

# Economic Outlook for the State of Arkansas

May Lin, *Economic Analyst*

Julia Wacker, *Associate I*

Julian Brubaker, *Associate I*

# Welcome and Outline

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

# 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  
North Carolina Department of Commerce • Wyoming Department of Administration & Information  
California Environmental Protection Agency • U.S. Army Corps of Engineers

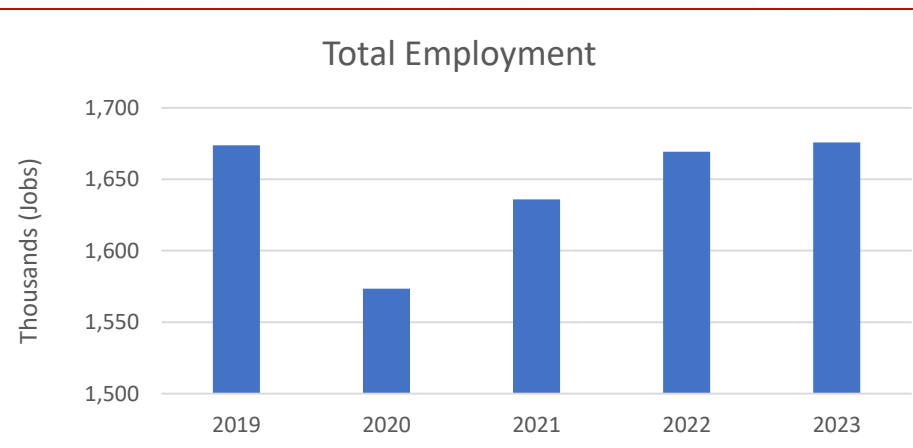
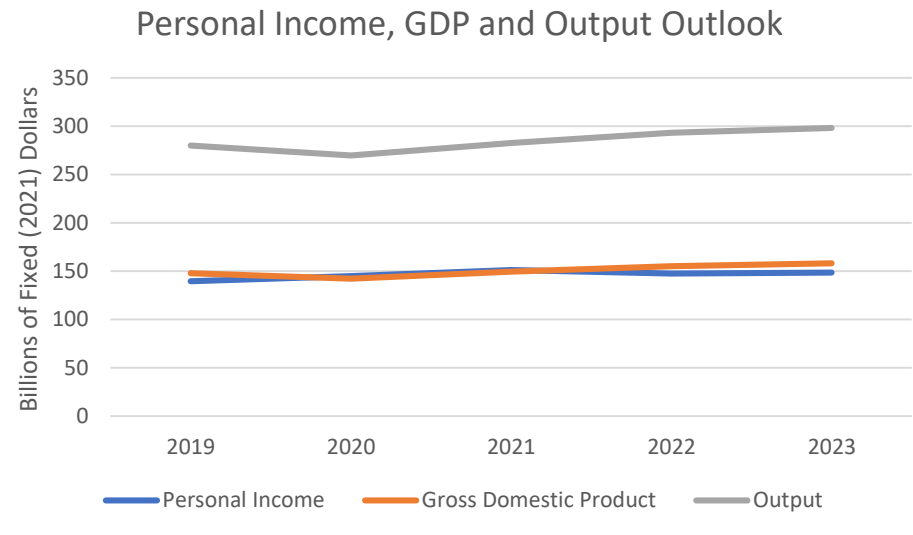
# Arkansas State Economy

- **Cotton** was king for a century or more, but today **rice, soybeans, & wheat** are as popular.
  - Dwindling agriculture sector across the board.
- **Oak & pine** for **paper & lumber**, mostly sustainable.
- Among the U.S. states with lowest **welfare & wages**.
- The state is powered by some **hydroelectric & nuclear** energy.
- **Service sector** is diverse & integral to the economy, while **manufacturing** relies mostly on food products, machine/transportation parts, & chemicals.

# Short-Term Outlook: Arkansas



- Years 2019-2023
- Growth 2020-2021
  - Personal income : 4.2%
  - GDP: 5.0%
  - Output: 4.9%
  - Employment: 63 thousand jobs
- Uncertainty



# 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>

# REMI Regional Growth Matrix: Economic & Demographic Factors



## Economic Factors

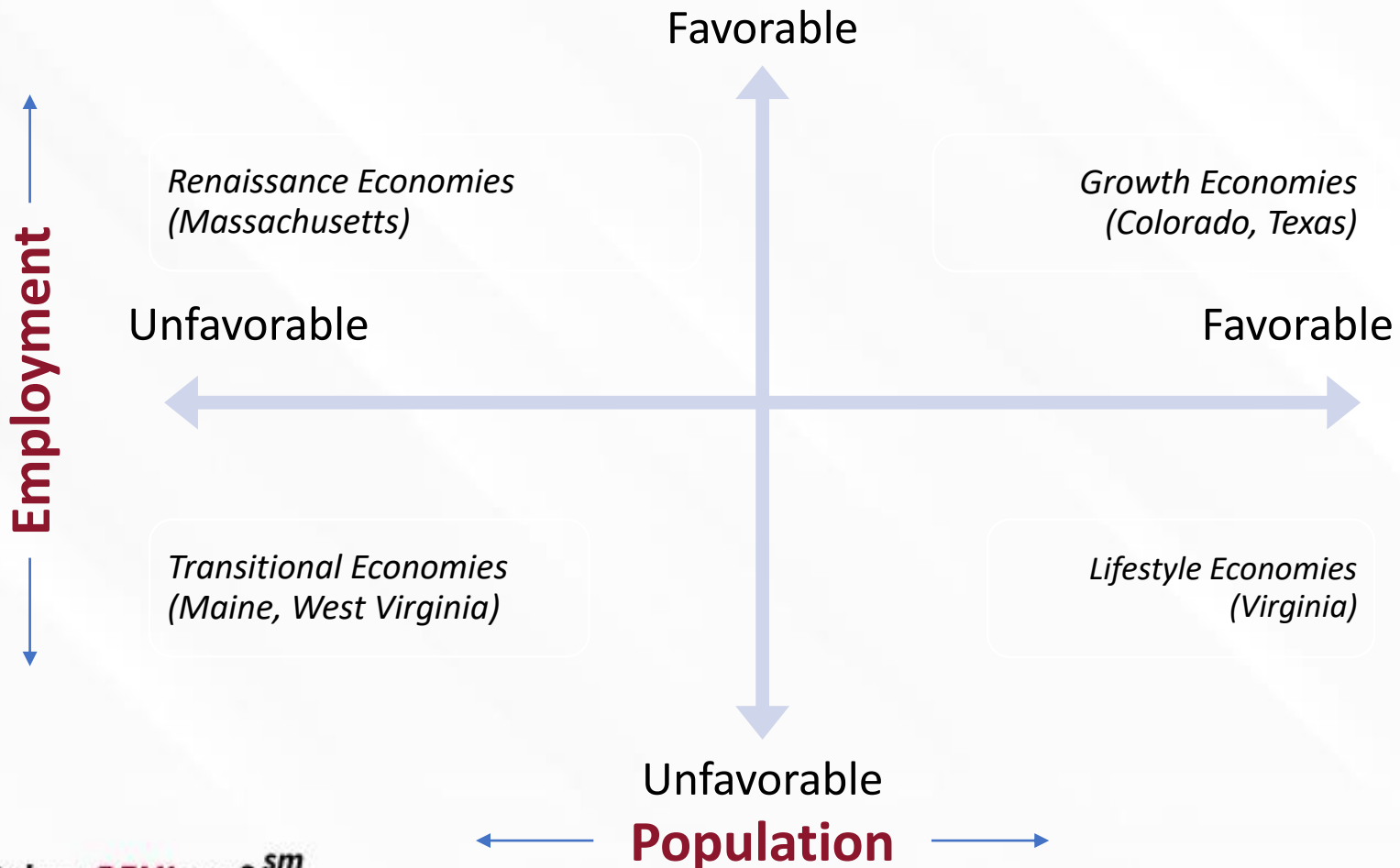
	Industry Growth	Industry Clusters	Pay	Productivity	Business Cost
Favorable	Growing	Strong	High-paid industries	High	Low
Unfavorable	Declining	Weak	Low-paid industries	Low	High

## 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)

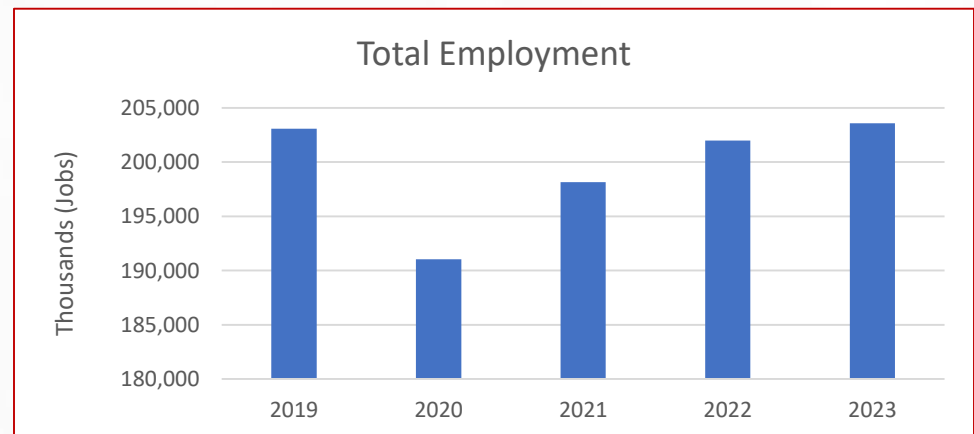
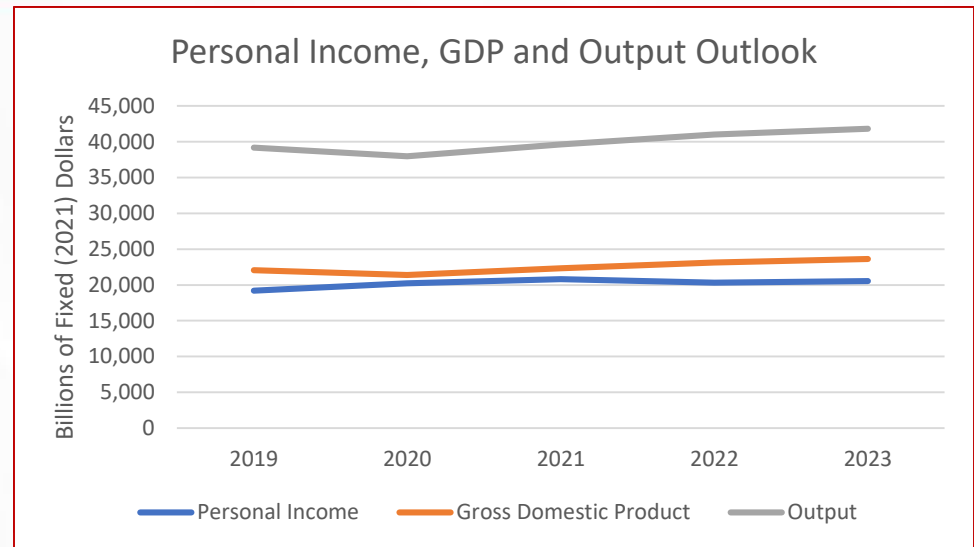


# National Outlook

# Short-Term Outlook: the U.S.

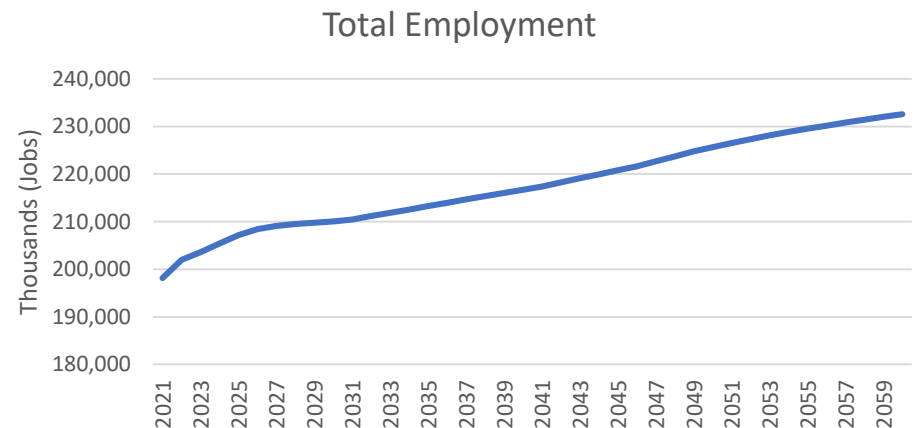
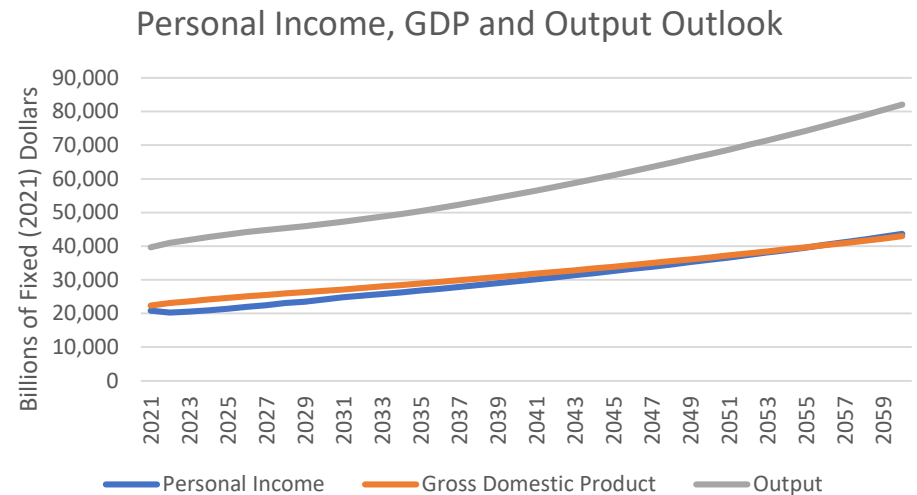


- Years 2019-2023
- Growth 2020-2021
  - Personal income: 2.9%
  - GDP: 4.4%
  - Output: 4.4%
  - Employment: +7 million jobs



# 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



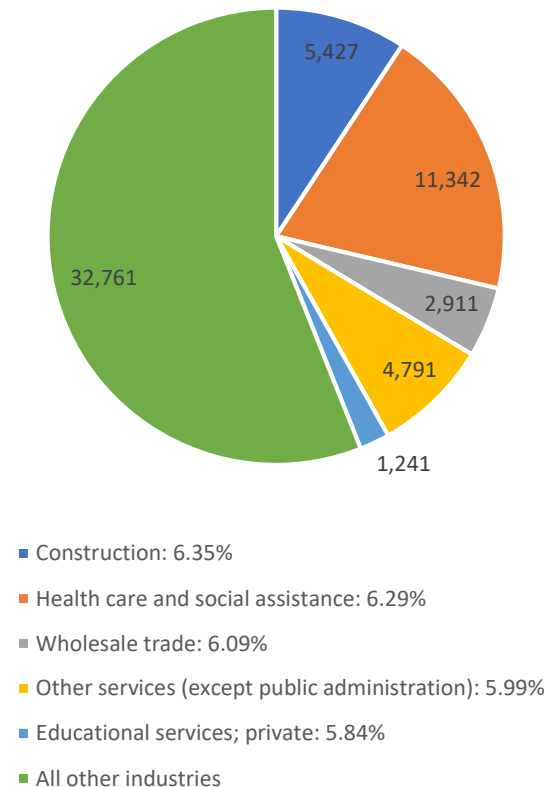
# Regional Outlook: Arkansas

# Short-Term Outlook: Employment by Industry



- Industries with largest employment growth rates in 2021
- 2020 - 2021: 25,712 jobs increasing in the top 5 fast growing industries

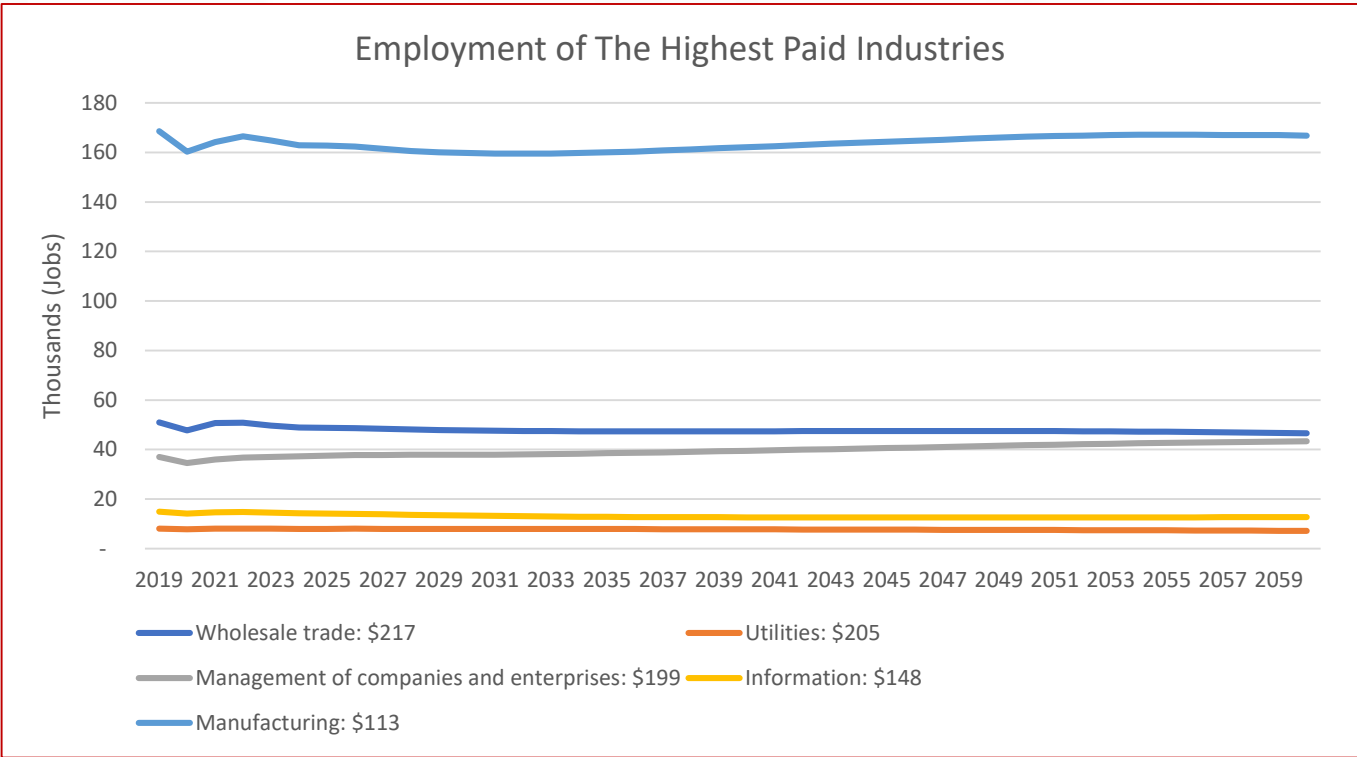
Job Increase in The Fastest Growing Industries in 2021



# Short-Term Outlook: Employment by Industry



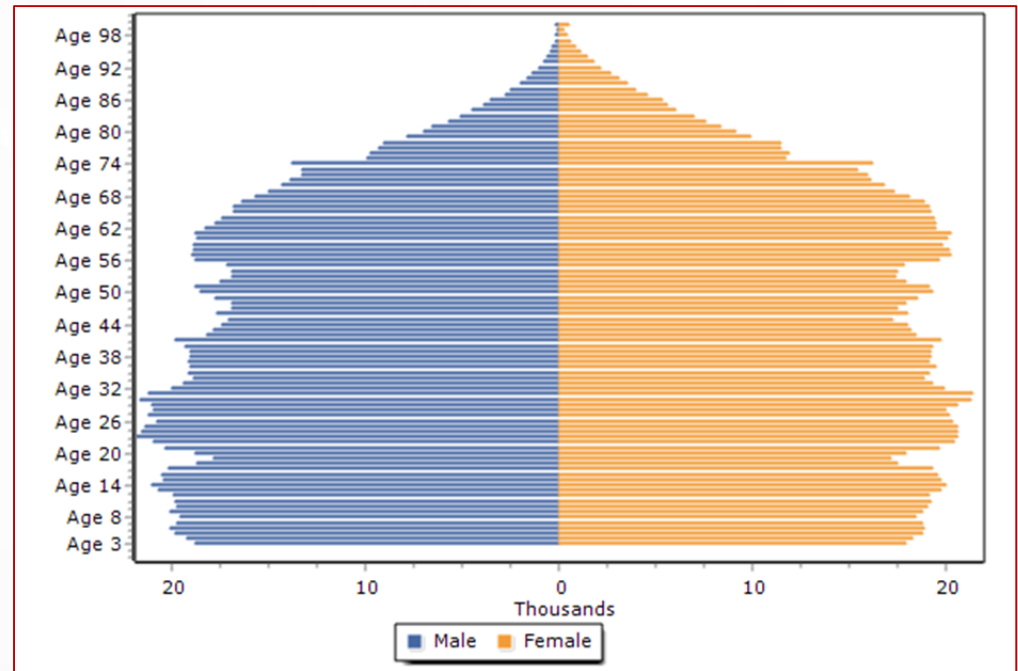
- Industries with highest average annual compensation rates in 2021



# Short-Term Outlook: Population Pyramid (2021)

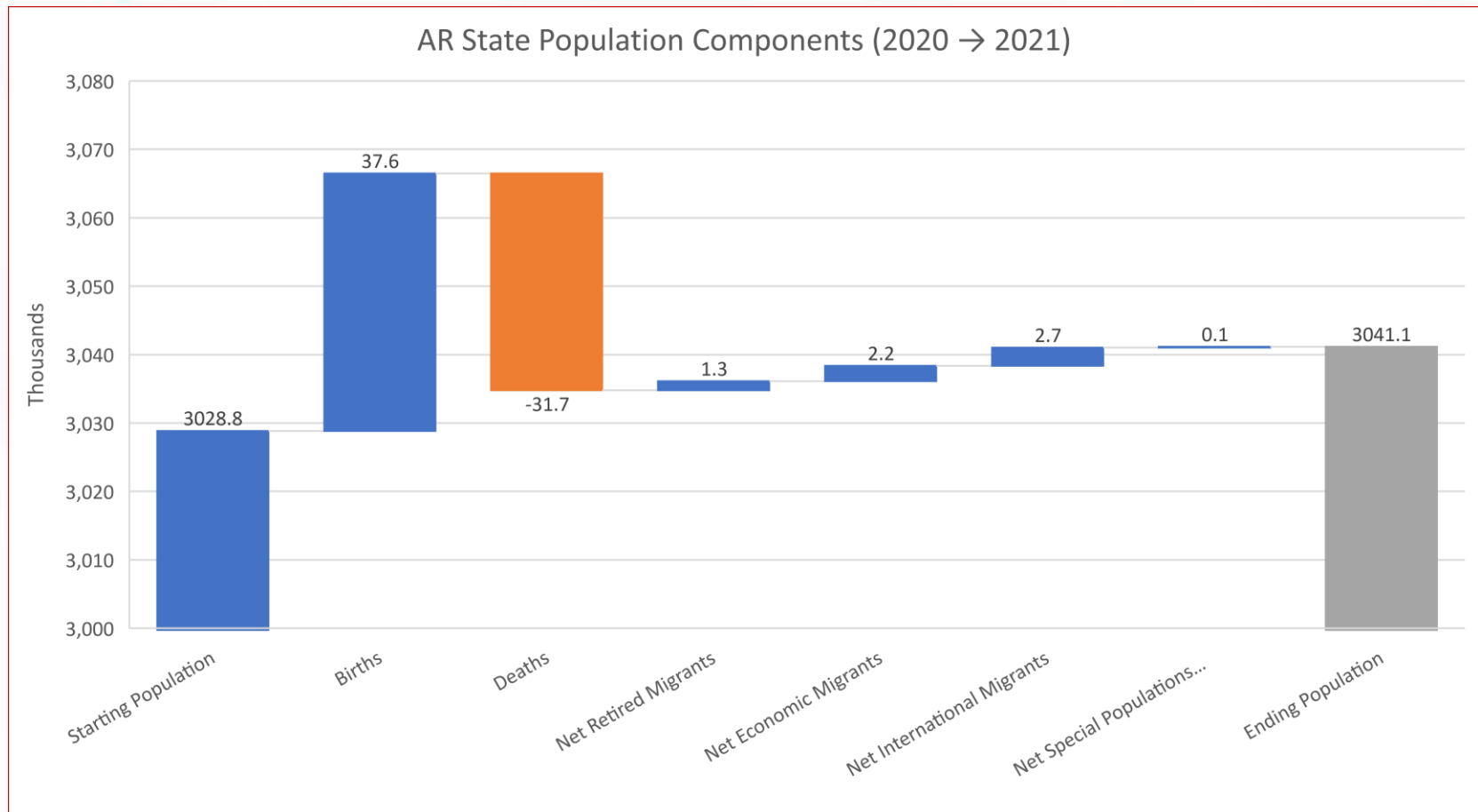


- Year 2021
- Near stationary





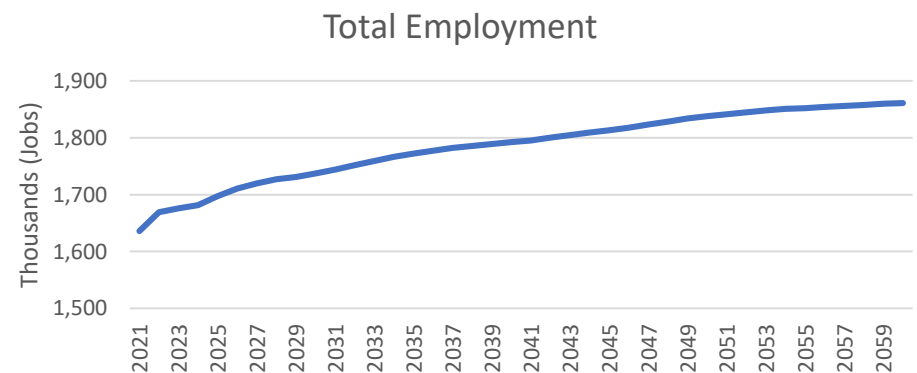
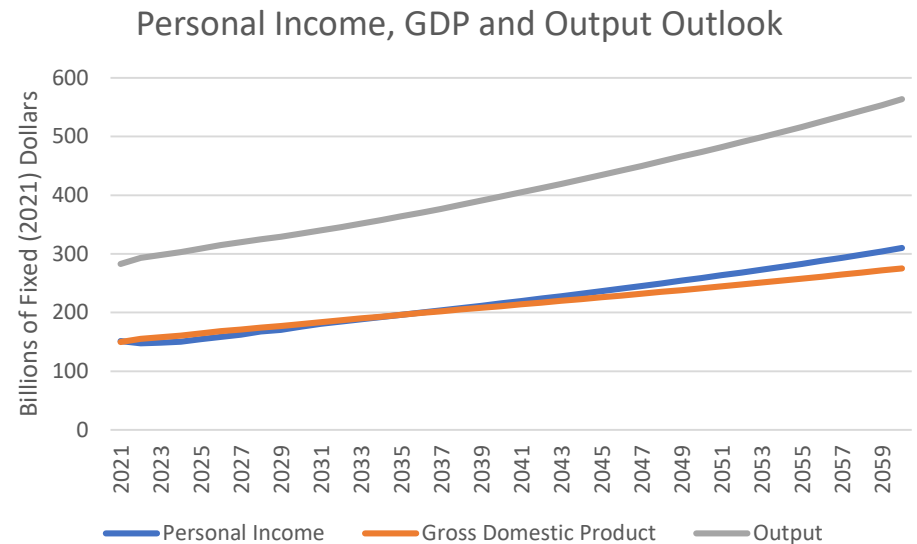
# Short-Term Outlook: Population Components



# Long-Term Outlook: Arkansas



- Years 2021-2060
- Average growth / year
  - Personal income: 1.9%
  - GDP: 1.7%
  - Output: 1.9%
- Total employment: 7 thousand jobs

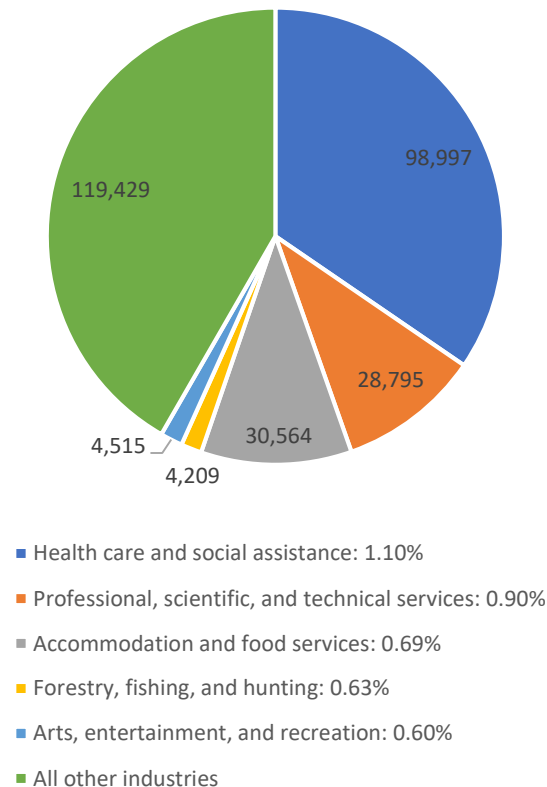


# Long-Term Outlook: Employment by Industry



- Industries with fastest employment increasing
- 2020 - 2060: 167,080 jobs increasing in the top 5 fast growing industries

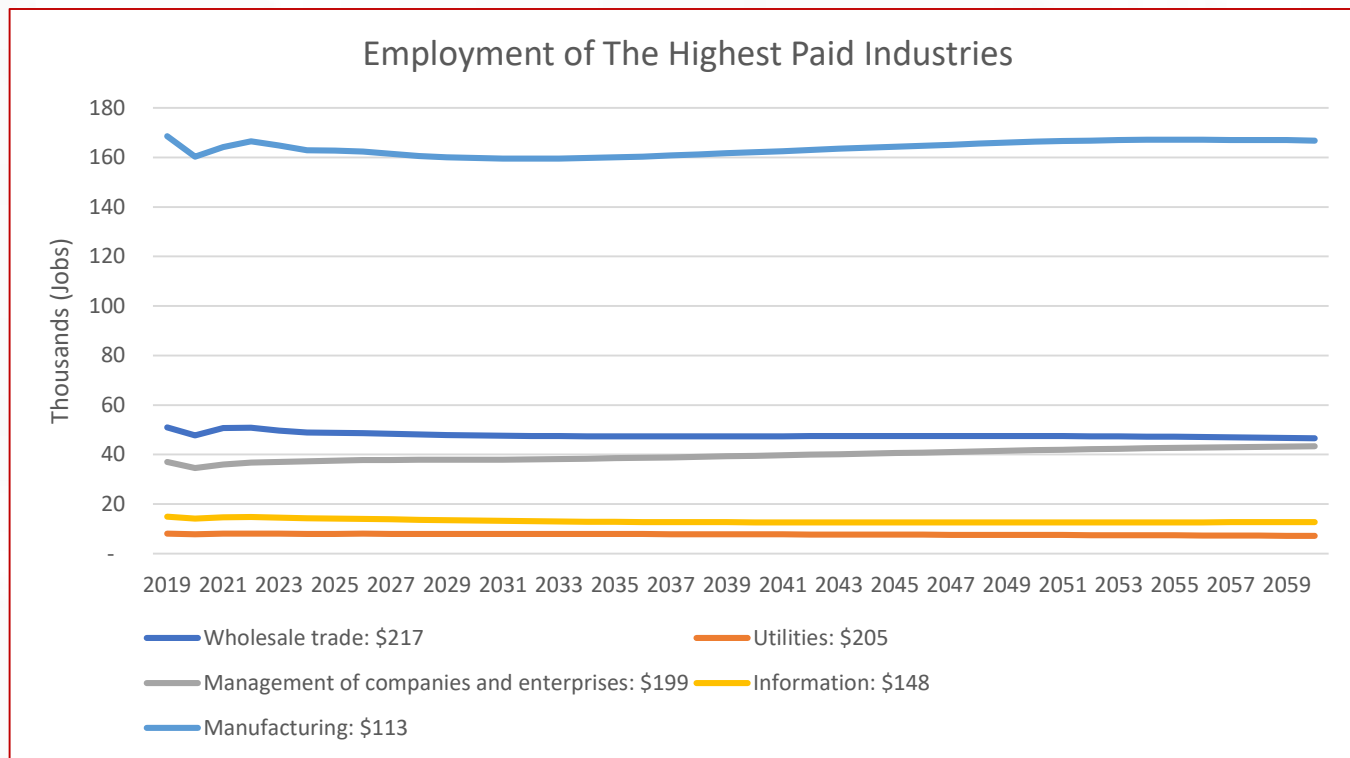
Job Increase in The Fastest Growing Industries  
(2020 → 2060)



# Long-Term Outlook: Employment by Industry



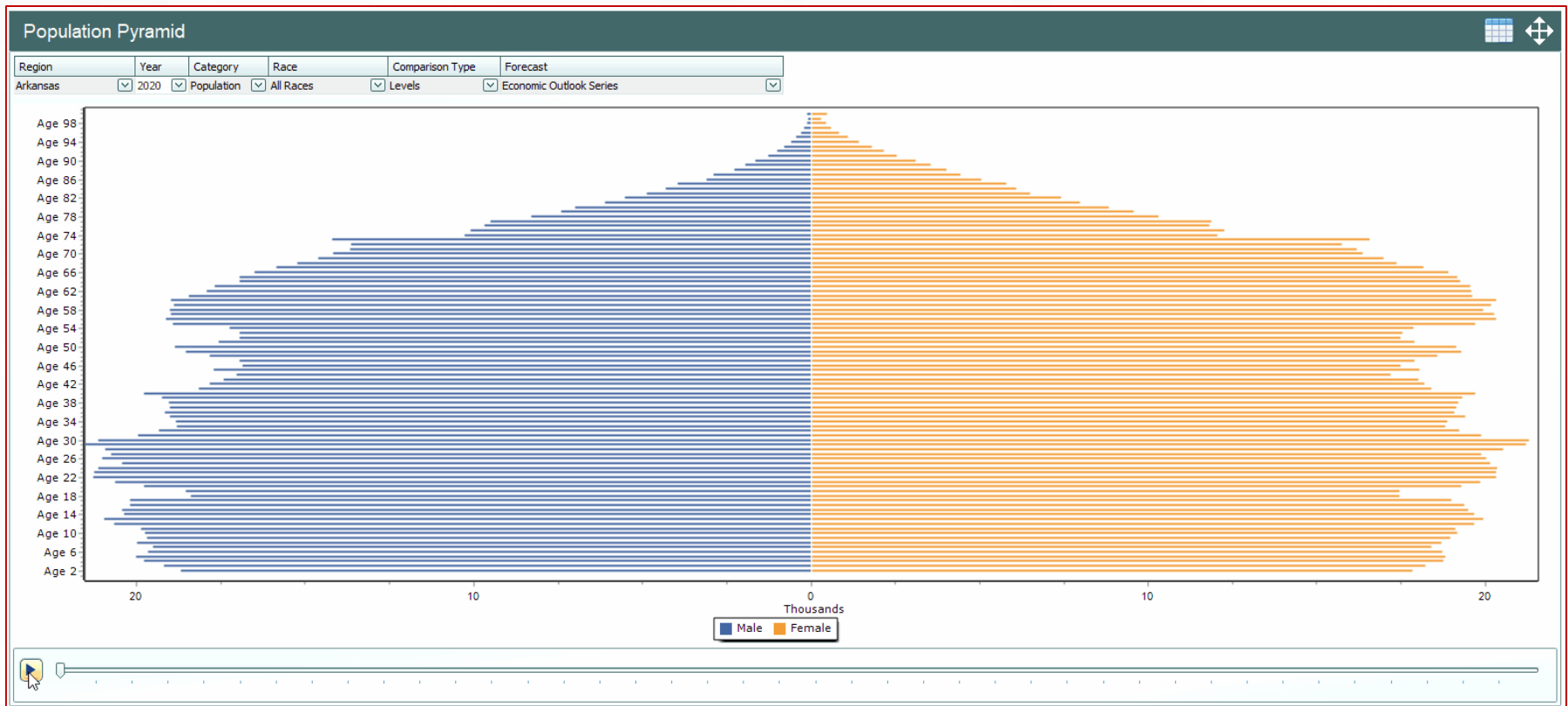
- Employment of industries with highest average annual compensation rates in 2060



# Long-Term Outlook: Population Pyramid



- Year 2060

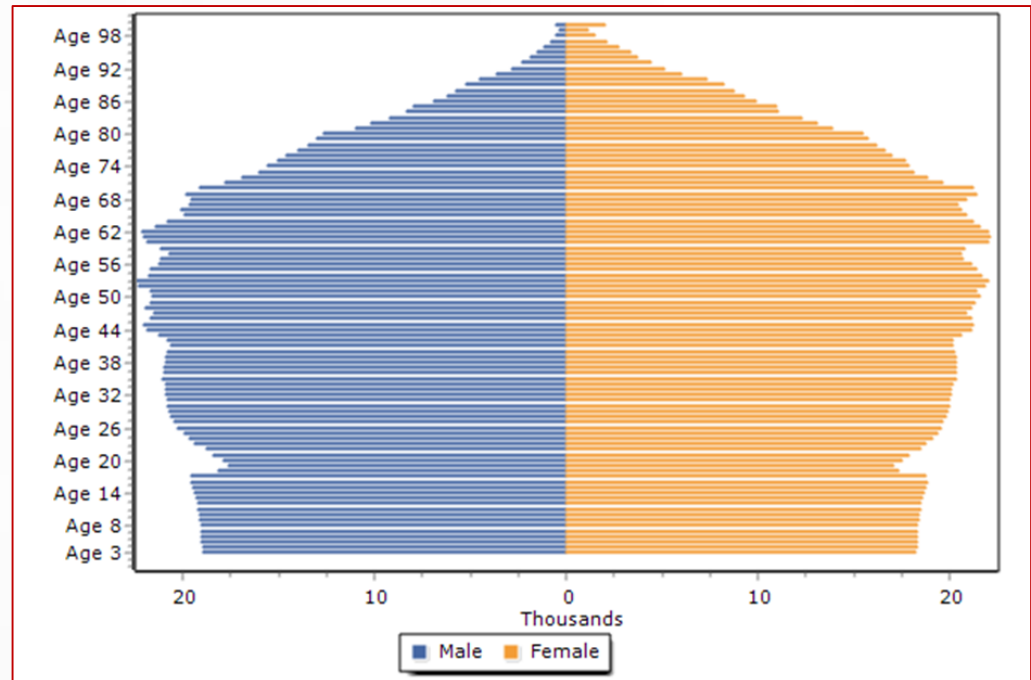


what does **REMI** say? <sup>sm</sup>

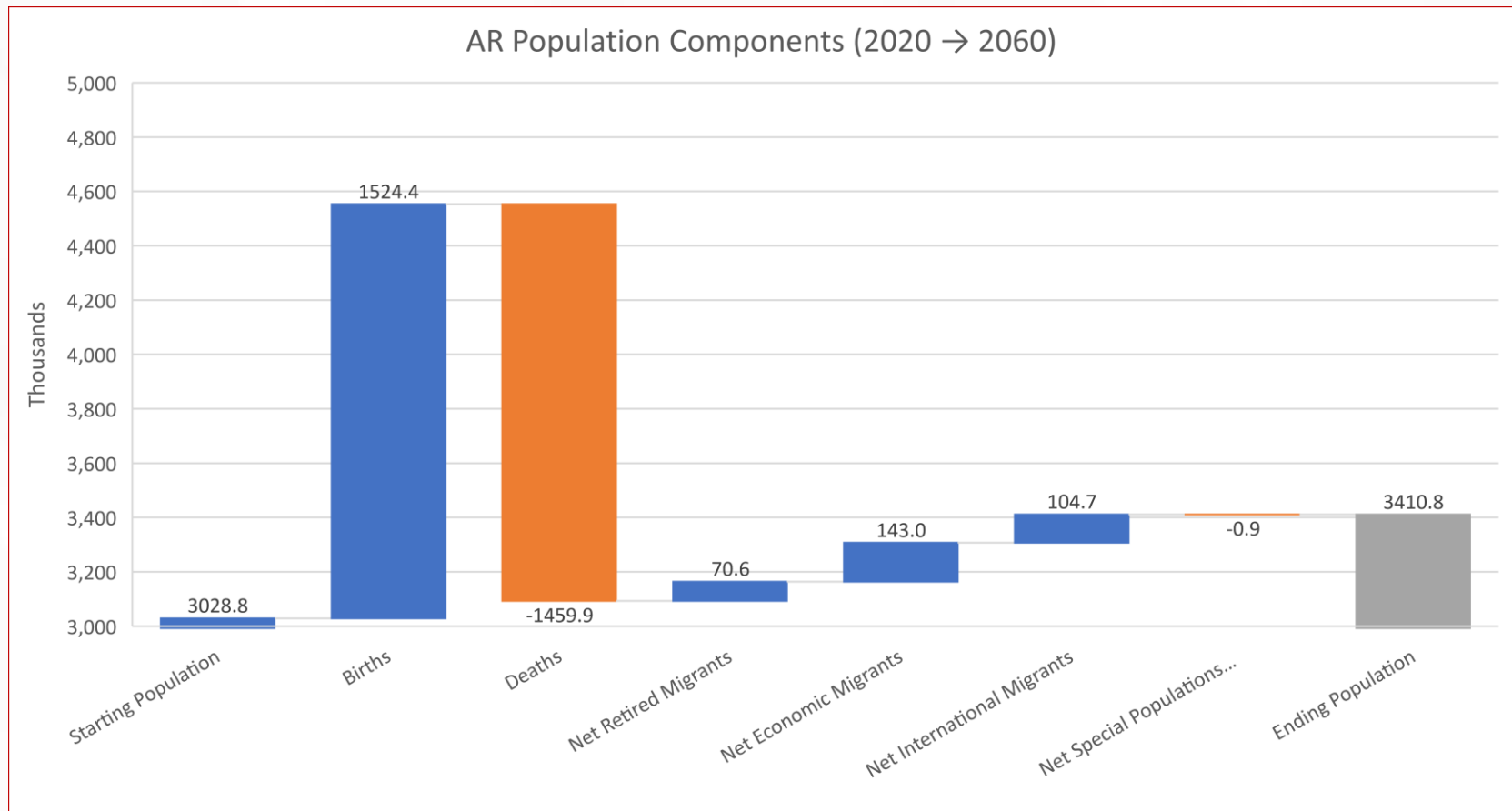
# Long-Term Outlook: Population Pyramid



- Year 2060
- Constrictive



# Population Components



# Model Demonstration



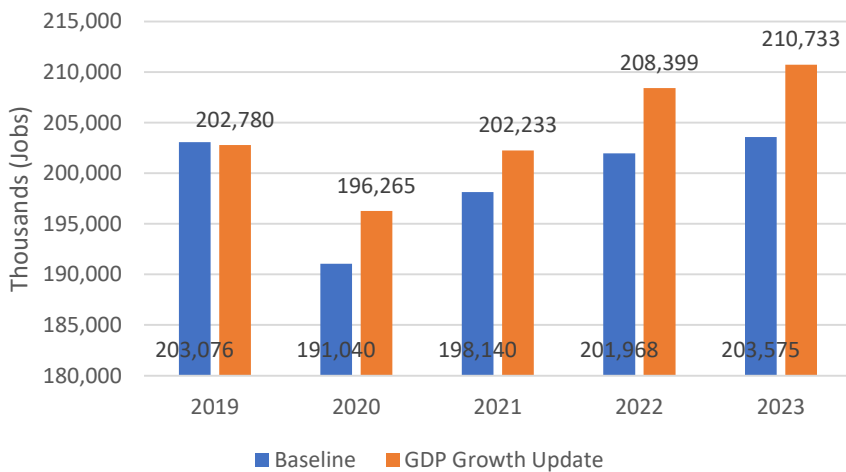
# The Scenario

- 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 Arkansas

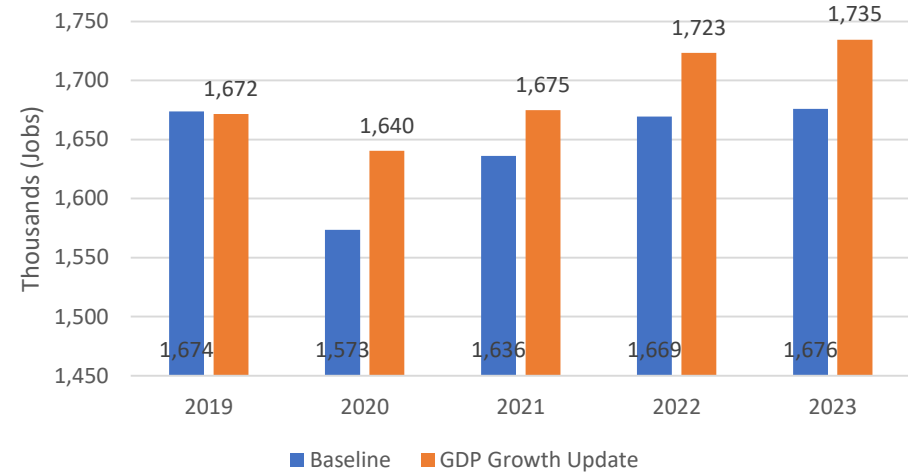
# Optimistic Outlook

- Year 2019-2023

Total Employment of the US



Total Employment of Arkansas



# 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

# Q & A

May Lin, Economic Analyst  
[May.Lin@remi.com](mailto:May.Lin@remi.com)

Julia Wacker, Associate I  
[Julia.Wacker@remi.com](mailto:Julia.Wacker@remi.com)

Julian Brubaker, Associate I  
[Julian.Brubaker@remi.com](mailto:Julian.Brubaker@remi.com)