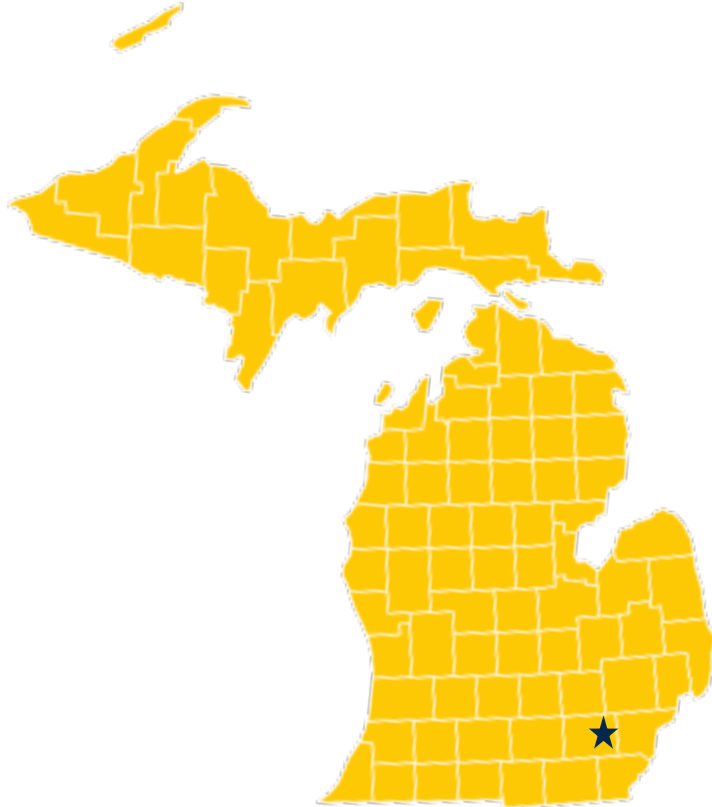


The Economic Outlook for Washtenaw County, 2022–2024



Washtenaw Economic Club
2022 Event Series

March 24, 2022

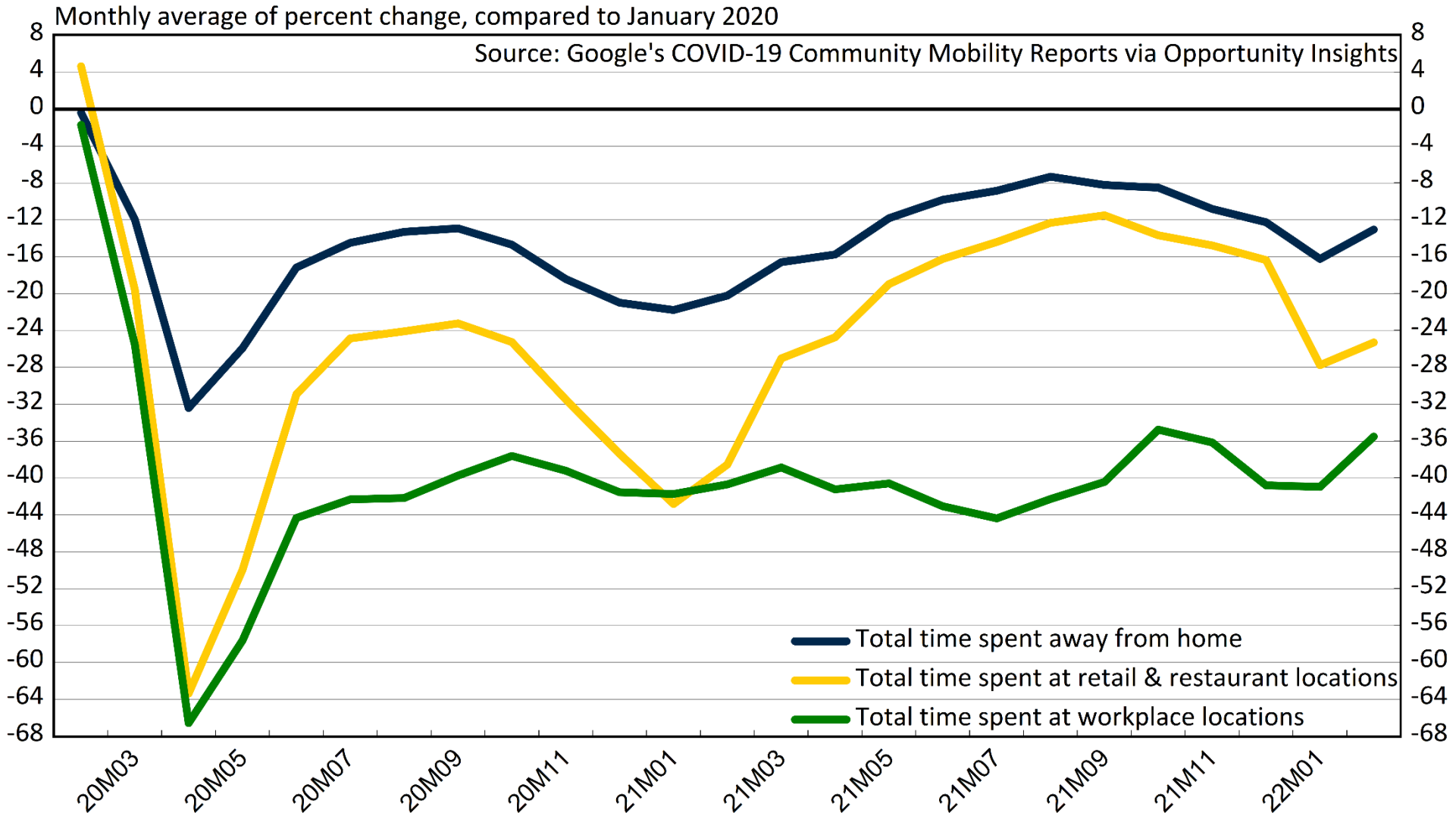
Jacob Burton
Gabriel Ehrlich
Donald Grimes
Michael McWilliams

Research Seminar in Quantitative Economics

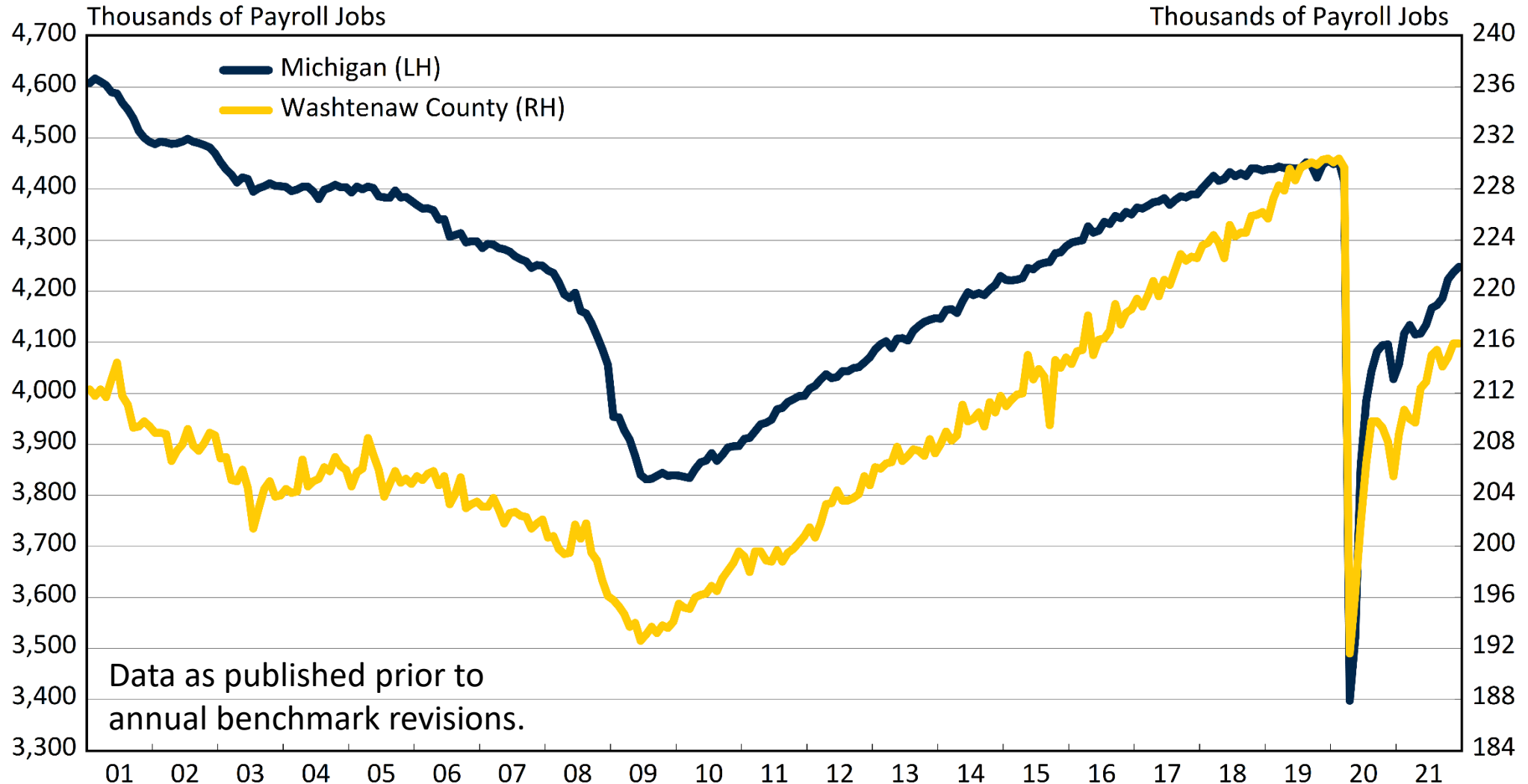


Current State of Washtenaw's Economy

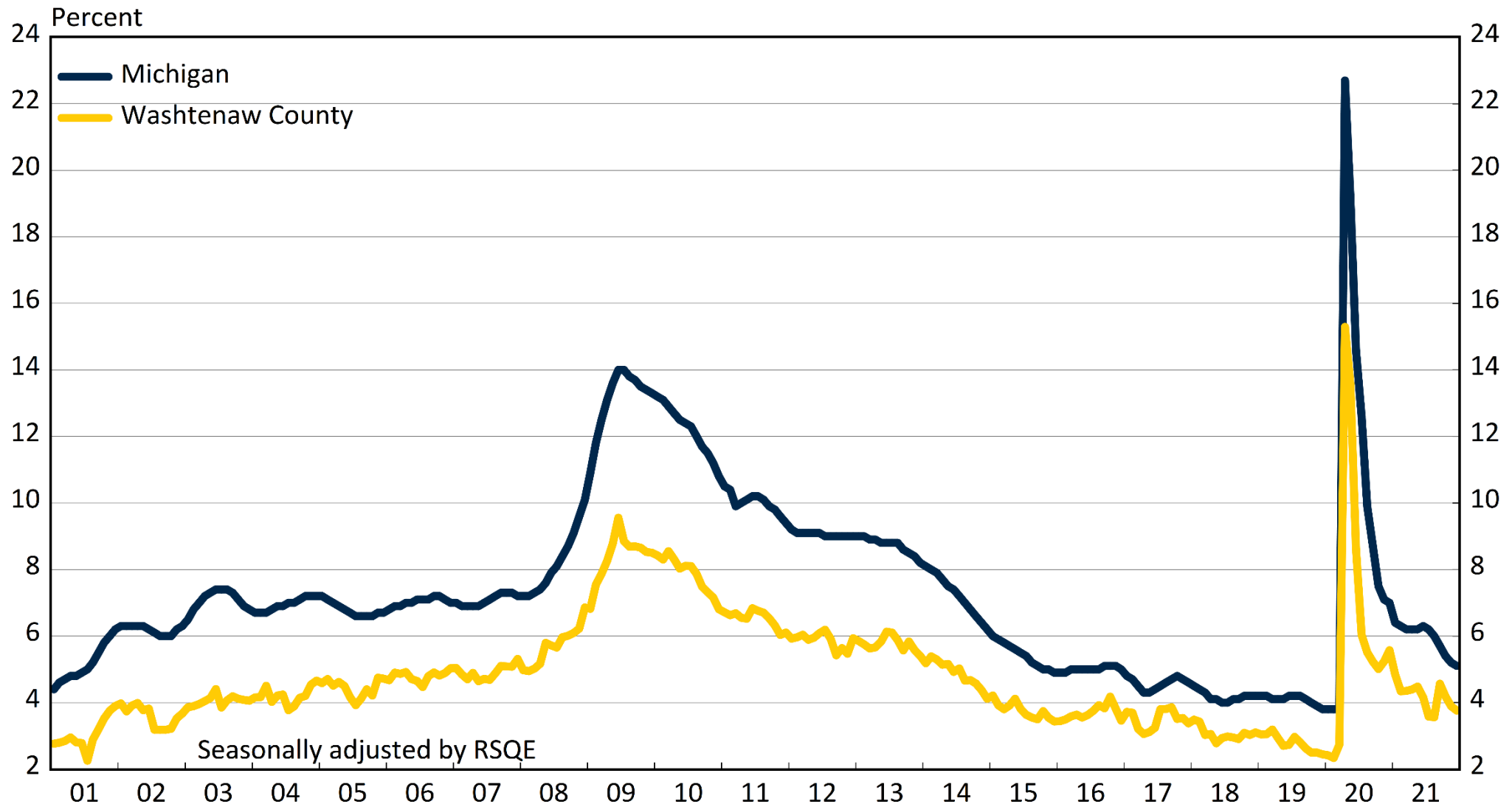
Time Use Patterns in Washtenaw County



Monthly Payroll Employment, Michigan and Washtenaw County



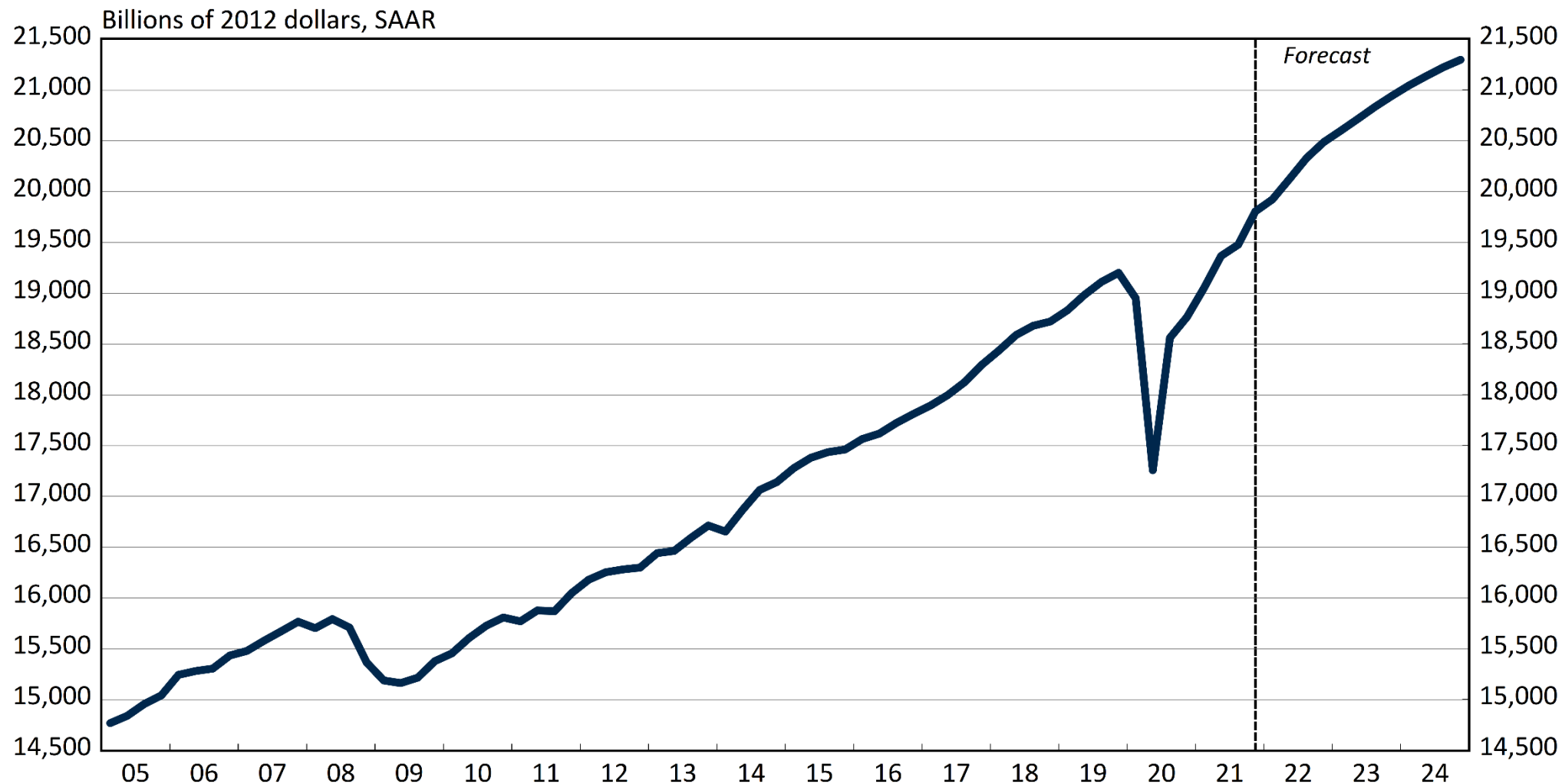
Monthly Unemployment Rate, Michigan and Washtenaw County



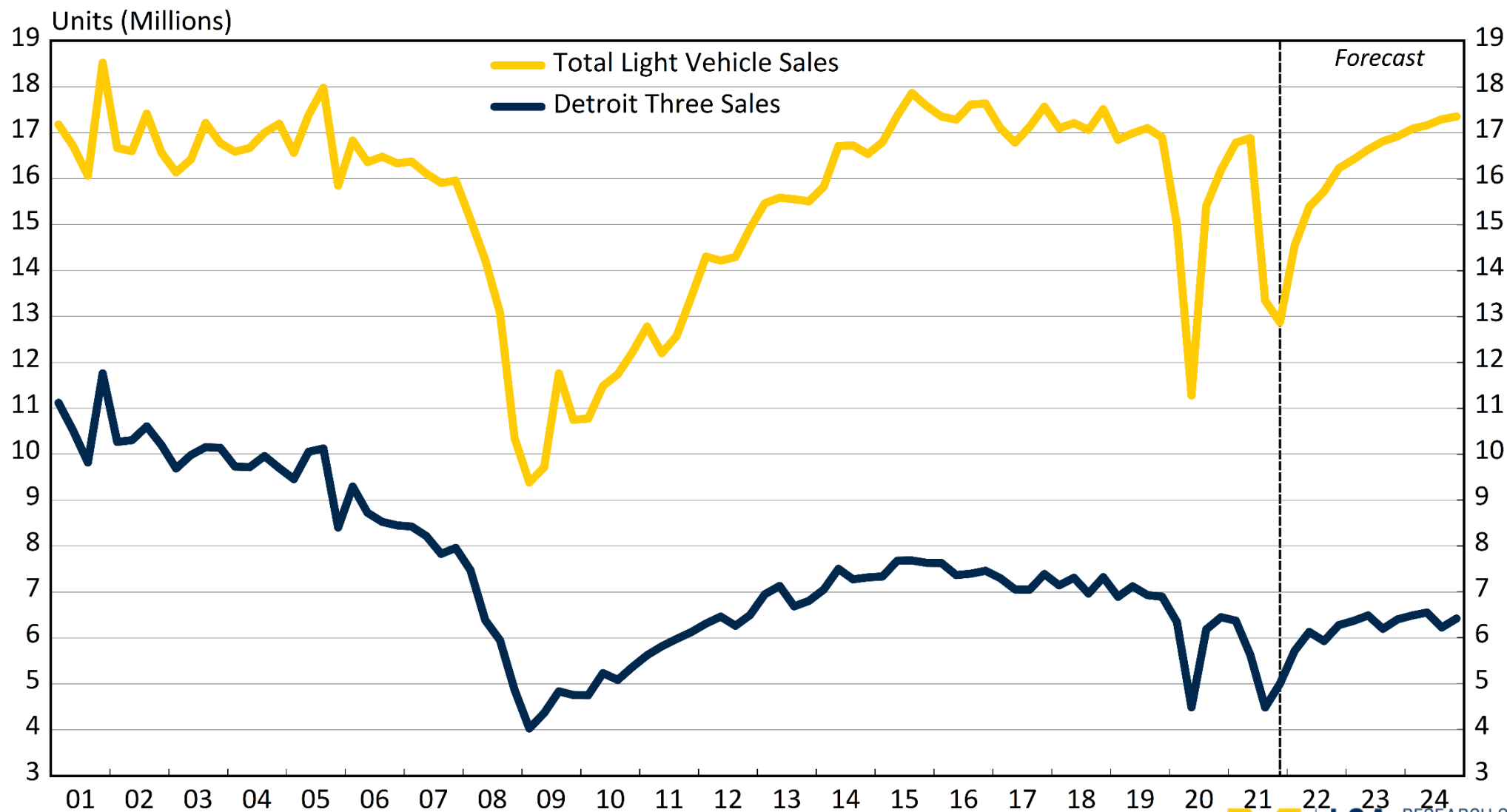
RSQE: March 2022

U.S. Economic Outlook

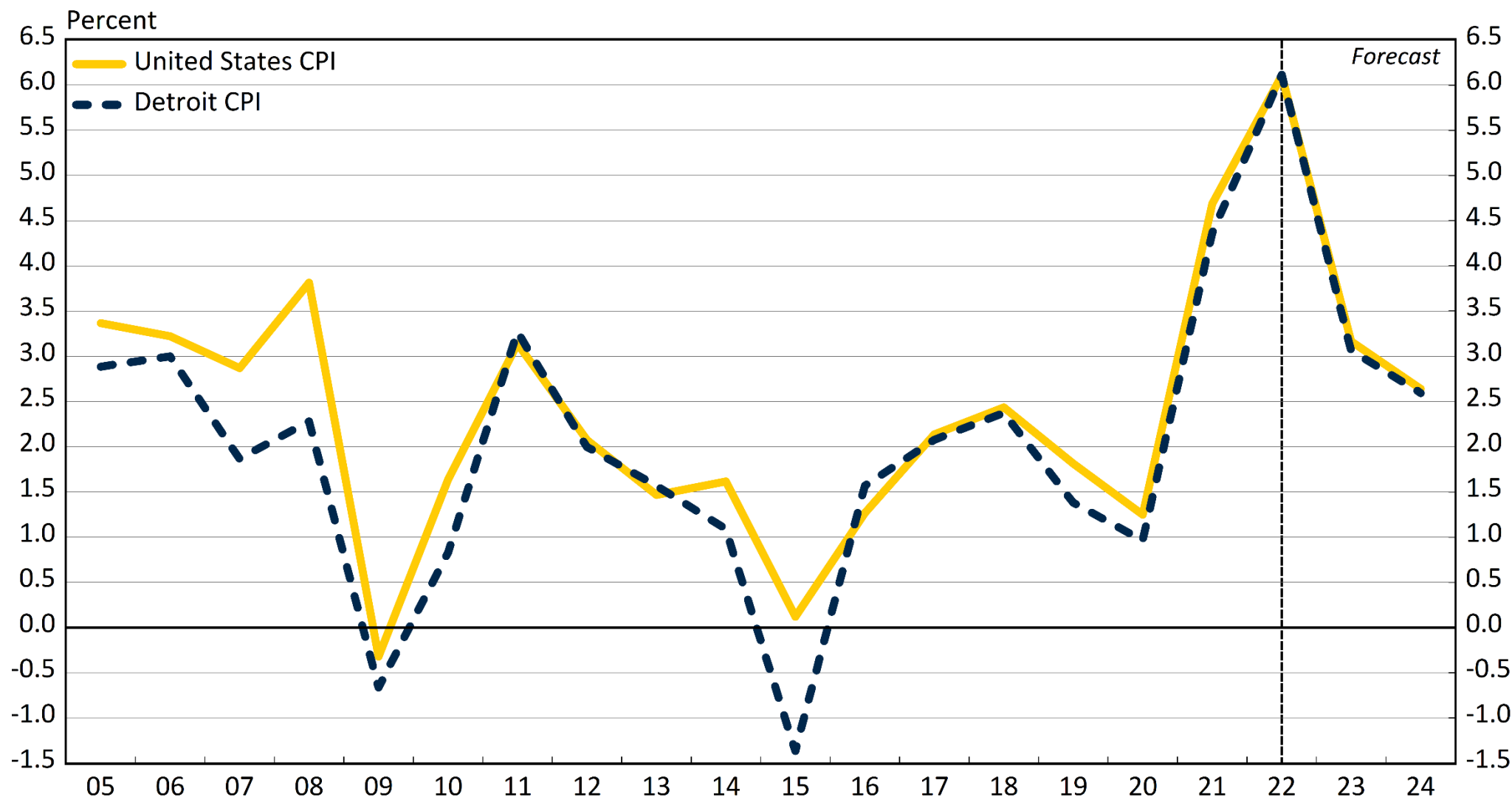
Real U.S. Gross Domestic Product



Total U.S. vs. Detroit Three Light Vehicle Sales

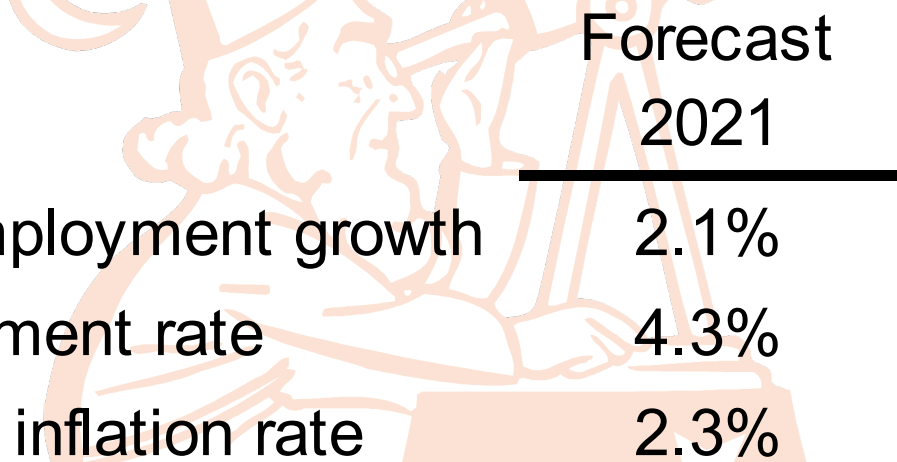


Annual Inflation Rate, National and Detroit CPI



Forecast Review

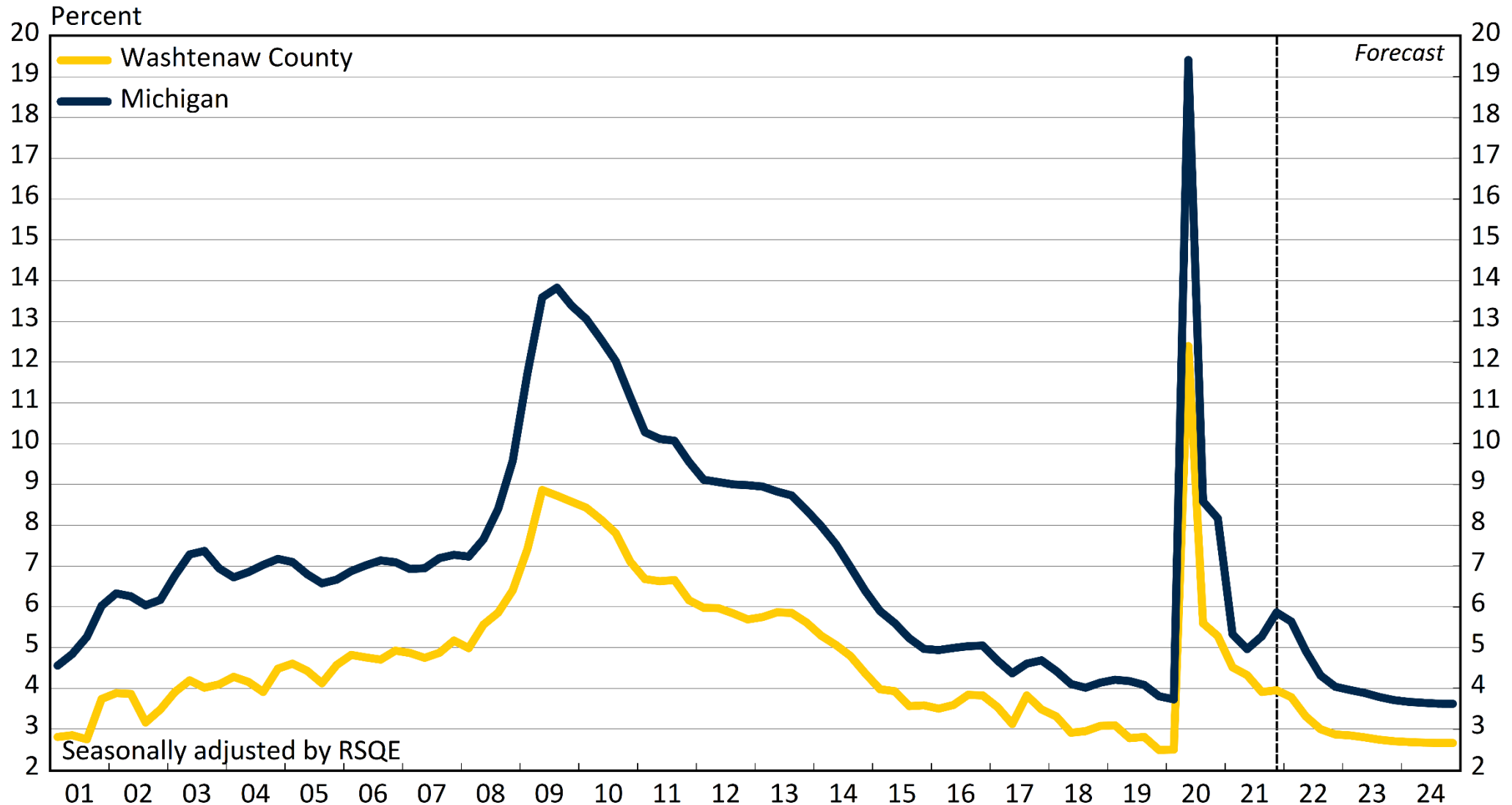
Review of Last Year's Forecast



| | Forecast 2021 | Actual 2021 |
|---------------------------|------------------|----------------|
| Payroll employment growth | 2.1% | 2.2% |
| Unemployment rate | 4.3% | 4.2% |
| Consumer inflation rate | 2.3% | 4.4% |

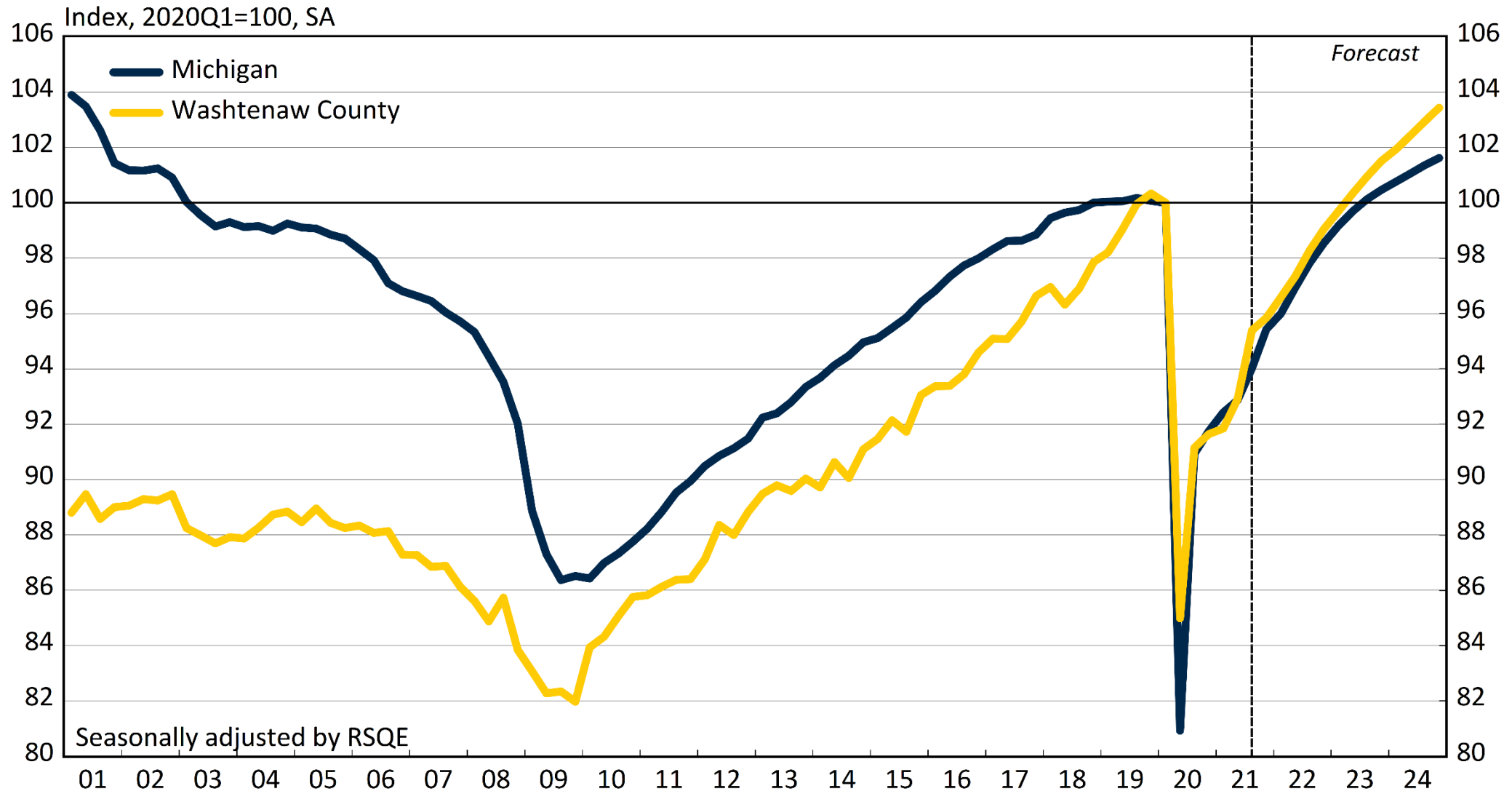
Washtenaw County Economic Outlook

Quarterly Unemployment Rate, Michigan and Washtenaw County



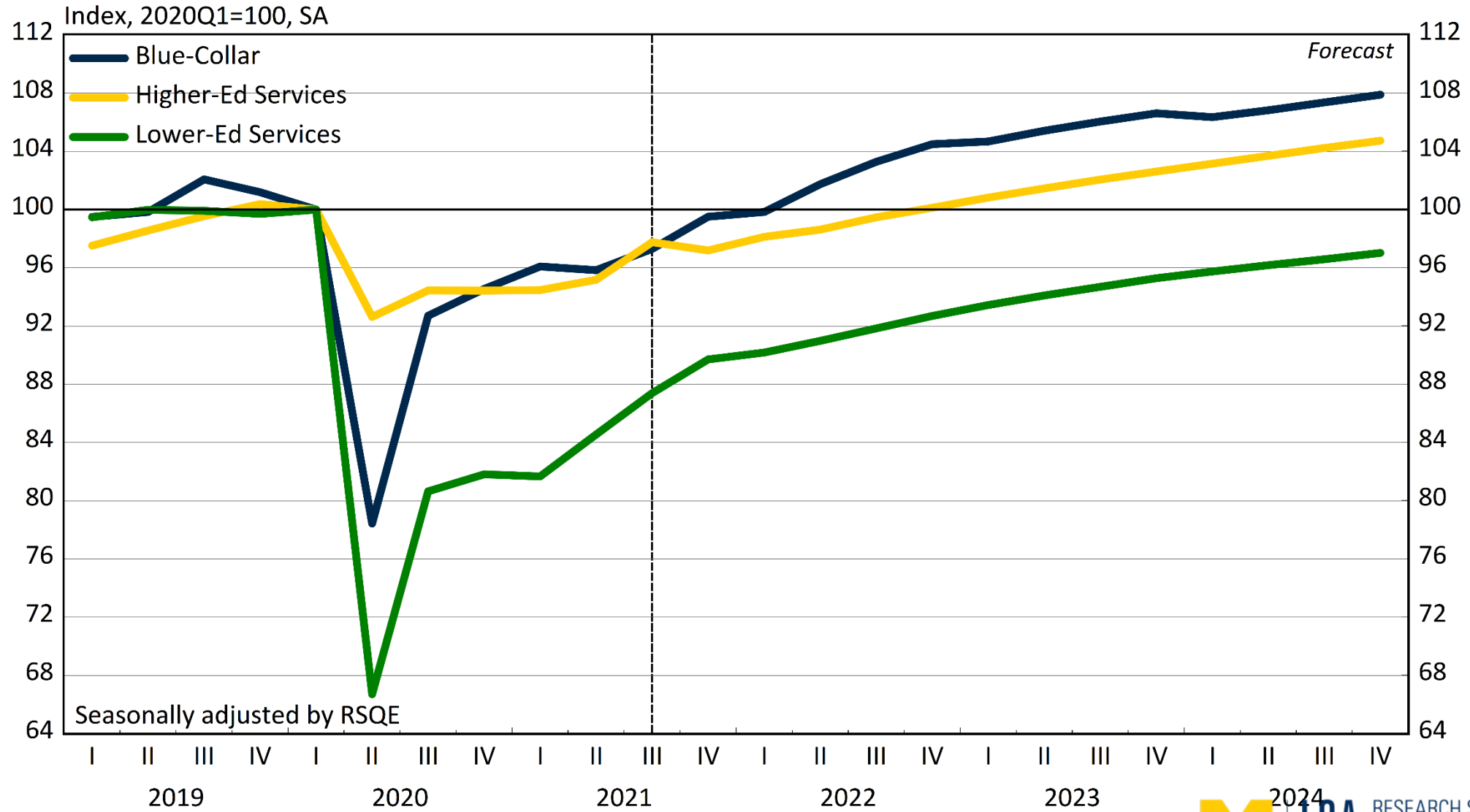
RSQE: March 2022

Quarterly Payroll Employment Indices, Michigan and Washtenaw County



RSQE: March 2022

Job Indices in Washtenaw County by Selected Industries



RSQE: March 2022

Industry Detail

The Recovery of Payroll Jobs in Washtenaw County

| | 2020 | Forecast Employment | | | | Average Annual Wage 2020 \$ |
|-----------------------------|---------|---------------------|---------|---------|---------|--------------------------------|
| | | 2021 | 2022 | 2023 | 2024 | |
| Total Jobs (Number of jobs) | 202,114 | 206,631 | 215,018 | 221,207 | 225,736 | 66,385 |
| (Annual percentage change) | (-7.5) | (2.2) | (4.1) | (2.9) | (2.0) | |
| Total Government | 78,745 | 78,595 | 81,262 | 83,311 | 85,133 | 68,952 |
| Total Private | 123,369 | 128,035 | 133,756 | 137,896 | 140,603 | 64,746 |

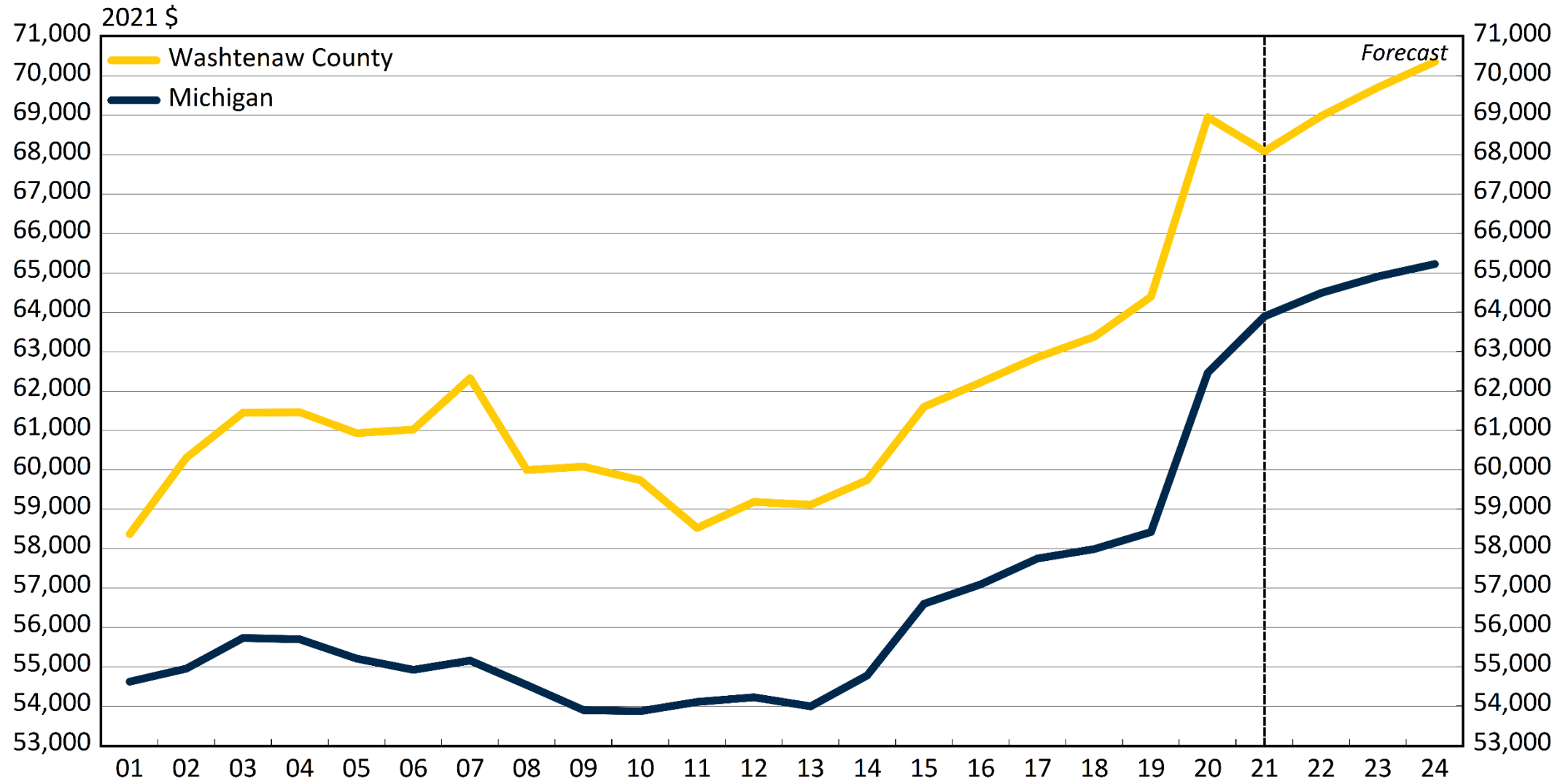
Full-Recovery Industries

| | 2020 | Forecast Employment | | | | Average Annual Wage 2020 \$ |
|--------------------------------------------------|--------|---------------------|--------|--------|--------|--------------------------------|
| | | 2021 | 2022 | 2023 | 2024 | |
| Management of companies and enterprises | 1,429 | 1,487 | 1,559 | 1,641 | 1,682 | 179,845 |
| Information | 5,042 | 4,655 | 4,666 | 4,730 | 4,794 | 114,843 |
| Professional, scientific, and technical services | 17,544 | 18,241 | 18,895 | 19,378 | 19,766 | 103,055 |
| Finance and insurance | 3,712 | 3,973 | 4,016 | 4,083 | 4,131 | 101,621 |
| Wholesale trade | 5,684 | 5,967 | 6,262 | 6,460 | 6,618 | 83,362 |
| Transportation and warehousing | 3,679 | 3,879 | 4,244 | 4,436 | 4,495 | 75,858 |
| Construction | 4,316 | 4,862 | 5,073 | 5,358 | 5,481 | 68,274 |
| Private health and social services | 23,804 | 24,411 | 24,962 | 25,690 | 26,289 | 58,815 |
| Administrative support and waste management | 8,272 | 8,003 | 8,520 | 9,012 | 9,341 | 41,575 |
| Private education | 2,735 | 2,833 | 2,979 | 3,245 | 3,401 | 41,133 |

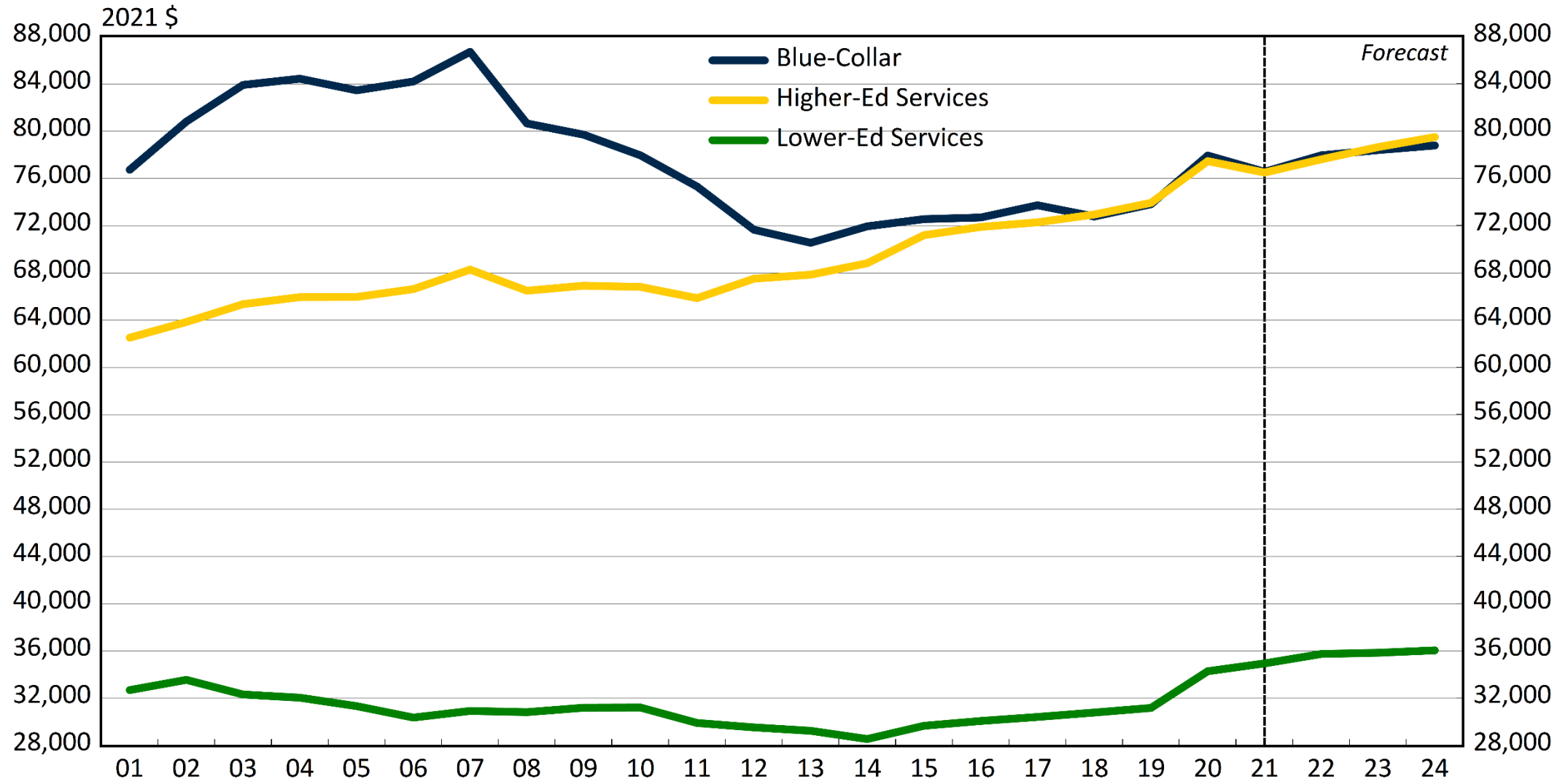
Incomplete-Recovery Industries

| | 2020 | Forecast Employment | | | | Average Annual Wage 2020 \$ |
|-----------------------------------------------------------------|--------|---------------------|--------|--------|--------|--------------------------------|
| | | 2021 | 2022 | 2023 | 2024 | |
| Accommodation and food services | 11,342 | 12,078 | 13,479 | 14,254 | 14,815 | 21,255 |
| Arts, entertainment and recreation | 1,597 | 1,781 | 2,075 | 2,205 | 2,299 | 27,449 |
| Retail trade | 14,303 | 15,133 | 15,442 | 15,358 | 15,243 | 35,831 |
| Natural resources and mining | 268 | 282 | 283 | 279 | 277 | 38,084 |
| Other services | 4,259 | 4,479 | 4,671 | 4,794 | 4,893 | 38,198 |
| Real estate and rental and leasing | 2,291 | 2,219 | 2,226 | 2,255 | 2,276 | 55,251 |
| Transportation equipment (Motor Vehicles & Parts) manufacturing | 3,867 | 3,826 | 4,006 | 4,081 | 4,073 | 70,918 |
| Other manufacturing | 12,320 | 12,962 | 13,593 | 13,906 | 13,983 | 71,605 |
| Utilities | 425 | 422 | 425 | 421 | 419 | 154,679 |

Average Real Wage, Michigan and Washtenaw County

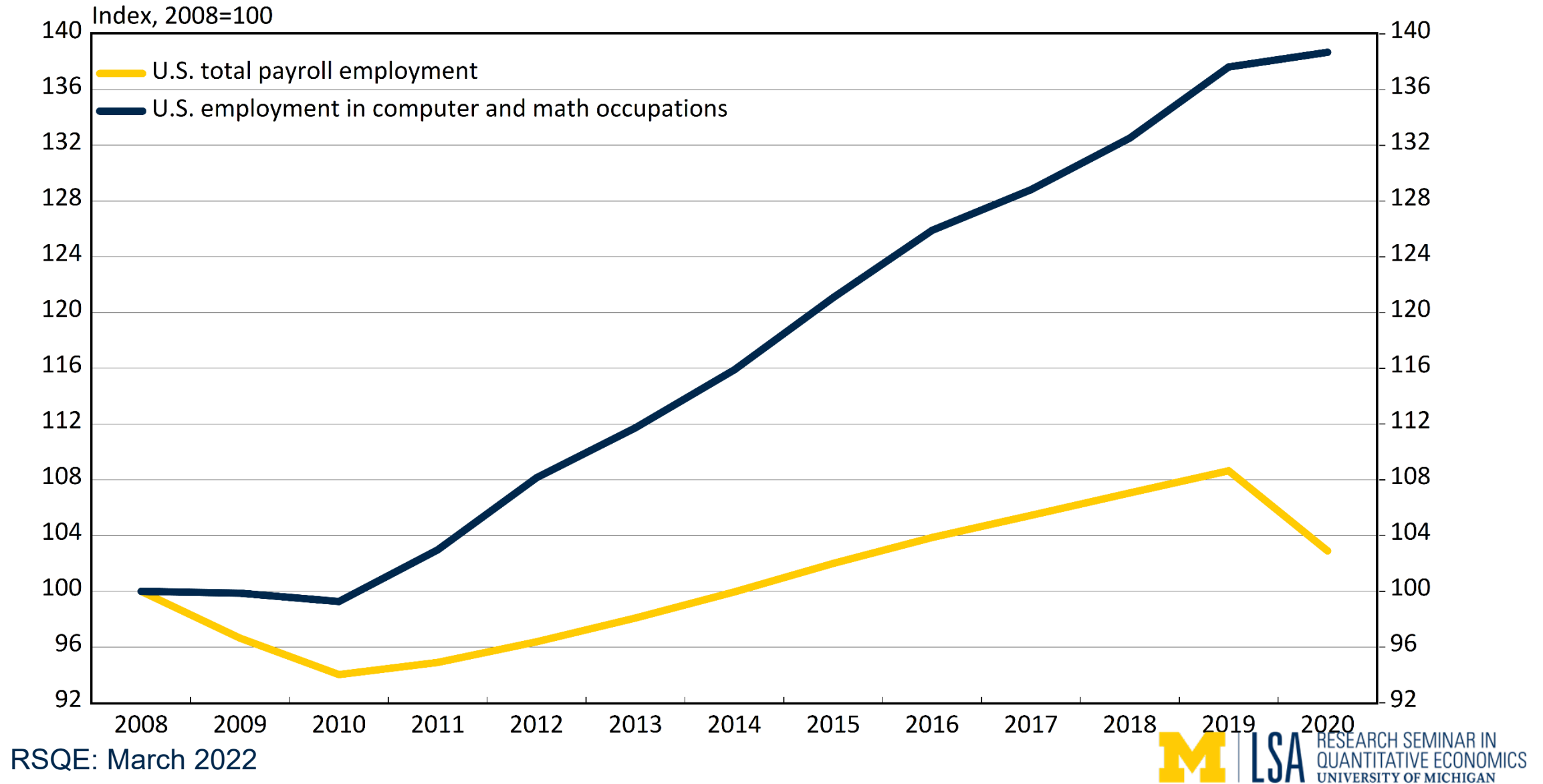


Average Real Wage in Washtenaw County by Selected Industry Group



Ann Arbor's Performance in Computer and Math Occupations

U.S. Employment Total vs. Computer and Math Occupations



Ann Arbor vs. Its Peers

Computer and Math Occupations

| Metropolitan Area | Total Employment | Occupational Employment in Computer & Math | Share of Employment in Computer & Math | Computer & Math 2020 Median Wage (\$) | 2020 Median Wage (\$) |
|-------------------|------------------|--------------------------------------------------|-------------------------------------------------|------------------------------------------------|--------------------------|
| Ann Arbor, MI | 208,320 | 9,090 | 4.4% | 75,919 | 47,695 |
| Austin, TX | 1,054,230 | 71,170 | 6.8% | 86,898 | 43,242 |
| Bloomington, IN | 68,060 | 2,360 | 3.5% | 71,376 | 41,657 |
| Boulder, CO | 181,420 | 15,400 | 8.5% | 96,979 | 53,393 |
| Greenville, SC | 390,860 | 8,530 | 2.2% | 77,541 | 40,286 |
| Madison, WI | 382,410 | 25,530 | 6.7% | 87,619 | 48,654 |
| Minneapolis, MN | 1,848,960 | 85,650 | 4.6% | 90,901 | 48,164 |
| Pittsburgh, PA | 1,068,070 | 36,070 | 3.4% | 83,054 | 45,148 |
| Portland, OR | 1,142,100 | 45,040 | 3.9% | 88,359 | 45,471 |
| Raleigh, NC | 621,270 | 37,150 | 6.0% | 98,219 | 45,472 |
| San Francisco, CA | 2,330,800 | 158,730 | 6.8% | 107,243 | 52,646 |
| <i>Addenda:</i> | | | | | |
| United States | 139,099,570 | 4,587,700 | 3.3% | 91,350 | 41,950 |

Wages are adjusted for local cost of living differences using BEA price parity index and are based on full-time equivalent without bonus or overtime pay.

Q&A Session

Melissa Sheldon

Ann Arbor SPARK
Director of Research





lsa.umich.edu/econ/rsqe

