

Economic Outlook for the State of Missouri

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Welcome and Introductions

- REMI models
- Big Picture: REMI Regional Growth Matrix
- Economic outlook
 - Short-term forecast
 - Long-term forecast
- Model demonstration

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.

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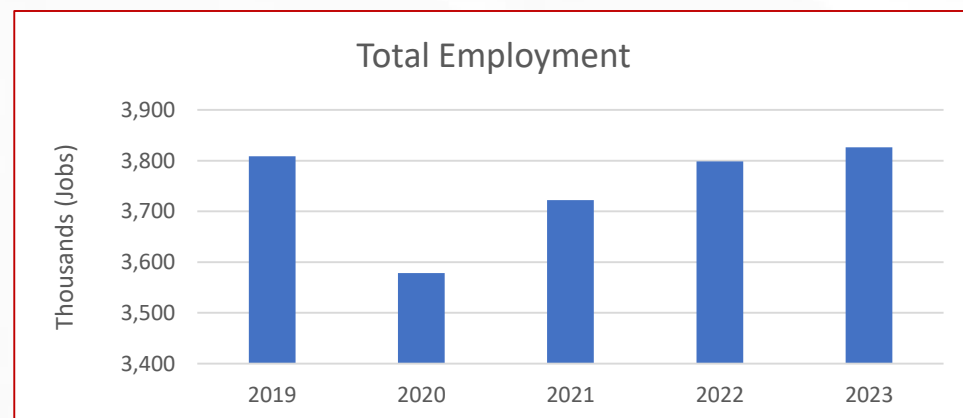
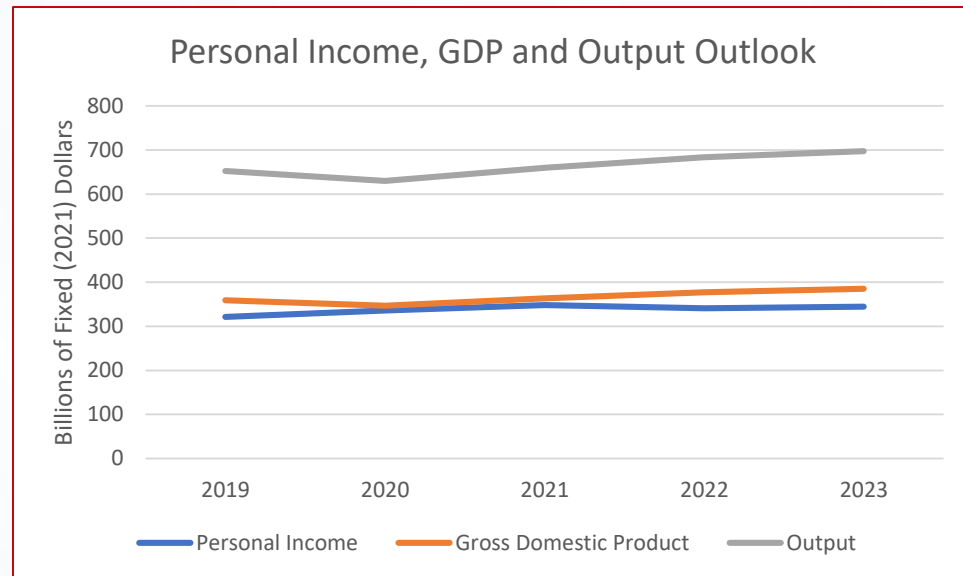
Missouri State Economy

- Missouri is the 18th most populous and the 21st most expansive of the 50 United States.¹
- Population of 6.169 million; median age of 38.6; and a median household income of \$55,461.¹
- Largest contributors to GSP by sector include manufacturing, real estate, rental and leasing, health care and social assistance, and finance and insurance.²
- Missouri is a leading lead-producing state. The deposit of the metal fostered the first European settlement in the state in about 1750.
- Missouri is home to almost 10,000 farms which cover 66% of the state's total land area. The average size of a farm in Missouri is 269 acres and they are generally family-owned and operated. Soybean and corn are the state's top crops.

Short-Term Outlook: Missouri



- Years 2019-2023
- Growth 2020-2021
 - Personal income : 3.7%
 - GDP: 4.8%
 - Output: 4.8%
 - Employment: 143 thousand jobs
- Uncertainty



REMI Regional Growth Matrix: Economic & Demographic Factors



Economic Factors

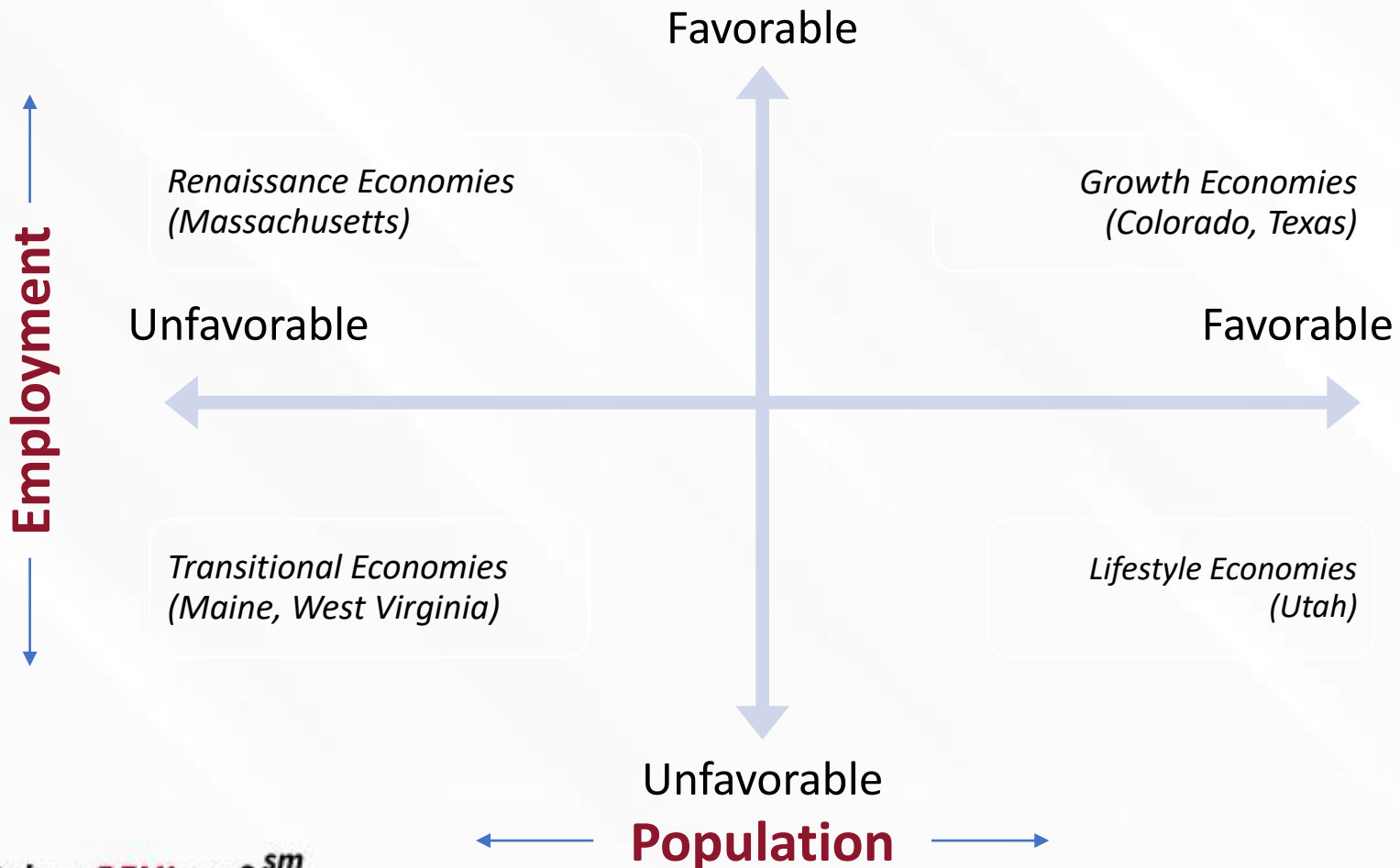
	Industry Growth	Industry Clusters	Pay	Productivity	Business Cost
Favorable	Growing	Strong	High-paid industries	High	Low
Unfavorable	Declining	Weak	Low-paid industries	Low	High

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

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Regional Growth Matrix



Growth Matrix

Difference in Growth from US Average (2021-2022)



Data Sources

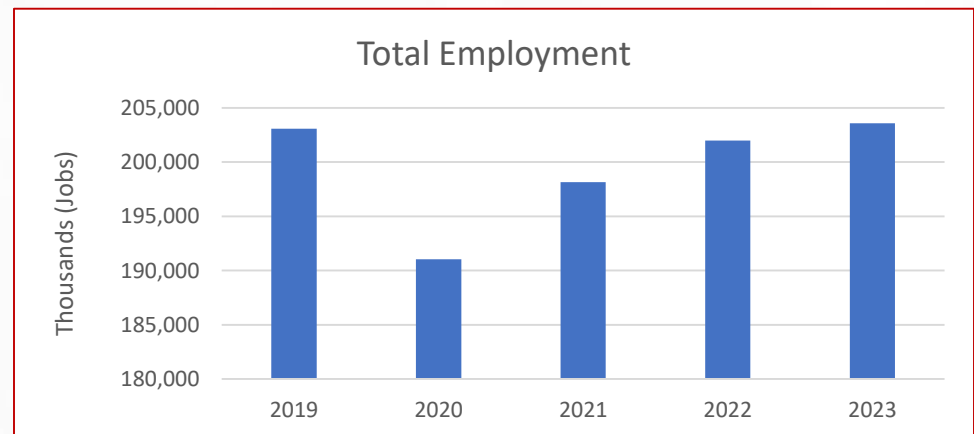
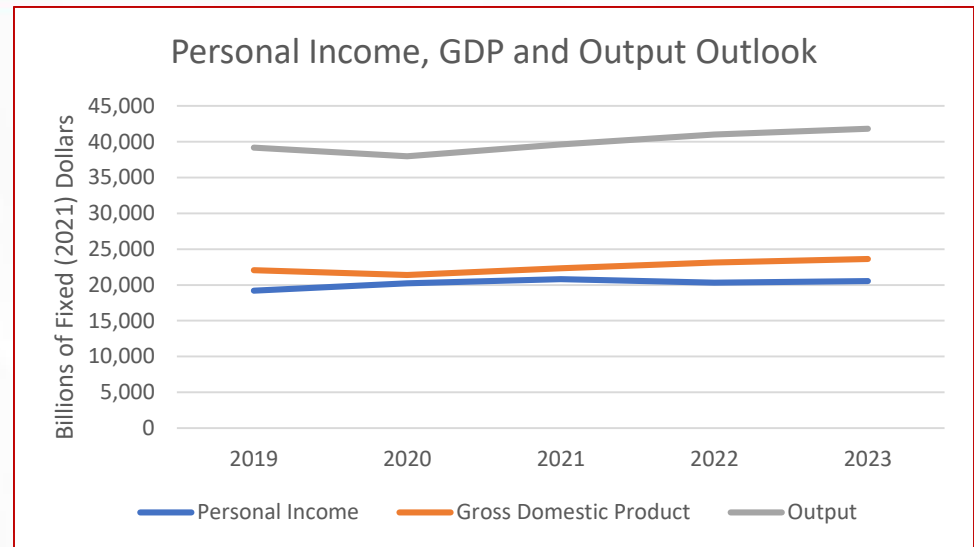
- Baseline (Standard National Control)
 - BLS Forecast Data
- Economic Forecast Update March 2021
 - 2019-2020 historical data from BEA
 - The U.S. Economic Outlook for 2020-2022 from the University of Michigan's Research Seminar in Quantitative Economics (RSQE)
 - An update to the Economics Outlook from CBO
 - Includes \$1.6 trillion stimulus, additional vaccination, and additional consumer spending¹

National Outlook

Short-Term Outlook: the U.S.

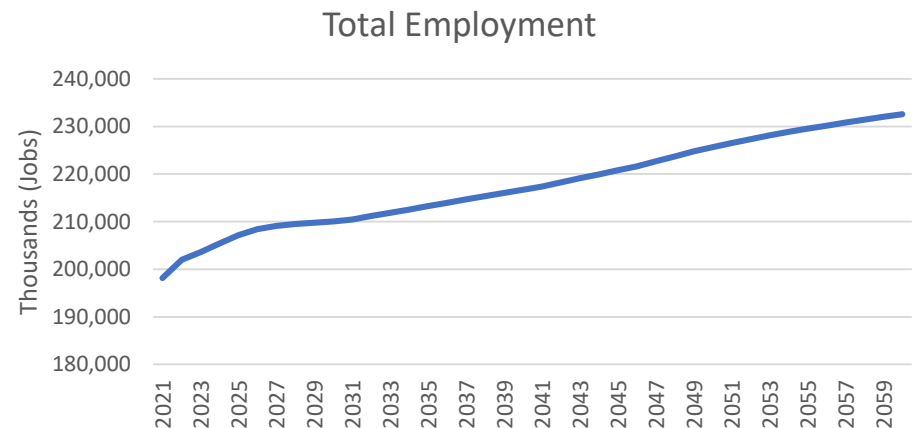
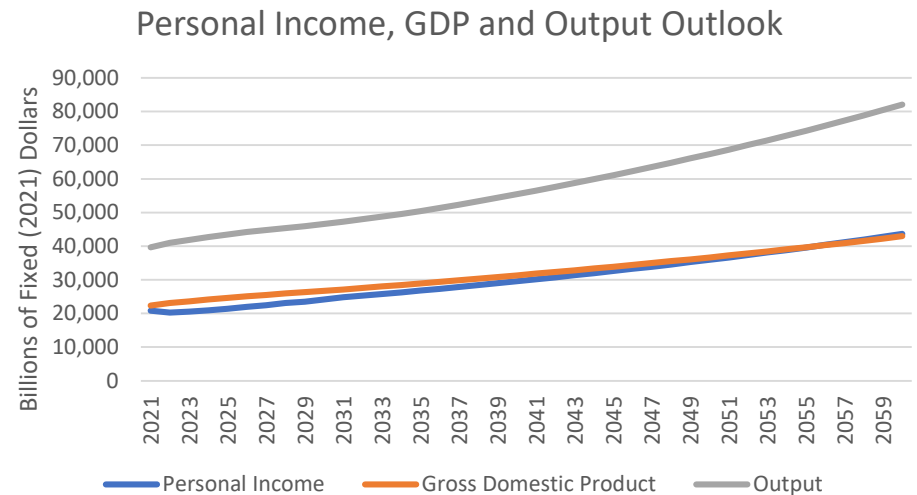


- Years 2019-2023
- Growth 2020-2021
 - Personal income: 2.9%
 - GDP: 4.4%
 - Output: 4.4%
 - Employment: +7 million jobs



Long-Term Outlook: The U.S.

- Years 2021-2060
- Average growth / year
 - Personal income: 1.9%
 - GDP: 1.8%
 - Output: 1.9%
- Total employment: +1,038 thousand jobs



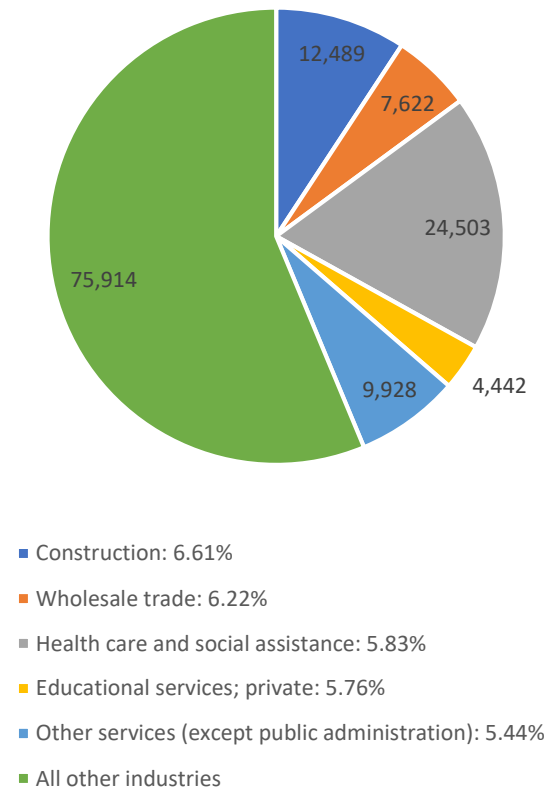
Regional Outlook: Missouri

Short-Term Outlook: Employment by Industry



- Industries with largest employment growth rates in 2021
- 2020 - 2021: 58,984 jobs increasing in the top 5 fast growing industries

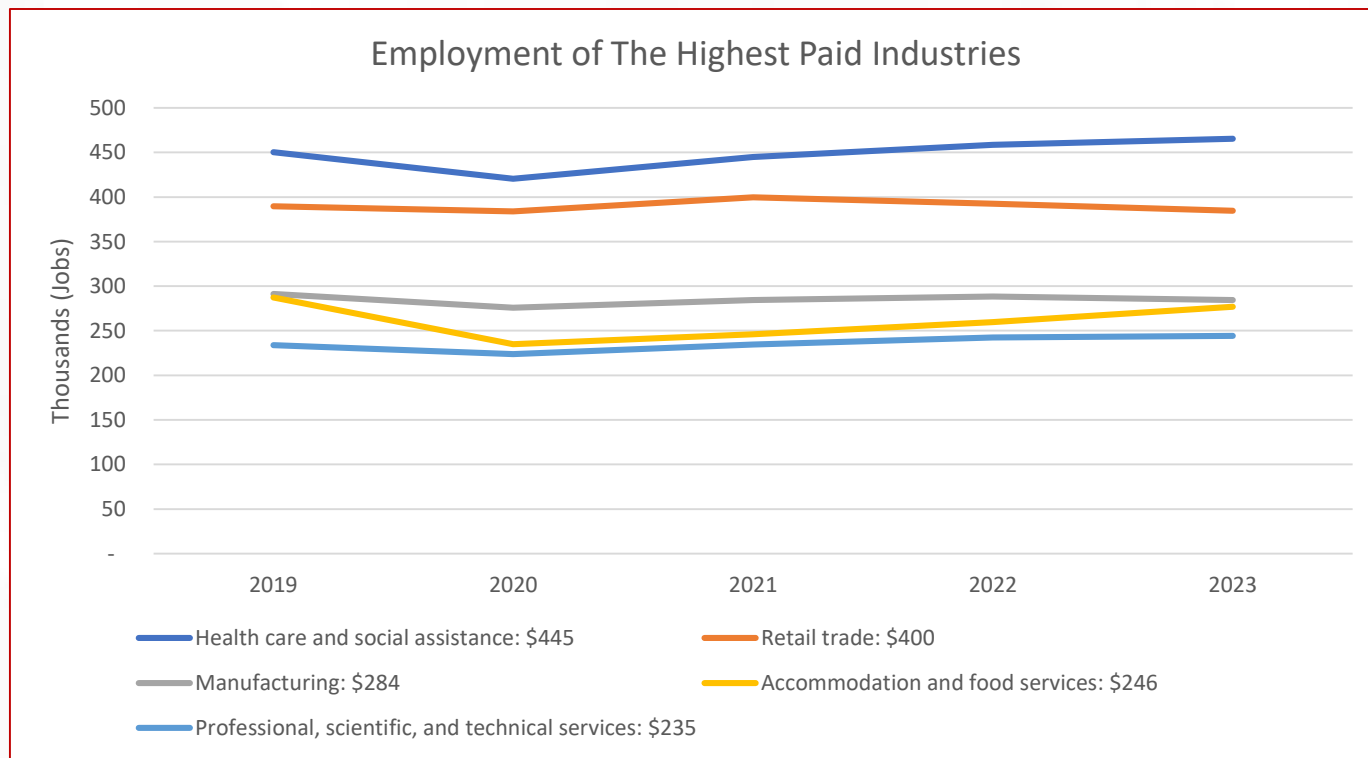
Job Increase in The Fastest Growing Industries in 2021



Short-Term Outlook: Employment by Industry



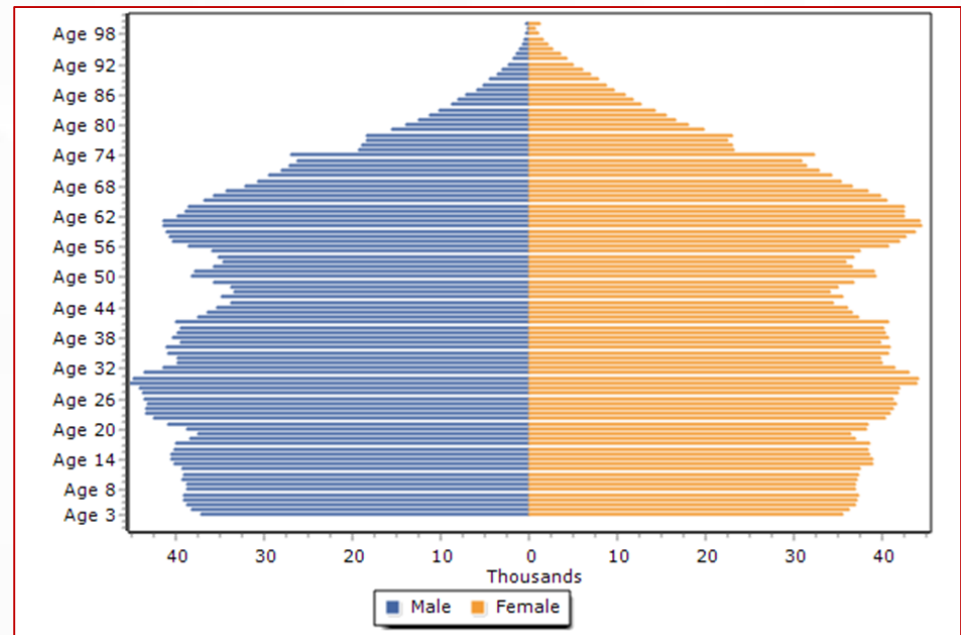
- Industries with highest average annual compensation rates in 2021



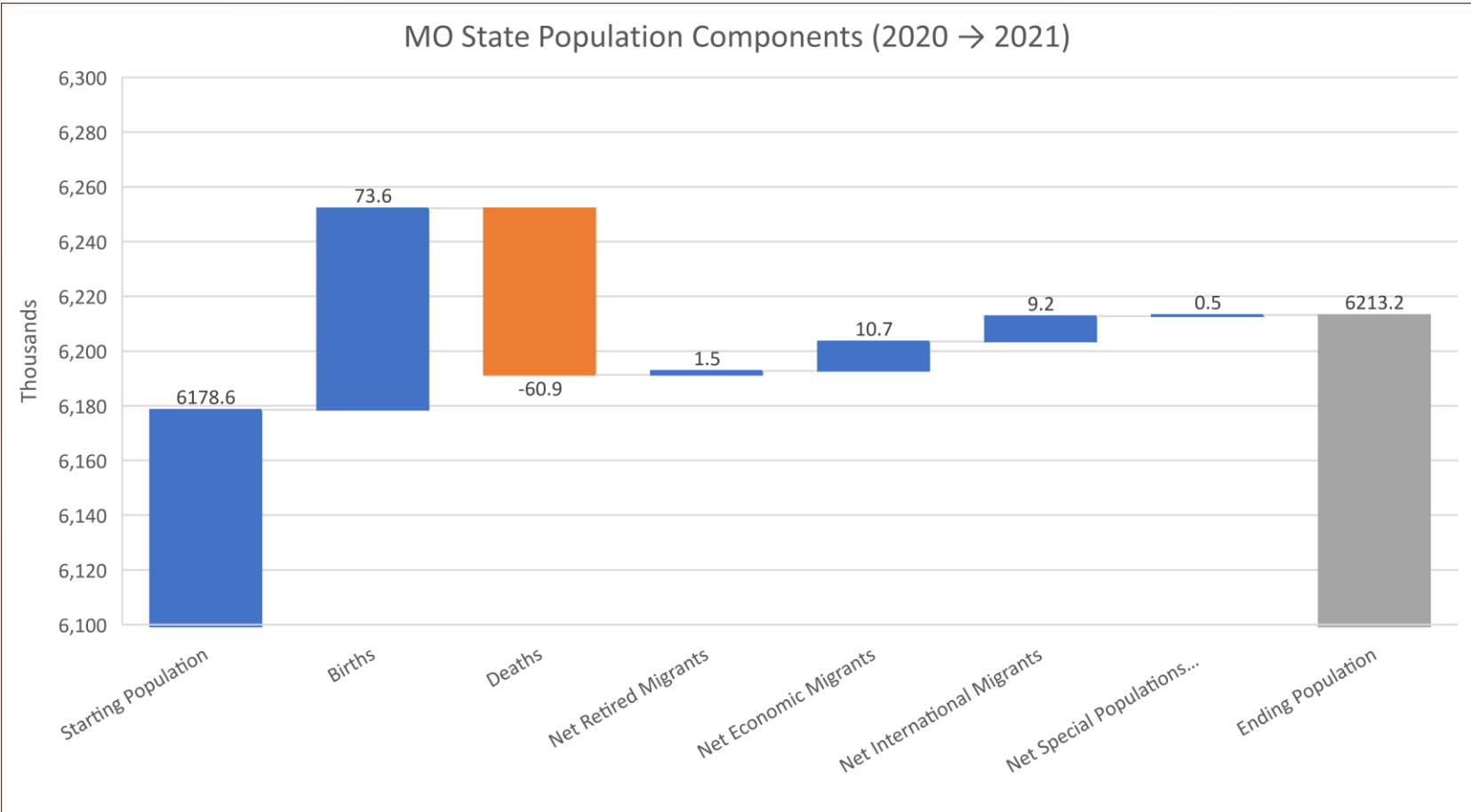
Short-Term Outlook: Population Pyramid (2021)



- Year 2021
- Near stationary



Short-Term Outlook: Population Components



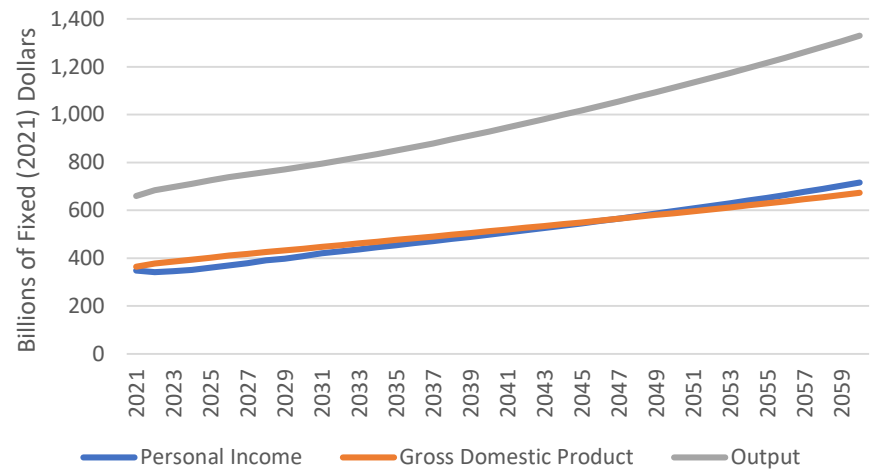
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Long-Term Outlook: Missouri

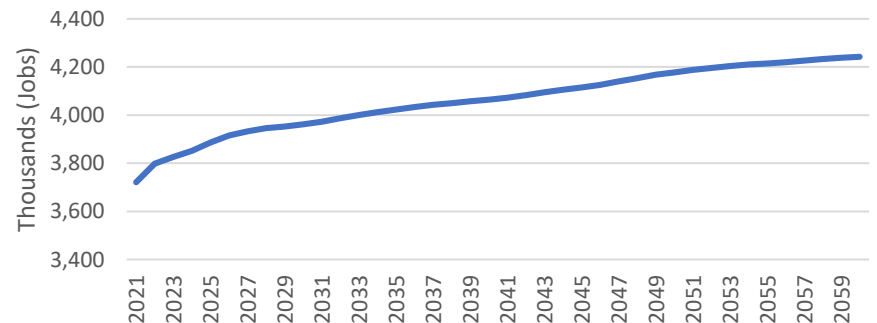


- Years 2021-2060
- Average growth / year
 - Personal income: 1.9%
 - GDP: 1.7%
 - Output: 1.9%
 - Total employment: 17 thousand jobs

Personal Income, GDP and Output Outlook



Total Employment

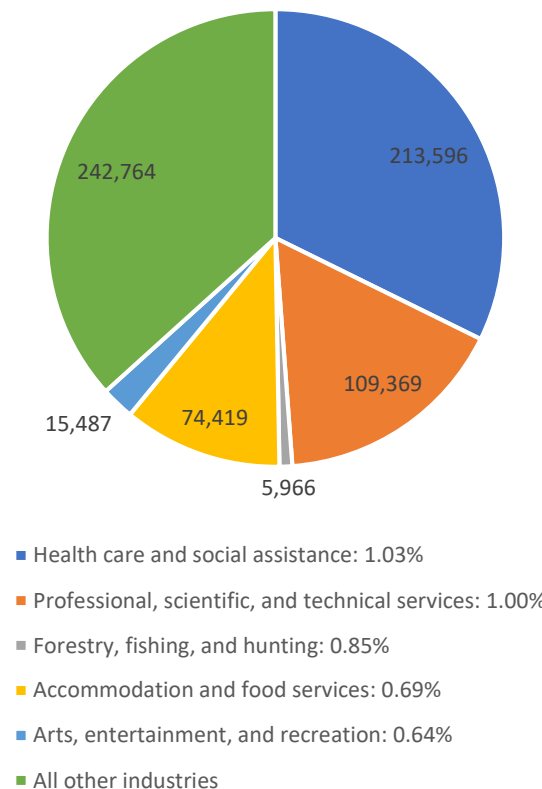


Long-Term Outlook: Employment by Industry



- Industries with fastest employment increasing
- 2020 - 2060: 418,837 jobs increasing in the top 5 fast growing industries

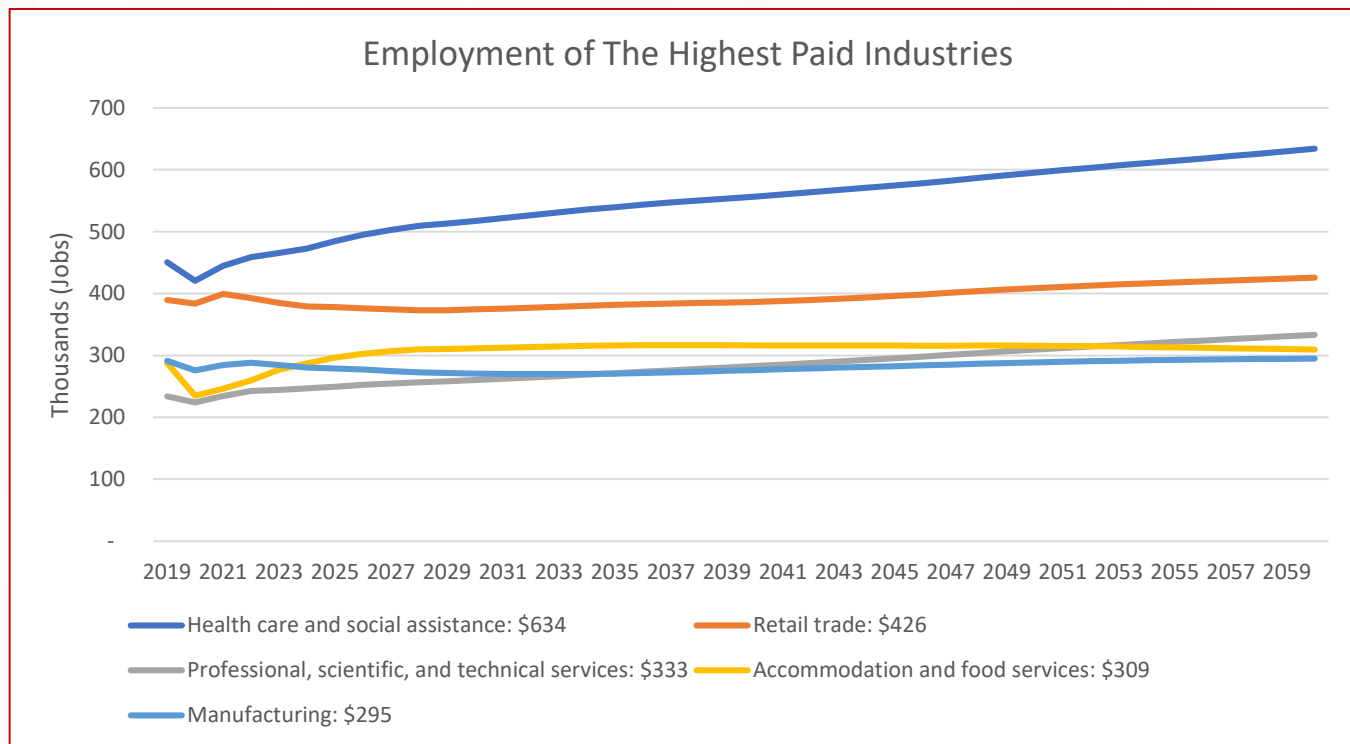
Job Increase in The Fastest Growing Industries
(2020 → 2060)



Long-Term Outlook: Employment by Industry



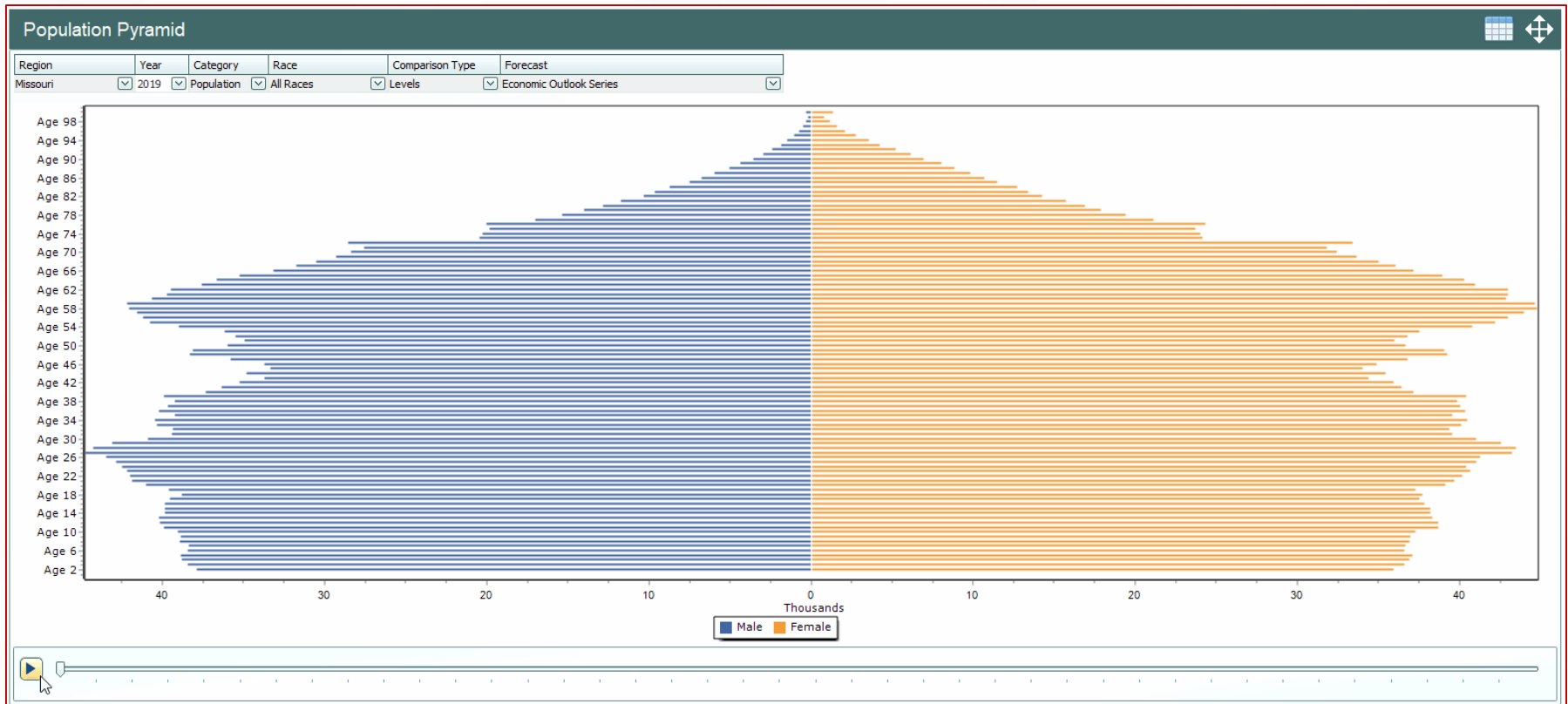
- Employment of industries with highest average annual compensation rates in 2060



Long-Term Outlook: Population Pyramid



- Year 2060

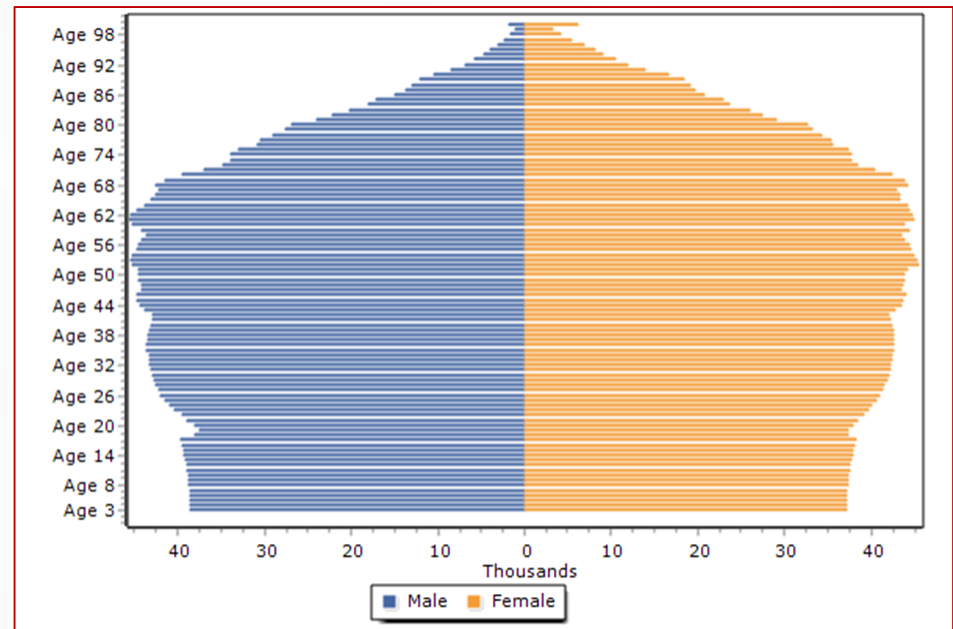


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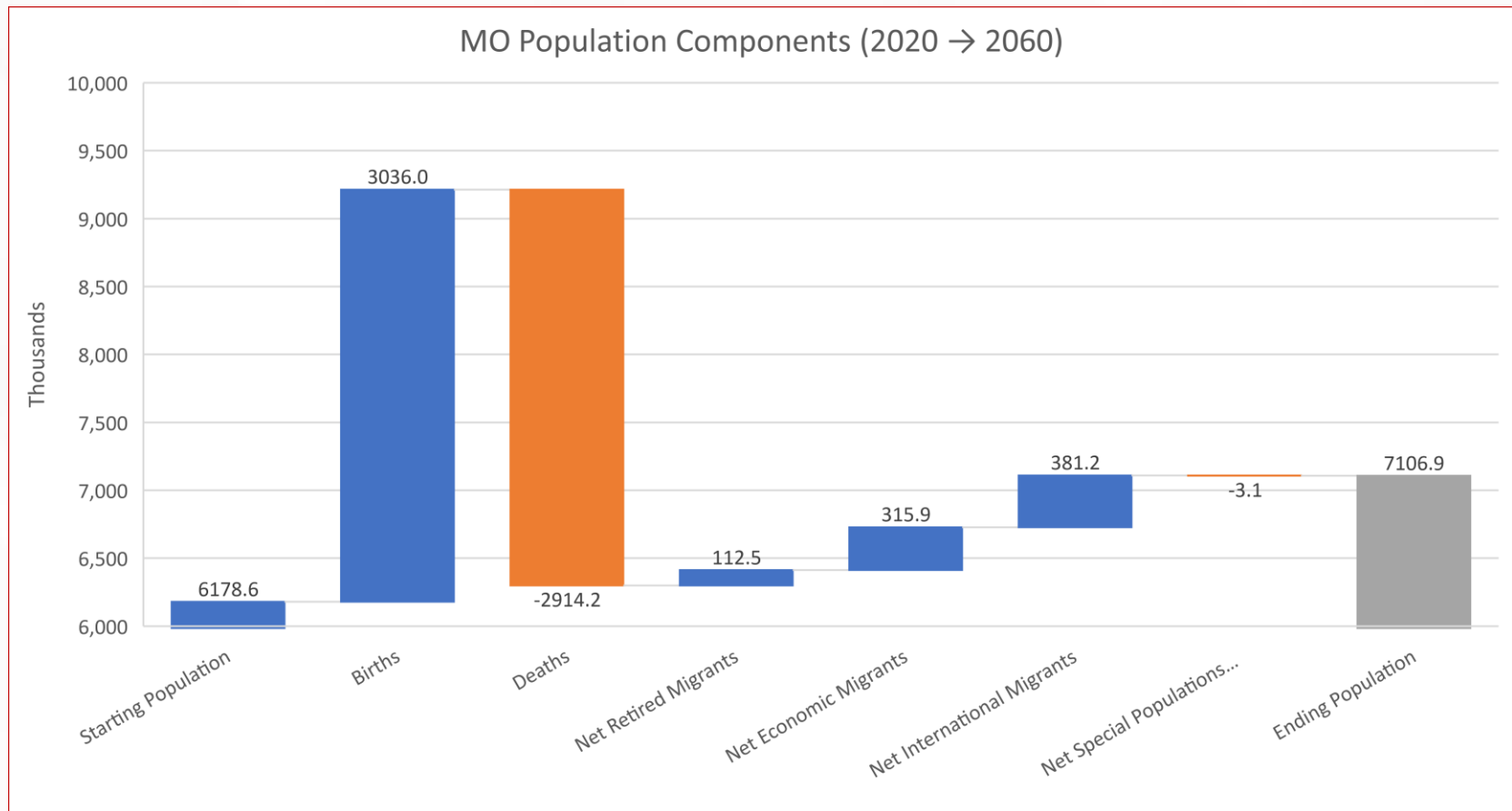
Long-Term Outlook: Population Pyramid



- Year 2060
- Constrictive



Population Components



Model Demonstration

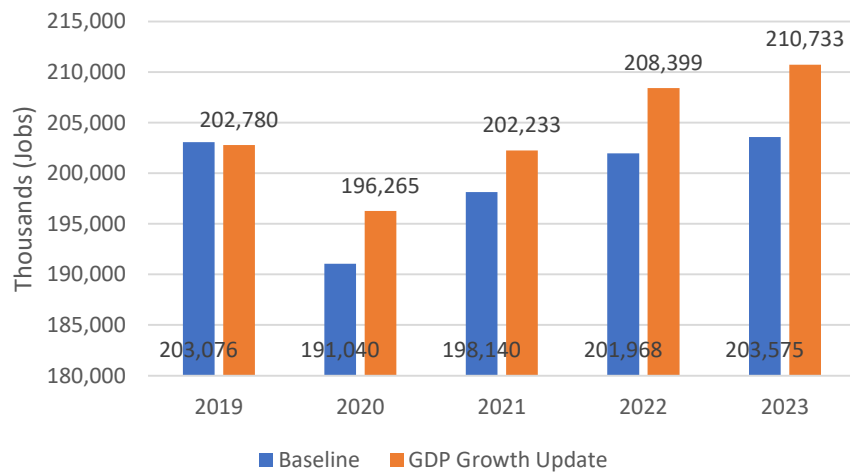
The Scenario

- Optimistic Outlook
 - Baseline – Total employment slowly comes back accompanied by steady growth
 - Uncertainty
 - large pent-up consumer demand
 - supports of vaccine
 - stimulus checks
- Macroeconomic update
 - Increase GDP growth rate by 2%
- Total Employment
 - The US vs Missouri

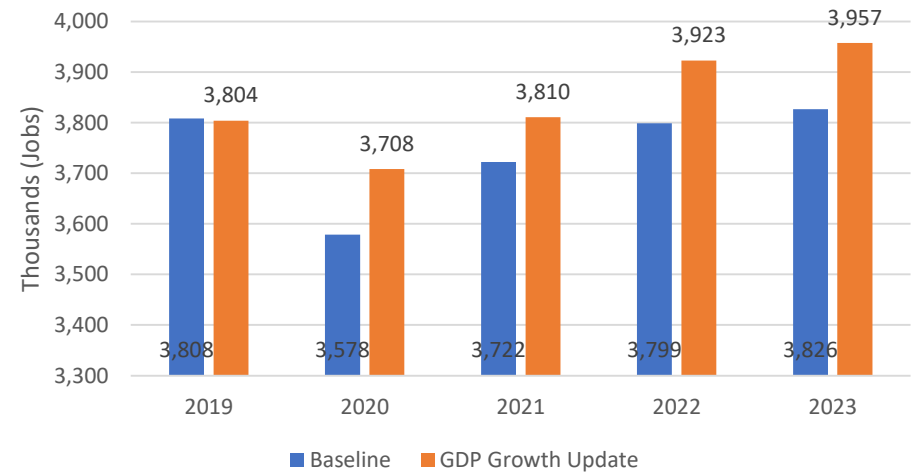
Optimistic Outlook

- Year 2019-2023

Total Employment of the US



Total Employment of Missouri



Conclusion

- 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.

Q & A

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