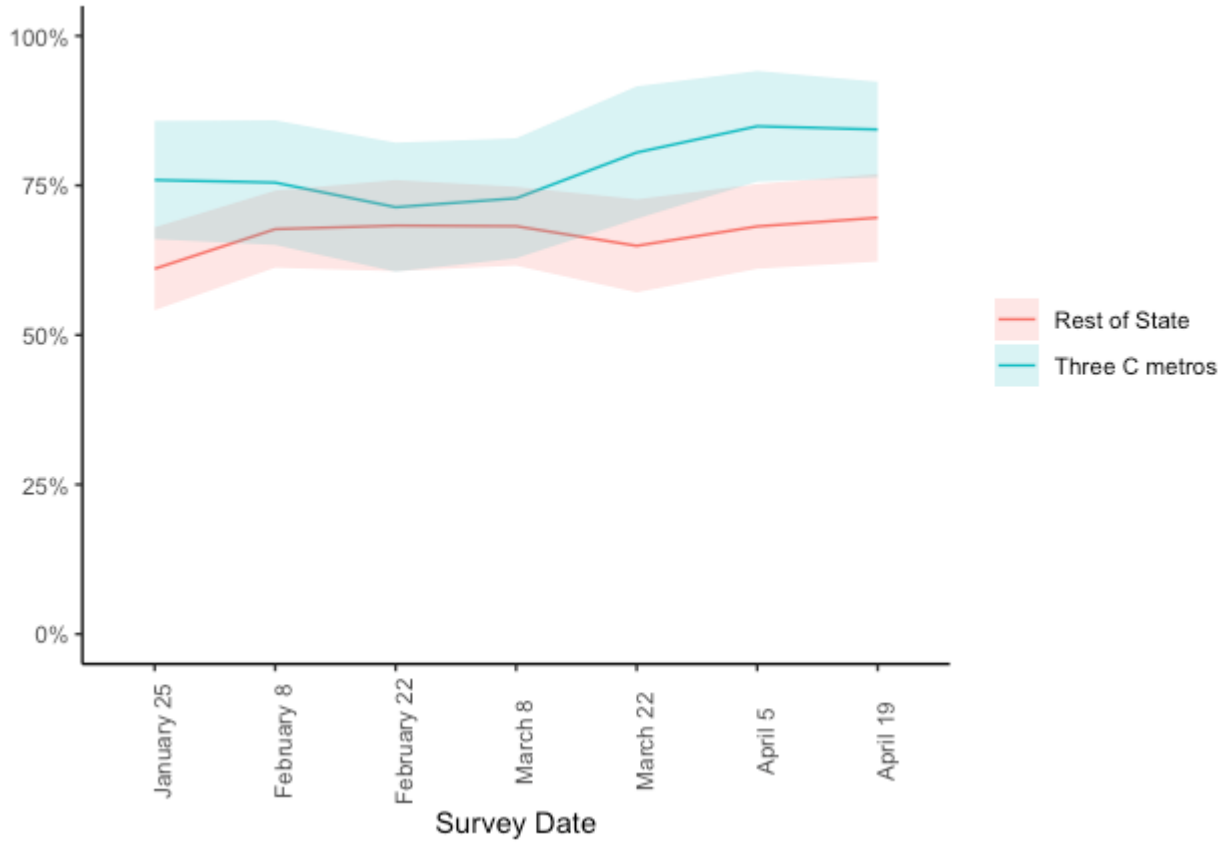
Ohioans Who Do Not Intend to Vaccinate (Rural vrs Urban)



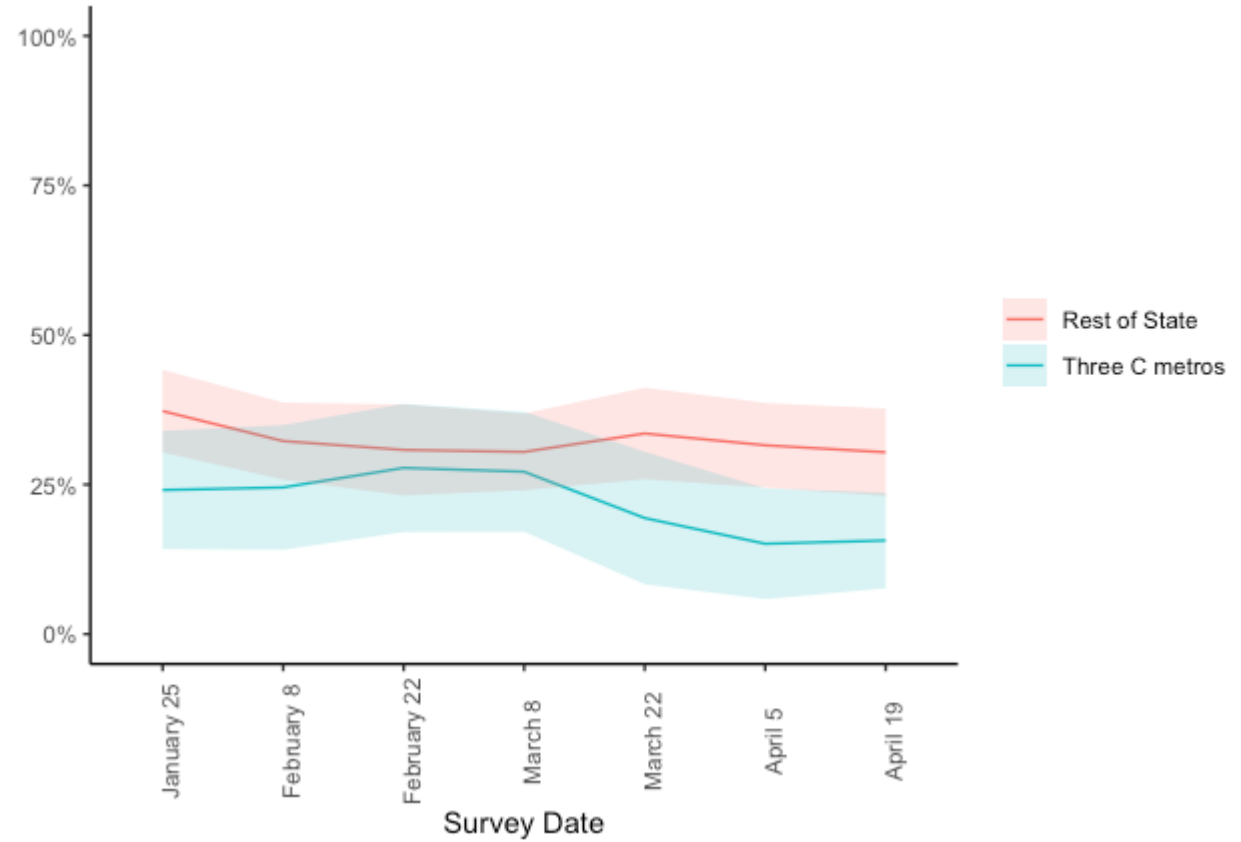
- Broad Urban – defined as all cities and suburban counties
  - This definition includes 83% of Ohioans 19 years and older
- Least urban counties – 50% do not intend to vaccinate



Ohioans Vaccinated or Intend to Vaccinate (Three C Metros vrs Rest of State)

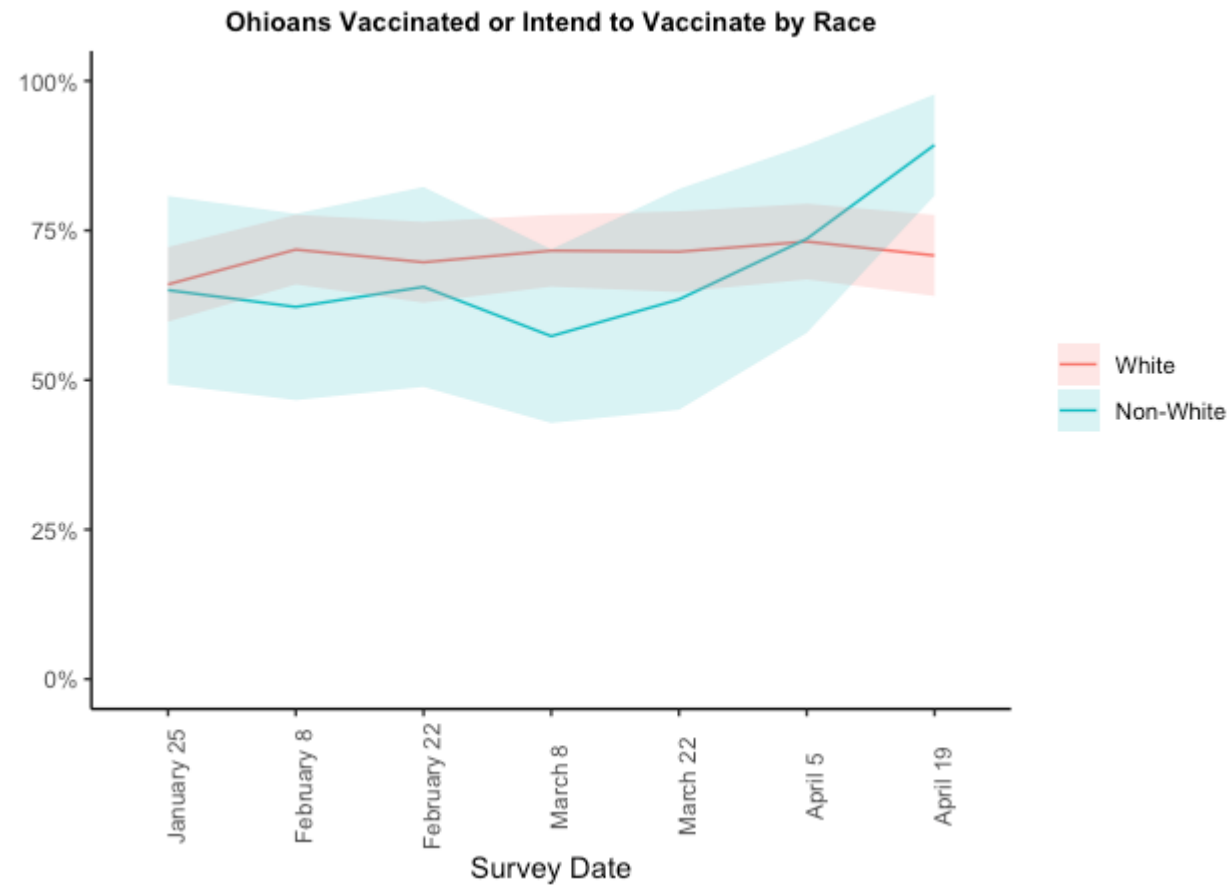


Ohioans Who Do Not Intend to Vaccinate (Three C Metros vrs Rest of State)



- Narrow urban = Three C metros
  - Just Franklin, Cuyahoga, and Hamilton counties
- These areas are the most likely to reach herd immunity (but close)





- Vaccinations + Vaccine intentions
  - White Ohioans 19 years and older = unchanged
  - Non-White Ohioans = large increase over last two months



# Increasing Marginal Cost of Vaccination Programs

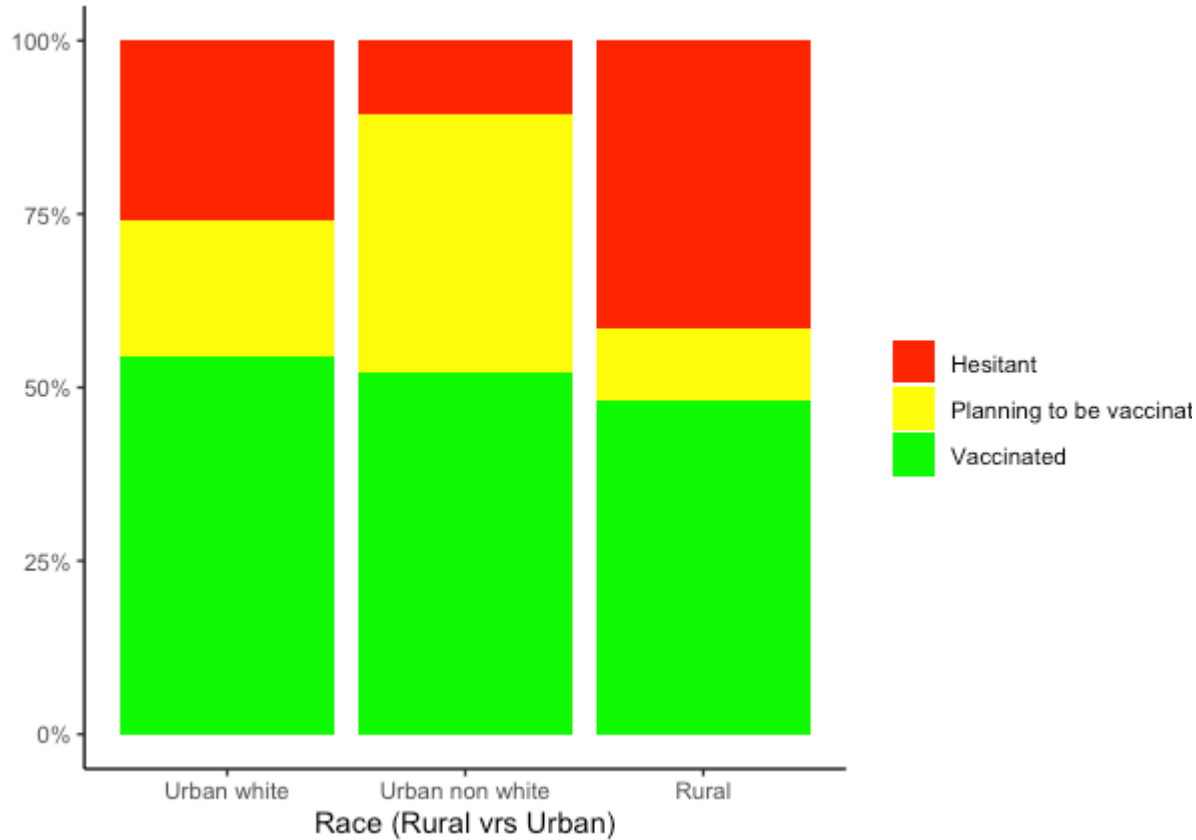
- When vaccinating a population, each additional person requires more effort or “cost” to vaccinate (increasing marginal cost):

Vaccine Eager	Drive to any mass vaccine event
Vaccine Indifferent	Willing to vaccinate, but not make a great effort
Vaccine Hesitant	Hesitant – you’ll have to come to me and persuade me
Vaccine Resistant	Actively oppose vaccination

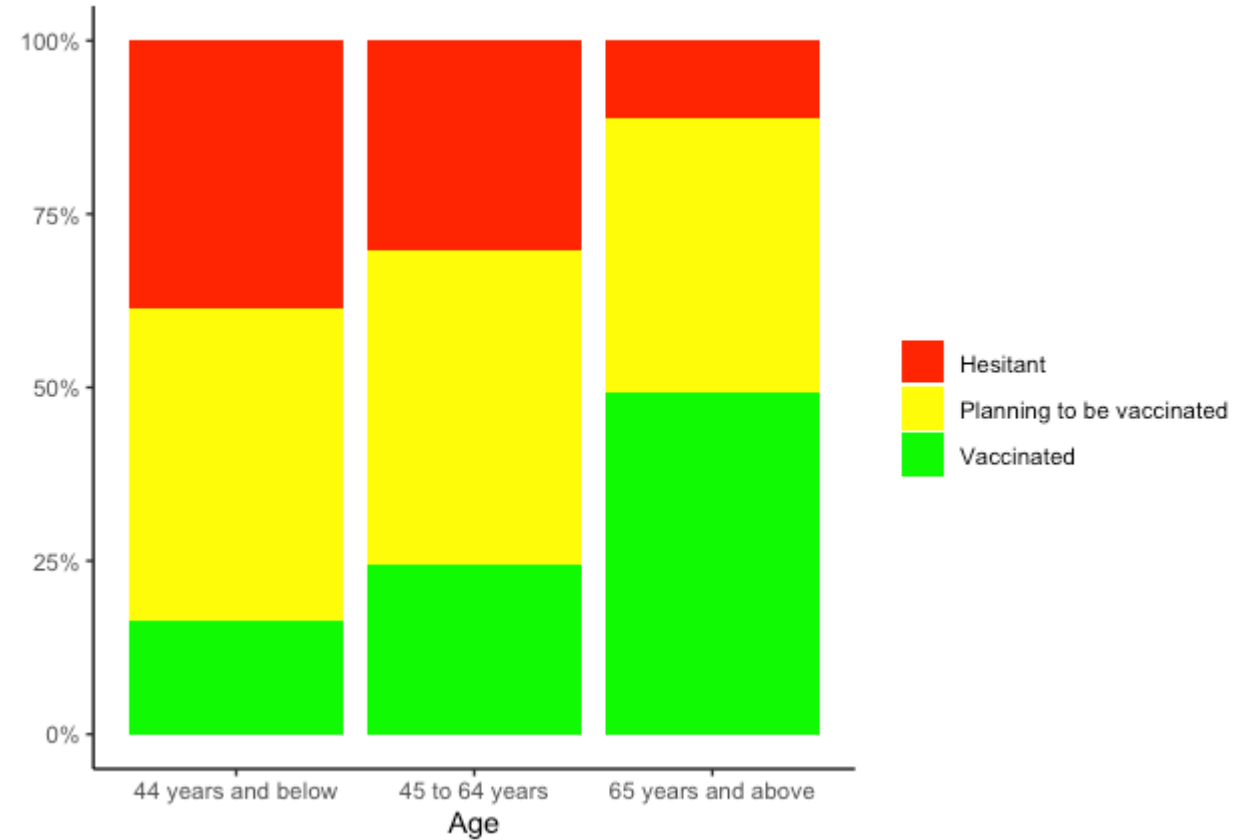
- Unfilled appointments suggest we are progressing into Phase 2
- Examples from Mass Vaccination Campaigns
  - Paid time off (current Federal proposal with tax incentive plan)
  - Free formula and diapers for childhood vaccinations
  - Going to schools and workplaces to provide vaccines



Vaccine Hesitancy in Ohio by Race (Rural vrs Urban)



Vaccine Hesitancy in Ohio by Age



- Estimates from 4/4 – 4/17 surveys
- Younger, white, and more rural will be hardest demographics to vaccinate
- Phase 2 & 3 will entail lowering “marginal cost” of seeking vaccinations





# Summary

- All current economic forecasters condition their models on successful end to the pandemic
- 79% of adults = projected ceiling for vaccinations in Ohio based on last week's data
- Data suggests the vaccine eager have been vaccinated
  - Each additional vaccination will be more difficult/costly to achieve
    - Economics = “increasing marginal cost to vaccinate”
- Characteristics of most hesitant to vaccinate:
  - Younger, white, rural

