

Changes to a State and Regional Forecast Due to COVID

A presentation to REMI Users

Jim Robey, PhD
Katie Bolter, PhD

June 24th, 2020

W.E. Upjohn Institute for Employment Research

The Institute is an activity of the W.E. Upjohn Unemployment Trustee Corporation, which was established in 1932 to administer a fund set aside by Dr. W.E. Upjohn, founder of the Upjohn Company.

MISSION:

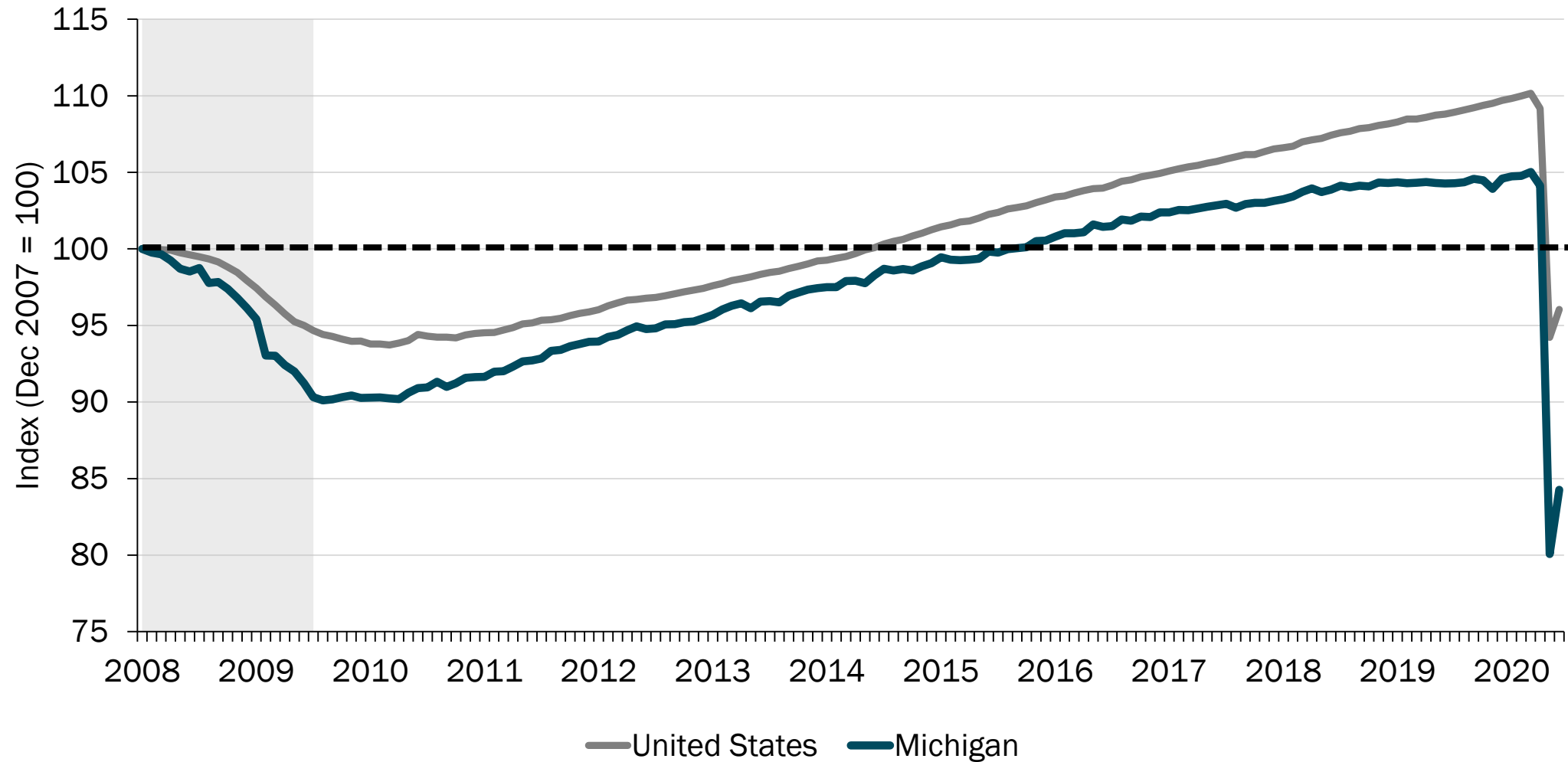
The W.E. Upjohn Institute for Employment Research is a private, nonprofit, nonpartisan, independent research organization devoted to investigating the causes and effects of unemployment, to identifying feasible methods of insuring against unemployment, and to devising ways and means of alleviating the distress and hardship caused by unemployment.

Previous REMI Work

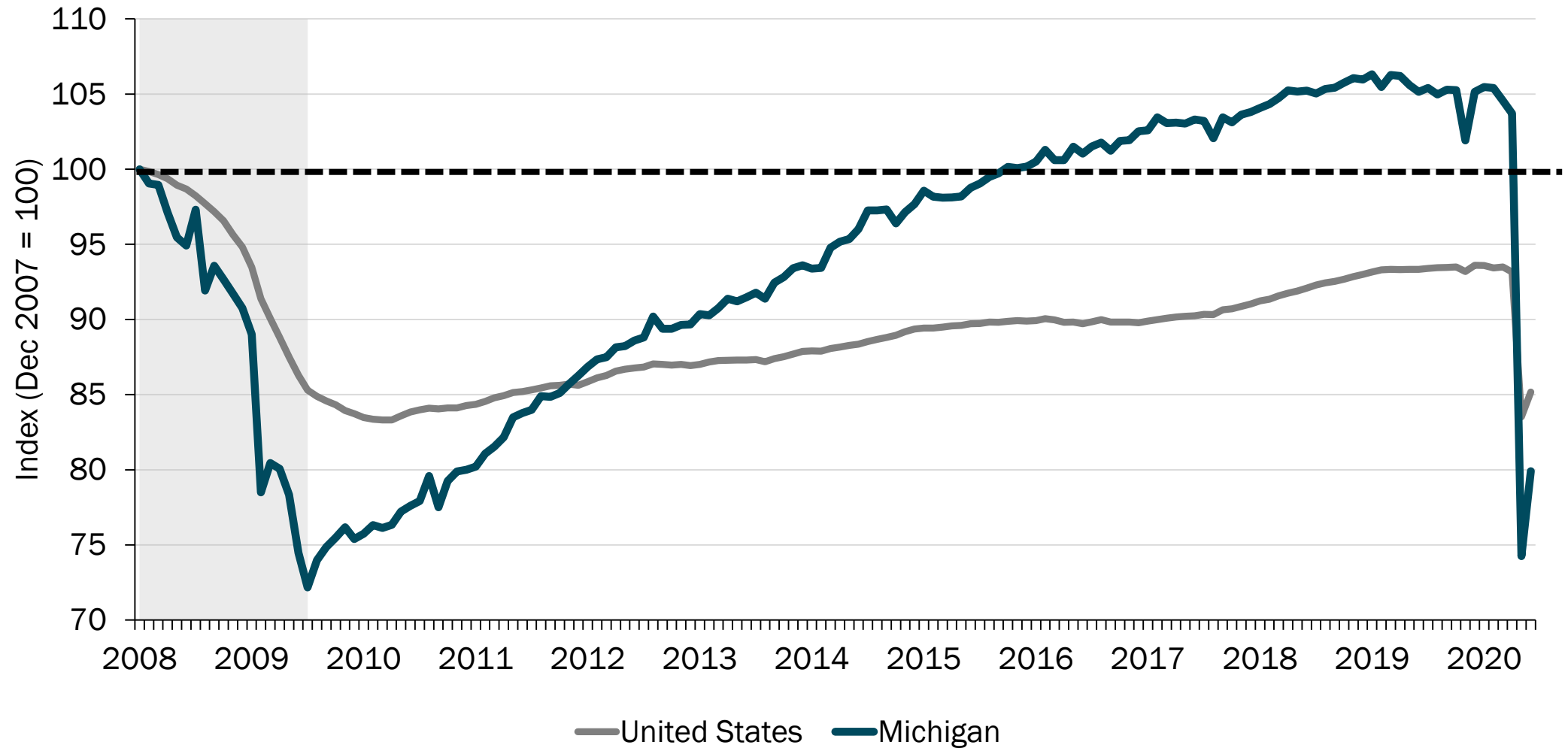
- NIST MEP Return on Investment
- Various State MEP Return on Investment
- Battle Creek Food Hub
- Freshwater Center at Lake Superior State
- Firekeepers Casino Study
- FirstEnergy New Jersey Transmission Line Construction
- Forecasting for Regional Outlook Presentations
- Forthcoming for Cleveland Job Hubs

Michigan Economy

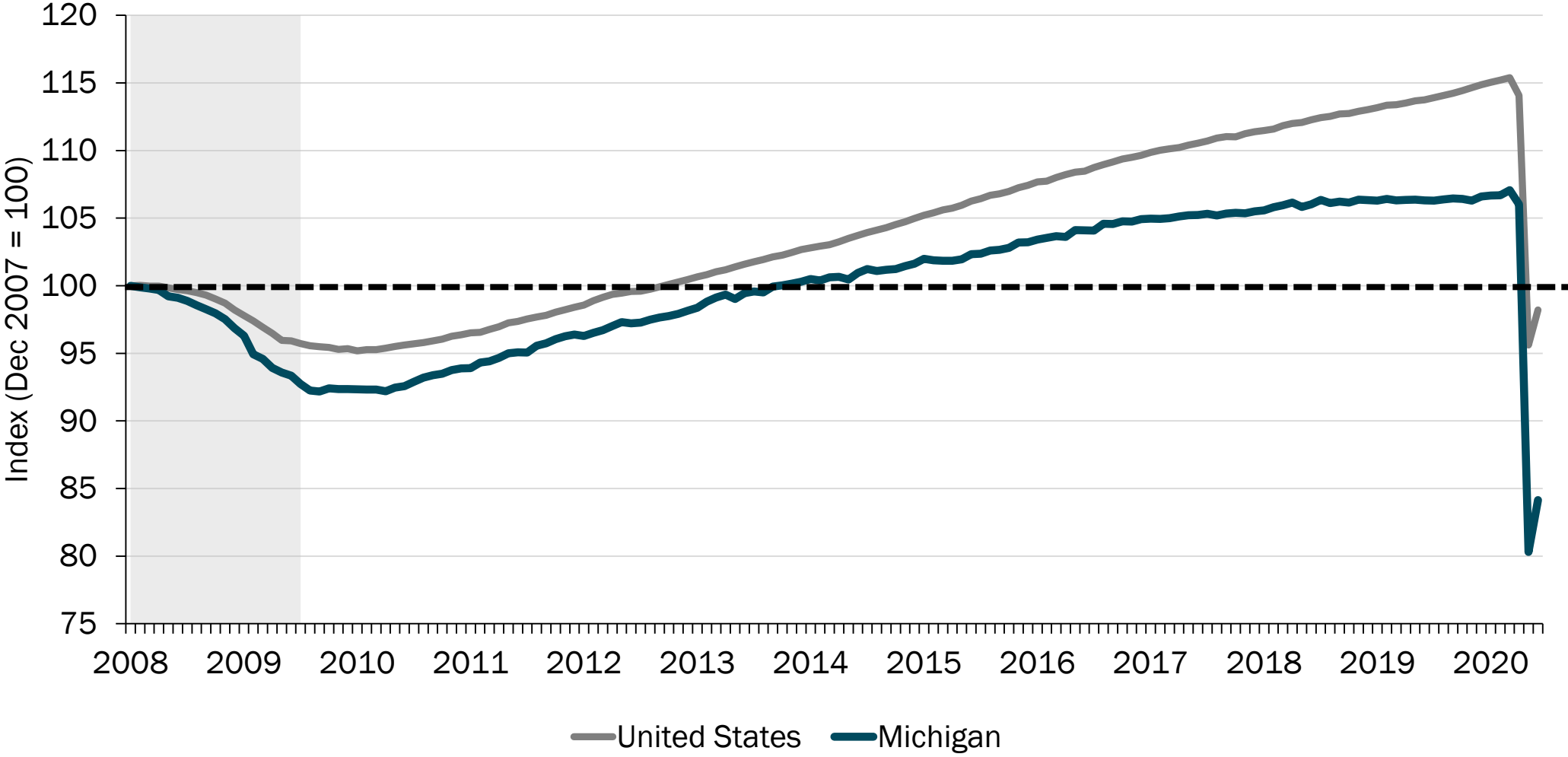
Non-Farm Employment Index



Manufacturing Employment Index



Private Service Providing Employment Index



Methodology

Methodology

- Upjohn uses a REMI model (www.REMI.com)
 - To estimate economic impacts from projects and events
 - Forecast regional changes in trends
- Pre-COVID baseline using a prior version of REMI (version 2.3.5)
- As new forecasts were produced the latest REMI model was updated (2.4.3)
 - National forecast is updated
 - Regional forecasts are updated
 - Revised forecasts come from:
 - Research Seminar in Quantitative Economics at UofM
 - Congressional Budget Office

REMI PI+

Michigan Regions • 13 Region National • 70 Sectors • History 2001 - 2020

View Forecasts

View Results
 Edit Inputs
 New Simulation
 New National Control
 New Regional Control
 Rename
 Delete Forecast
 Edit Description
 Edit Keyword Tags

Forecast Name	Run Progress	Model Geography	Type	Last Modified
Standard National Control	2060	National	Control	5/22/2020 12:38 PM
Standard Regional Control	2060	Regional	Control	5/22/2020 12:38 PM
Freshwater Center sim	2034	Regional	Simulation	6/22/2020 11:22 AM
BCU Tiger EDA	2034	Regional	Simulation	6/18/2020 7:54 AM
BCU Tiger EDA revised build out costs	2034	Regional	Simulation	6/18/2020 8:02 AM
PTAC EI 2019	2034	Regional	Simulation	6/18/2020 3:44 PM
National Control April 2020 RSQE	2034	National	Control	6/22/2020 10:48 AM
Regional Control for National Control April 2020 RSQE	2034	Regional	Control	6/22/2020 10:48 AM
Freshwater Center Sim-1	2034	Regional	Simulation	6/22/2020 11:26 AM
Food hub	2034	Regional	Simulation	6/22/2020 11:44 AM
National Control May 2020 RSQE	2034	National	Control	6/22/2020 11:44 AM
Regional Control for National Control May 2020 RSQE	2034	Regional	Control	6/22/2020 11:44 AM
Freshwater Center sim1	2034	Regional	Simulation	6/22/2020 11:33 AM
Regional Simulation 1	2034	Regional	Simulation	6/22/2020 2:20 PM

View Forecasts
 Studies
 Tools & Settings
 Model Details
 Help
 Close

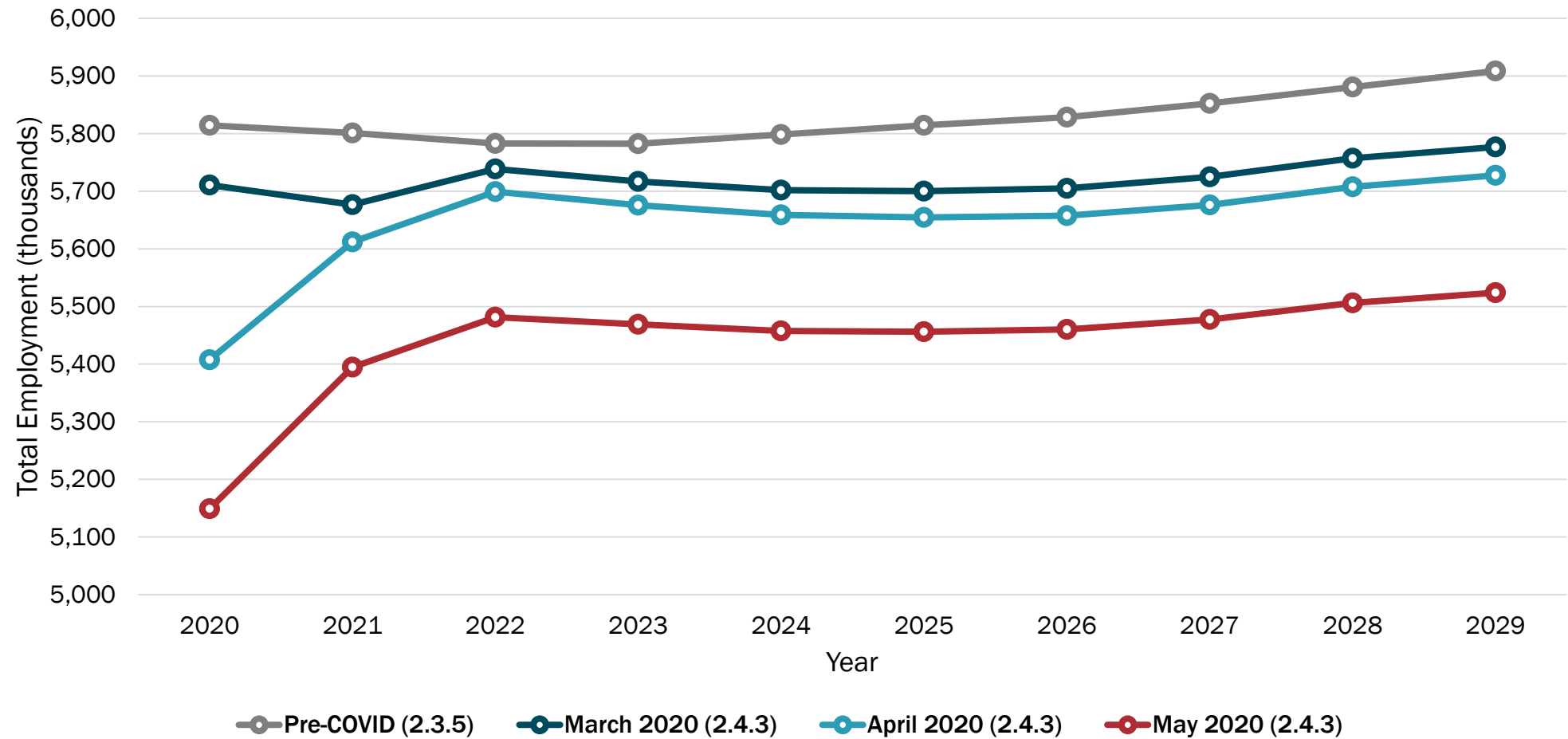
Michigan Economy REMI Forecasts



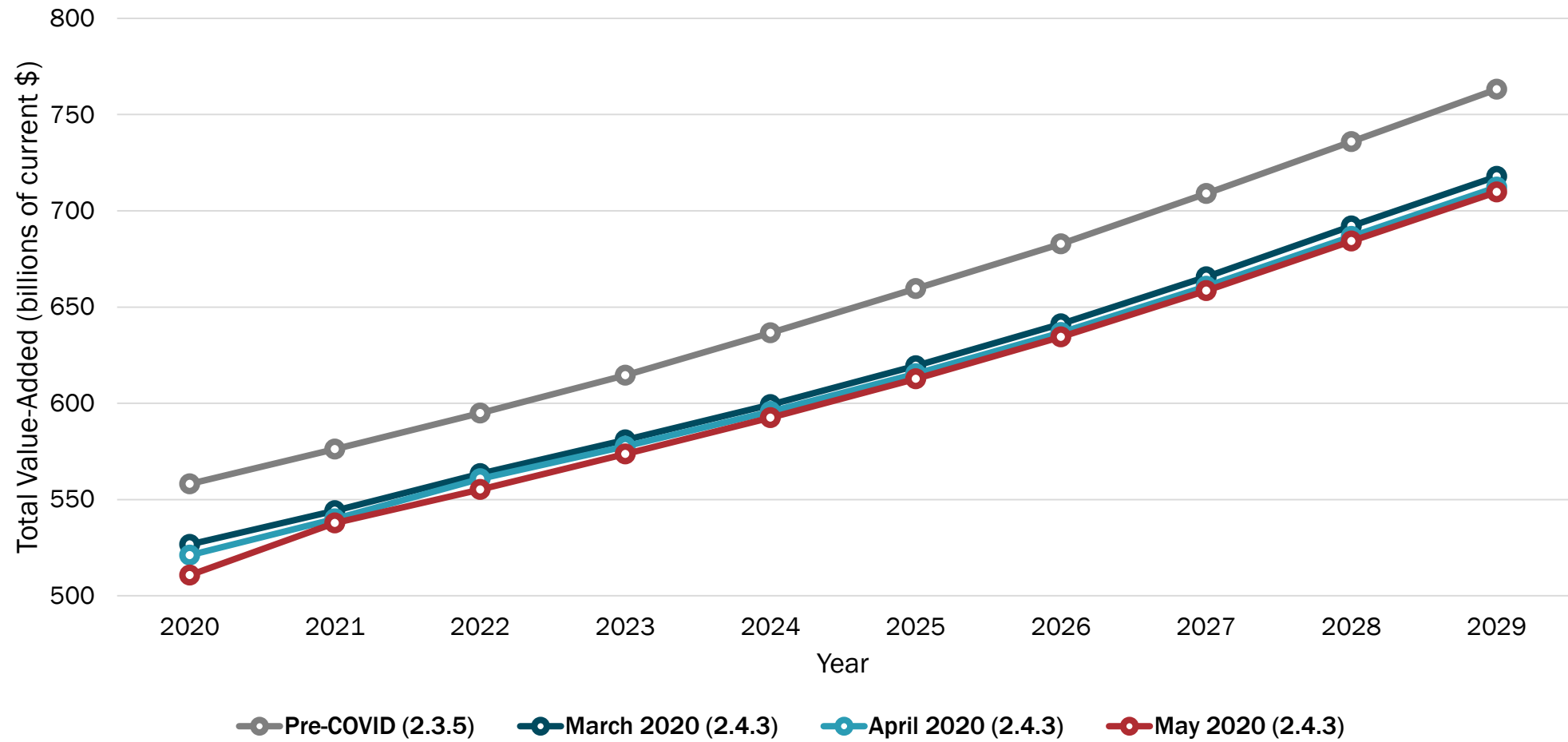
Michigan

- Summary: Pre-COVID
 - Jobs: 5.71 million
 - Output: \$1031 billion
 - GSP: \$526.8 billion
 - Personal income: \$461.38 billion
- Projected annualized loss of almost 665k (11.4%) positions
- Location Quotients
 - Manufacturing (all): 1.7
 - Furniture: 1.9
 - Motor Vehicles: 6.4
 - Machinery MFG: 2.4
 - Fabricated Metals: 1.9

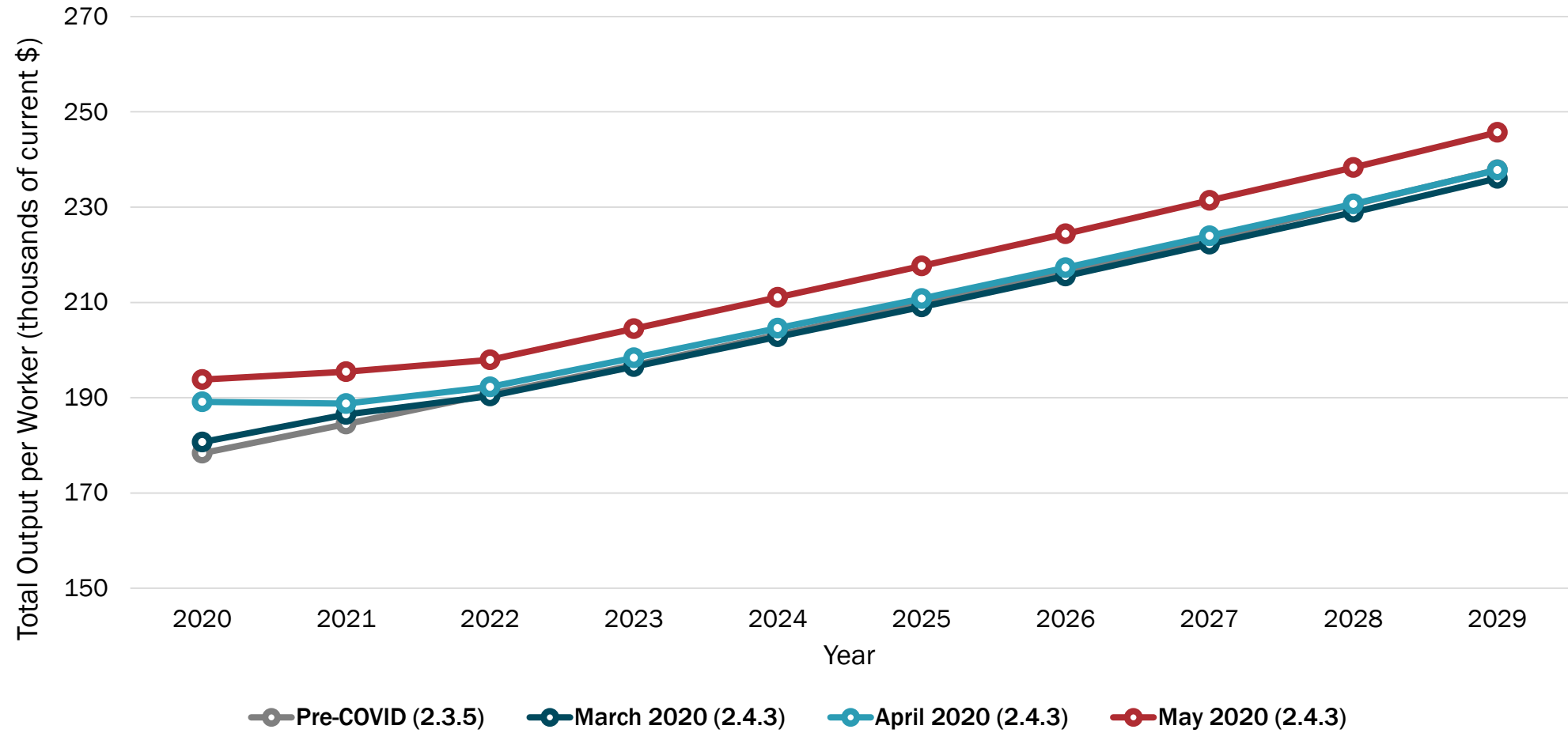
Total Projected Employment in Michigan



Total Projected Value-Added in Michigan



Total Projected Output per Worker in Michigan



Grand Rapids Economy REMI Forecasts

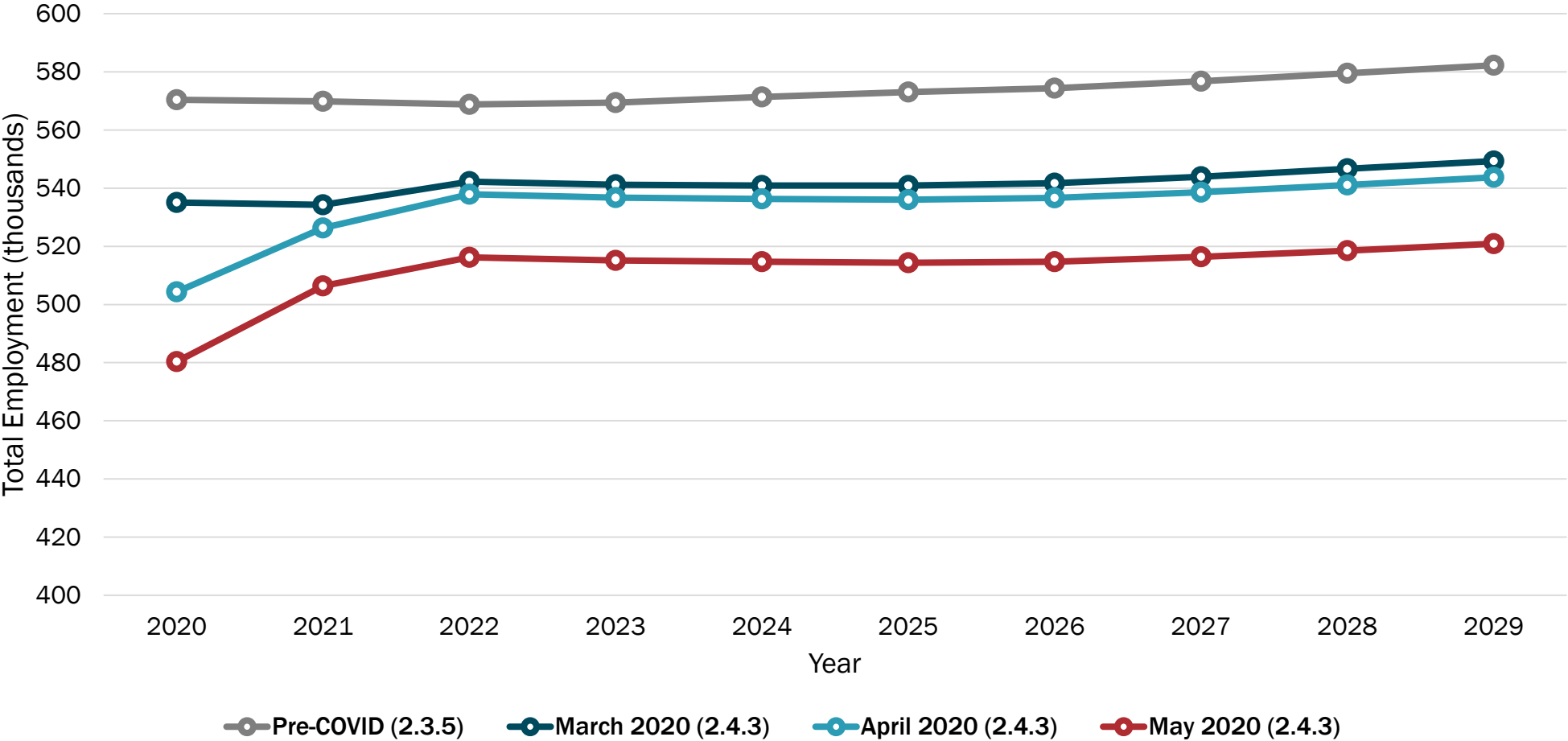


Grand Rapids MSA

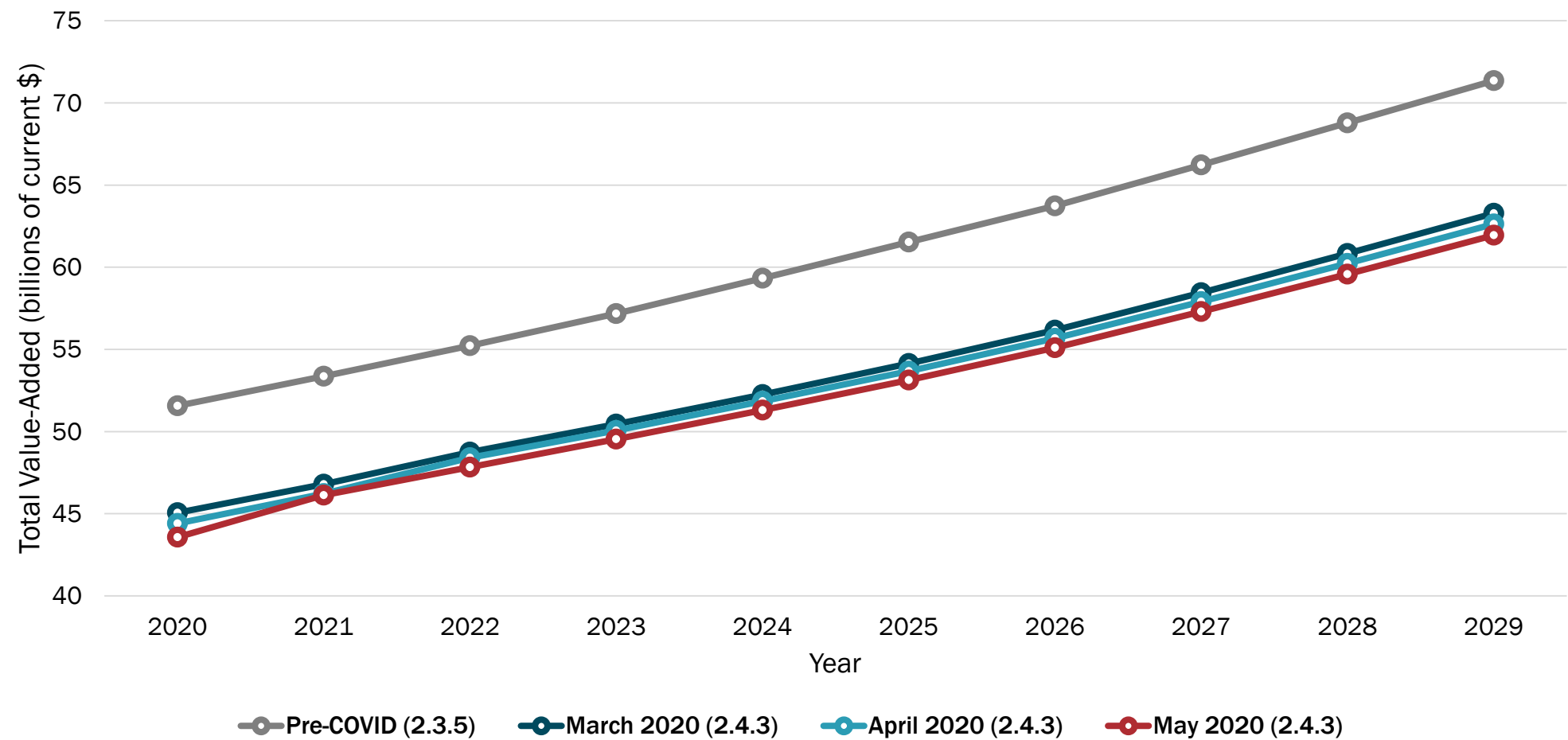
- Summary Pre-COVID
 - Jobs: 546K
 - Output: \$92 billion
 - GRP: \$46.2 billion
 - Personal Income: \$39.2 billion
- Projected annualized loss of more than 90k (15.8%) positions
- Location Quotients

• Manufacturing:	2.09
• Machinery MFG	3.18
• Motor Vehicles	4.50
• Furniture	7.07

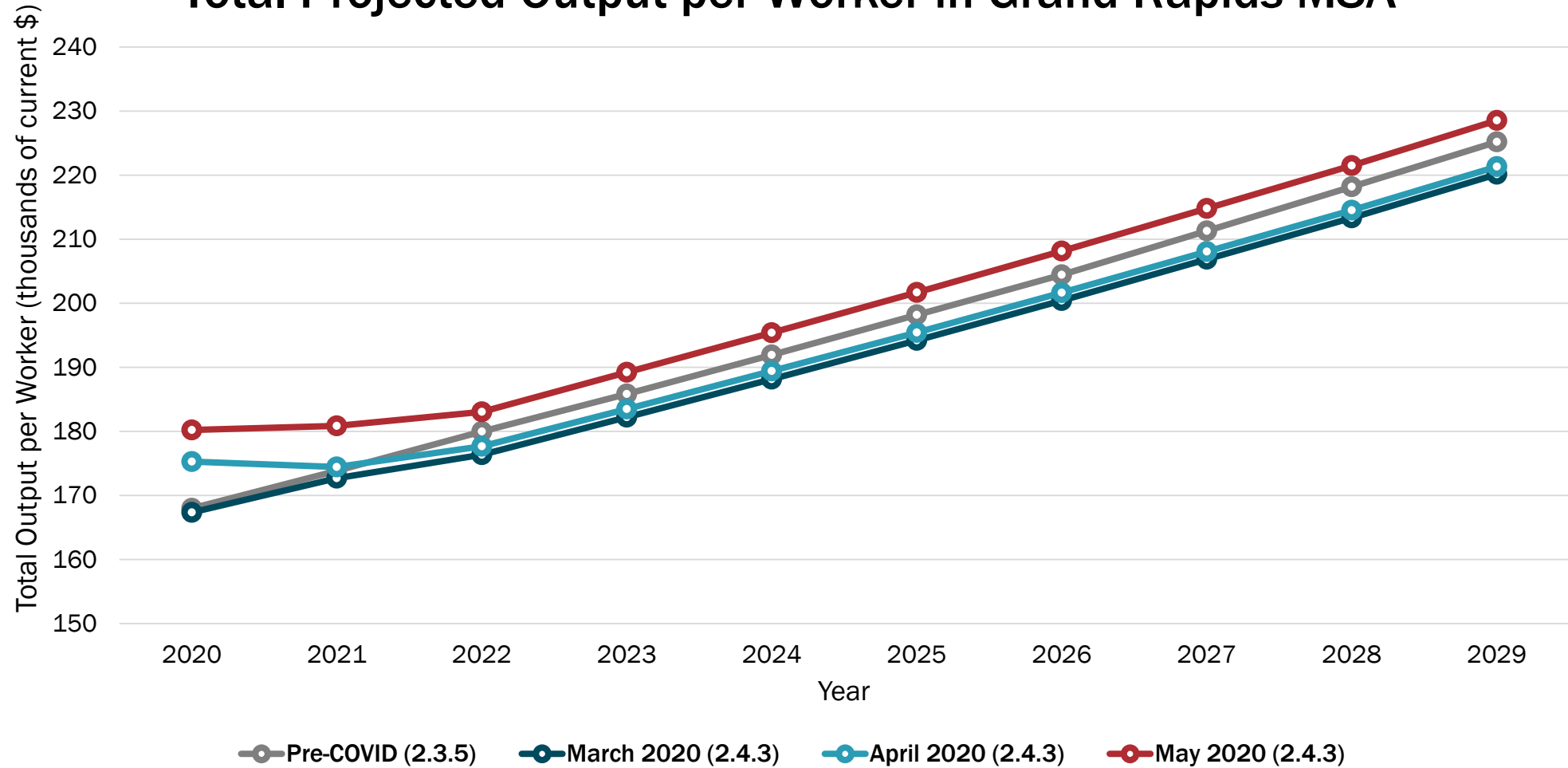
Total Projected Employment in Grand Rapids MSA



Total Projected Value-Added in Grand Rapids MSA



Total Projected Output per Worker in Grand Rapids MSA



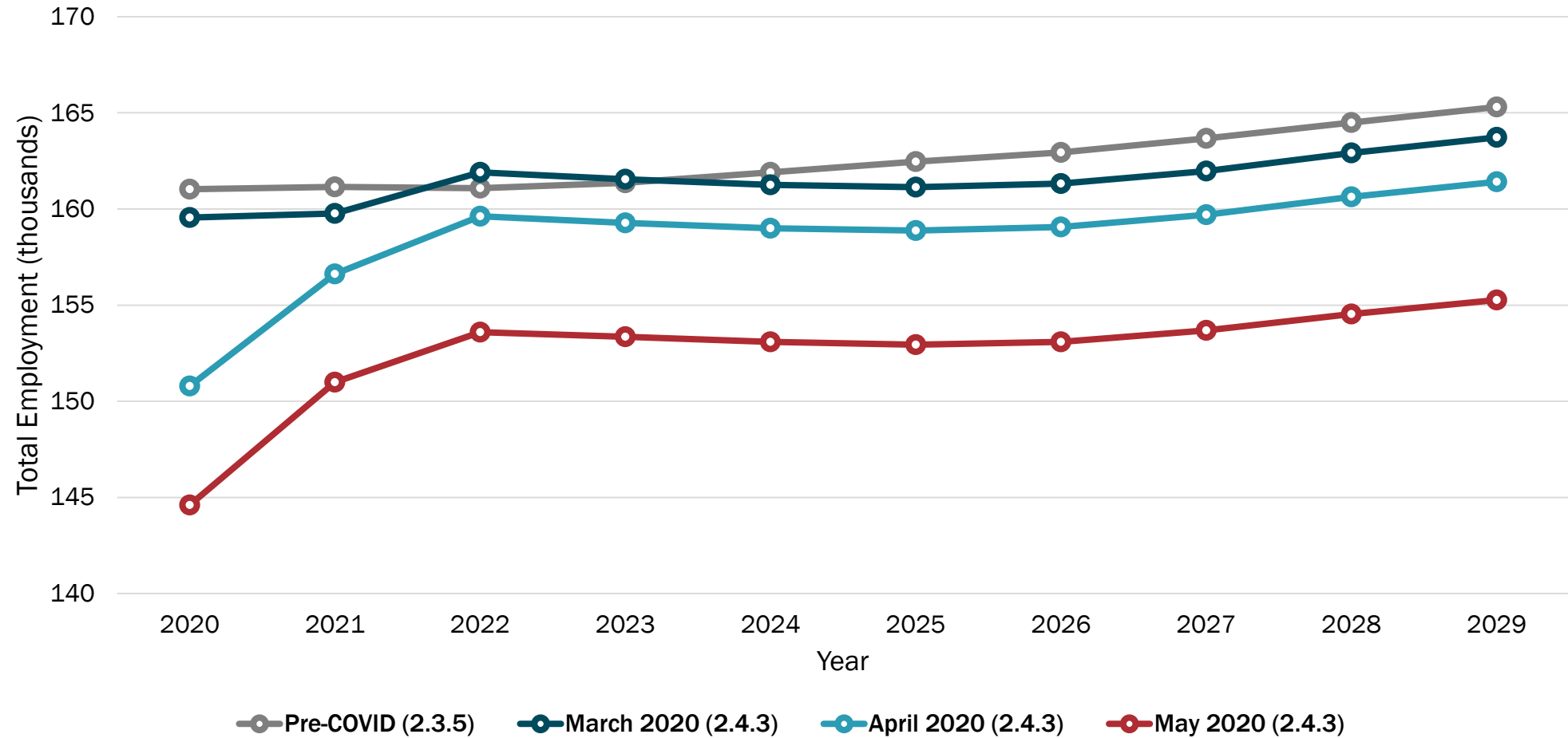
Kalamazoo Economy REMI Forecasts



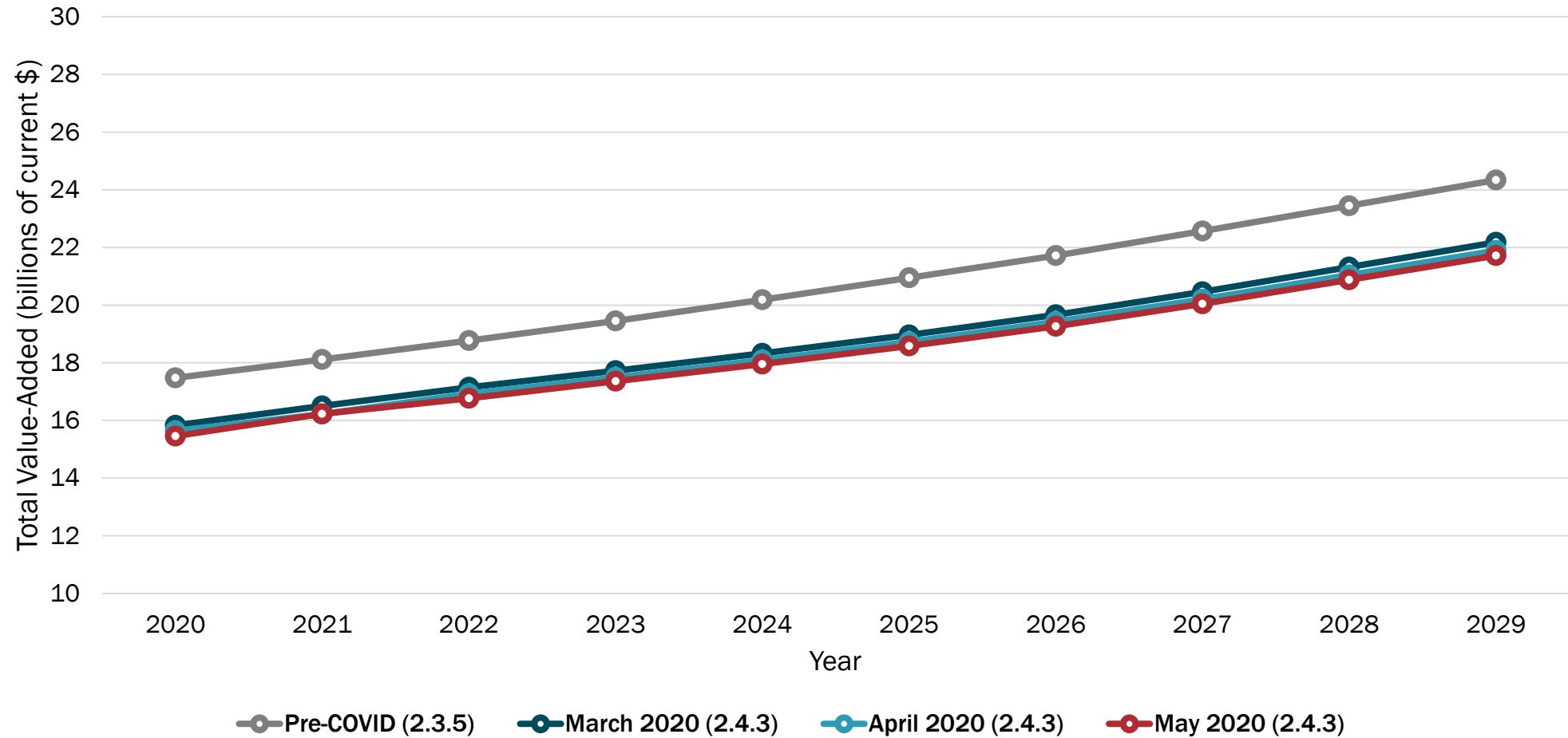
Kalamazoo County

- Summary Pre-COVID
 - Jobs: 159.5K
 - Output: \$31 billion
 - GRP: \$16.0 billion
 - Personal Income: \$11.9 billion
- Projected annualized loss of more than 16.4k (10.1%) positions
- Location Quotients
 - Manufacturing: 1.94
 - Non-metallic Mineral MFG: 2.04
 - Motor Vehicles: 3.10
 - Paper MFG: 10.6

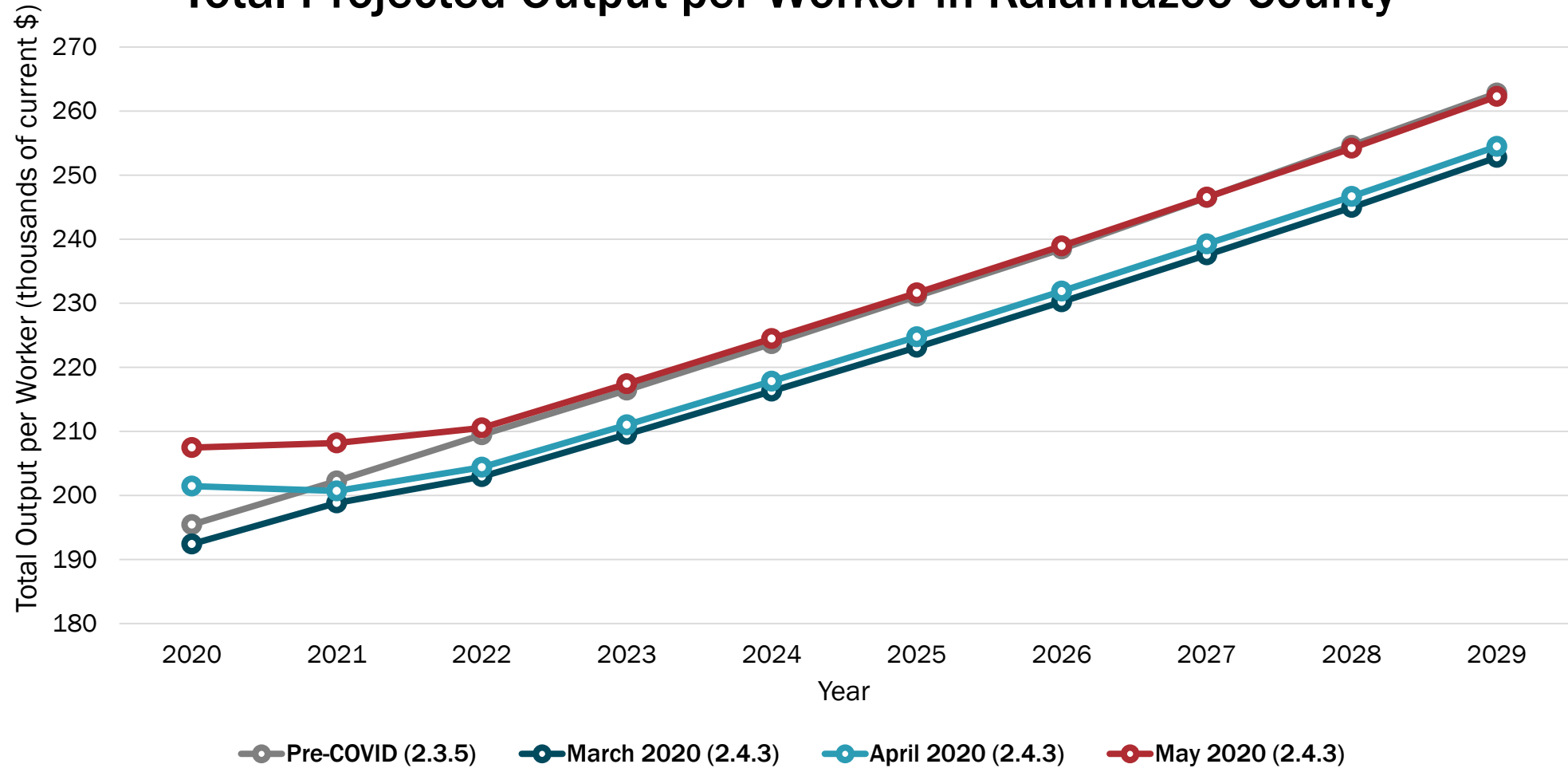
Total Projected Employment in Kalamazoo County



Total Projected Value-Added in Kalamazoo County



Total Projected Output per Worker in Kalamazoo County



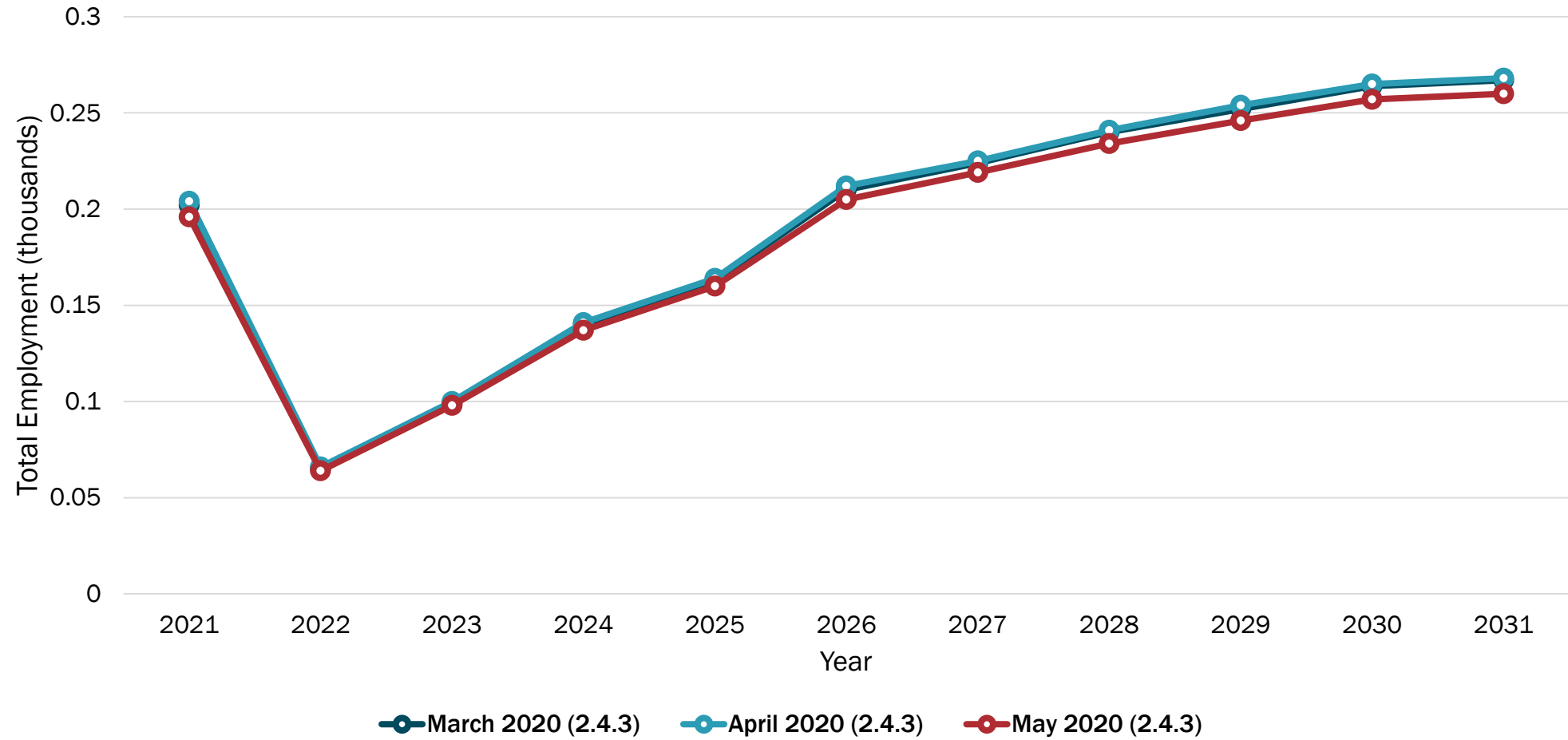
Freshwater Center Economic Impact



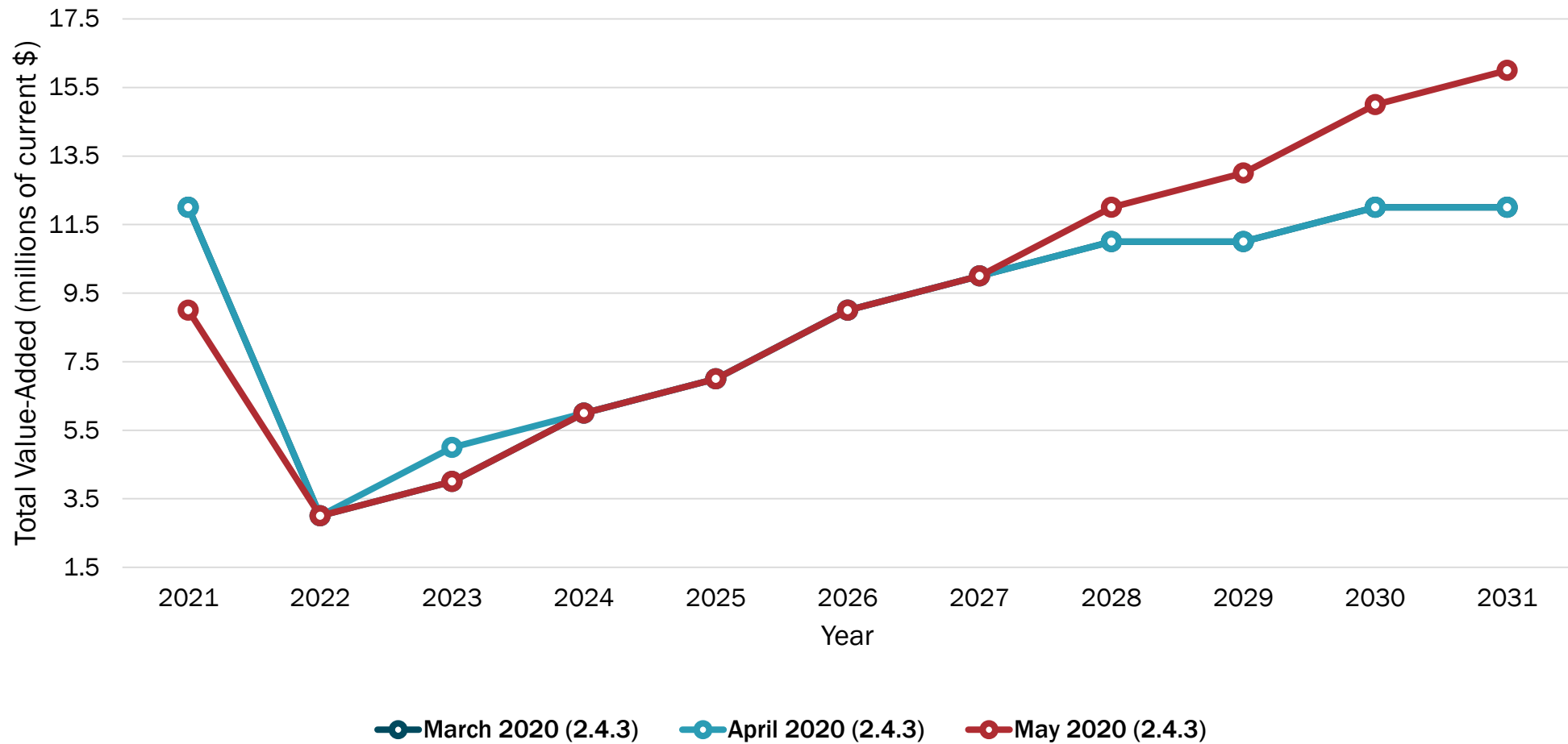
Freshwater Center

- Lake Superior State University/Sault Ste. Marie
- Center is for teaching, research, and community outreach
- Initial build is about \$20 million
- Study in support of EDA grant
- It doesn't appear that the change in forecasts significantly affects the economic impact estimates---whew!

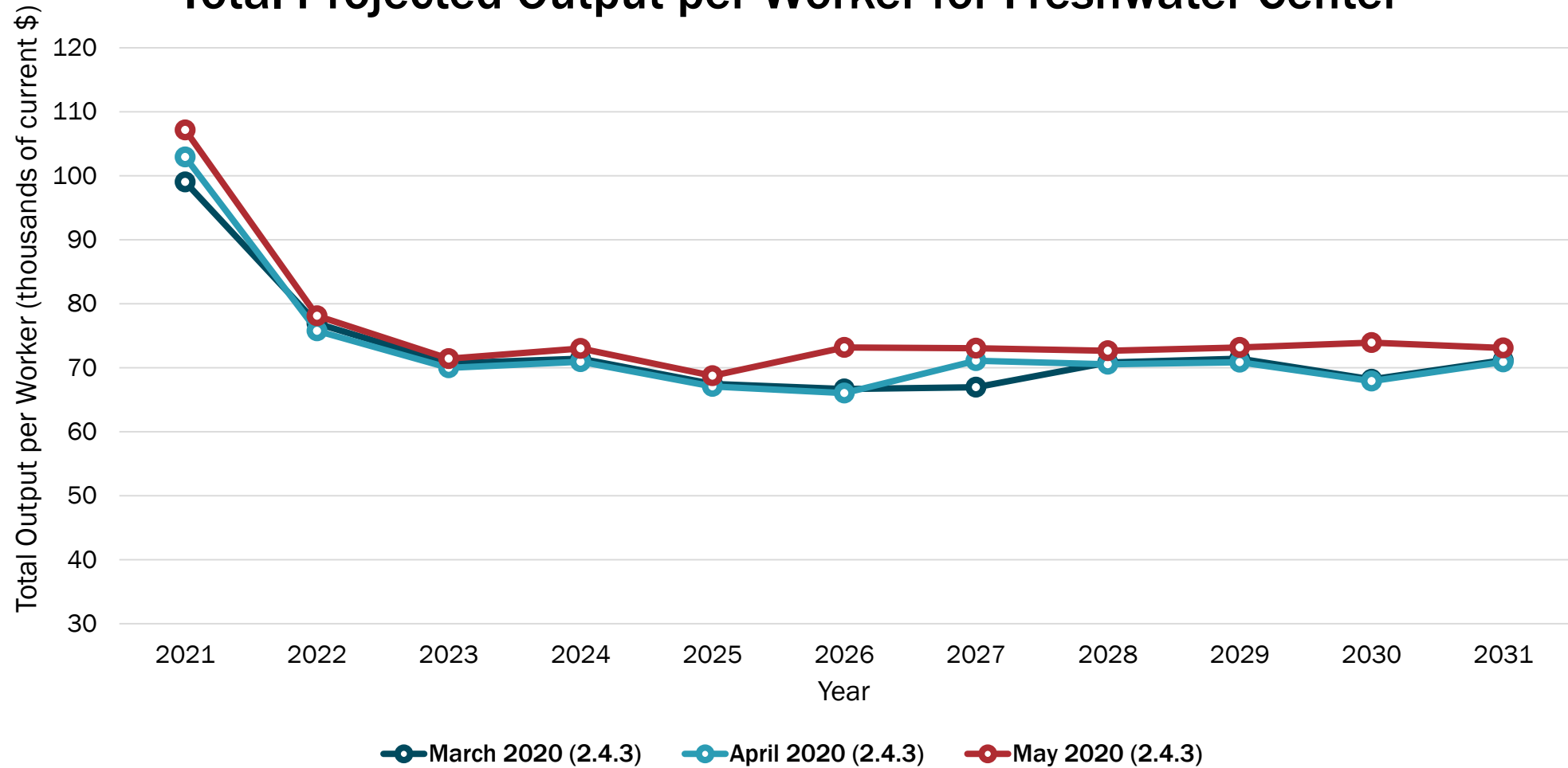
Total Projected Employment for Freshwater Center



Total Projected Value-Added for Freshwater Center



Total Projected Output per Worker for Freshwater Center



Moving Forward

Considerations for the Future of Michigan

- The shape of the recovery curve?
- Supply versus demand?
 - SME's
 - WARN data
- What will be the impact of a second wave?
- Is re-shoring real?
 - Supply chain issues
- How will technology impact employment?
- Will people go back to work?
 - Until the end of July the additional \$600 UI benefit
 - Fear of illness
 - Barriers, notably childcare, in returning

Our contact information

- Jim Robey, PhD
 - Director, Regional Economic Planning Services
 - Email: jrobey@upjohn.org
 - Phone: 269-385-0450
- Kathleen Bolter, PhD
 - Regional Research Analyst
 - Email: bolter@upjohn.org