

# Economic Outlook for the State of New York

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# Welcome and Introductions

- REMI models
- Big Picture: REMI Regional Growth Matrix
- Economic outlook
  - Short-term forecast
  - Long-term forecast
- Policy simulation

# Model



Regional Economic Models, Inc. (REMI) was founded in 1980 on a transformative idea: *government decision-makers should test the economic effects of their policies before they're implemented.* We are the nation's leader in dynamic local, state and national policy modeling. Our clients use REMI models to perform rigorous economic analysis that critically influences local, state and national policies.

## OUR CLIENTS:

Business Roundtable • Sandia National Laboratories • Ernst & Young • Texas Comptroller  
University of Michigan • Tennessee Valley Authority • National Education Association  
South Coast Air Quality Management District • Florida Legislature  
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California Environmental Protection Agency • U.S. Army Corps of Engineers

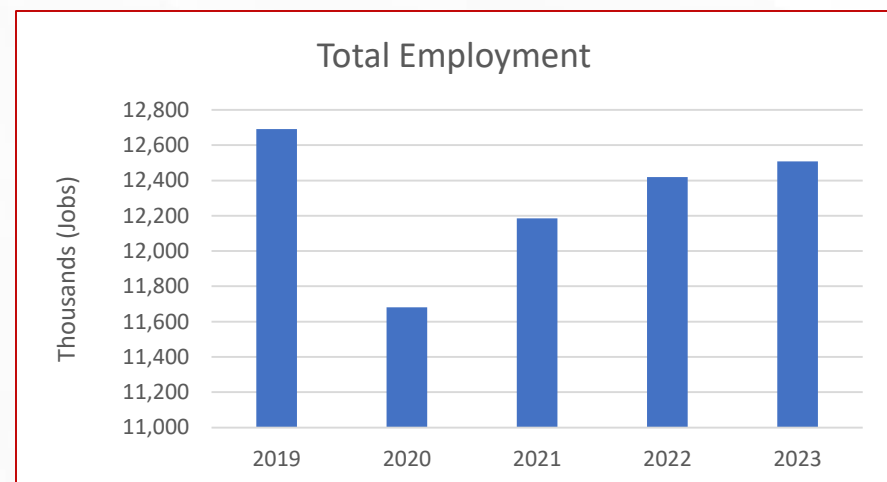
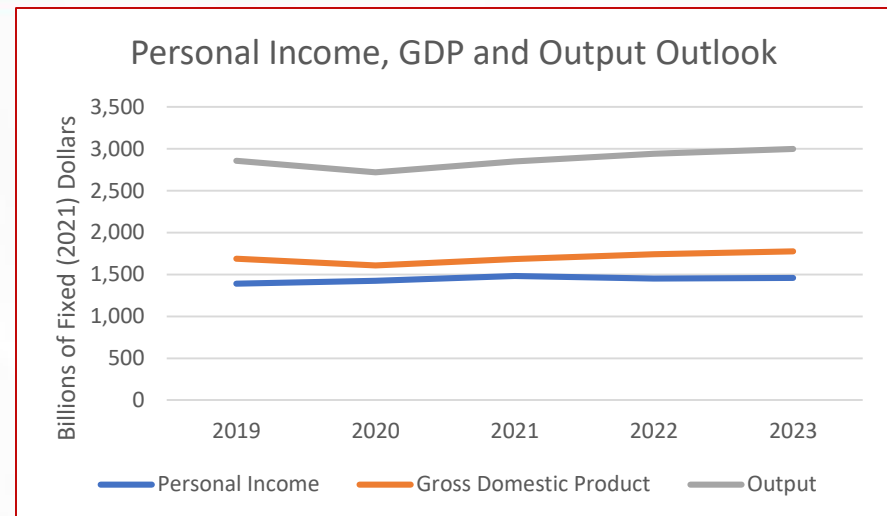
# New York State Economy

- Global financial center, very rural outside of NYC
- Takes up about 1% of the land mass of the US, but manages to contribute 8% of the country's GDP
- Key industries:
  - Finance
  - Health Care
  - Professional and Technical Services
  - Retail Trade

# Short-Term Outlook: New York



- Years 2019-2023
- Growth 2020-2021
  - Personal income (nominal dollars): 4.0%
  - GDP: 4.8%
  - Output: 4.7%
  - Employment: 504 thousands
- Uncertainty



# REMI Regional Growth Matrix: Economic & Demographic Factors



## Economic Factors

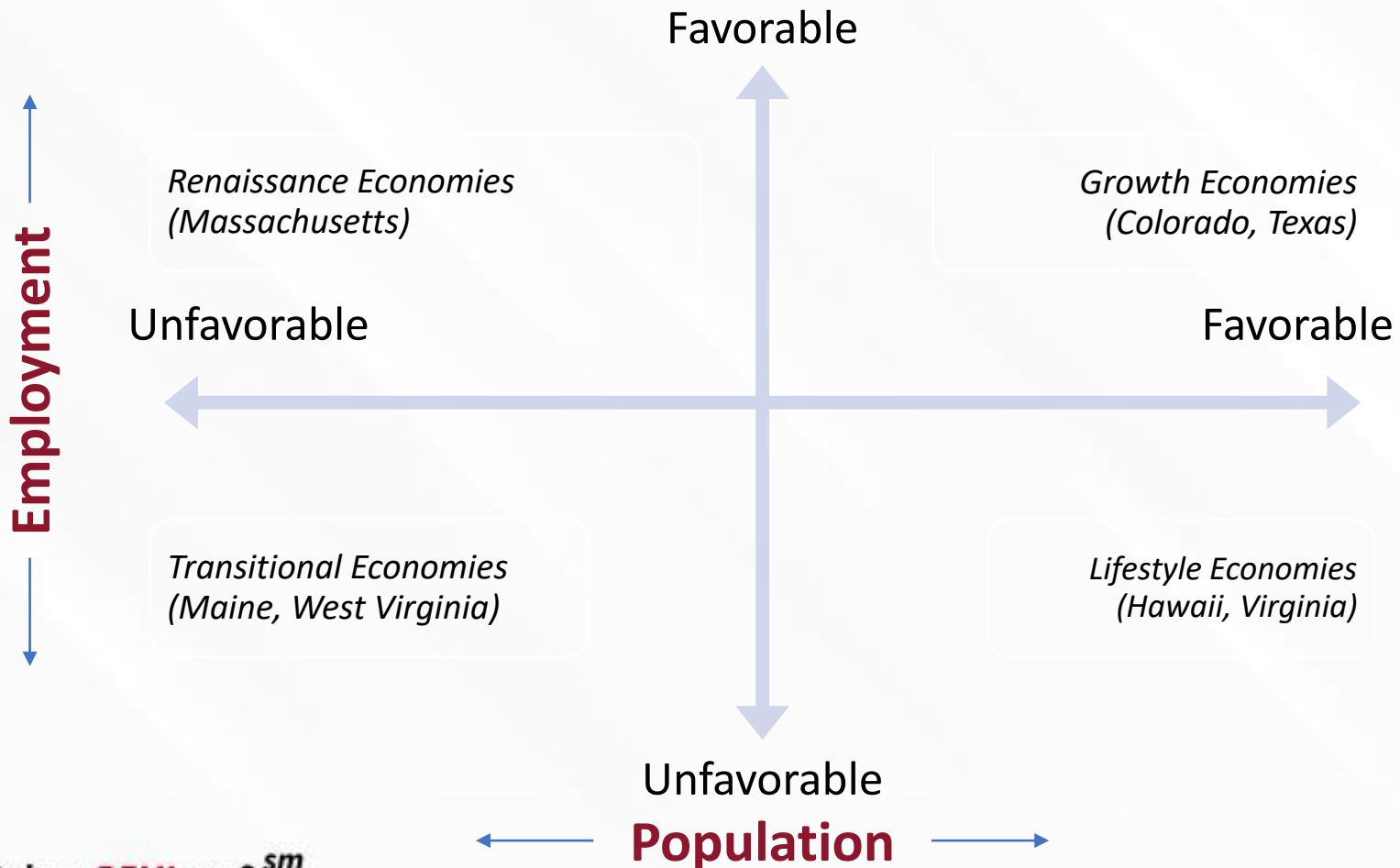
	Industry Growth	Industry Clusters	Pay	Productivity	Business Cost
Favorable	Growing	Strong	High-paid industries	High	Low
Unfavorable	Declining	Weak	Low-paid industries	Low	High

## Demographic Factors

	Population Age	Retirees	Immigration	Amenities	Housing Cost
Favorable	Younger	Gains retirees	Immigration gateway	High	Low
Unfavorable	Older	Loses retirees	Low internat'l immigration	Low	High

what does **REMI** say? <sup>sm</sup>

# Regional Growth Matrix



# Growth Matrix

## Difference in Growth from US Average (2021-2022)



	US Average	NY State	Difference
Employment growth	1.9%	1.9%	0.0%
Population growth	0.7%	0.0%	-0.7%



# Data Sources

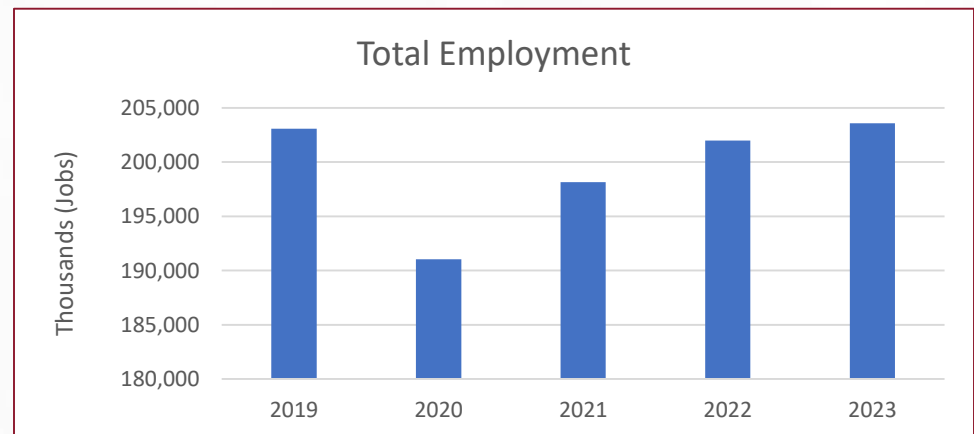
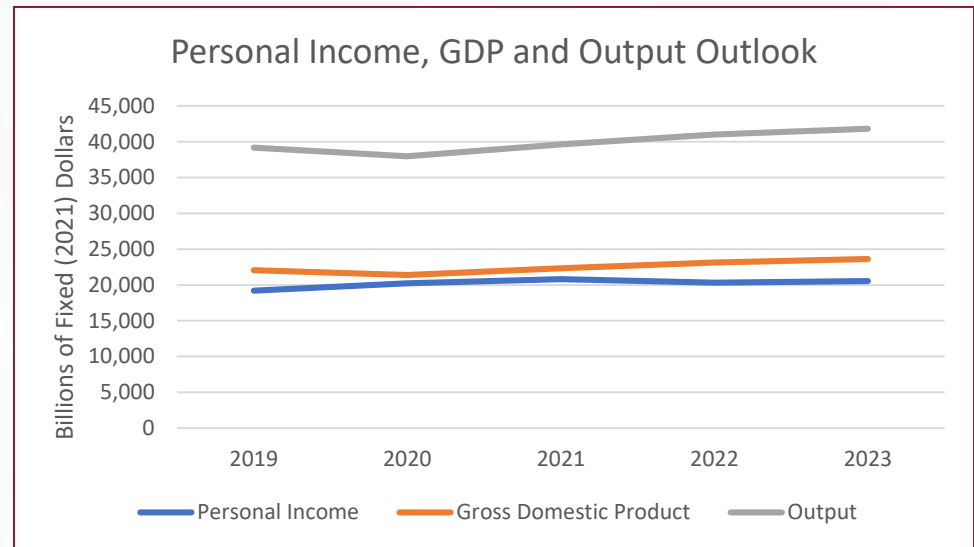
- Baseline (Standard National Control)
  - BLS Forecast Data
- Economic Forecast Update March 2021
  - 2019-2020 historical data from BEA
  - The U.S. Economic Outlook for 2020-2022 from the University of Michigan's Research Seminar in Quantitative Economics (RSQE)
  - An update to the Economics Outlook from CBO
  - Includes \$1.6 trillion stimulus, additional vaccination, and additional consumer spending<sup>1</sup>

# National Outlook

# Short-Term Outlook: the U.S.



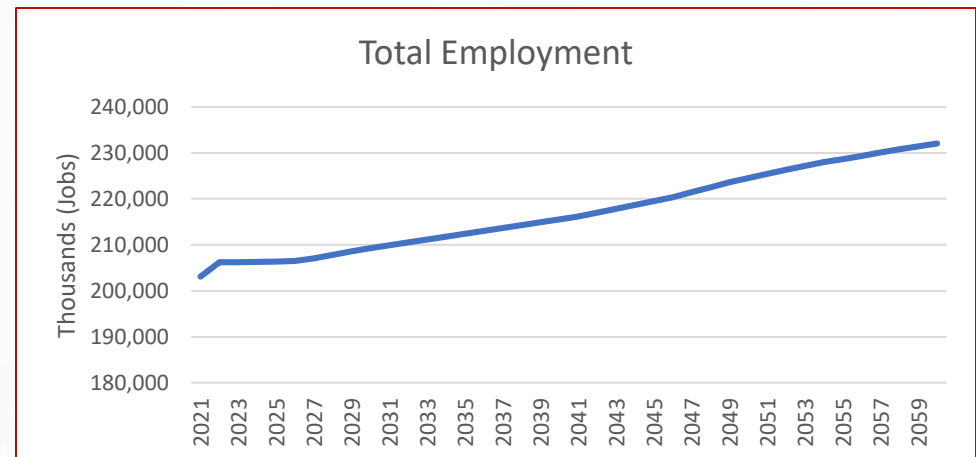
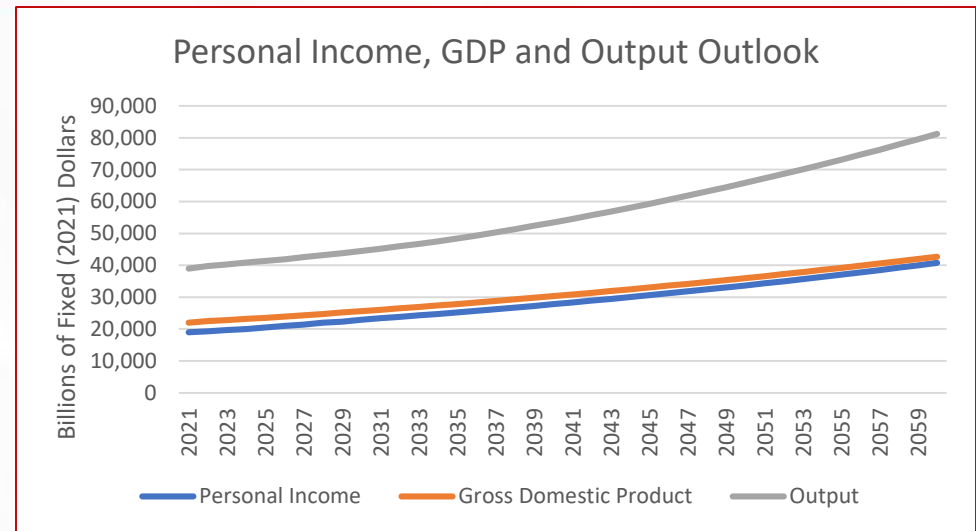
- Years 2019-2023
- Growth 2020-2021
  - Personal income (nominal dollars): 2.9%
  - GDP: 4.4%
  - Output: 4.4%
  - Employment: +7 million jobs



# Long-Term Outlook: The U.S.



- Years 2021-2060
- Average growth / year
  - Personal income: 1.9%
  - GDP: 1.8%
  - Output: 1.9%
- Total employment:  
+741 thousand jobs



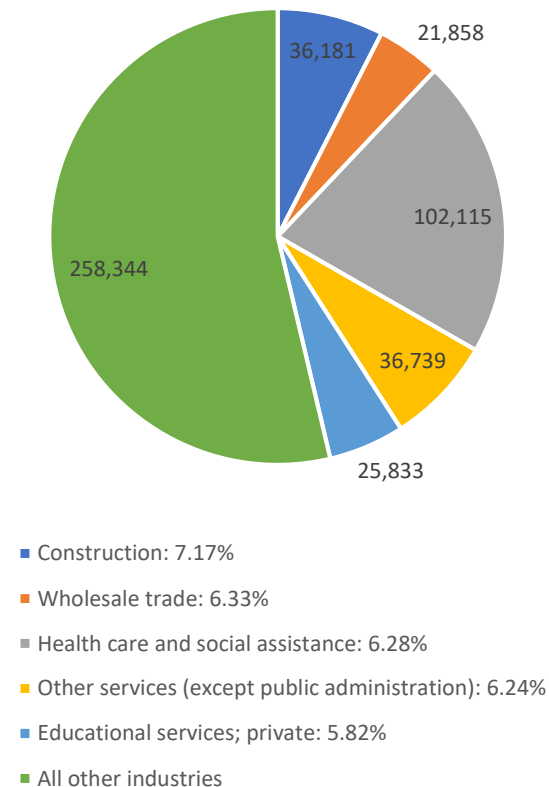
# Regional Outlook: New York

# Short-Term Outlook: Employment by Industry



- Industries with largest employment growth rates in 2021
- 2020 - 2021: 222,726 jobs increasing in the top 5 fast growing industries

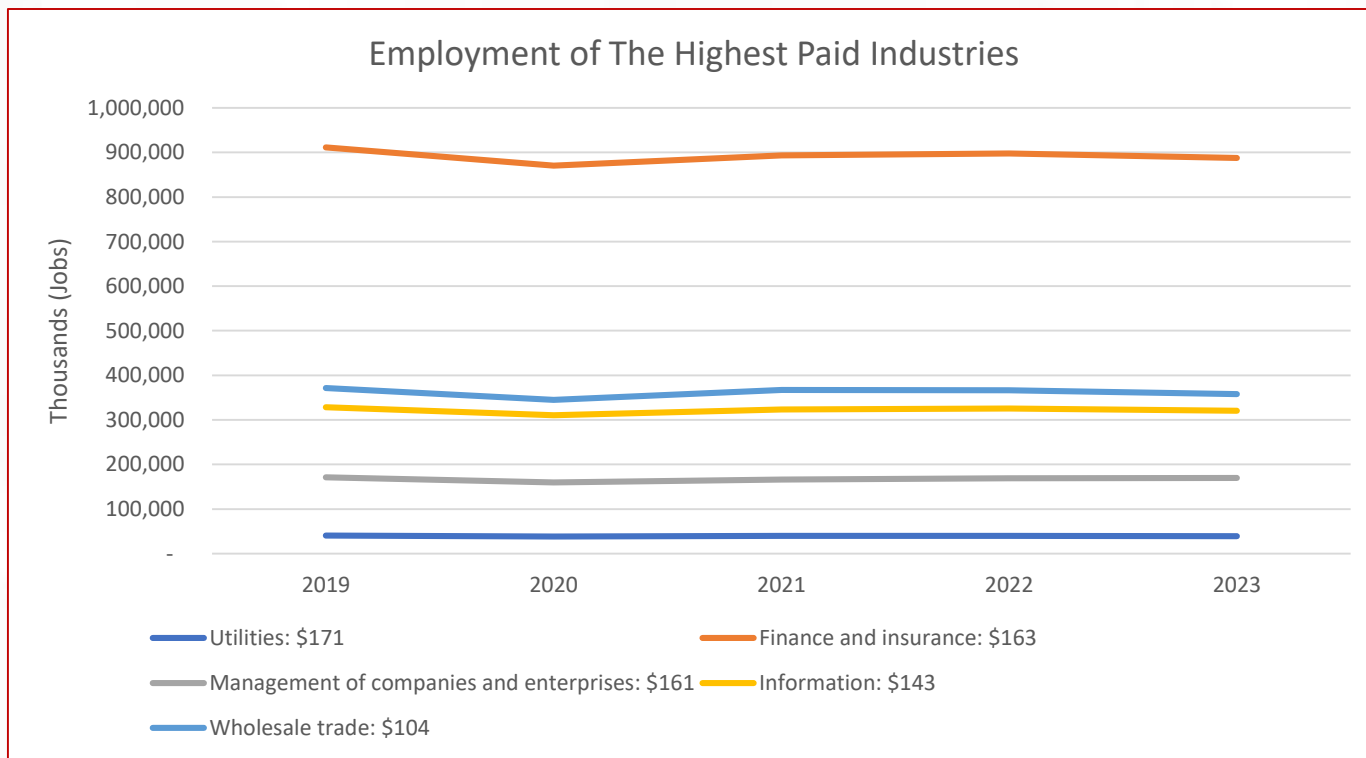
Job Increase in The Fastest Growing Industries in 2021



# Short-Term Outlook: Employment by Industry

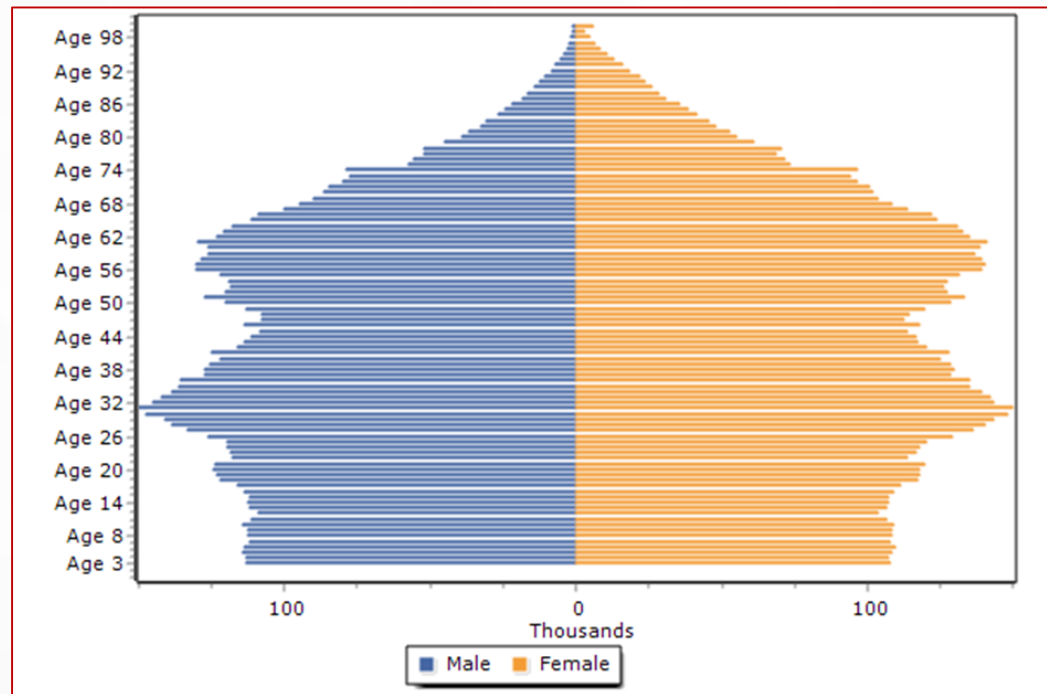


- Industries with highest average annual compensation rates in 2021



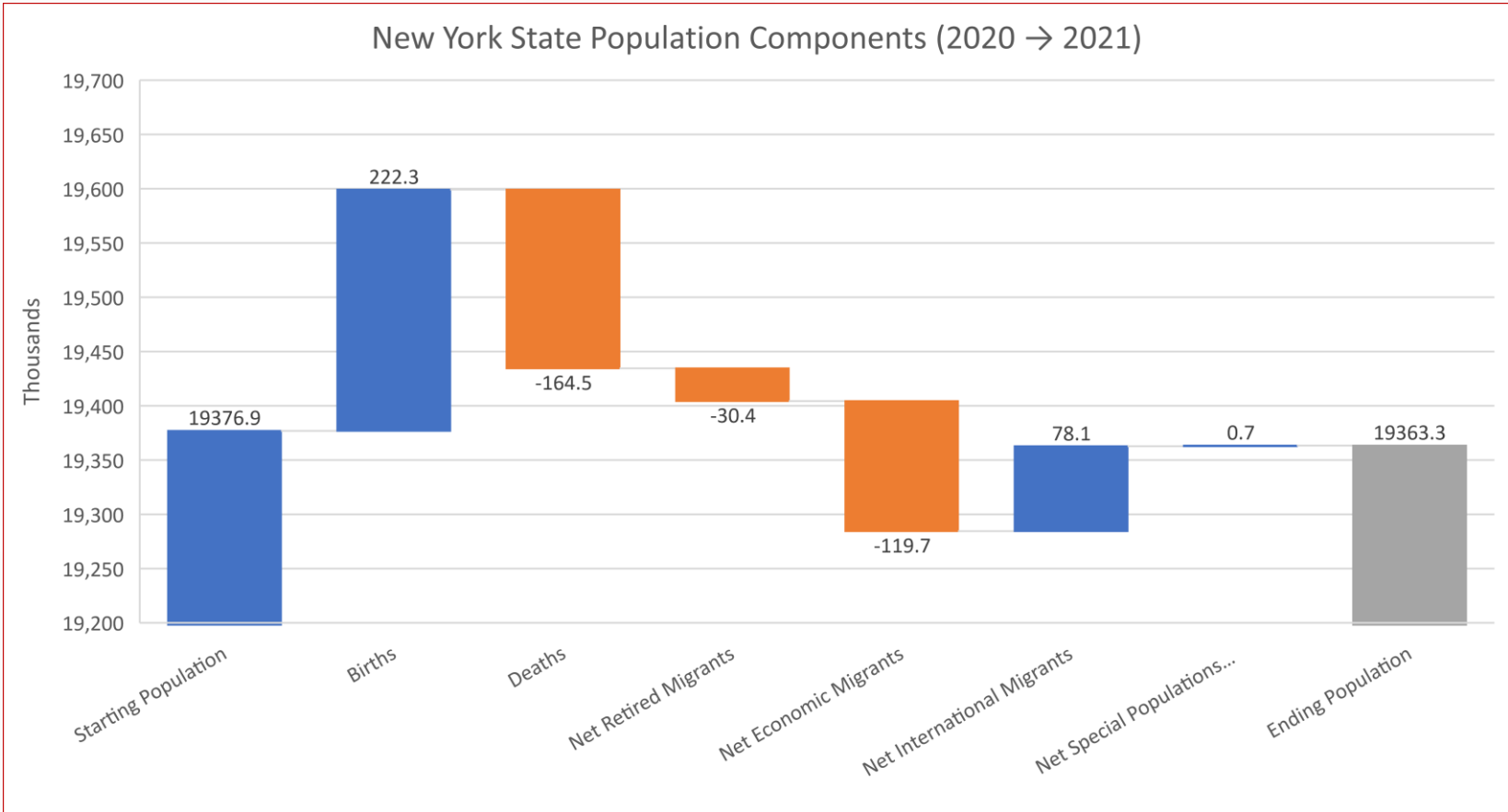
# Short-Term Outlook: Population Pyramid (2021)

- Year 2021
- Near Constrictive
  - Elderly population
  - More access to quality education and healthcare





# Short-Term Outlook: Population Components

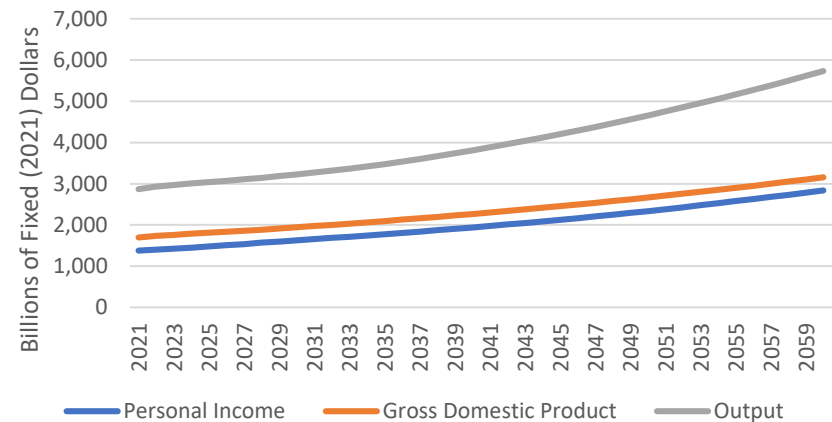


# Long-Term Outlook: New York

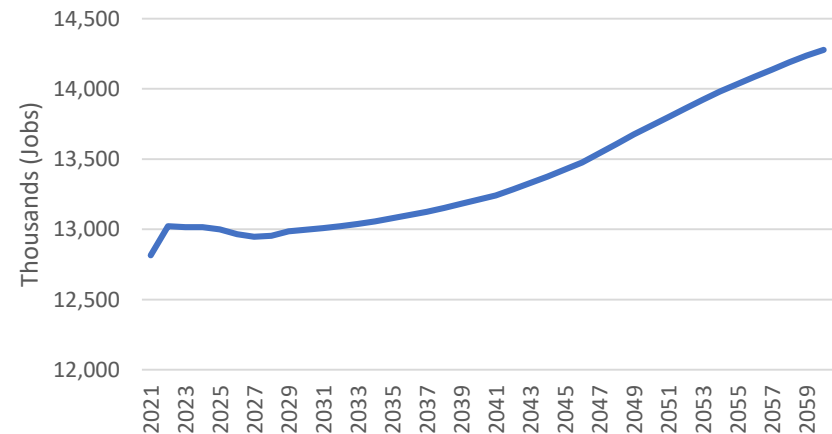


- Years 2021-2060
- Average growth / year
  - Personal income: 1.8%
  - GDP: 1.7%
  - Output: 1.9%
  - Total employment: +42 thousand jobs

Personal Income, GDP and Output Outlook



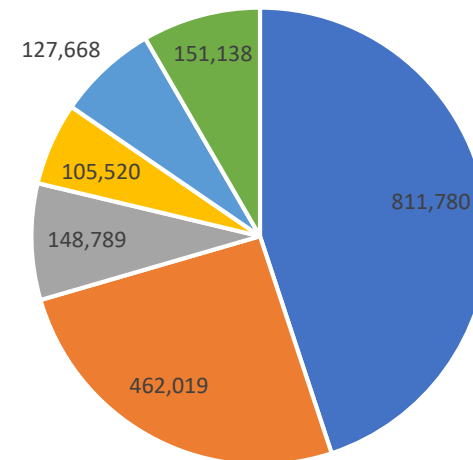
Total Employment



# Long-Term Outlook: Employment by Industry

- Industries with fastest employment increasing
- 2020 - 2060: 1.7 million jobs increasing in the top 5 fast growing industries

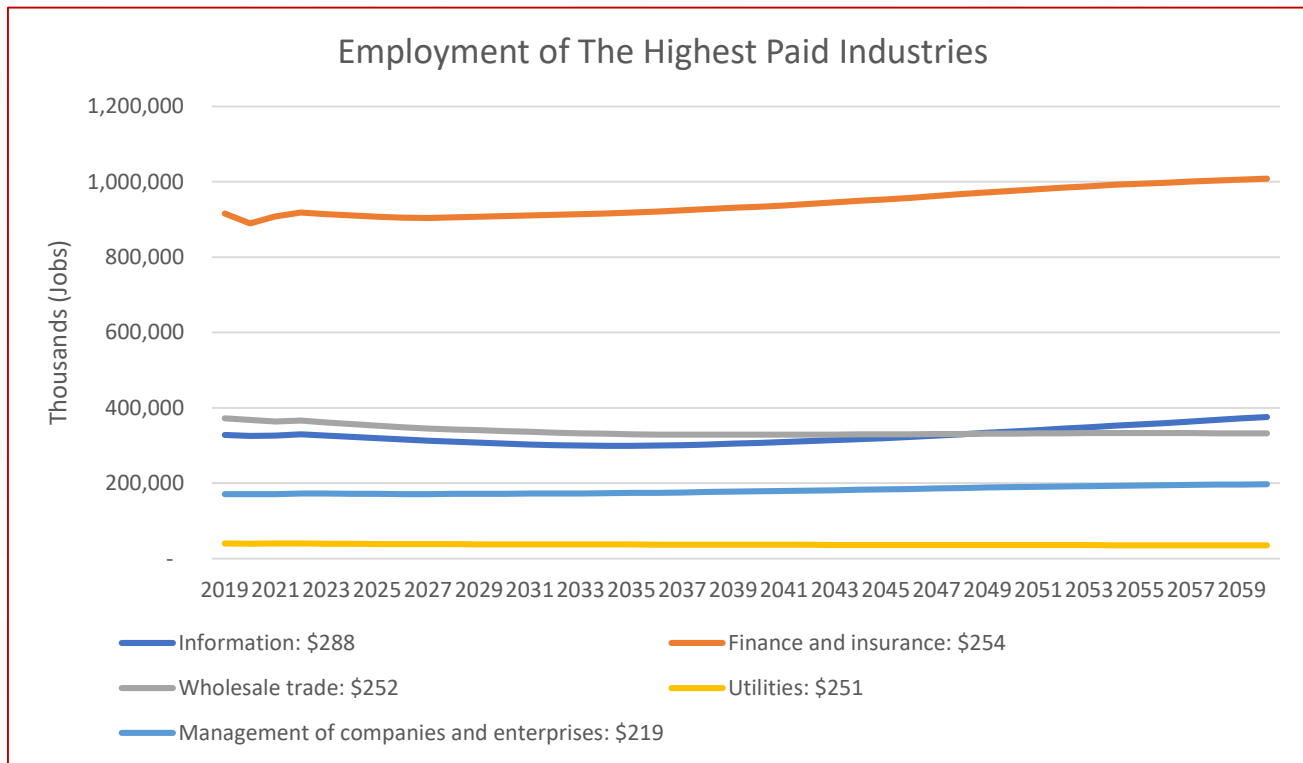
Job Increase in The Fastest Growing Industries  
2020 - 2060



- Health care and social assistance: 0.96%
- Professional, scientific, and technical services: 0.94%
- Administrative, support, waste management, and remediation services: 0.52%
- Transportation and warehousing: 0.43%
- Real estate and rental and leasing: 0.43%
- All other industries

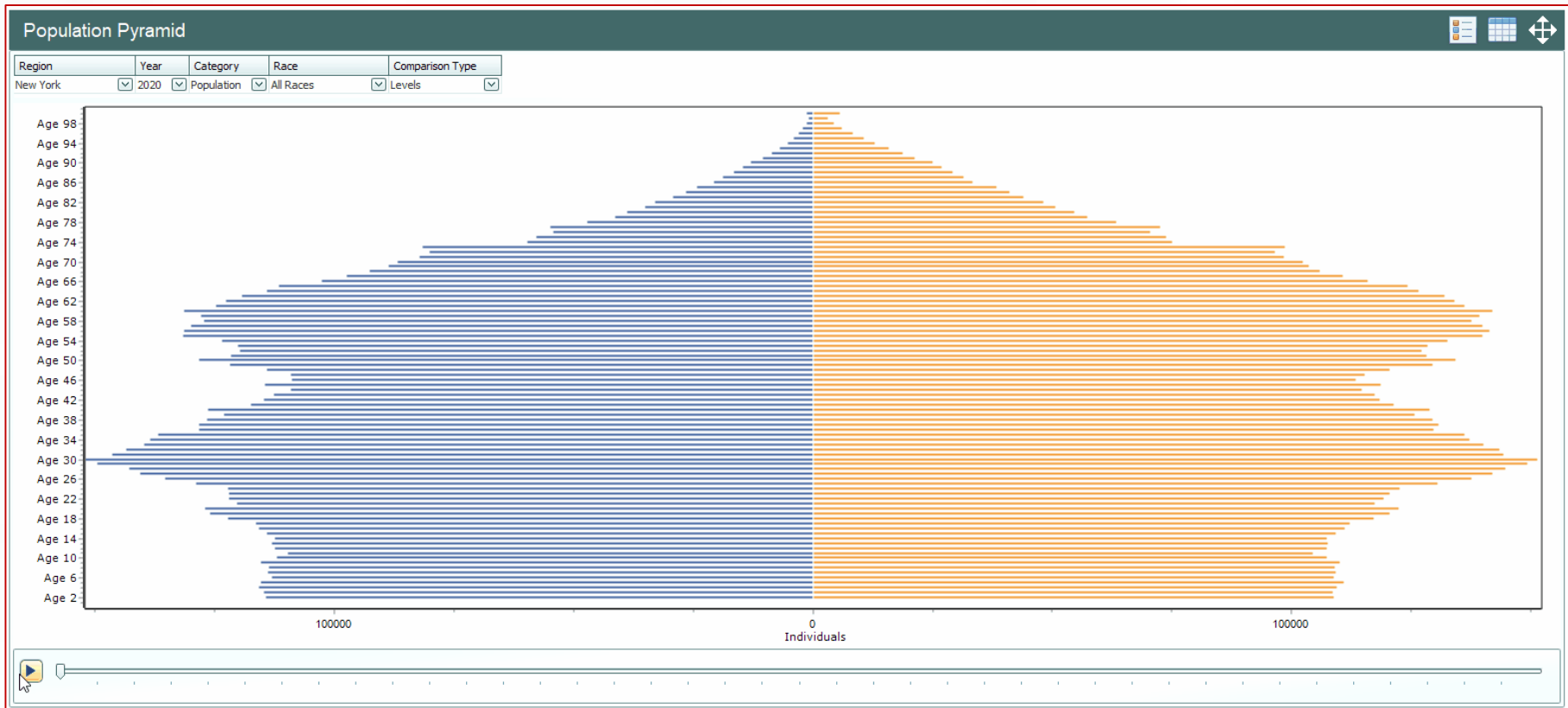
# Long-Term Outlook: Employment by Industry

- Employment of industries with highest average annual compensation rates in 2060



# Long-Term Outlook: Population Pyramid

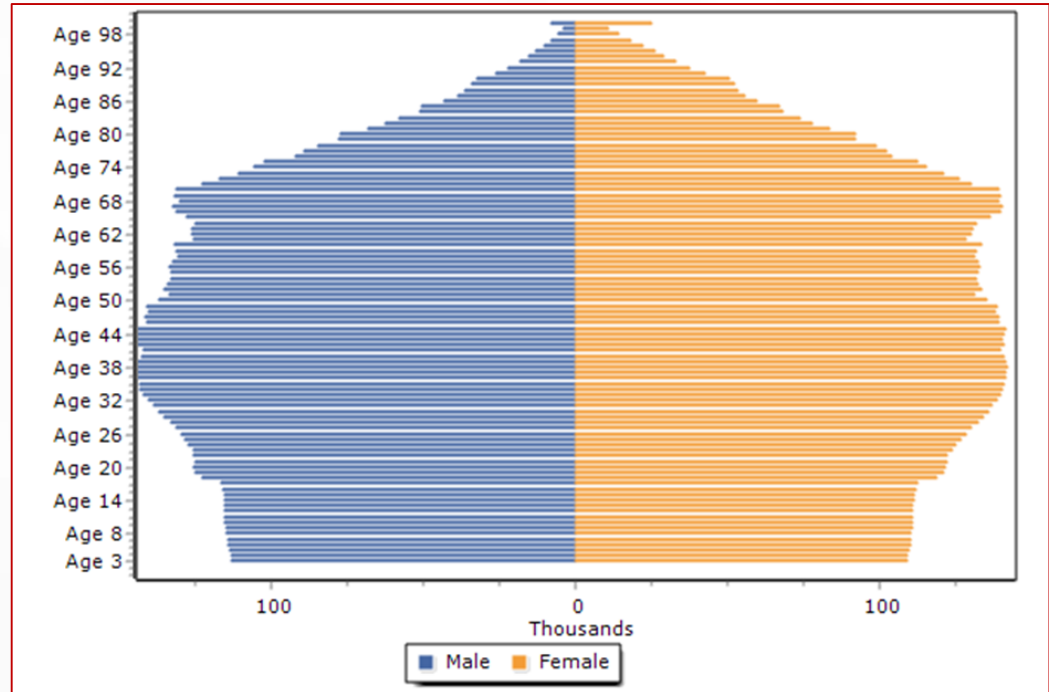
- Year 2060



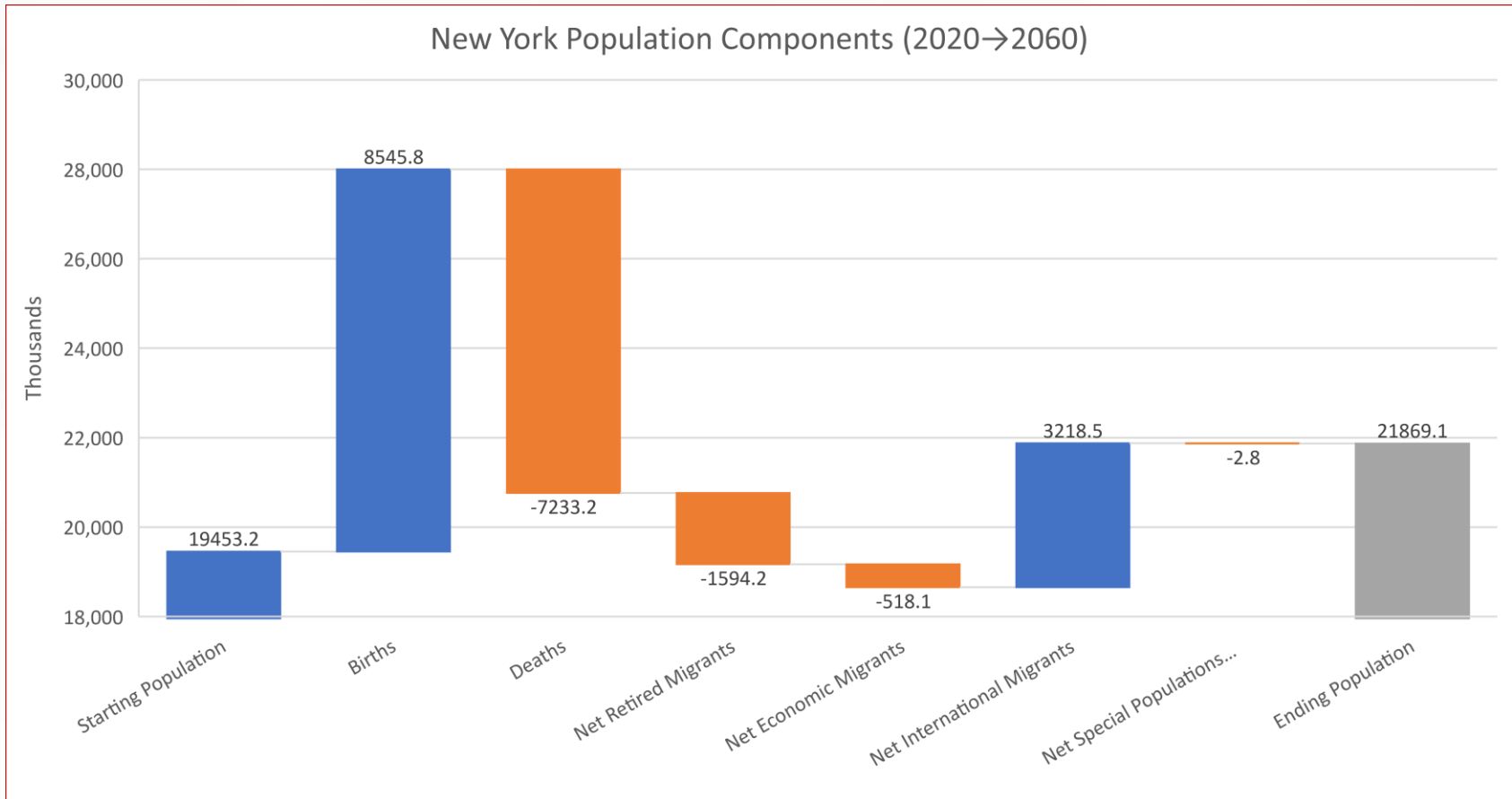
# Long-Term Outlook: Population Pyramid



- Year 2060
- Constrictive



# Population Components



# Policy Simulation: Exodus



# The Scenario

- Mass migrations from COVID-19
- Changing job opportunities, access
- Working from home: people moving from high-priced areas to areas with lower cost of living

# Assumptions and Methodology



$$RA = 10\% * \sum_{i=1}^I WFH_i * EMP_i * w_{it}$$

- $WFH_i$  = the percentage of jobs in industry  $i$  estimated to be doable from home<sup>2</sup>
- $EMP_i$  = the number of employees in industry  $i$  in 2020
- $w_{it}$  = the average annual wage rate in industry  $i$  in year  $t$
- To be conservative, only 10% of eligible workers are assumed to move out of state

# WFH Weights

	Unweighted	Weighted by wage
Educational Services	0.83	0.71
Professional, Scientific, and Technical Services	0.80	0.86
Management of Companies and Enterprises	0.79	0.86
Finance and Insurance	0.76	0.85
Information	0.72	0.80
Wholesale Trade	0.52	0.67
Real Estate and Rental and Leasing	0.42	0.54
Federal, State, and Local Government	0.41	0.47
Utilities	0.37	0.41
Other Services (except Public Administration)	0.31	0.43
Administrative and Support and Waste Management and Remediation Services	0.31	0.43
Arts, Entertainment, and Recreation	0.30	0.36
Mining, Quarrying, and Oil and Gas Extraction	0.25	0.37
Health Care and Social Assistance	0.25	0.24
Manufacturing	0.22	0.36
Transportation and Warehousing	0.19	0.25
Construction	0.19	0.22
Retail Trade	0.14	0.22
Agriculture, Forestry, Fishing and Hunting	0.08	0.13
Accommodation and Food Services	0.04	0.07

NOTES: This table reports the share of jobs that can be done at home in each 2-digit NAICS sector. We compute these shares using our O\*NET-derived classification of occupations that can be done at home and the occupational composition of each 2-digit sector's employment by 6-digit SOC in the BLS's 2018 Occupational Employment Statistics.

- Private, non-farm industries under 2-digit NAICS codes

# Conclusion

- Points to consider
  - New York State vs. New York City
  - Office space
  - Fiscal impacts
- Economic forecasts can be difficult
  - The outbreak of COVID-19
  - The election of a new president
  - General uncertainty about the economy
- REMI can help
  - Forecasts: Macro modeling used to clarify, calculate, and communicate
  - Simulations: What-if scenarios
  - Dynamic results

# Citations

1. Ehrlich, Gabriel M. "The U.S. Economic Outlook for 2021-2022 -- Executive Summary: February 2021." *College of Literature, Science, and the Arts, University of Michigan, Research Seminar of Quantitative Economics, University of Michigan*, 19 Feb. 2021, [lsa.umich.edu/content/dam/econ-assets/Econdocs/RSQE%20PDFs/Exec\\_Sum\\_Feb\\_2021.pdf](https://lsa.umich.edu/content/dam/econ-assets/Econdocs/RSQE%20PDFs/Exec_Sum_Feb_2021.pdf).
2. Dingel, Jonathan I. and Neiman, Brent. "How Many Jobs Can be Done at Home?" [White paper]. *Becker Friedman Institute, University of Chicago*, 2020, <https://bfi.uchicago.edu/working-paper/how-many-jobs-can-be-done-at-home/>

# Q & A

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