City of Detroit-University Economic Analysis Partnership

Current State of the U.S. Economy

National Payroll Jobs

Thousands of Payroll Jobs

RSQE: September 2023

RESEARCH SEMINAR IN QUANTITATIVE ECONOMICS
UNIVERSITY OF MICHIGAN

Consumer Price Index

Percent change

Legend:
- CPI, year-over-year
- Core CPI, year-over-year

RSQE: September 2023

RESEARCH SEMINAR IN QUANTITATIVE ECONOMICS
UNIVERSITY OF MICHIGAN
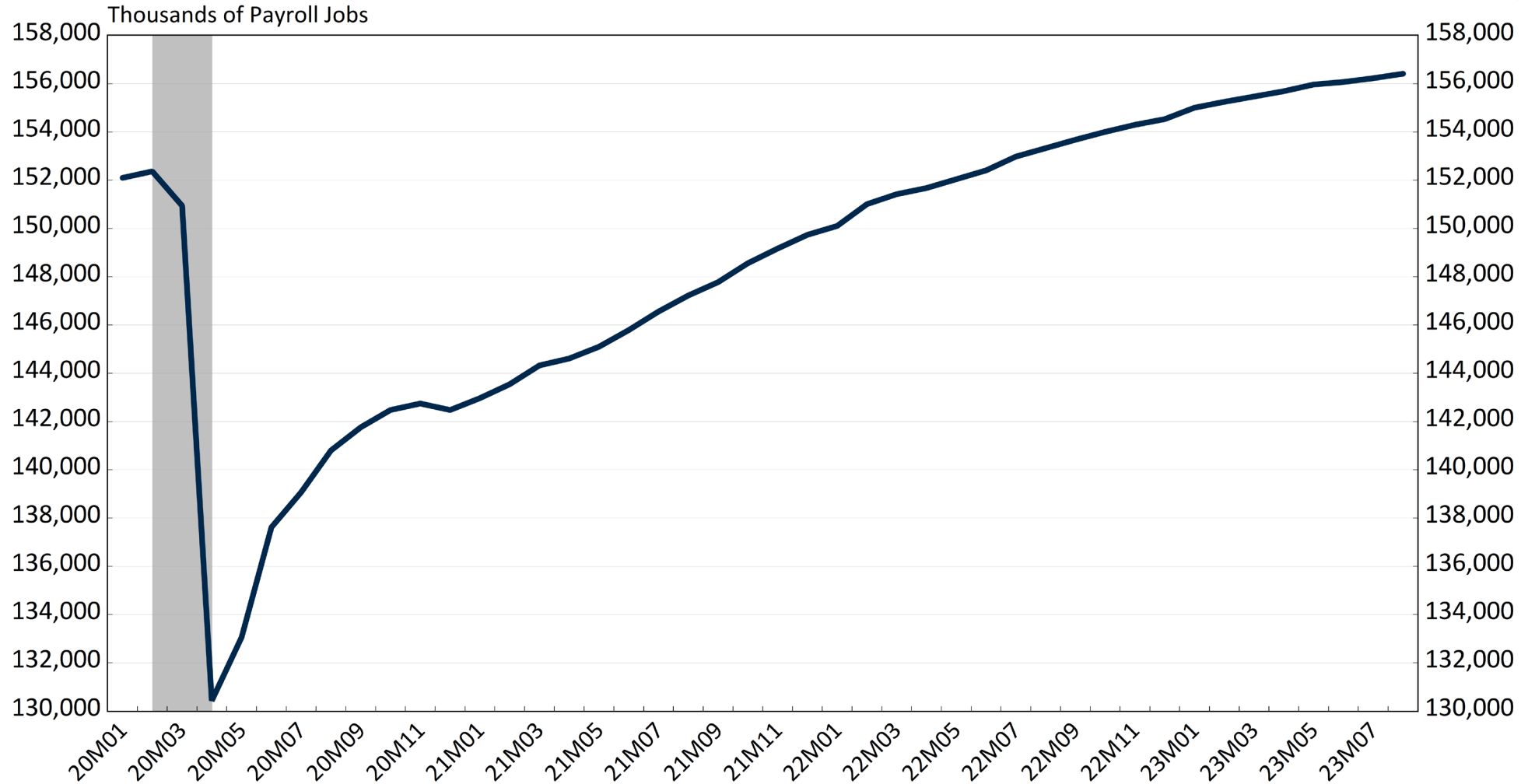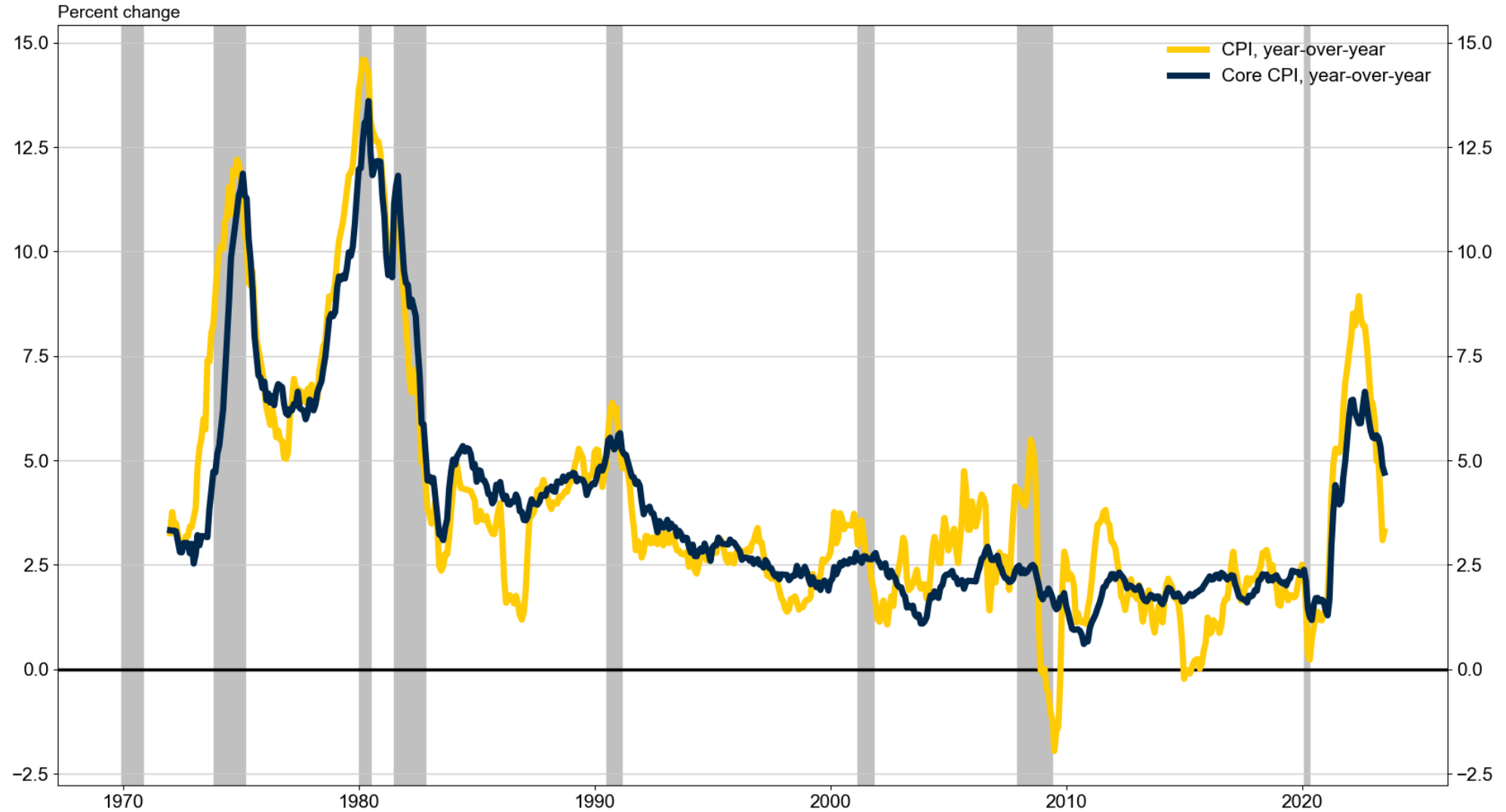
Residential Housing Market Metrics
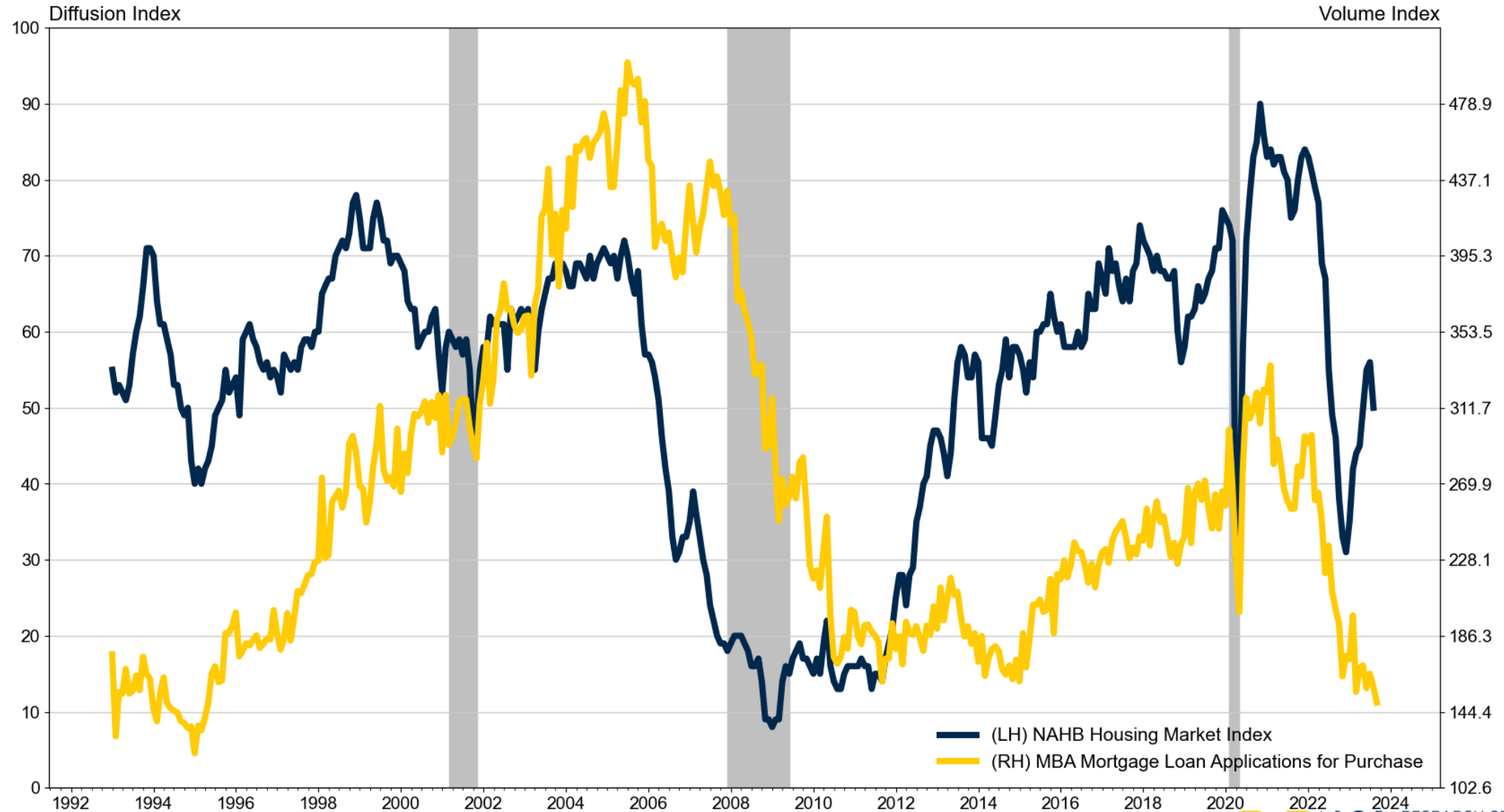
RSQE: September 2023

Domestic Light Vehicle Assemblies

RSQE: September 2023
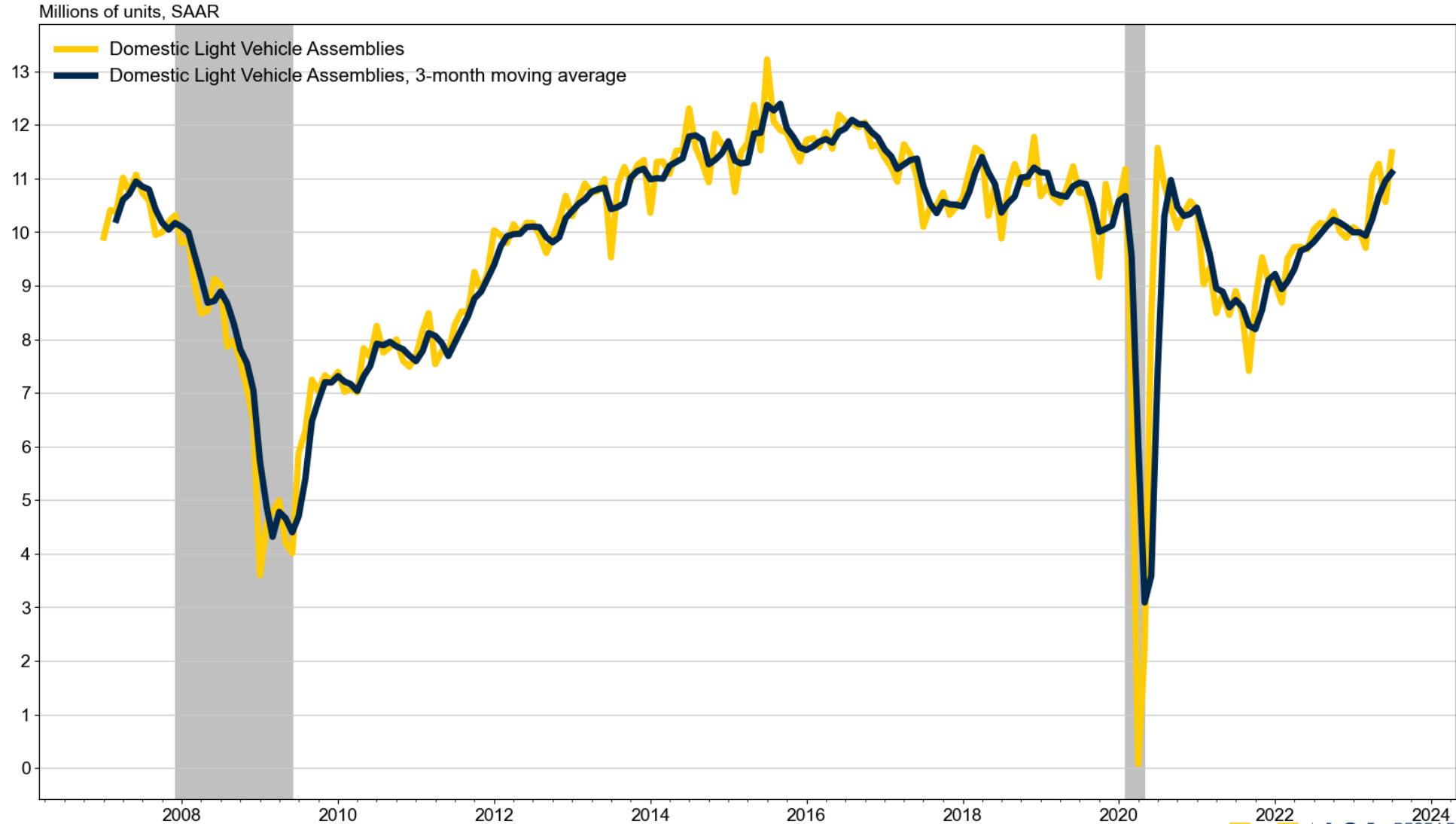
Current State of Detroit's Economy

Seasonally Adjusted Monthly Employment Count, City of Detroit

Employment Count, Thousands, SA

— Detroit Resident Employment
— Detroit Payroll Employment

RSQE seasonally adjusts these series

RSQE: September 2023

RESEARCH SEMINAR IN QUANTITATIVE ECONOMICS
UNIVERSITY OF MICHIGAN
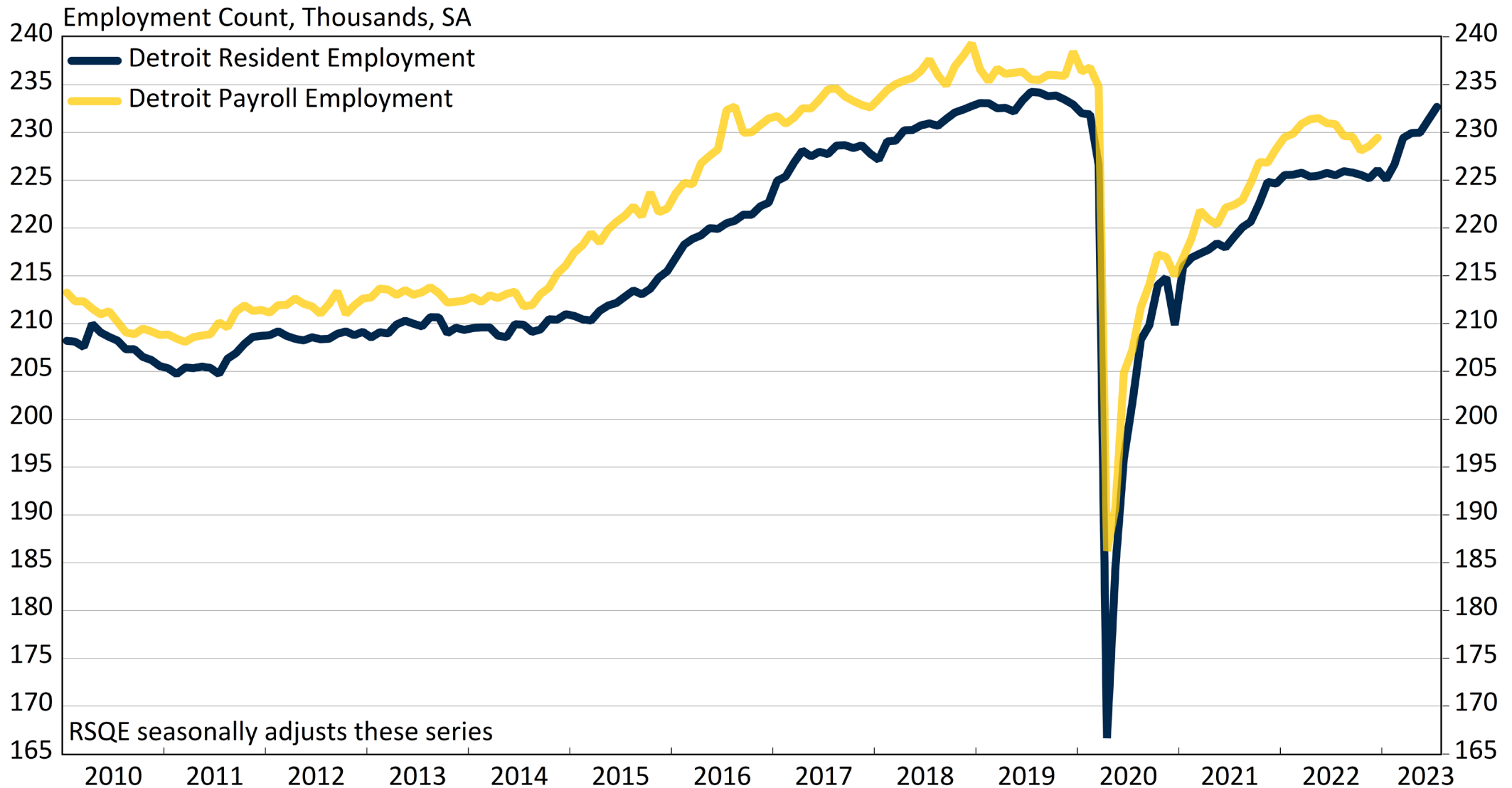
Monthly Unemployment Rate, City of Detroit
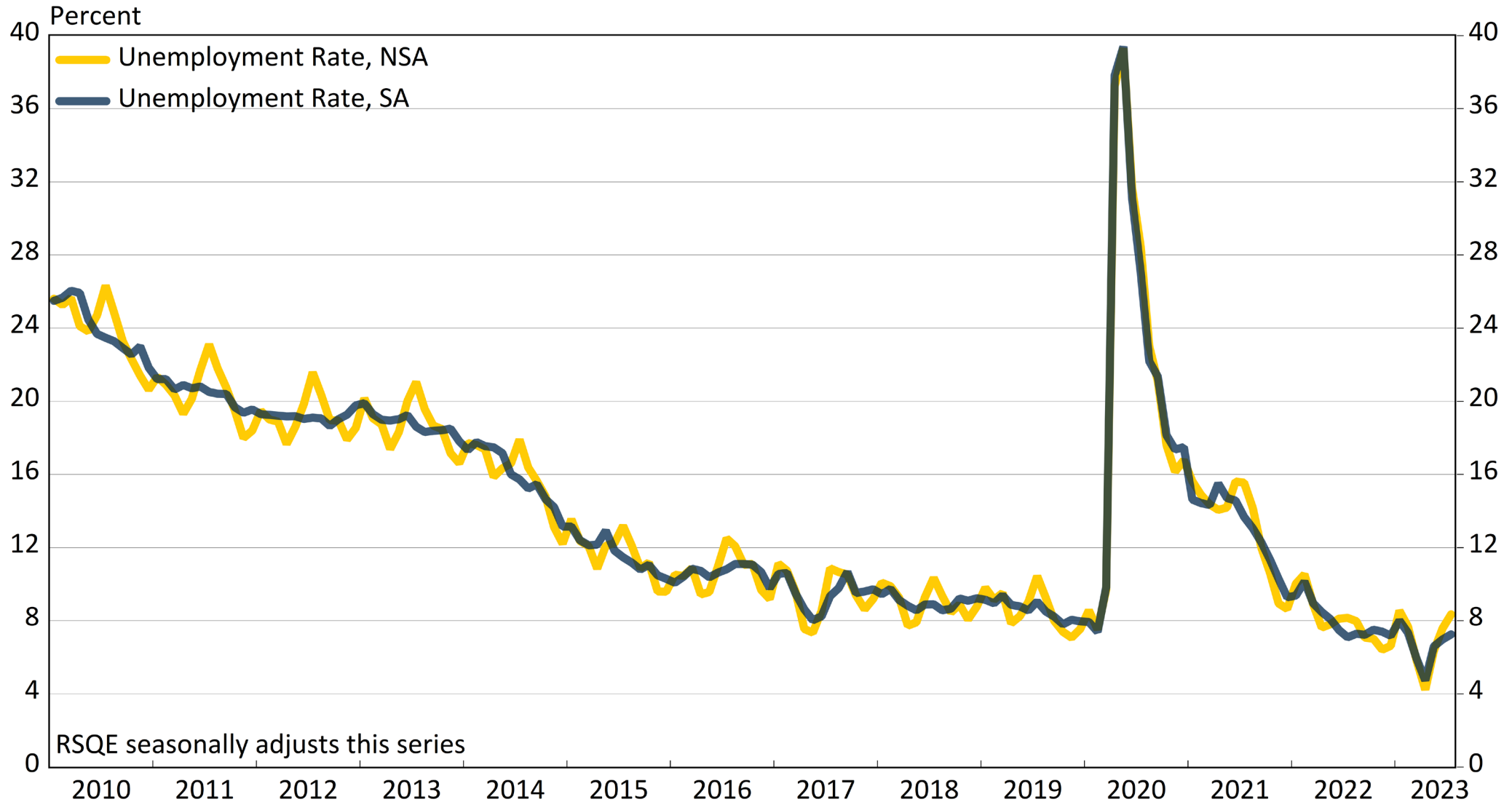
RSQE: September 2023

Nowcast of Detroit Payroll Jobs

Thousands of Payroll Jobs

Detroit Payroll Employment, History

Detroit Payroll Employment, Nowcast

RSQE: September 2023

RESEARCH SEMINAR IN QUANTITATIVE ECONOMICS
UNIVERSITY OF MICHIGAN

The Economic Outlook for Detroit

Seasonally Adjusted Quarterly Average Payroll Employment, City of Detroit and Michigan

Employment Count, Thousands, SA

- Detroit Resident Employment
- Detroit Payroll Employment

Forecast

RSQE: September 2023

RESEARCH SEMINAR IN QUANTITATIVE ECONOMICS
UNIVERSITY OF MICHIGAN
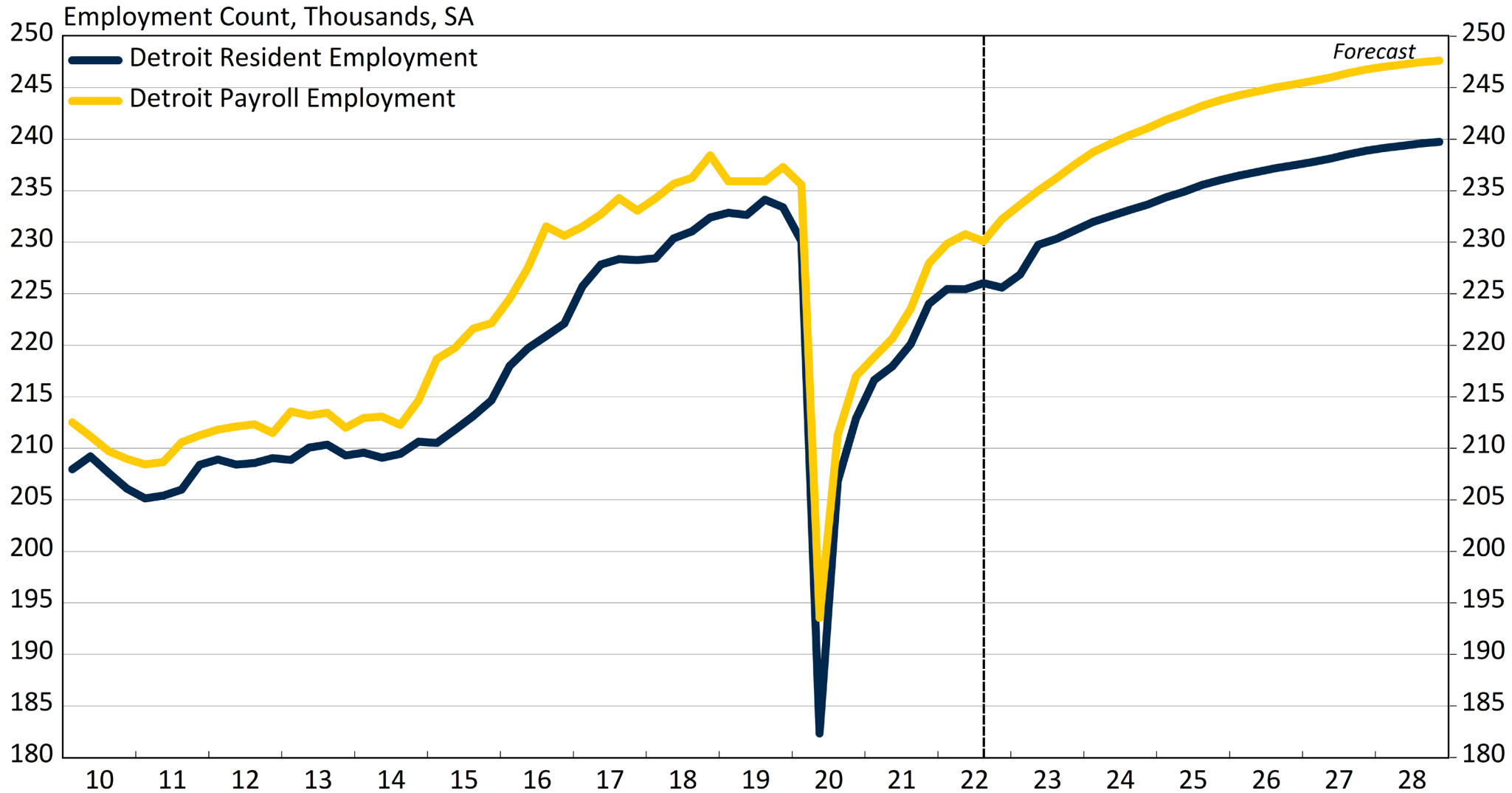
City of Detroit Employment by Industry Group
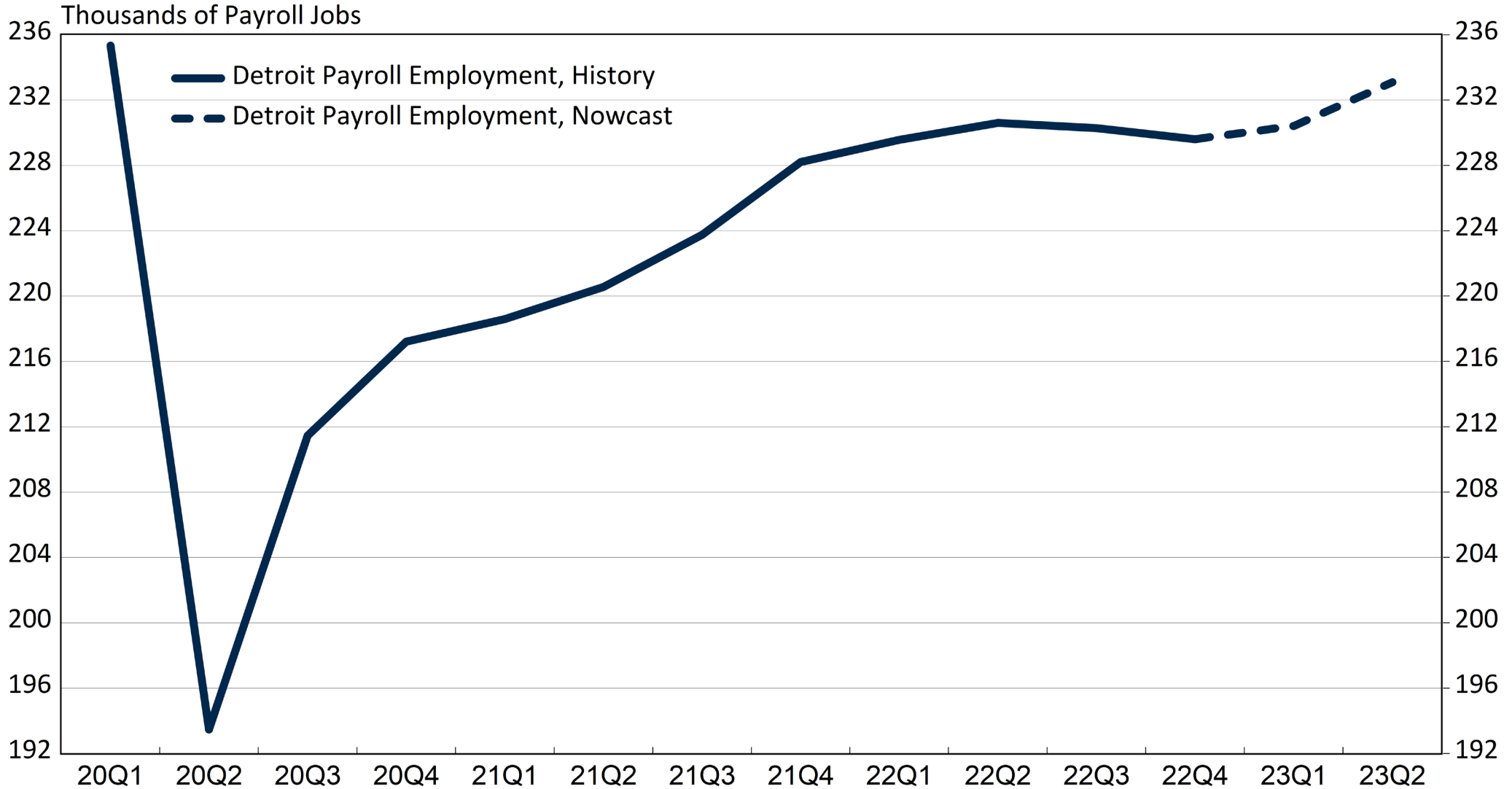
RSQE: September 2023
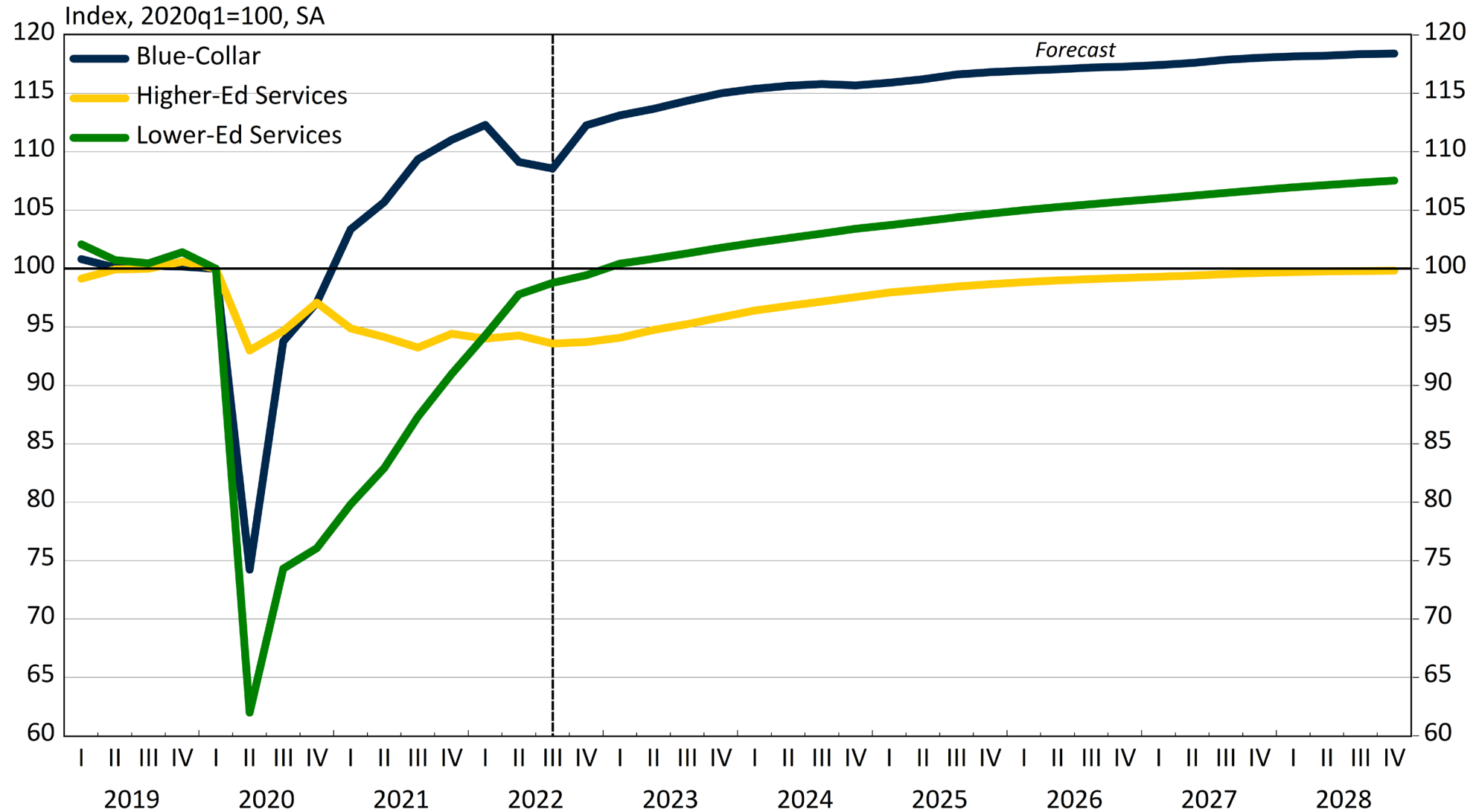
Annual Wage and Salary Income per Worker, City of Detroit and Michigan

RSQE: September 2023
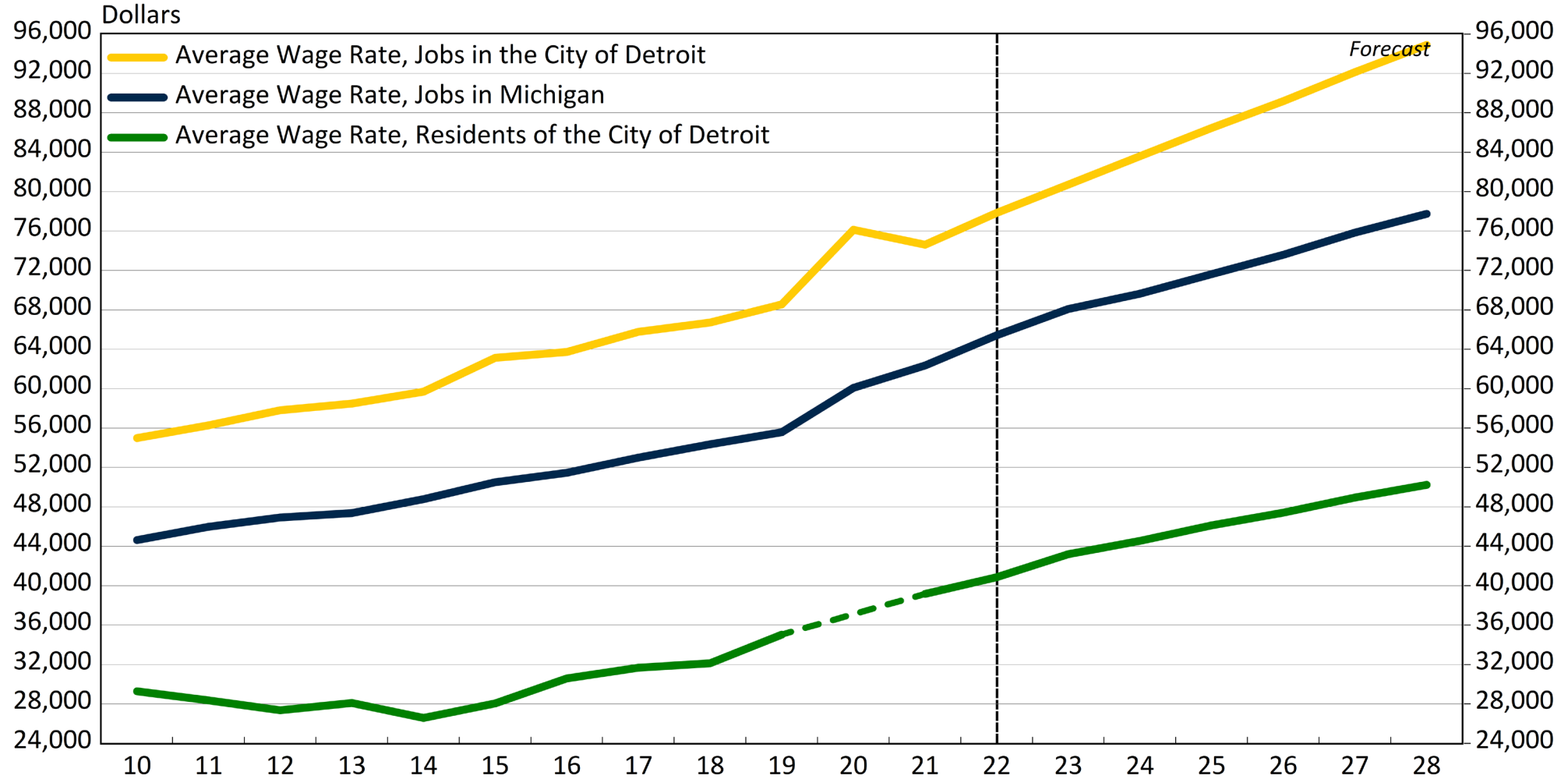
Real and Nominal Income per Capita, City of Detroit

RSQE: September 2023

RESEARCH SEMINAR IN QUANTITATIVE ECONOMICS
UNIVERSITY OF MICHIGAN
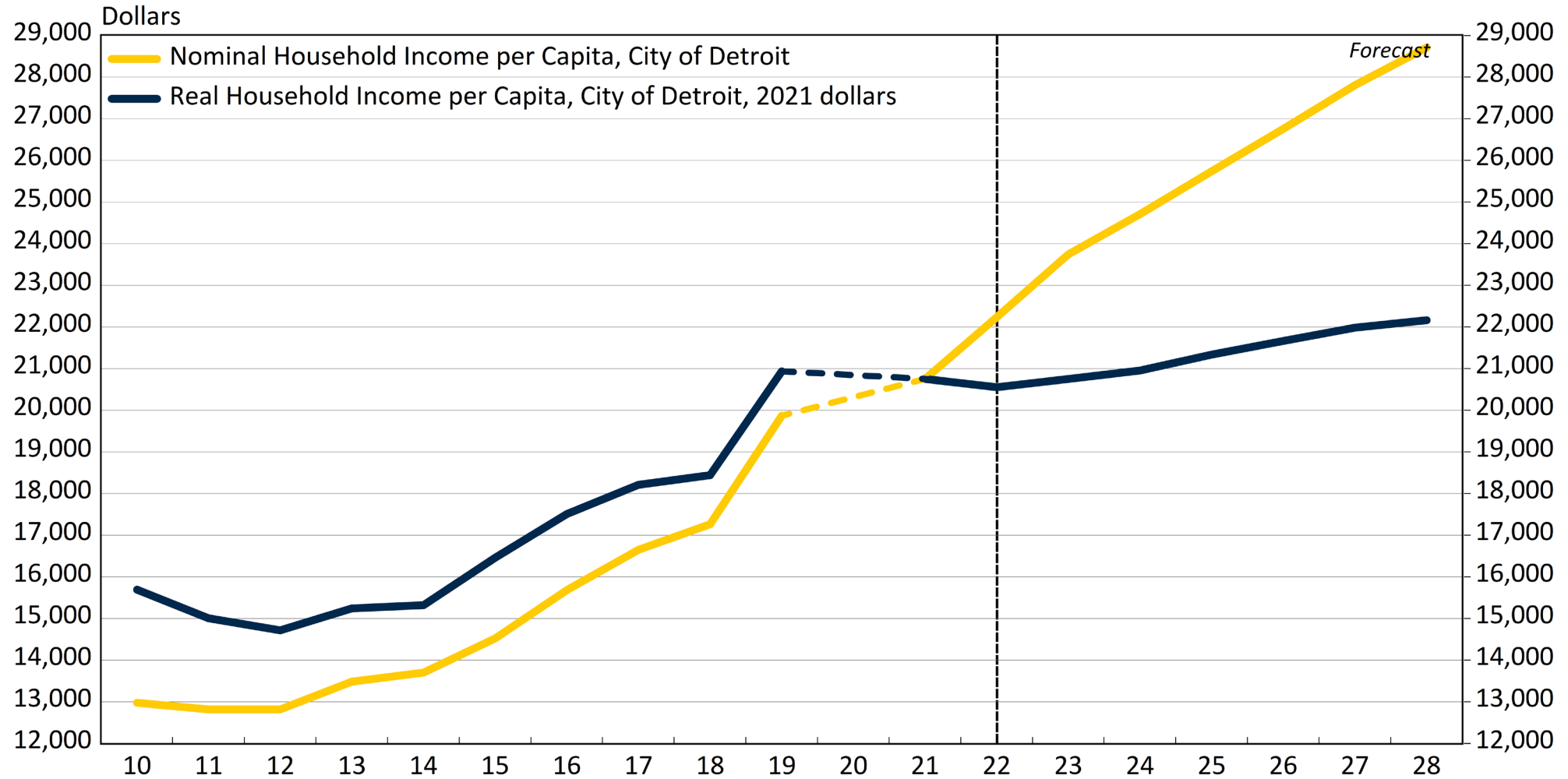
Annual Inflation Rate, Detroit CPI

RSQE: September 2023
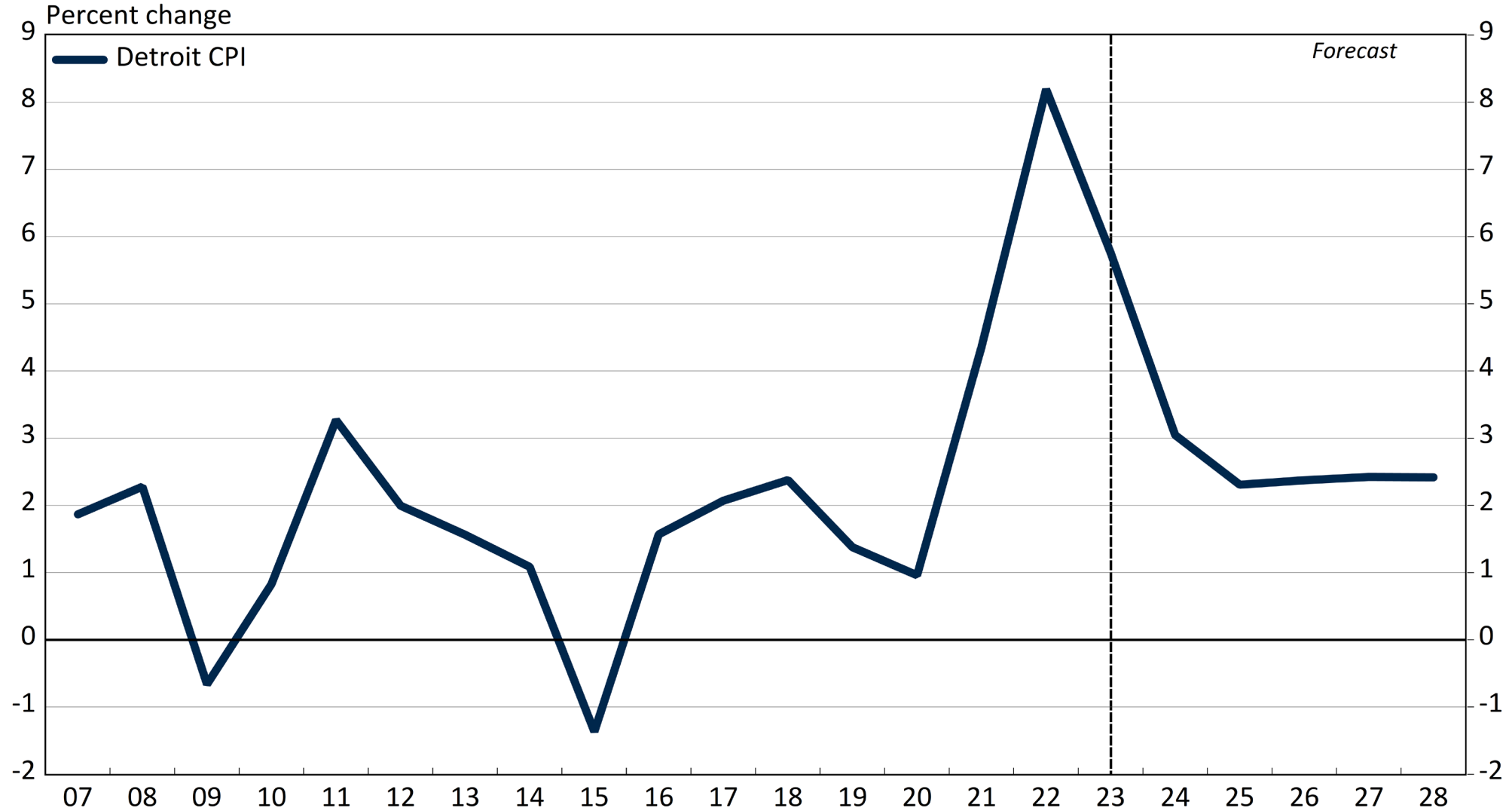
Annual Unemployment Rates,
City of Detroit and Michigan

RSQE: September 2023
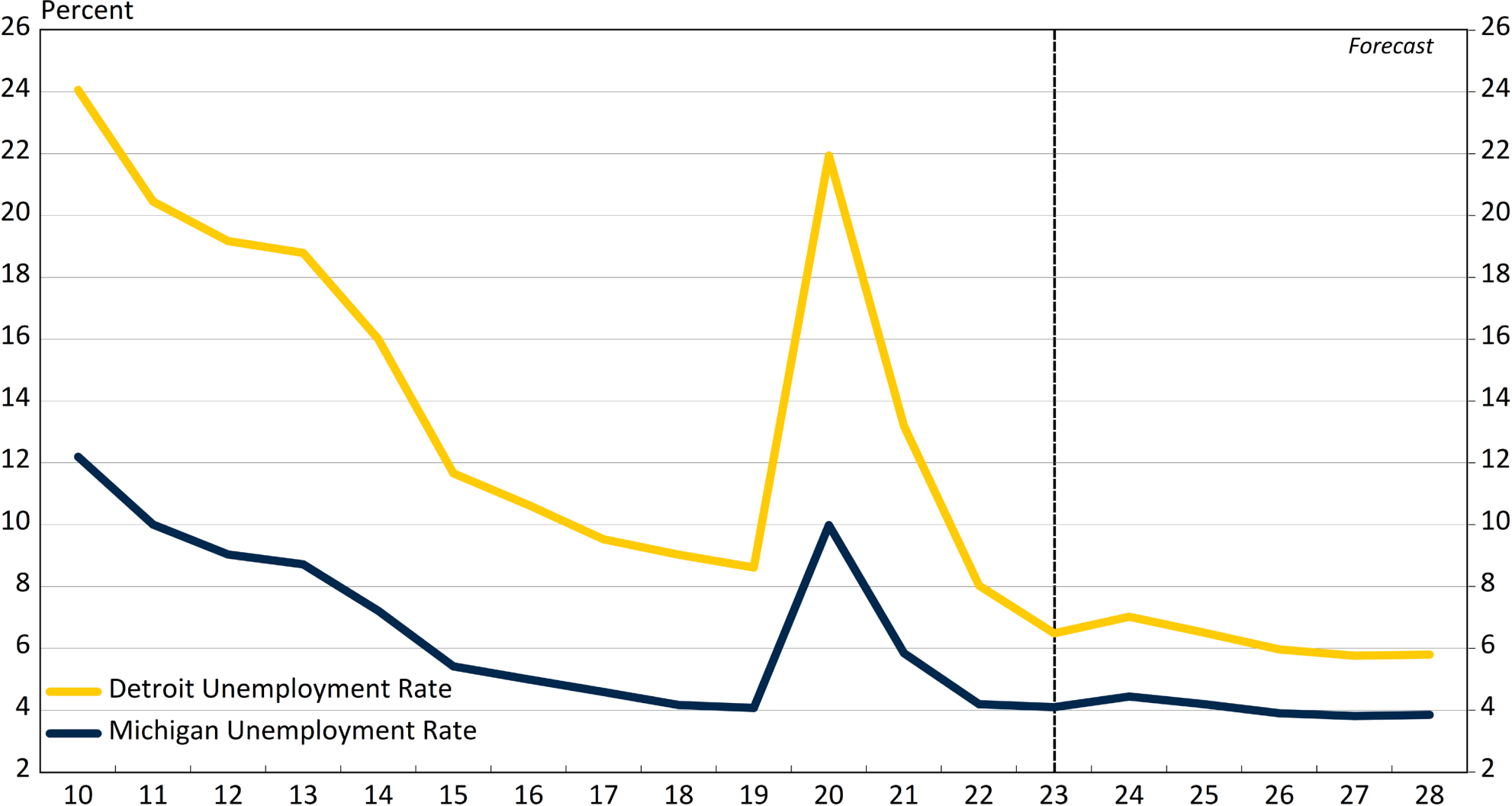
Detroit Living Wage Analysis

Outline of Analysis

➤ Goals of Analysis:

- Identify how many working Detroiters are earning a living wage

- Compare the share of workers earning a living wage to other large Midwestern cities

- Identify factors that help to explain the variation in workers earning a living wage between cities

➤ We use a slight adaptation of the Living Wage Calculator compiled by Dr. Amy Glasmeier at MIT

➤ The Living Wage Calculator creates a basic needs budget based on local market prices for essential spending categories

➤ The basic needs budgets vary based on number of adults, number of working adults and the number of children

RESEARCH SEMINAR IN QUANTITATIVE ECONOMICS
UNIVERSITY OF MICHIGAN
LSA

Share Earning a Living Wage

	All Primary Earners	Full-Time	At Least Half-Time
Detroit	36%	49%	42%
Chicago	60%	72%	65%
Milwaukee	45%	57%	49%
St. Louis	57%	69%	63%
Minneapolis	63%	78%	70%
Cleveland	48%	62%	54%

RESEARCH SEMINAR IN QUANTITATIVE ECONOMICS
UNIVERSITY OF MICHIGAN

Explaining the Gaps Between Cities with KOB Decomposition

- To explain the differences between cities, we use a Kitagawa-Oaxaca-Blinder (KOB) decomposition

  - KOB decomposition is widely used methodology in labor economics and other social sciences

  - Decompose observed differences between groups into a part explained by a set of explanatory variables (e.g. education levels) and an unexplained portion

- E.g., in Chicago, 53 percent of primary earners have a bachelor's degree while in Detroit, only 24 percent do

- Thought experiment: How much of the gap between Detroit and Chicago could be explained if Detroit workers had the educational profile of Chicago workers

RESEARCH SEMINAR IN QUANTITATIVE ECONOMICS
UNIVERSITY OF MICHIGAN

Decomposing the Gap between Detroit and Peer Cities

City	Share Earning Living Wage	Difference Explained by Education	Difference Explained by Occupation	Difference Explained by Industry	Difference Explained by Hours Worked	Difference by All Four Characteristics
Detroit	36%					
Chicago	60%	53%	41%	0%	21%	56%
Milwaukee	45%	12%	25%	1%	15%	30%
St. Louis	57%	48%	33%	-4%	18%	52%
Minneapolis	63%	49%	41%	-3%	9%	51%
Cleveland	48%	10%	11%	-2%	15%	20%
Average	51%	34%	30%	-1%	16%	42%

lsa.umich.edu/econ/rsqe