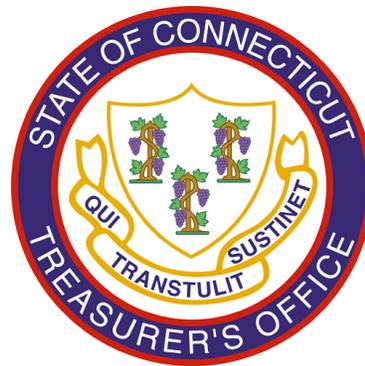


Office of Connecticut State Treasurer Denise L. Nappier



2018 Public Finance Outlook Conference

2018 Public Finance Outlook Conference

OFFICE OF THE STATE TREASURER
2018 PUBLIC FINANCE OUTLOOK
CONFERENCE
MARCH 28, 2018

THE IMPACT OF TAX REFORM ON MUNICIPAL ISSUERS

2018 Public Finance Outlook Conference

PANEL:

Moderator

Vivian Altman

Managing Director and Head of Public Finance
Janney Montgomery Scott LLC, New York, NY

David Panico

Partner and Chair of Public Finance Group
Robinson & Cole LLP, Hartford, CT

Lisa Soeder

Partner and Founder
Soeder & Associates LLC, Hartford, CT

William Thompson Jr.

Partner and Chief Administrative Officer
Siebert Cisneros Shank & Co. LLC, New York, NY

2018 Public Finance Outlook Conference

I. TOPICS:

CHANGES IN LAW

INTERNAL REVENUE CODE

- Prohibition on Advance Refundings
- Elimination of Tax Credit Bonds
- Reduction in Rates
- Alternative Minimum Tax Changes
- Limitation of State and Local Tax Payments
- Increase in Standard Deductions
- Mortgage Interest Limitation

2018 Public Finance Outlook Conference

TOPICS:

CONNECTICUT GENERAL STATUTES

- Maximum Maturity for New Money Bonds Increased To 30 Years
- Maximum Maturity for Refunding Bonds Increased To 30 Years
- Refunding Bonds May Be Secured By Property Tax Lien
- Elimination of Amortization Requirements for Refunding Bonds Without Net PV Savings
- Impact of Refunding Bonds Not Considered For Deficit Obligations
- MARB
- Spending Cap/Volatility Cap/Bond Cap/"Bond Lock"

2018 Public Finance Outlook Conference

II. IMPACT ON MARKET

DEMAND

- Banks, Insurance Companies, Individuals
- Increasing Rates, Yield Curve
- Comparison Against Dividend-Paying Stocks as Investment

NEW MONEY SOLUTIONS

- Variable Rate Bonds
- Shorter Call Provisions/Declining Premiums
- Use of Make-Whole Redemptions
- Bank Loans

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IMPACT ON MARKET

ADVANCE REFUNDING SOLUTIONS

- Current Refundings
- Taxable Advance Refundings
- Tender Offers/Negotiations With Existing Bondholders
- “Cinderella Bonds”
- Forward Deliveries
- Forward Starting Swaps/Rate Locks
- Sale of Optional Redemption Right

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III. IMPACT ON ISSUERS/NOT-FOR-PROFITS

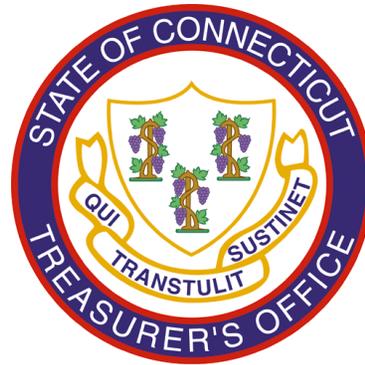
ISSUERS

- Rates
- Declining Home Values/Residential Tax Base
- Higher Vacancy Rates
- Reduced Discretionary State Spending

NOT-FOR-PROFITS

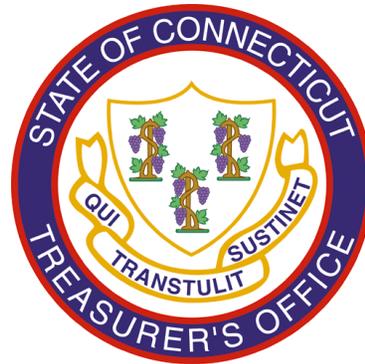
- Reduced Tax Driven Donor Contributions
- Reduced Discretionary State Spending

Office of Connecticut State Treasurer Denise L. Nappier



2018 Public Finance Outlook Conference

Short-Term Investment Fund
23rd Annual Investors Meeting
March 28, 2018



Michael M. Terry, CFA
Principal Investment Officer
Cash Management Division

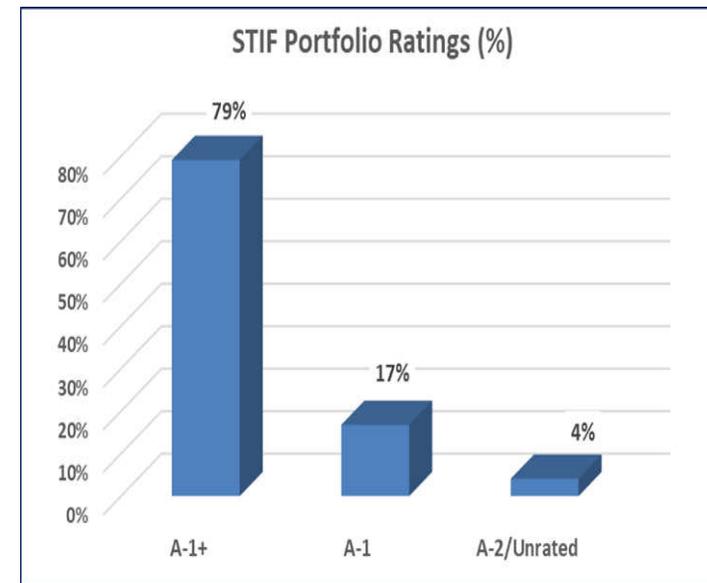
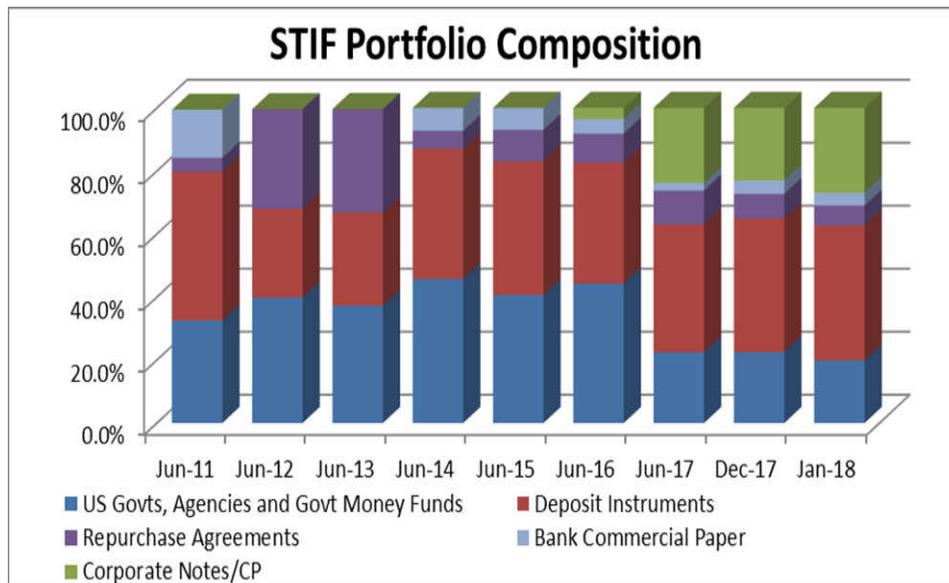
Primary Objectives

STIF's mandate is to provide:

- Safety
- Liquidity
- Yield

Short-Term Investment Fund – Safety

Conservative Portfolio Composition



A-1+ amount includes repurchase agreements

- The STIF portfolio remains conservative with a focus on government/agency, bank and highly rated corporate issuers.
- A-1 and A-2 rated investments average a 1 day maturity and all A-2 and unrated investments are backed by letters of credit from a Federal Home Loan Bank.

Short-Term Investment Fund – Safety

Conservative Portfolio Composition

STIF Top Ten Holdings		
Issuer	Ratings	Percent of Total Portfolio
Federal Farm Credit	Aaa/AA+ (P-1/A-1+)	8.0%
Federal Home Loan Bank	Aaa/AA+ (P-1/A-1+)	7.5%
Royal Bank of Canada	A1/AA- (P-1/A-1+)	6.2%
Nordea Bank	Aa3/AA- (P-1/A-1+)	4.5%
US Bank	A1/AA- (P-1/A-1+)	4.2%
Toronto-Dominion Bank	Aa2/AA- (P-1/A-1+)	3.8%
Scotia Bank	A1/A+ (P-1/A-1)	3.8%
Bank of Tokyo-Mitsubishi UFJ Ltc	A1/A (P-1/A-1)	3.8%
Natl. Securities Clearing Corp	Aaa/AA+ (P-1/A-1+)	3.8%
Coca-Cola Co	Aa3/AA- (P-1/A-1+)	<u>3.8%</u>
		49.2%

As of January 31, 2018

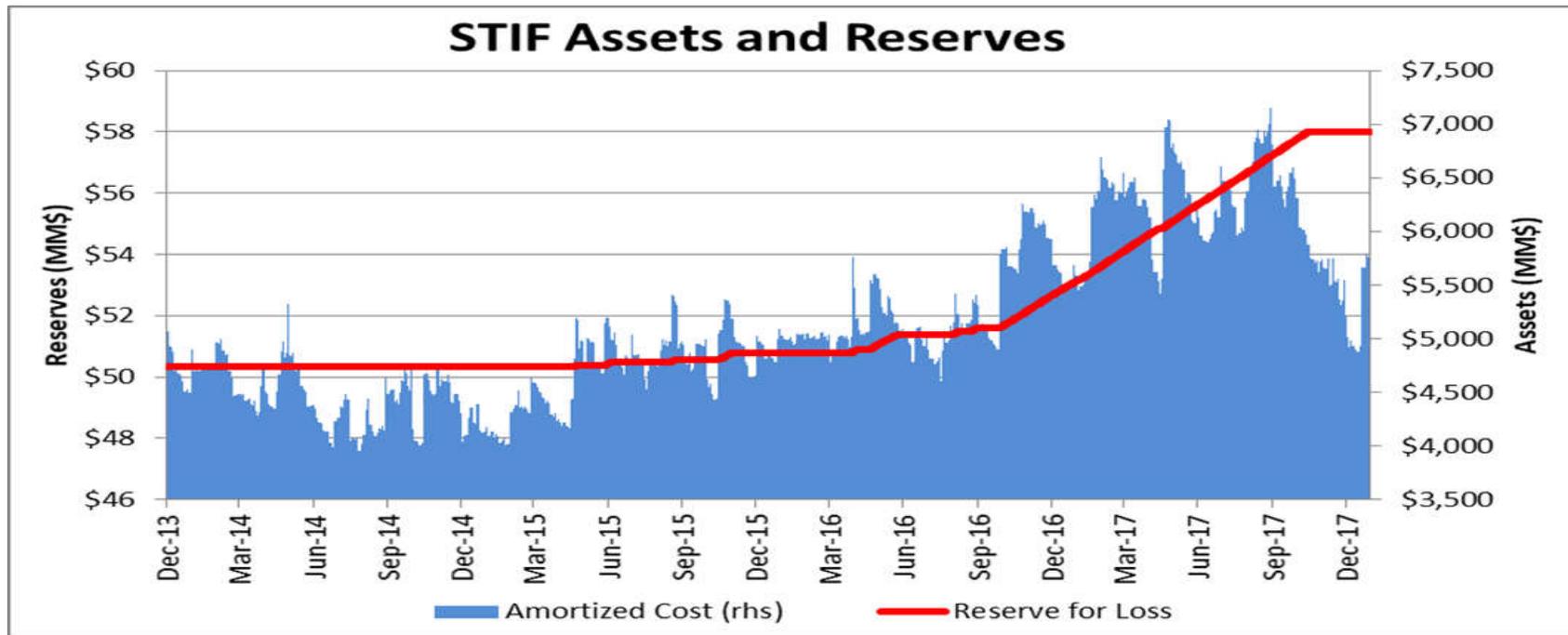
Ratings: Moody's/S&P

RBC includes deposits and corporate/CP (\$145mm) and Repo (\$200mm)

- STIF has been actively diversifying the portfolio across markets while only investing in the strongest issuers.

Short-Term Investment Fund – Safety

Designated Surplus Reserve



Contributions to reserves:

- \$4.7 million during Fiscal 2017
- \$2.3 million Fiscal 2018 to date (1/31/18)
- \$4.8 million over the last 12 months (2/1/17 – 1/31/18)

Short-Term Investment Fund – Safety

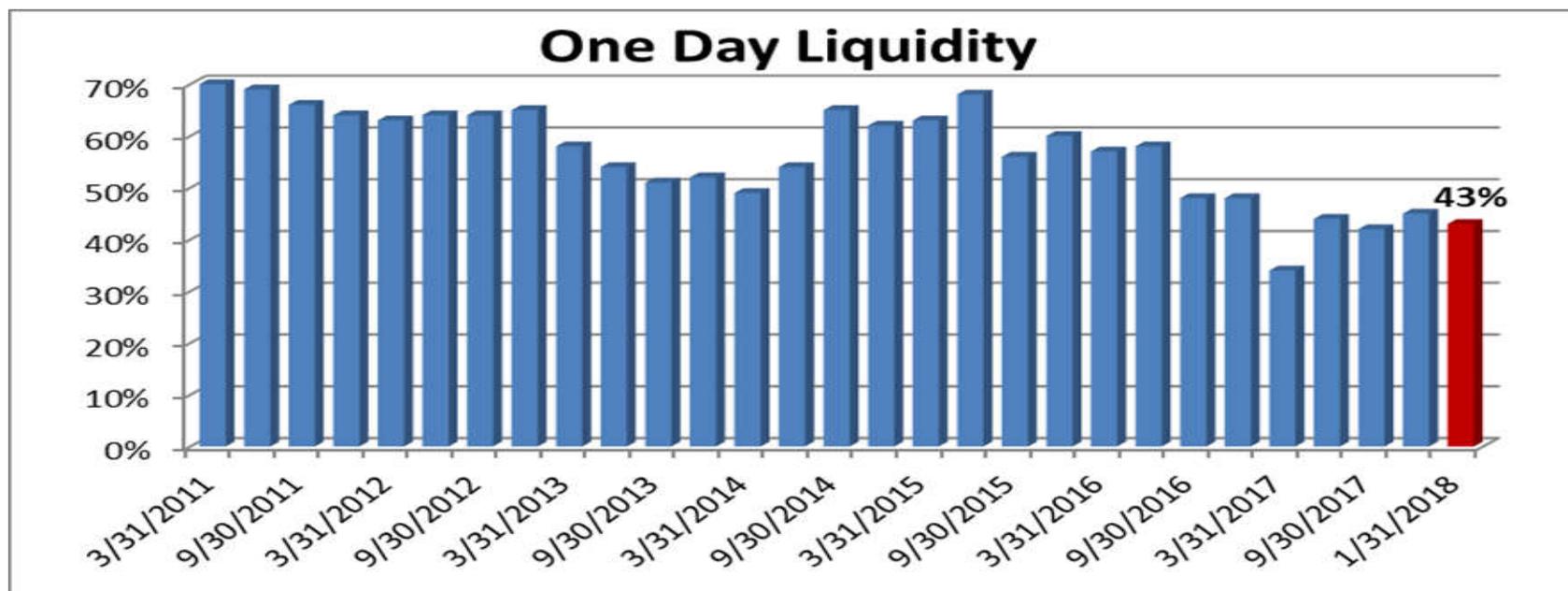
Stress Test

PORTFOLIO SENSITIVITY MATRIX (Price due to interest rate and credit spread movement)					
Valuation Date:		2/22/2018			
Current NAV		0.9999			
Credit Spread Increase	20 bps	50 bps	60 bps	75 bps	100 bps
Rate Increase = 0	0.9998	0.9997	0.9997	0.9996	0.9995
50 bps	0.9997	0.9996	0.9996	0.9995	0.9994
75 bps	0.9997	0.9995	0.9995	0.9995	0.9994
100 bps	0.9996	0.9995	0.9995	0.9994	0.9993
150 bps	0.9995	0.9994	0.9994	0.9993	0.9992
200 bps	0.9994	0.9993	0.9993	0.9992	0.9991

- STIF's portfolio is tested under various interest rate scenarios, changes in risk premiums and investor redemptions.
- The portfolio consistently proves resilient to changes.

Short-Term Investment Fund – Liquidity

Significant Liquidity

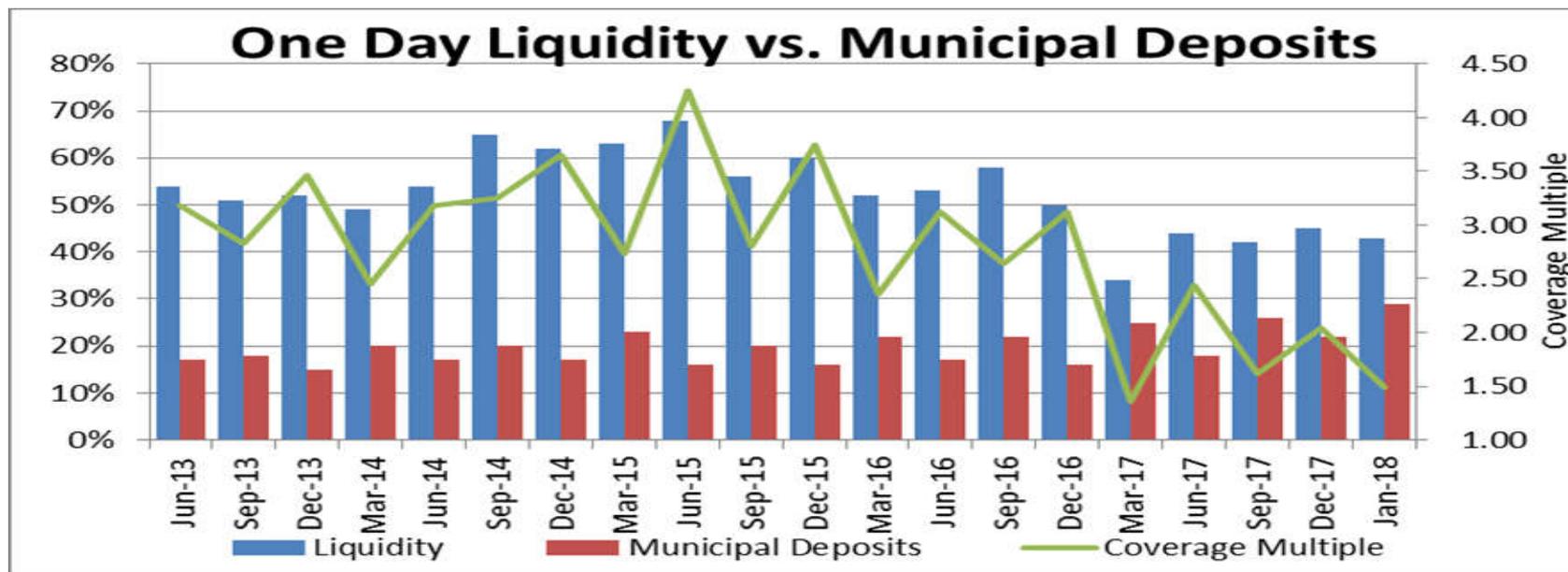


Overnight Investments or investments that are available on a same-day or next-day basis.

- As of January 31, 2018, one-day liquidity stood at 43 percent of the portfolio.

Short-Term Investment Fund – Liquidity

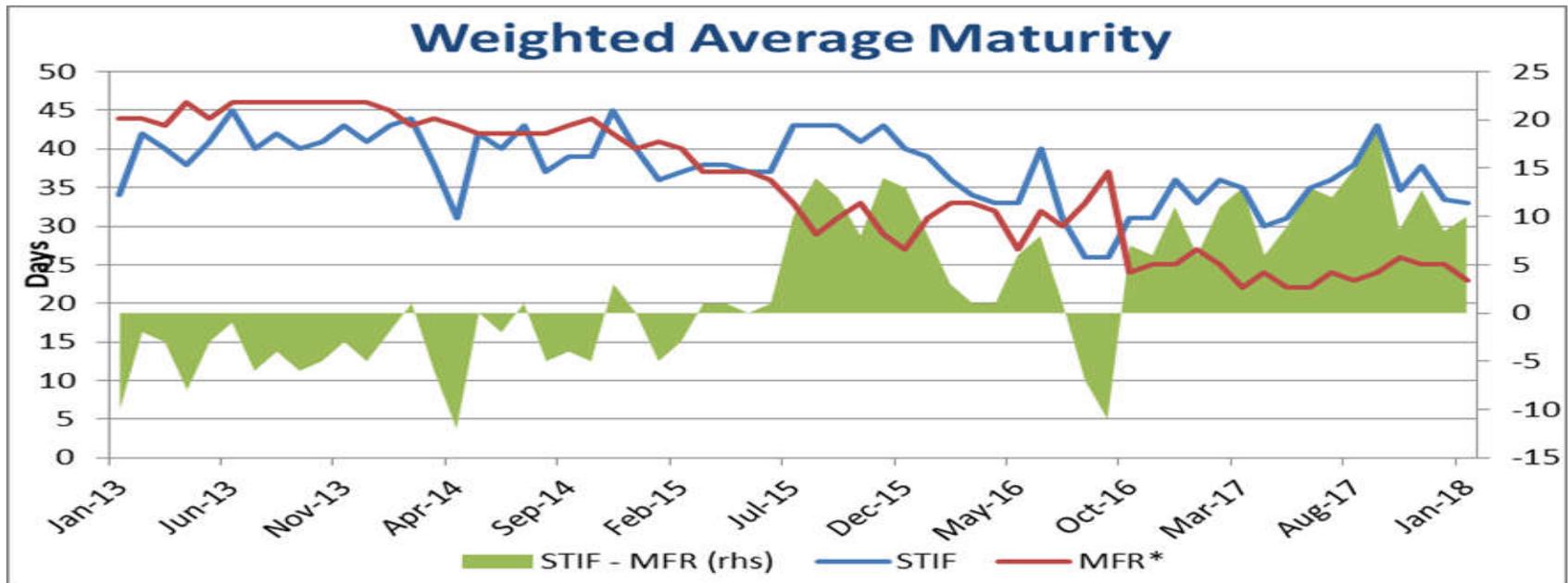
Investor Composition



- The State Treasury continues to be the single largest investor in STIF.
- Local governments, with approximately \$1.9 billion in deposits in STIF, represented 29% of the fund as of January 31, 2018.
- One day liquidity was approximately 1.5x municipal deposits.

Short-Term Investment Fund – Liquidity

Weighted Average Maturity

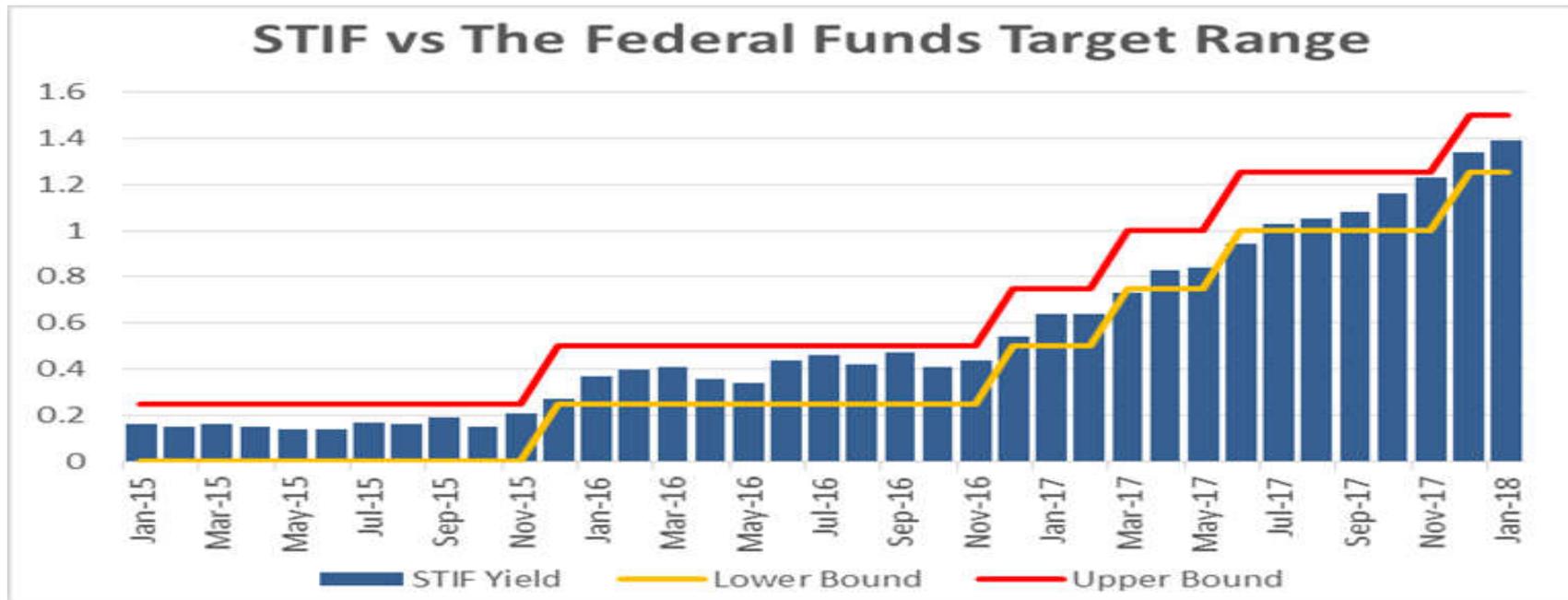


- IMoneyNet's First Tier Institutions-Only AAA-Rated Money Fund Report (MFR) Averages Index.
- Weighted average maturity to the next reset date.

➤ STIF's WAM, at 34 days, remains conservative and well below its guidelines and AAAM fund requirements.

Short-Term Investment Fund - Yield

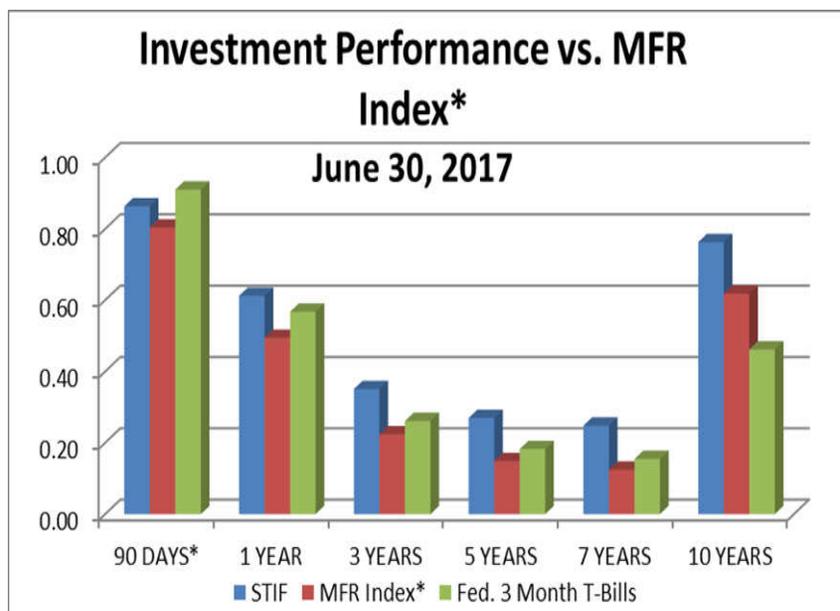
Recent Performance



- STIF has kept pace with the increases to the Federal Funds Rate.

Short-Term Investment Fund – Performance

Period ending June 30, 2017



* IMoneyNet's First Tier Institutions-Only AAA-Rated Money Fund Report (MFR) Averages Index.

- During FY 2017, STIF outperformed our benchmark by 12 bps.
- Returned an additional \$6.3 million to investors above the benchmark.
- During the Nappier administration, STIF has provided investors with over \$208 million in additional income.

Short-Term Investment Fund

Recent Performance

- For Calendar Year 2017, outperformed benchmark by 10 bps (0.96% vs. 0.86%), thereby earning an additional \$5.8 million for investors.
- Fiscal year-to-date (1/31/2018), the average rate on STIF was 14 basis points higher than the average rate on the benchmark (1.19% vs 1.05%), thereby earning an additional \$4.4 million for investors.

Market Report

Overview

- Short-term rates continue to increase due to the increase in Federal Funds as well as the increase in LIBOR.
- The increases in short-term rates are expected to continue at a measured and gradual pace.
- The risk to interest rate forecasts is a pick-up in both wage inflation as well as inflationary pressures in the price of raw materials and finished goods due to trade policy.

Market Report

Federal Funds

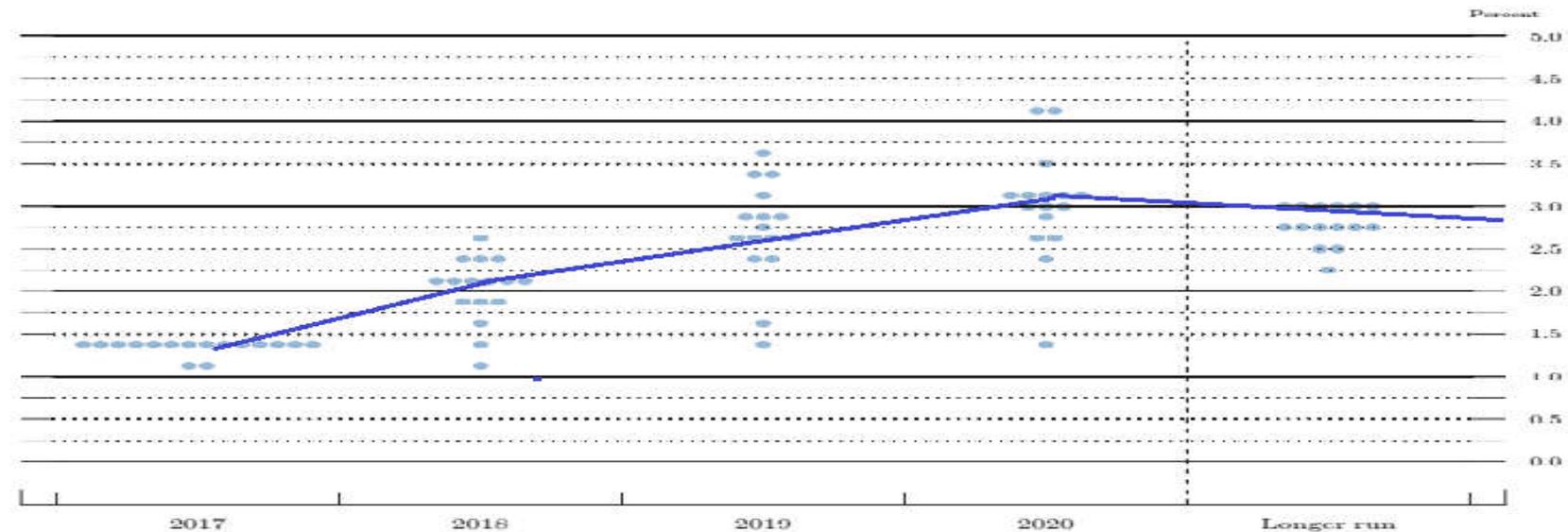
Current Implied Probabilities							
FOMC Meeting Date	Prob of Hike	1.75 - 2.00	2.00 - 2.25	2.25 - 2.50	2.50 - 2.75	2.75 - 3.00	3.00 - 3.25
5/2/2018	27.80%	27.80%	0.00%	0.00%	0.00%	0.00%	0.00%
6/16/2018	78.50%	59.00%	19.50%	0.00%	0.00%	0.00%	0.00%
8/1/2018	79.90%	56.70%	22.00%	1.20%	0.00%	0.00%	0.00%
9/26/2018	91.10%	36.30%	41.30%	12.80%	0.70%	0.00%	0.00%
11/8/2018	33.30%	40.80%	15.90%	2.00%	0.10%	0.00%	0.00%
12/19/2018	95.00%	23.90%	38.00%	25.10%	7.20%	0.80%	0.00%
1/30/2019	95.50%	22.40%	36.90%	26.20%	8.60%	1.30%	0.10%

Source: Bloomberg

- Based on futures implied probabilities, there is a greater than even chance that the FOMC increases rates again in June and September of 2018. A December rate hike is also expected despite not be factored into the futures market currently.

Market Report

Federal Funds

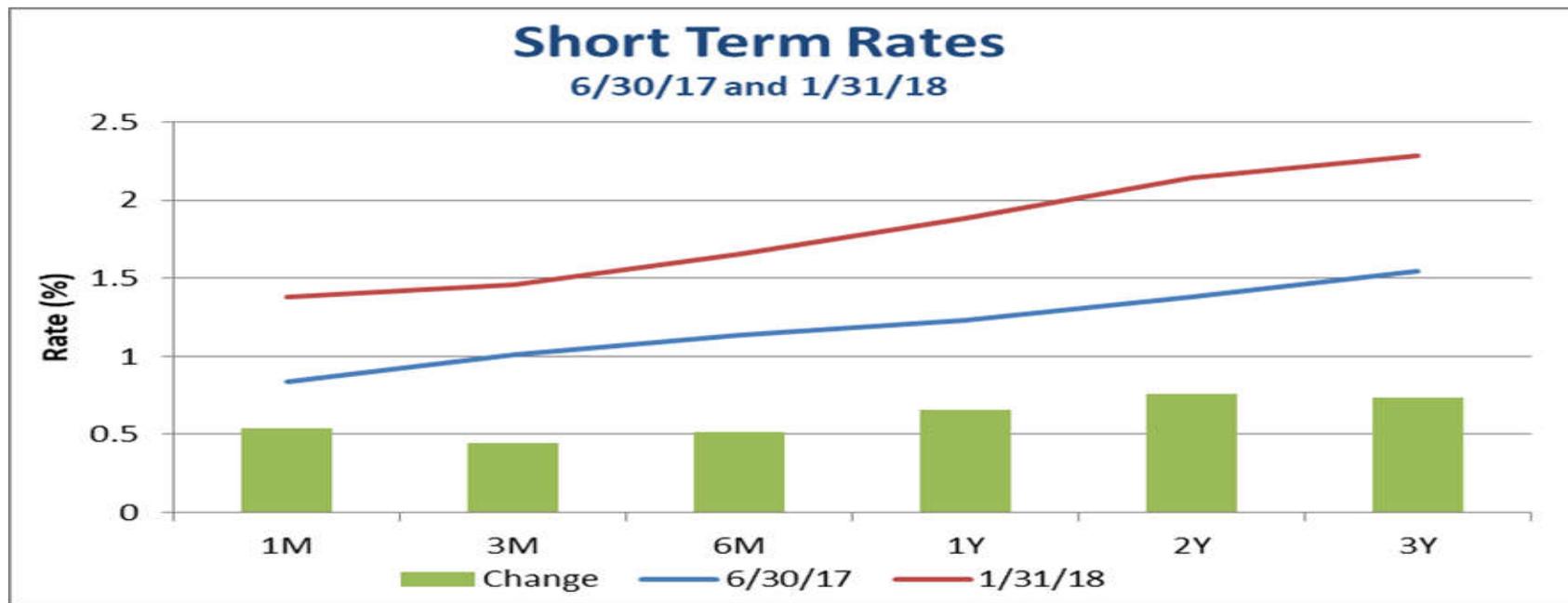


Variable	Median ¹					Central tendency ²					Range ³					
	2017	2018	2019	2020	Longer run	2017	2018	2019	2020	Longer run	2017	2018	2019	2020	Longer run	
Memo: Projected appropriate policy path			2018 - Three hikes													
Federal funds rate	1.4	2.1	2.7	3.1	2.8	1.4	1.9-2.4	2.4-3.1	2.6-3.1	2.8-3.0	1.1-1.4	1.1-2.6	1.4-3.5	1.4-4.1	2.3-3.0	
September projection	1.4	2.1	2.7	2.9	2.8	1.1-1.4	1.9-2.4	2.4-3.1	2.5-3.5	2.5-3.0	1.1-1.6	1.1-2.6	1.1-3.4	1.1-3.9	2.3-3.5	

- The forecast by the FOMC has not changed, but notice the upward shift in the central tendency.

Market Report

Short-Term Yield Curve



Source: Bloomberg

- Interest rates have increased due to stronger economic data, potential inflation and the response of monetary policy to these factors.

Going Forward

- Short-term rates are expected to continue to increase at a gradual pace.
- With fewer buyers in the short-term credit space, there will continue to be opportunities to add highly rated corporate issuers in order to enhance yield.
- Breakeven rates between fixed rate and floating rate securities must factor in outlier events and be monitored closely when investing.

Thank you!

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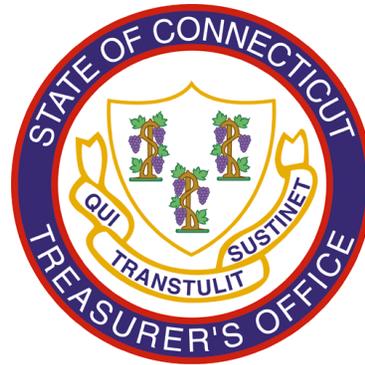
Investment Transactions

1-800-754-8430

STIF Express Online Account Access

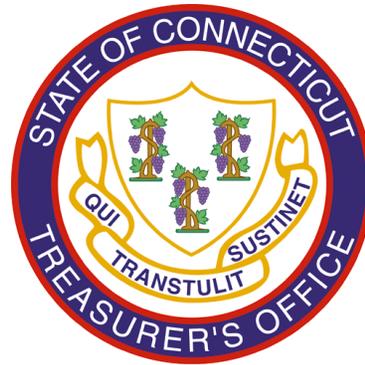
www.state.ct.us/ott/STIFHome.htm

Office of Connecticut State Treasurer Denise L. Nappier



2018 Public Finance Outlook Conference

Municipal Employees' Retirement Fund Investment Overview



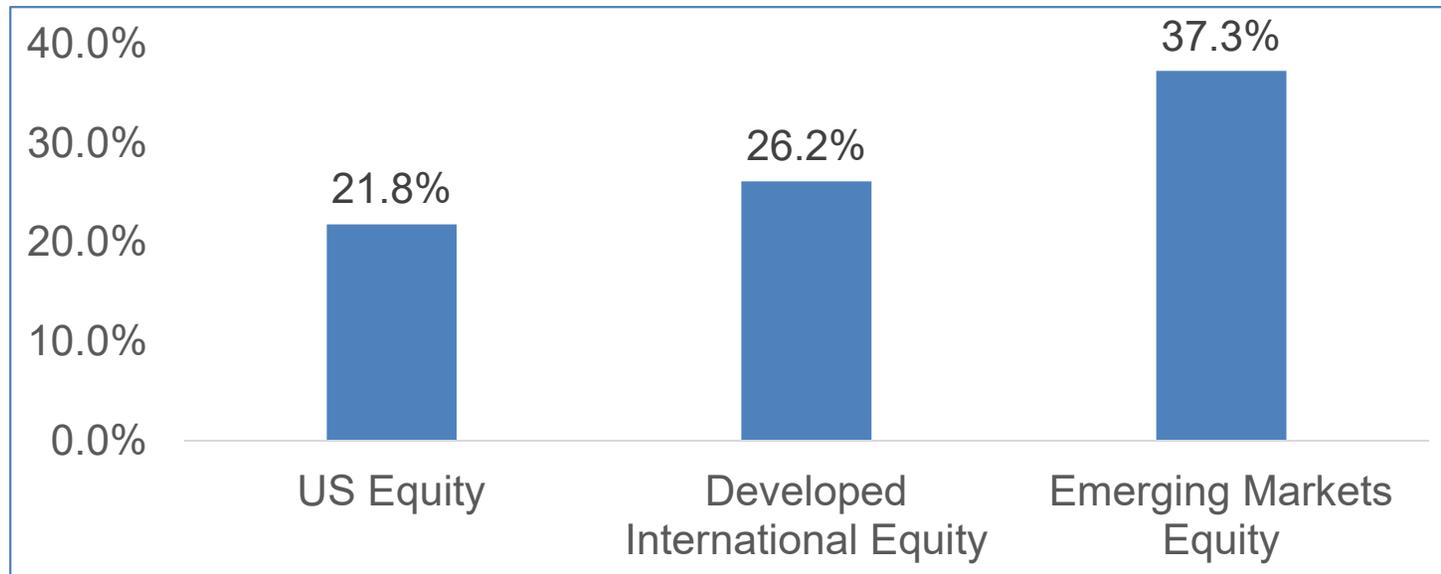
Laurie Martin, CPA
Interim Chief Investment Officer

Agenda

- 2017 Market Overview
- Municipal Employees' Retirement Fund (“MERF”) Performance Update
 - ❖ Calendar year 2017 results
- Liability Profile of MERF

Market Overview

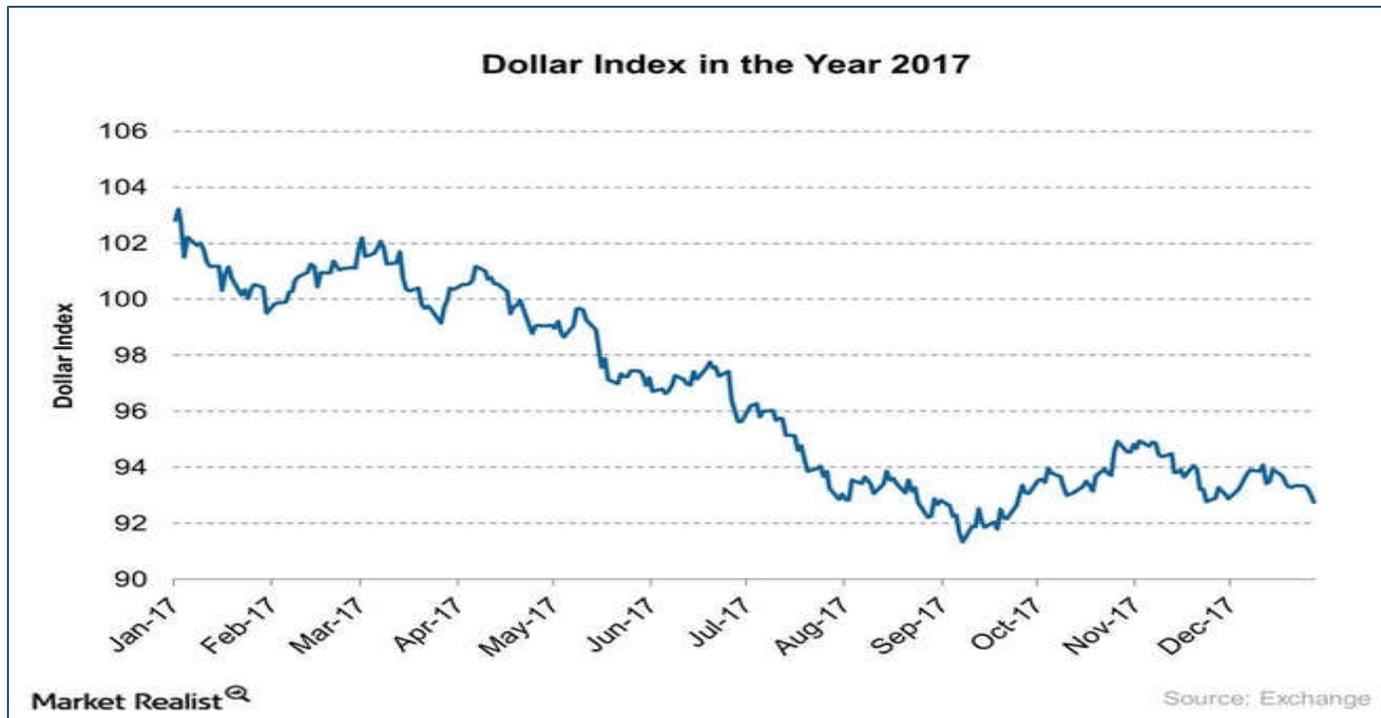
Global Equity Returns Drove Performance



- Global equity returns were the key drivers of performance for 2017
 - Strong returns were primarily due to positive sentiment regarding global growth combined with strong earnings and continued central bank support
 - US Equity indices posted positive returns every month and
 - The Tax Cuts and Jobs Act was passed in December

Market Overview

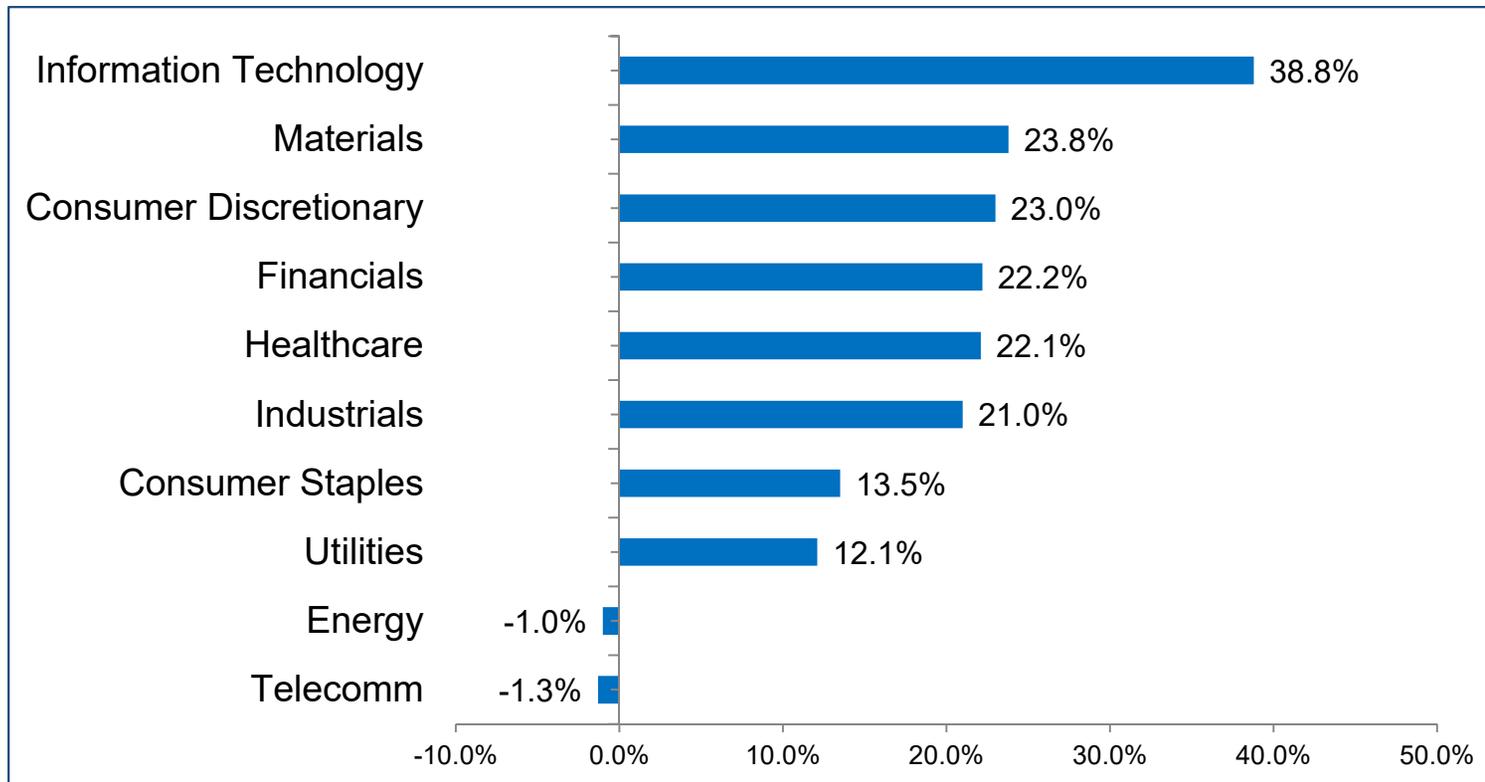
US Dollar Weakened



- Opposite to last year, the US Dollar weakened in 2017, which drove outperformance in Emerging Markets Equity and Developed International Equity

Market Overview

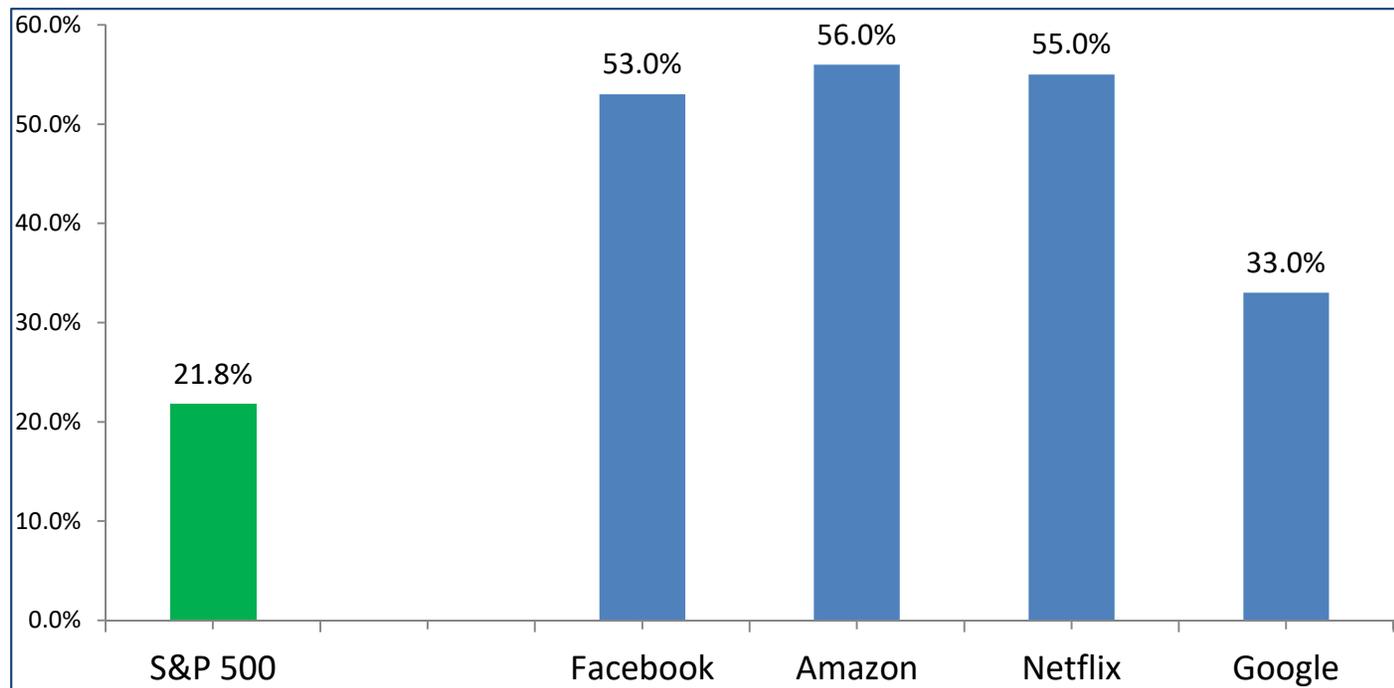
Majority of sectors performed very well



- Information technology and materials relative to aerospace and defense were the best performers but all sectors gained during the year

Market Overview

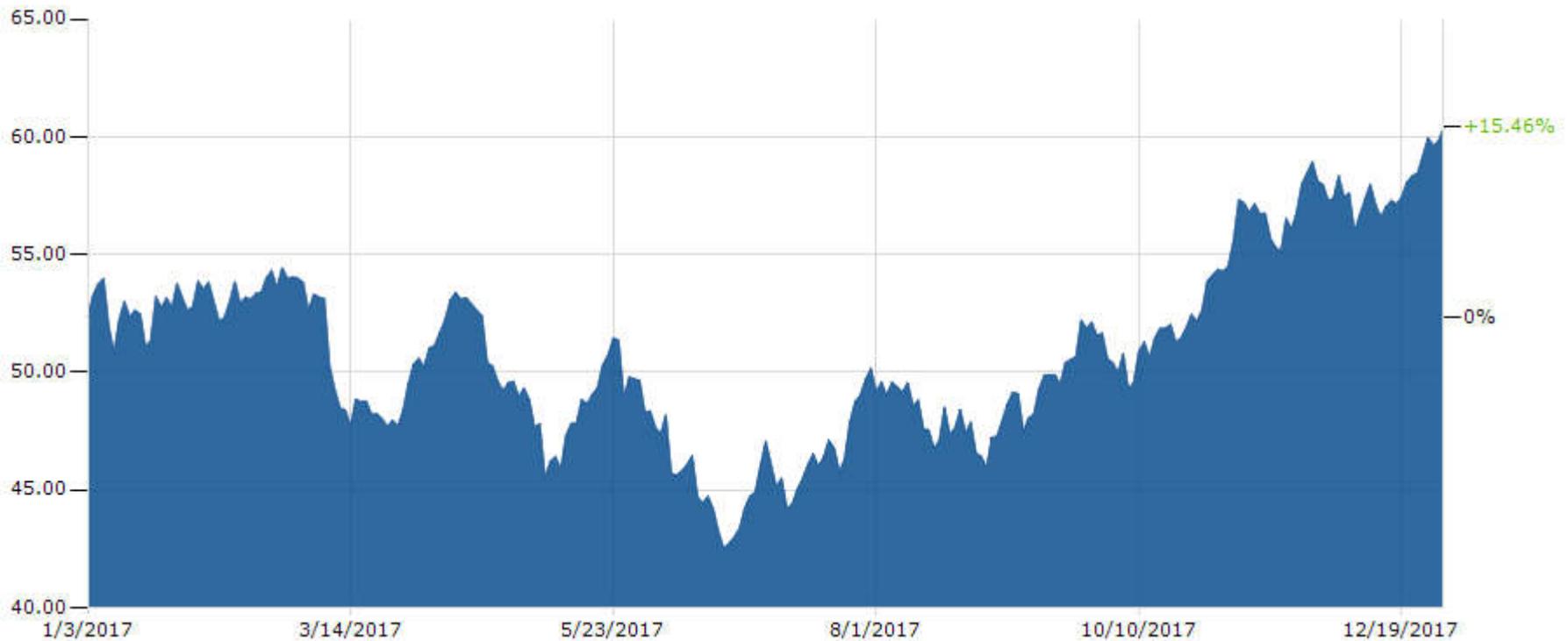
Select Information Technology Firms Dominated



- “FANG” stocks Facebook, Amazon, Netflix and Google accounted for a large percentage of the S&P 500 return for the year

Market Overview

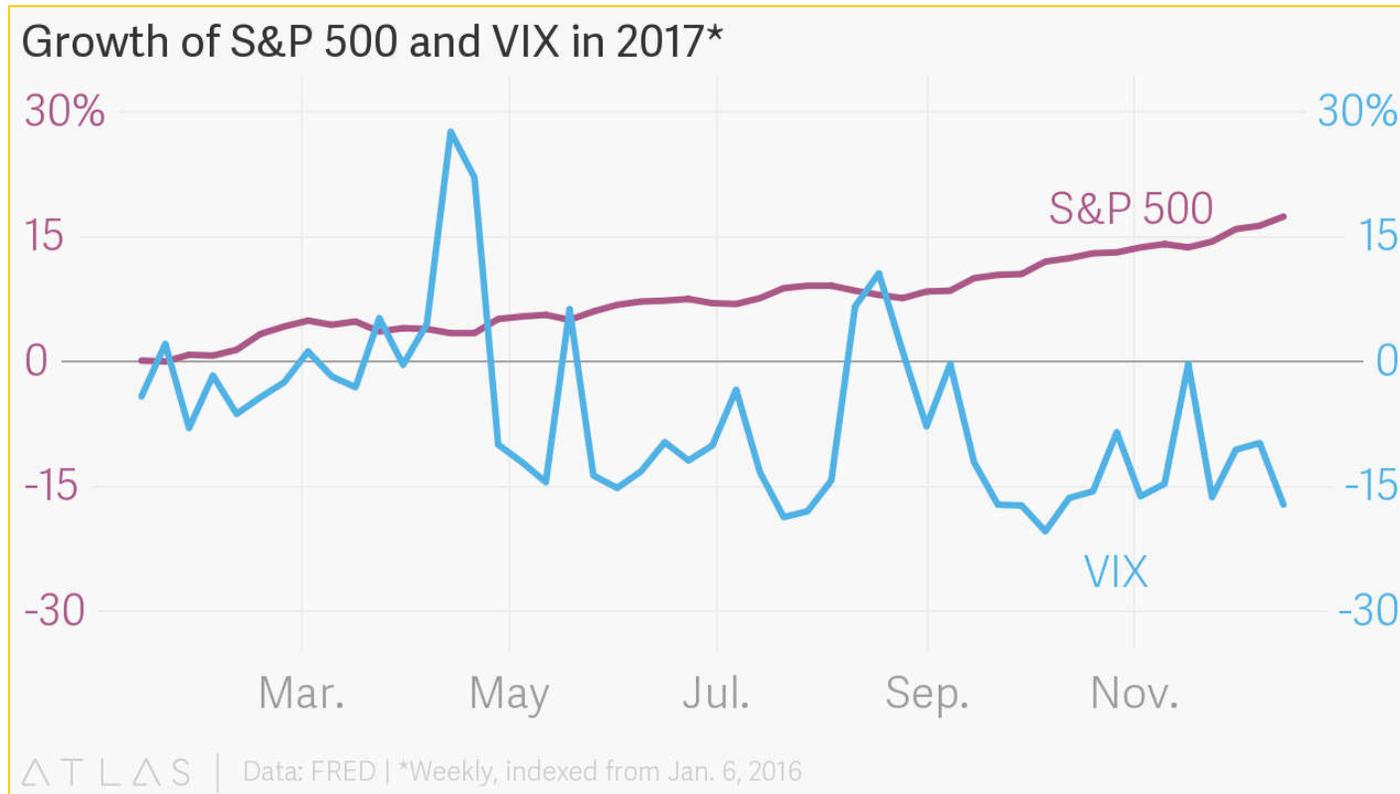
Oil Volatility Impacted the Energy Sector



- Oil prices were very volatile in 2017 starting the year at \$52.33 per barrel but ending at \$60.42 – an increase of 15.46%

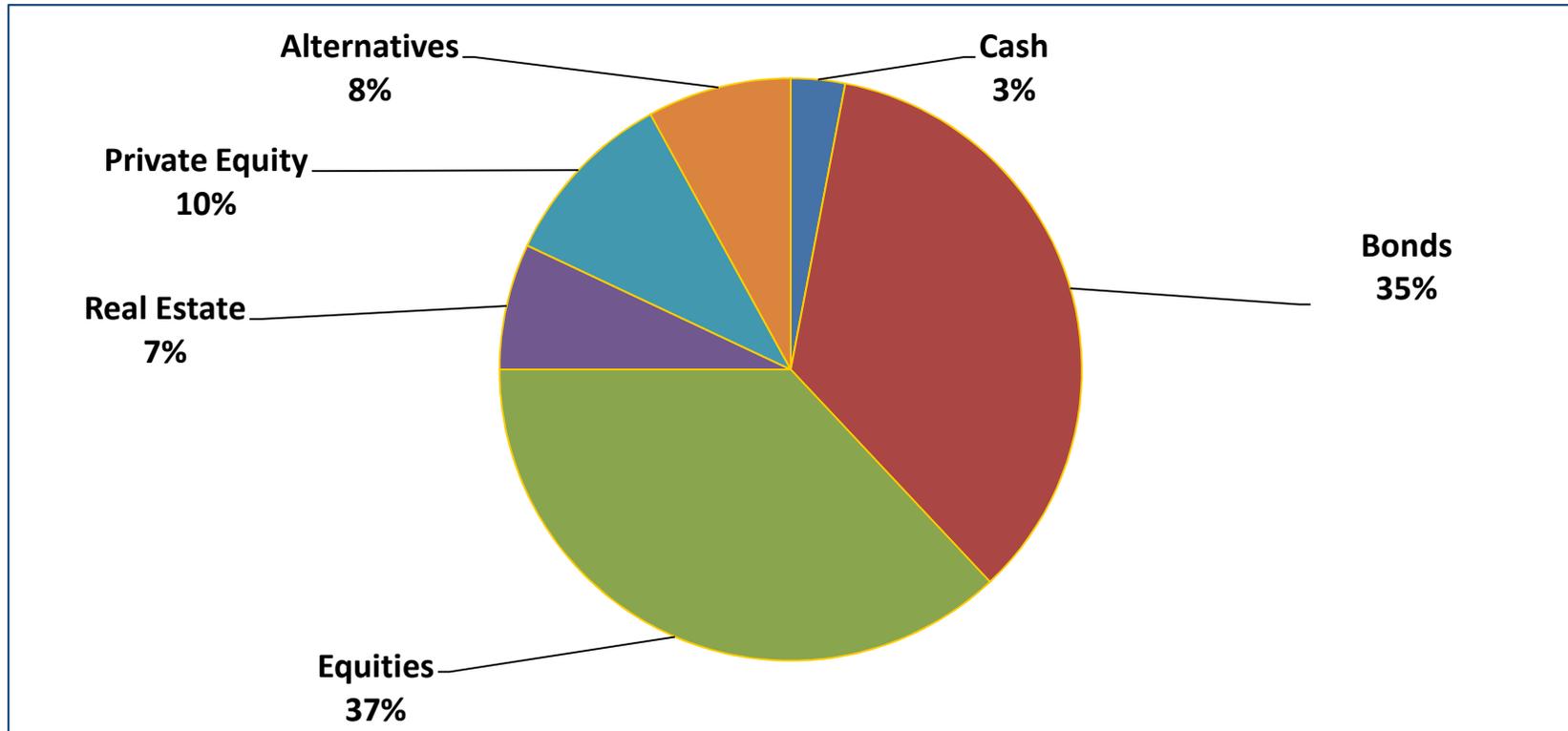
Market Overview

Low Volatility



- Despite significant geopolitical and fiscal policy uncertainty, market volatility as measured by the VIX index (“Fear Gauge”) was the lowest it has been in decades

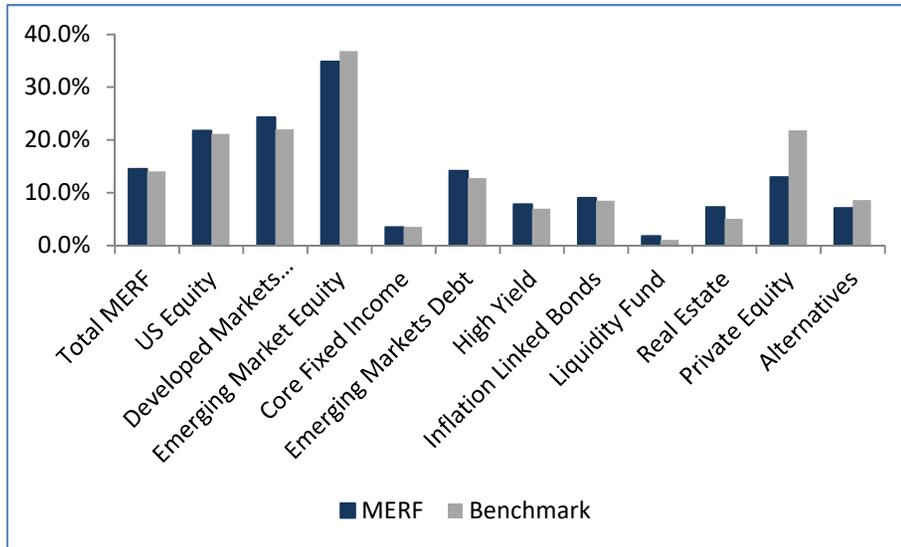
MERF Asset Allocation Targets



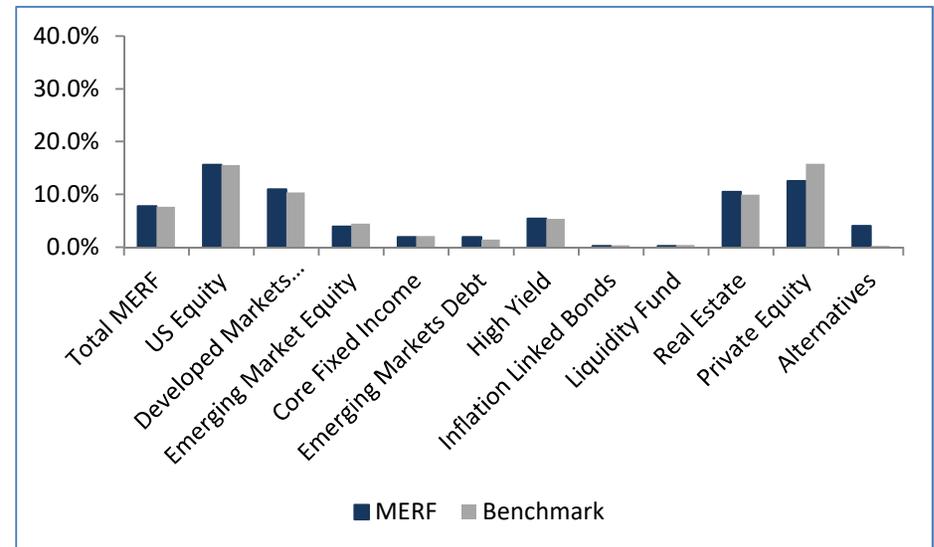
- ❖ Policy asset allocation targets remained the same for the portfolio
- ❖ Asset liability/allocation study in progress

MERF Returns as of December 31, 2017

One Year Returns



Five Year Returns



- **CMERS has generated strong performance across all asset classes**
 - ❖ 1 Year Performance: +14.5% vs. +14.0% for the benchmark
 - ❖ 5 Year Performance: +7.8% vs. +7.7% for the benchmark

Market Value Change (Millions)

Beginning Balance	\$2,281.5
Net Disbursements	(\$59.5)
Investment Earnings	\$328.1
Ending Balance	\$2,550.1

MERF – Liability Profile

As of June 30, 2017

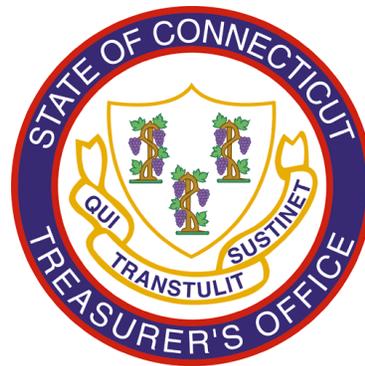
Liability Position	
	MERF
Active Members	9,373
Retired Members and Beneficiaries	7,102
Actuarial Value of Assets (mil.)*	\$2,568.5
Actuarial Value of Liabilities (mil.)*	\$2,983.2
Unfunded Actuarial Accrued Liabilities (mil.)	\$414.7
Funded Status	86.1%
Return Assumption	8.00%

Source: Connecticut Municipal Employees Retirement System Roll Forward Actuarial Valuation Report
Prepared as of June 30, 2017 by Cavanaugh Macdonald, dated December 8, 2017



Thank you!

Office of Connecticut State Treasurer Denise L. Nappier



2018 Public Finance Outlook Conference

State and National Economic Update

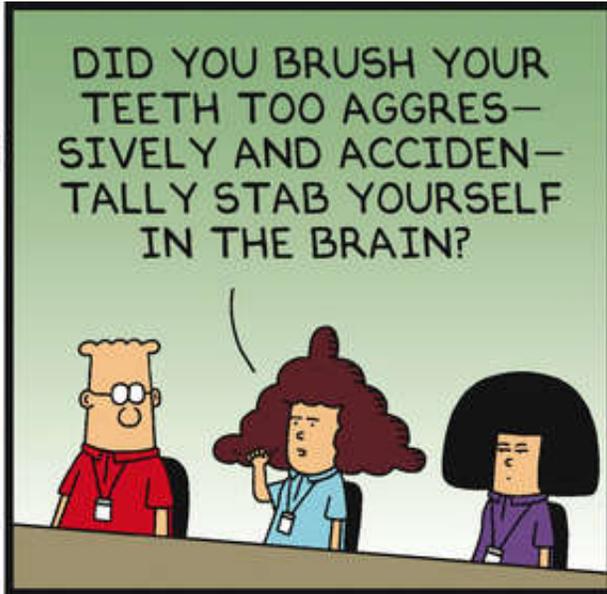
Patrick J. Flaherty

Assistant Director of Research and Information
Connecticut Department of Labor

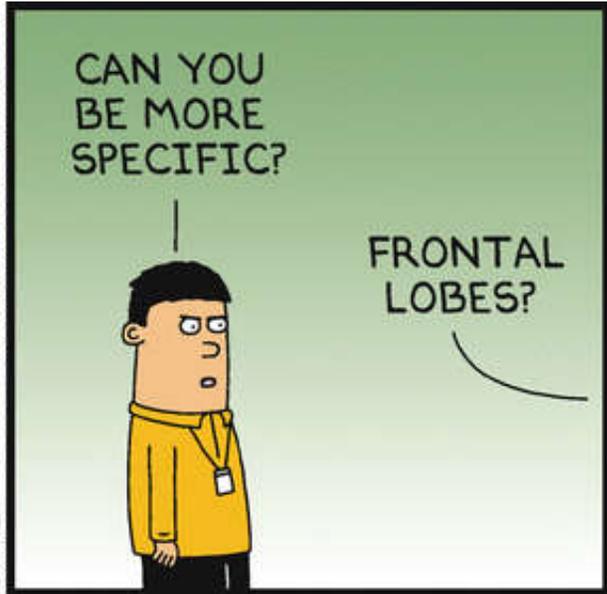
Office of the State Treasurer
Public Finance Outlook Conference
East Hartford, Connecticut
March 28, 2018



Dilbert.com DilbertCartoonist@gmail.com

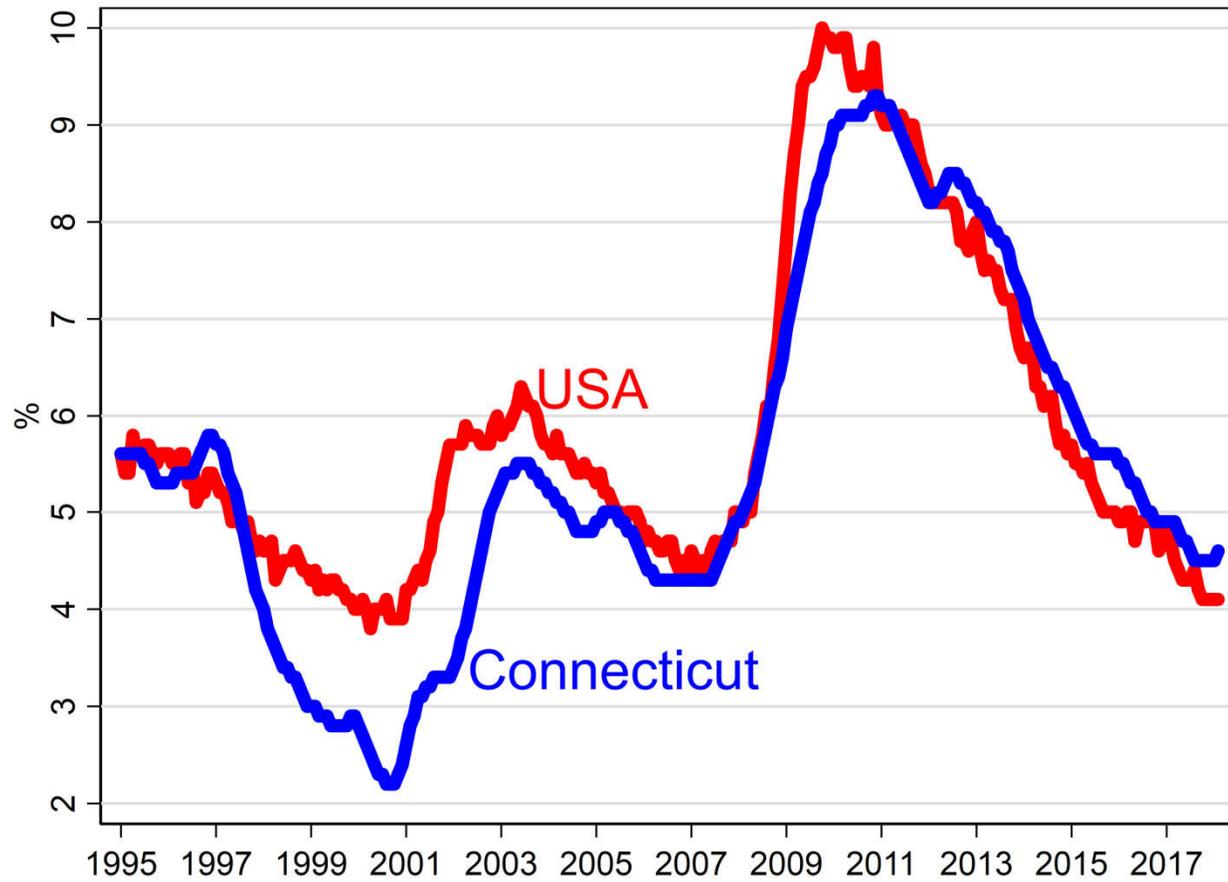


8-6-15 © 2015 Scott Adams, Inc. /Dist. by Universal Uclick



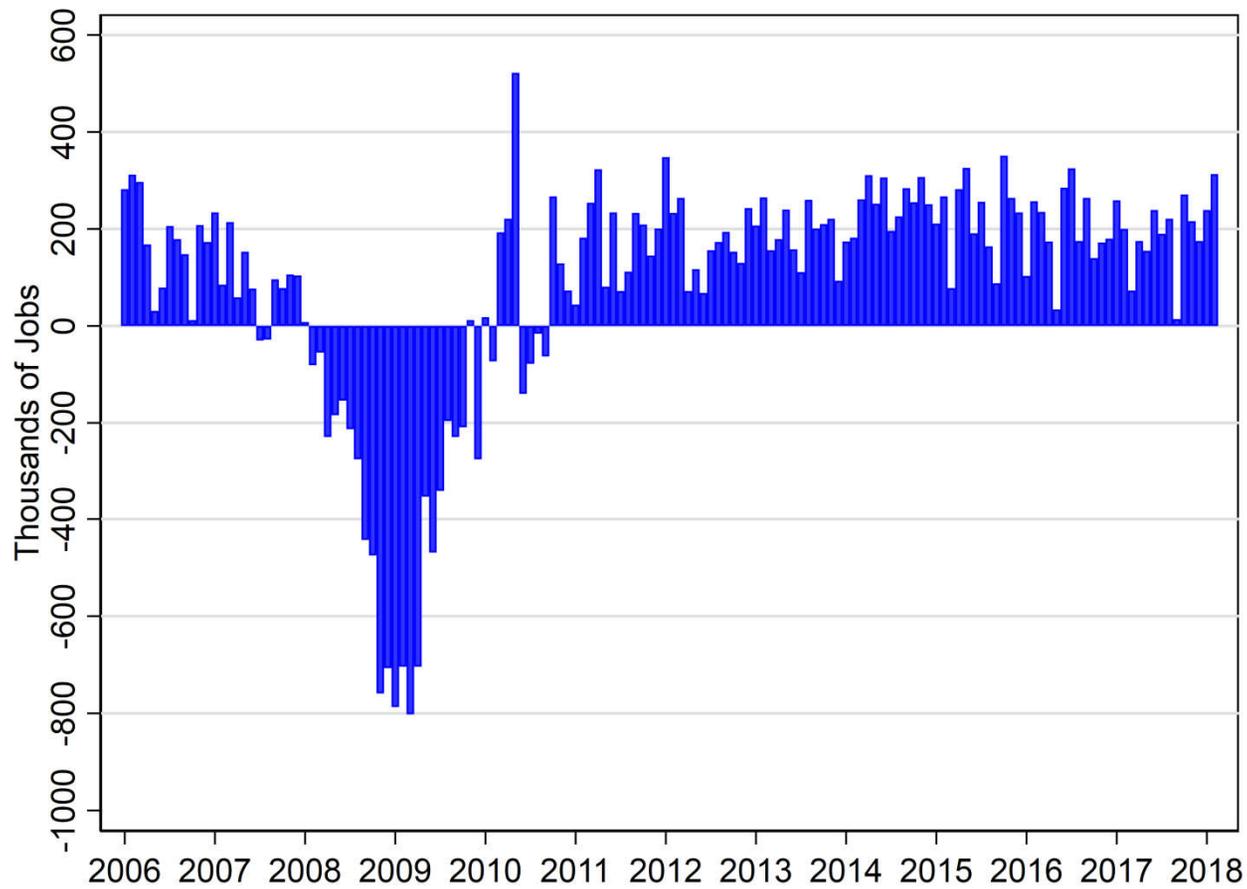
National & Connecticut Labor Market

Unemployment Rate

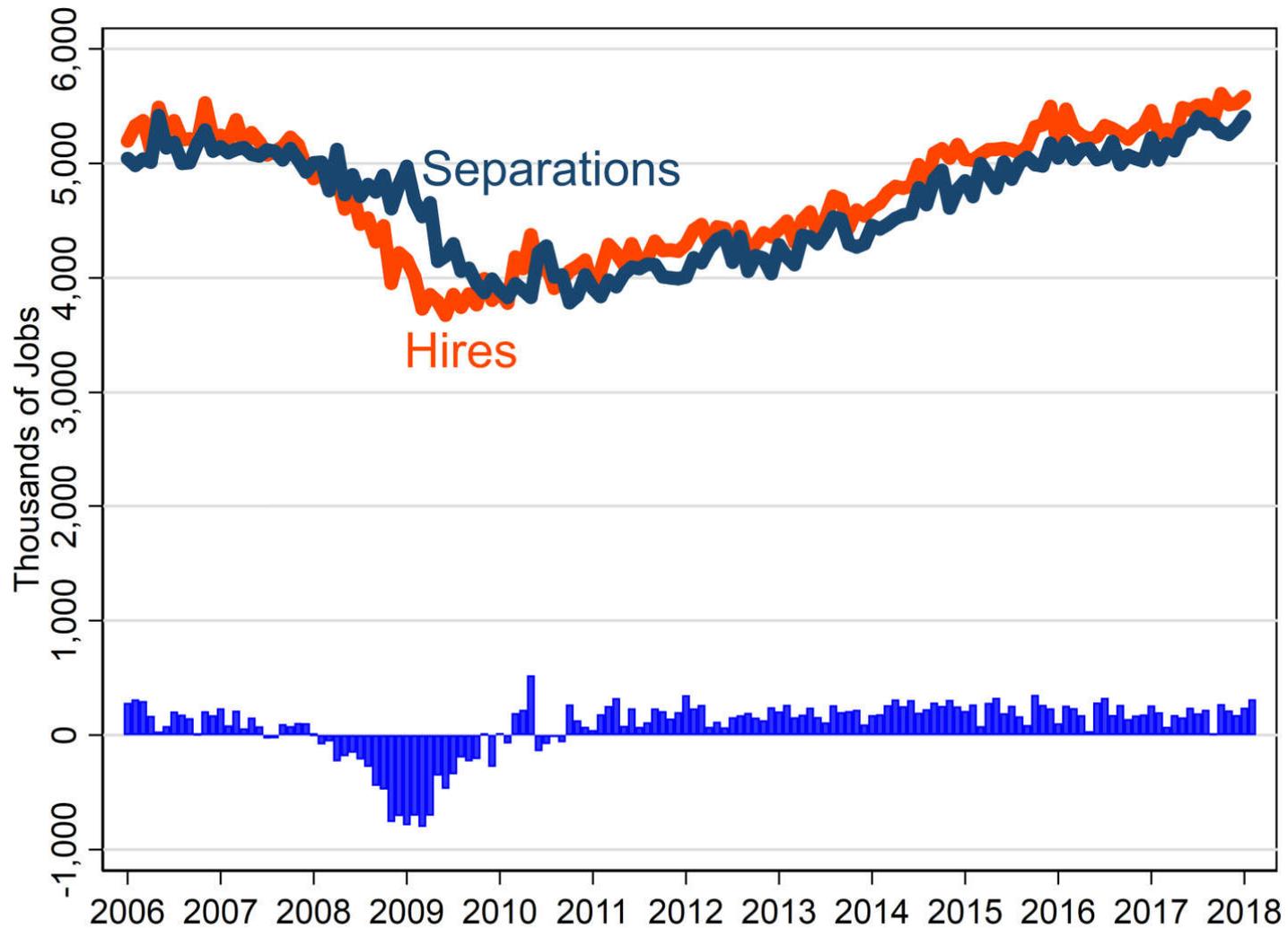


U.S. Employment

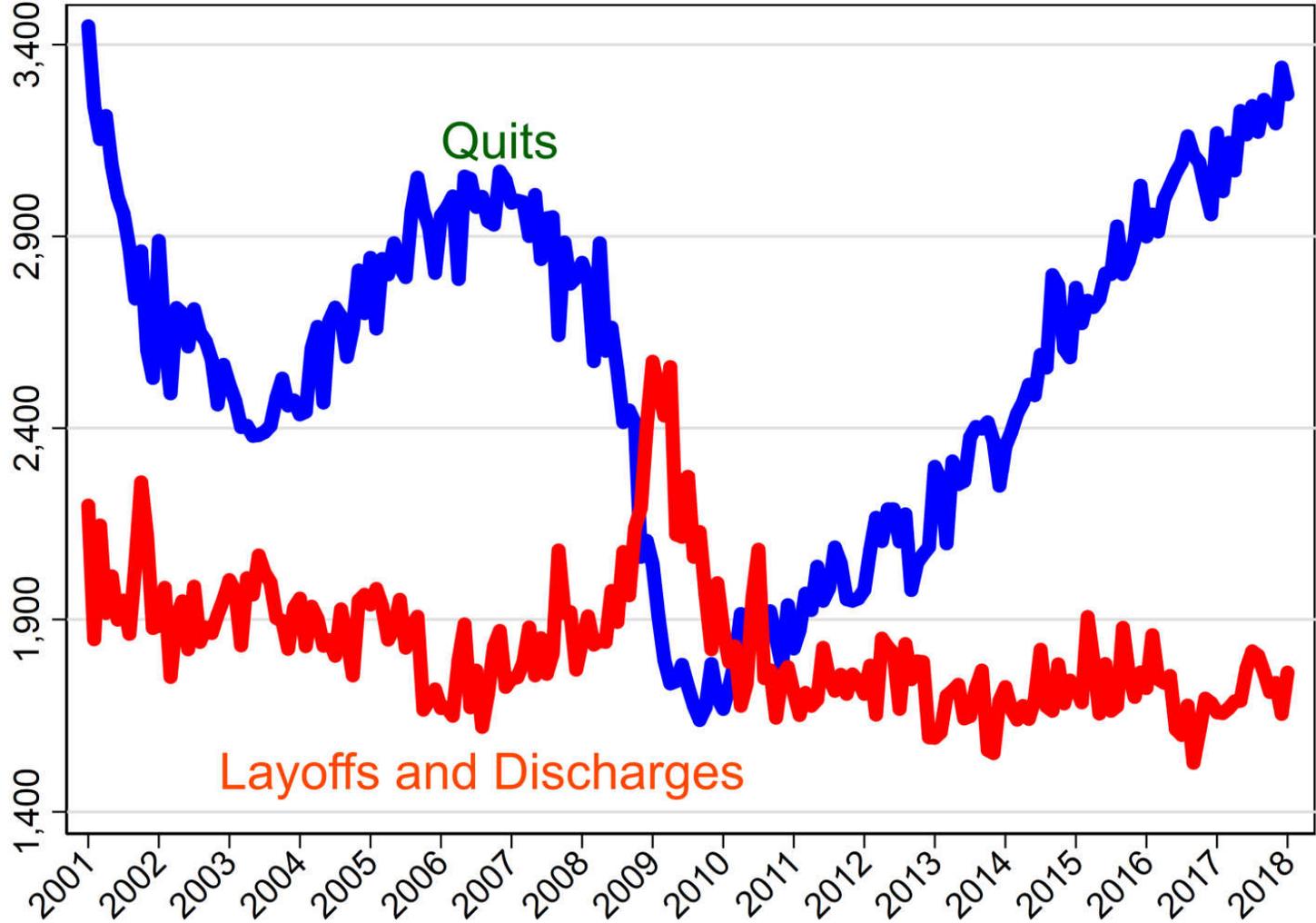
Change from Previous Month



U.S. Job Change, Hiring & Separations

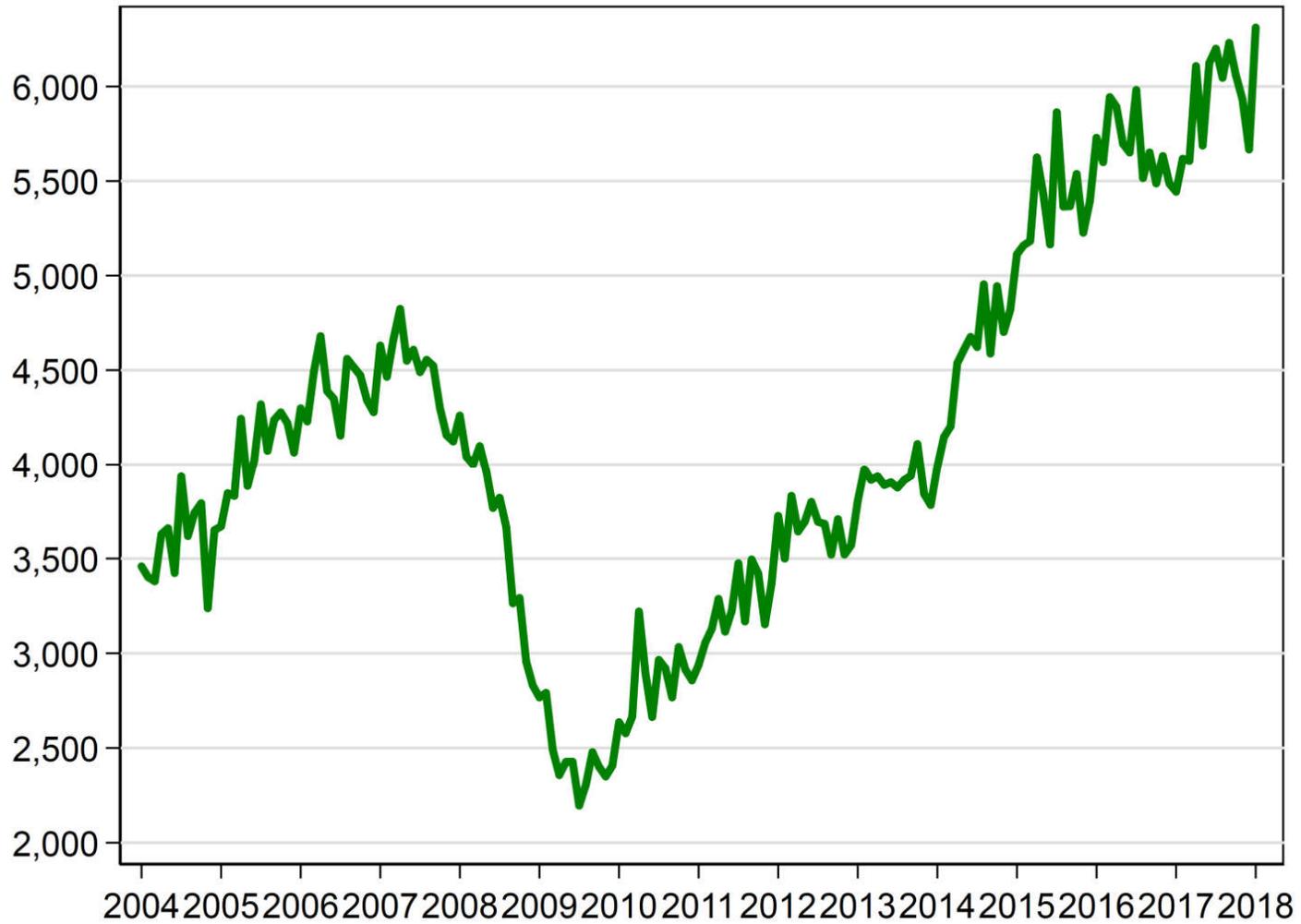


U.S. Separations by Type

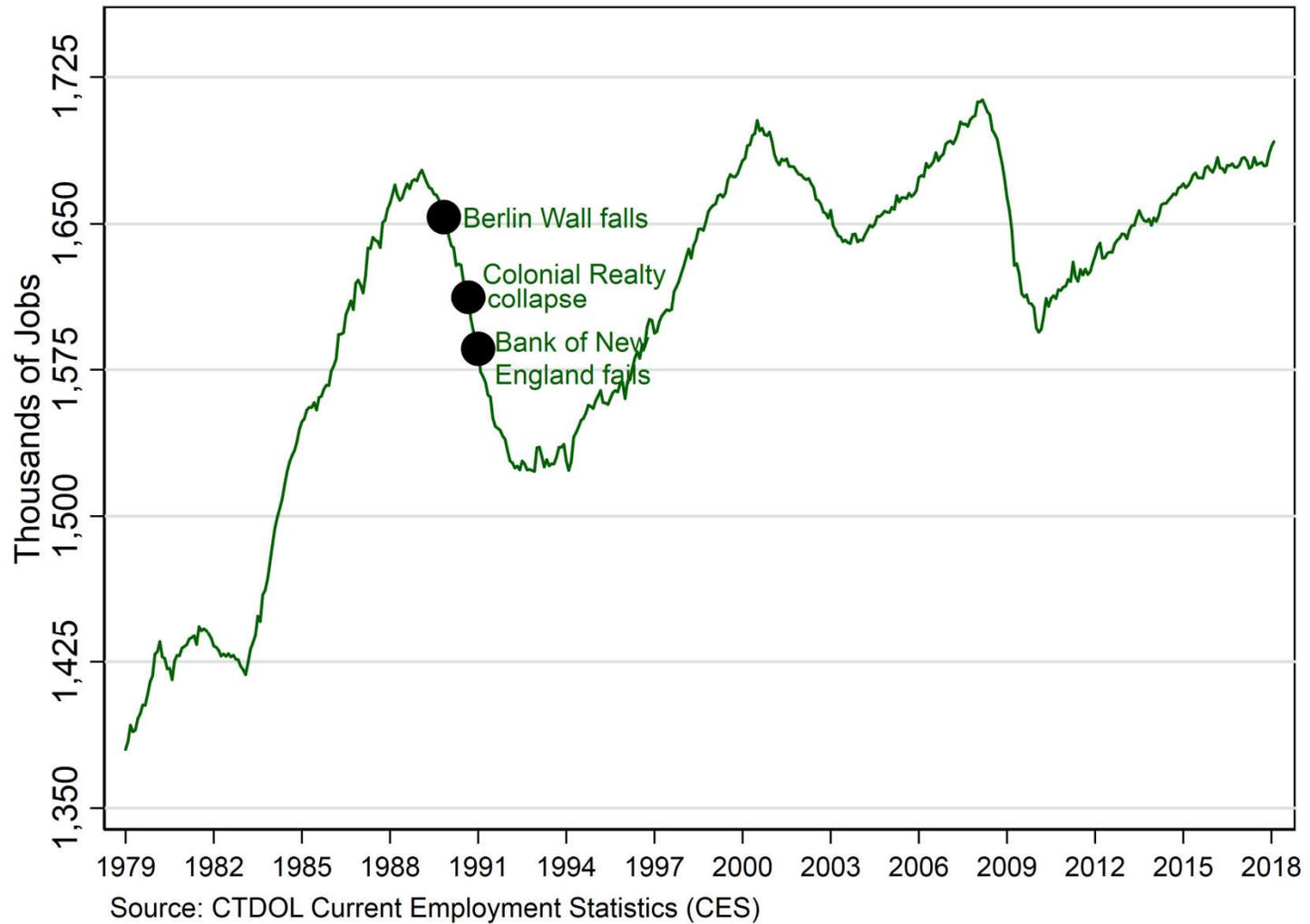


U.S. Job Openings

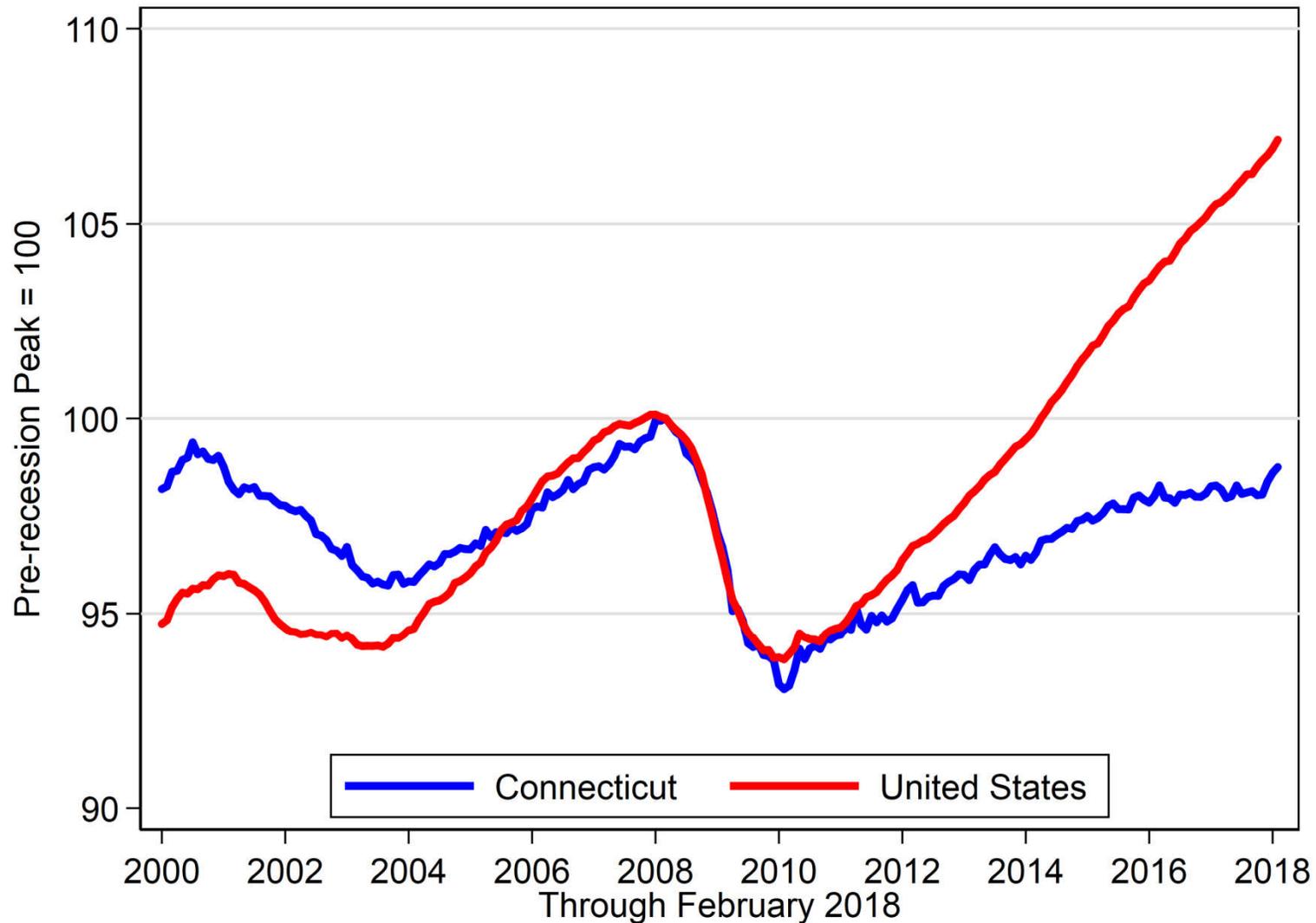
(Thousands)



Connecticut Payroll Employment

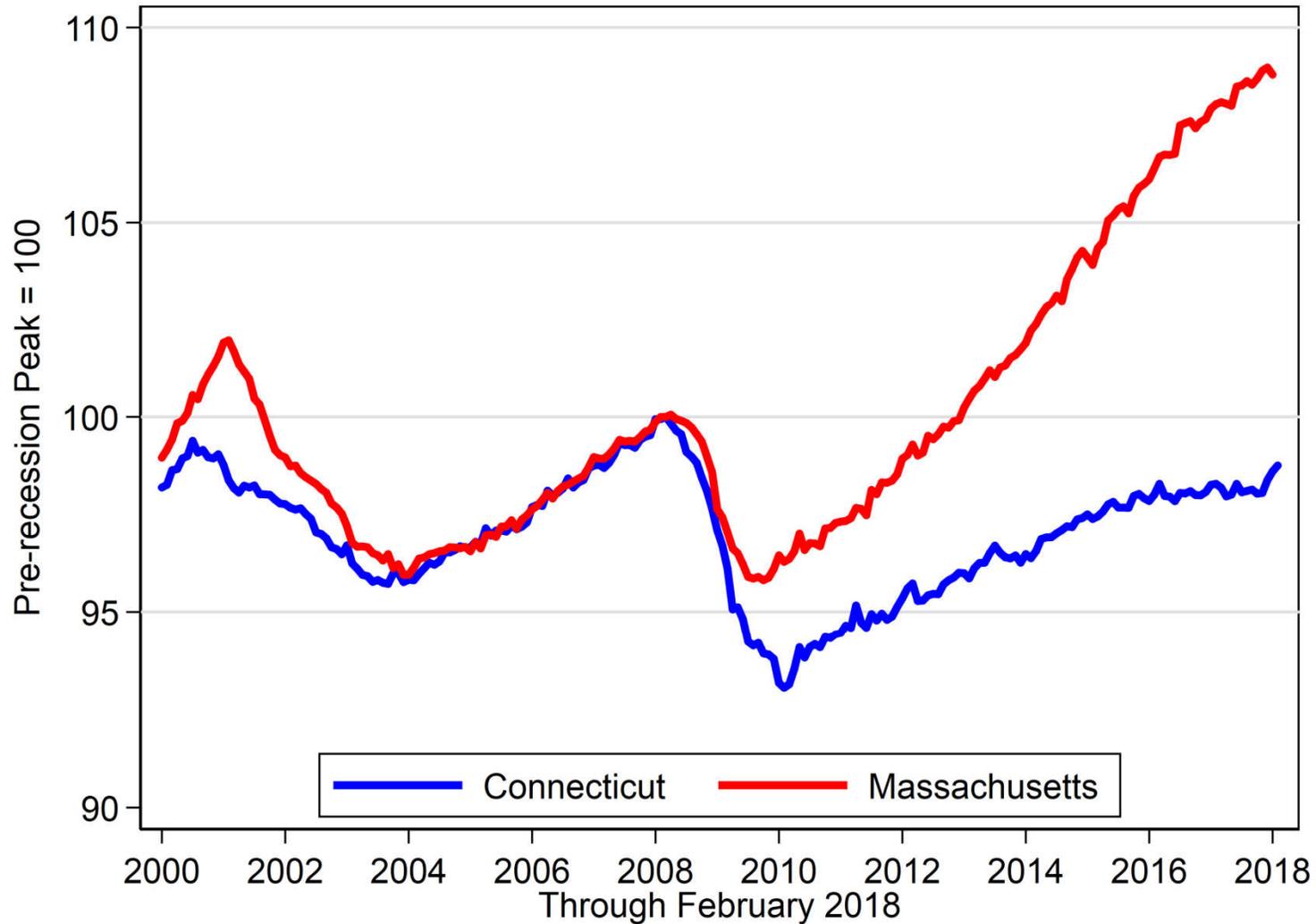


Total Jobs: Connecticut vs. U.S.



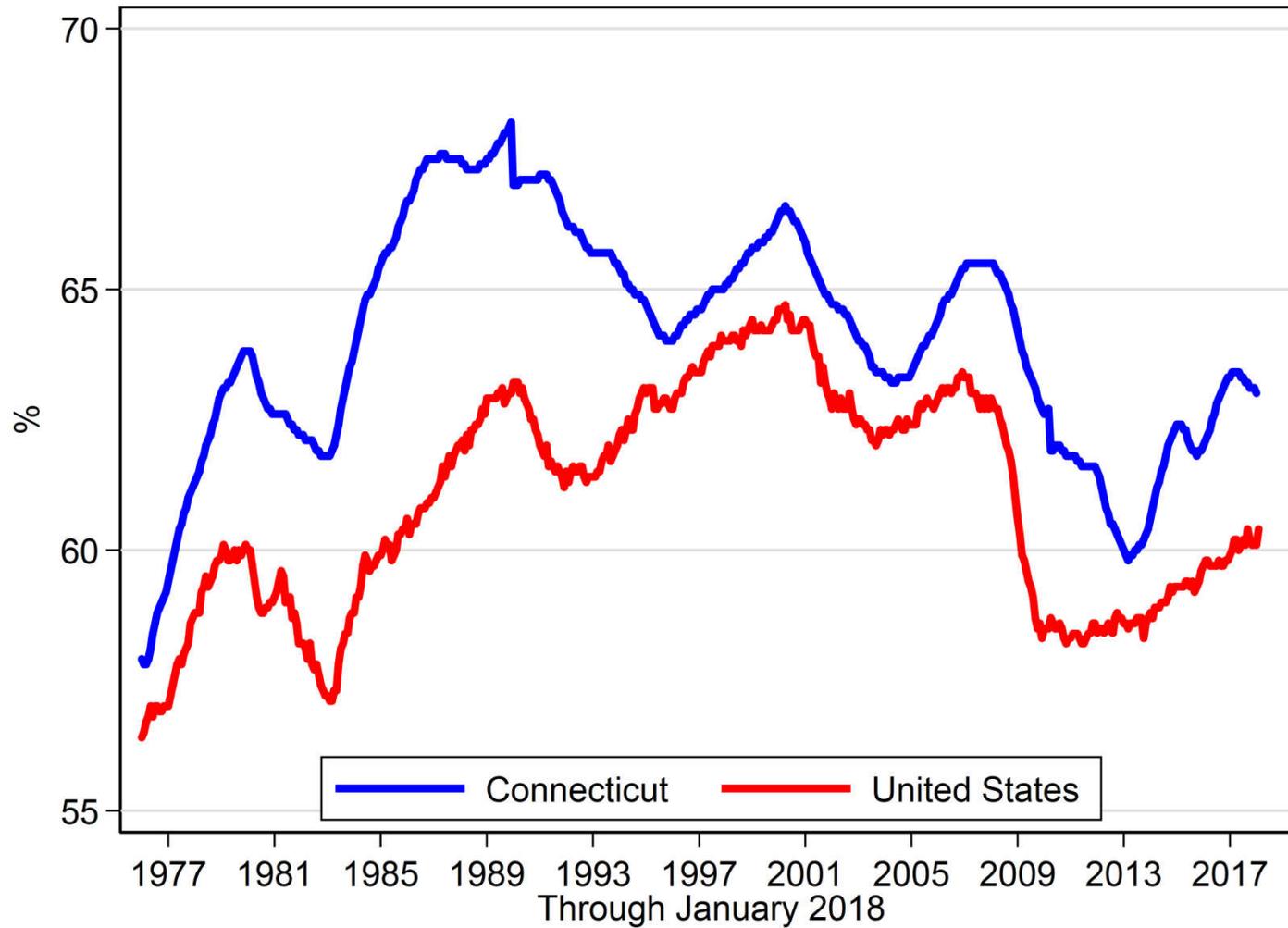
Total Jobs

Connecticut vs. Massachusetts

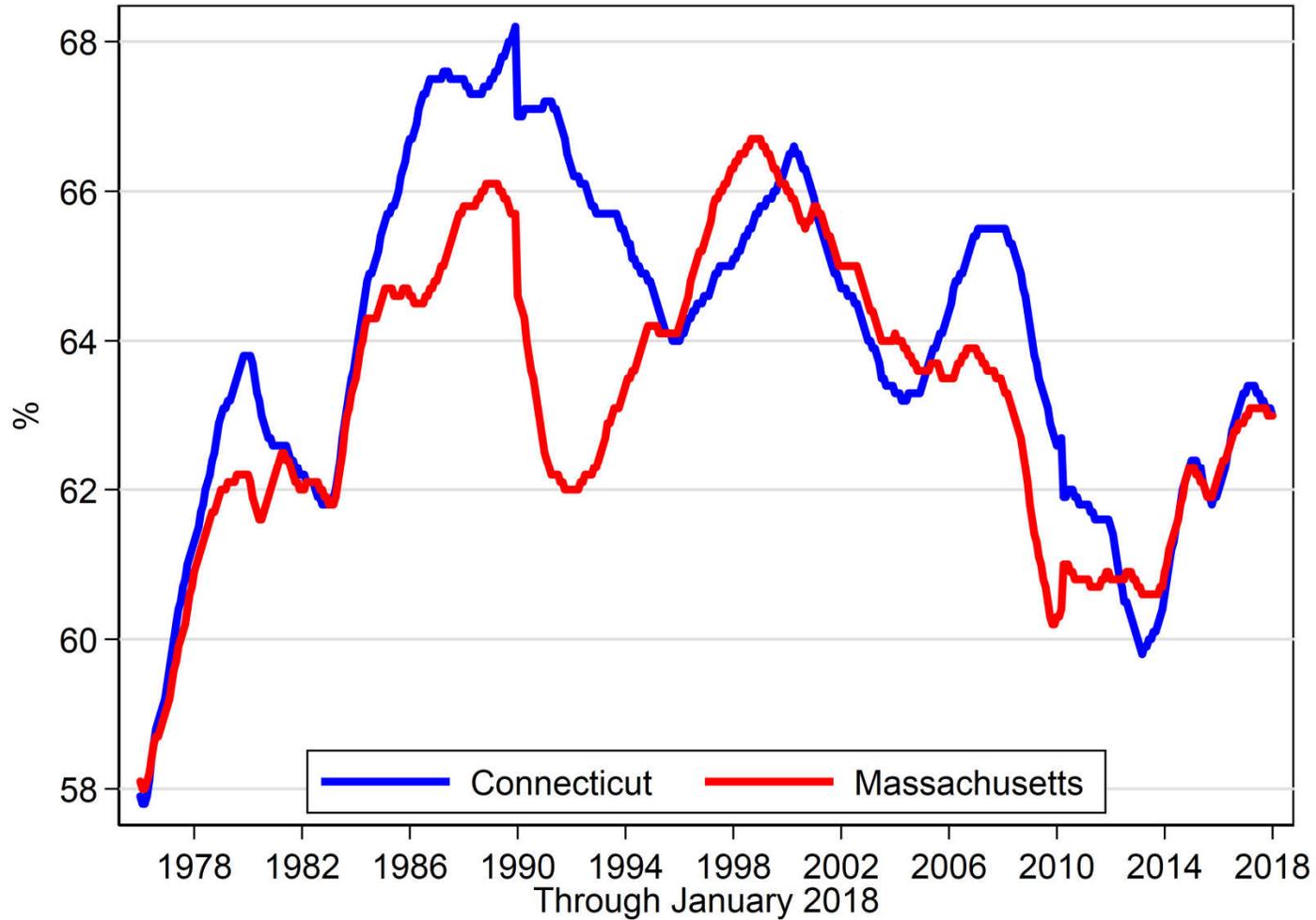


Employment/Population Ratio

Connecticut vs. U.S.

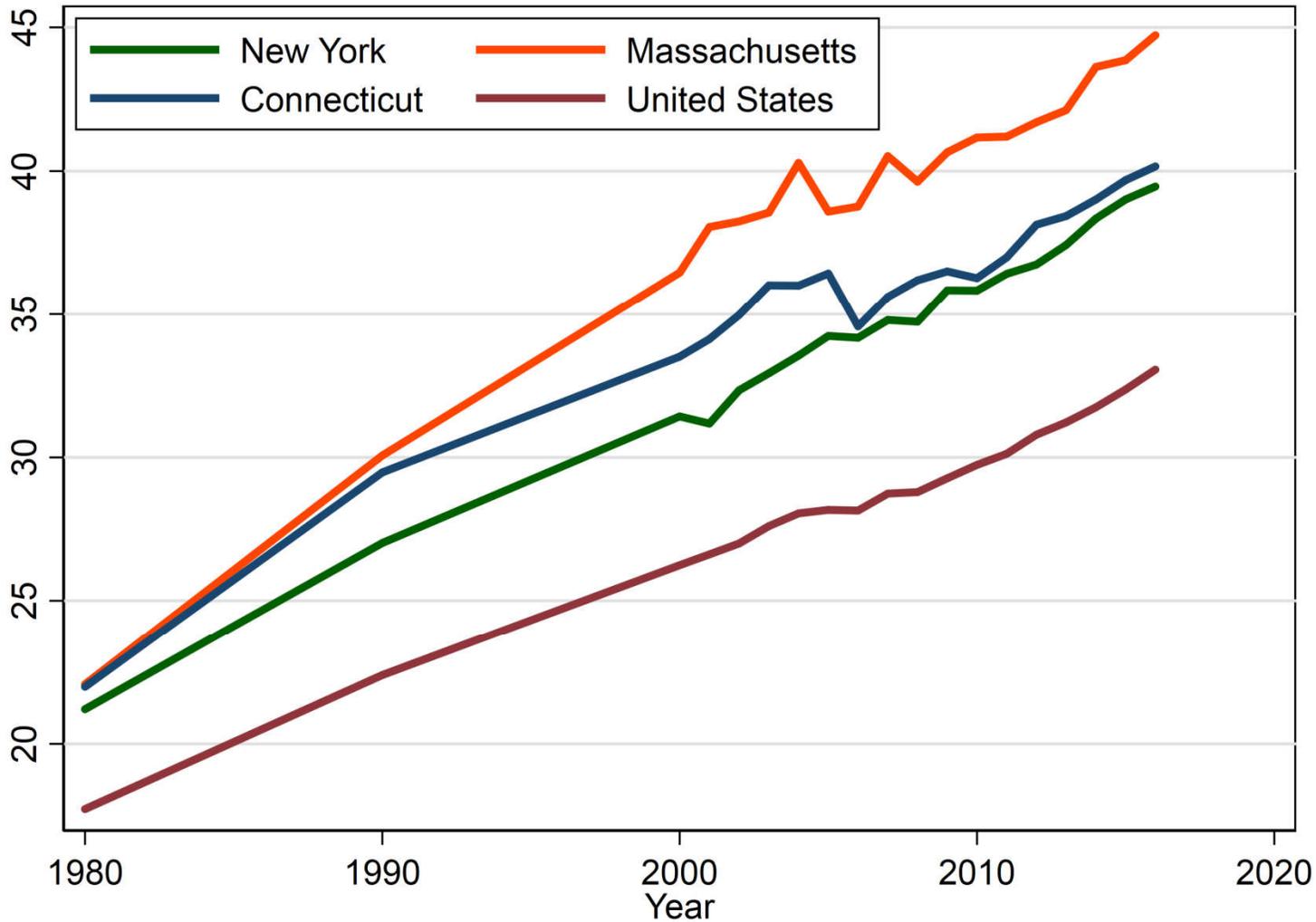


Employment/Population Ratio Connecticut vs. Massachusetts



Connecticut's Education Advantage

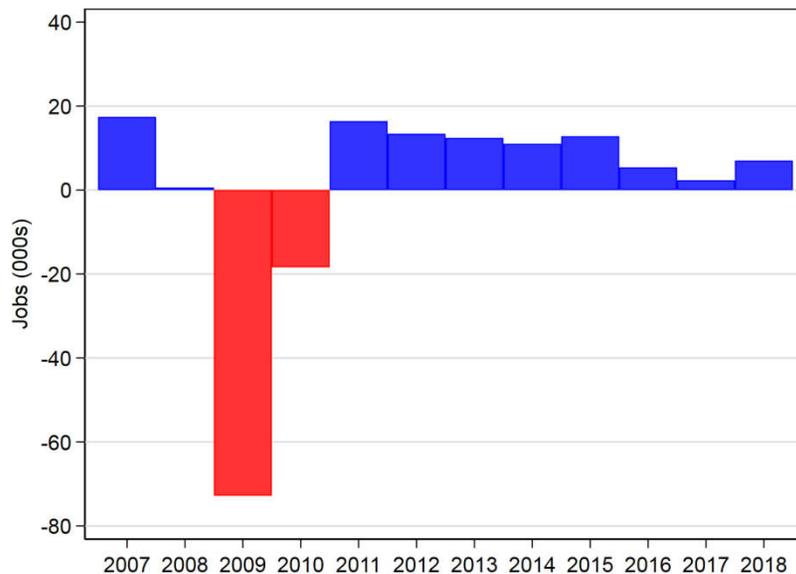
Portion of Labor Force with B.A. or More



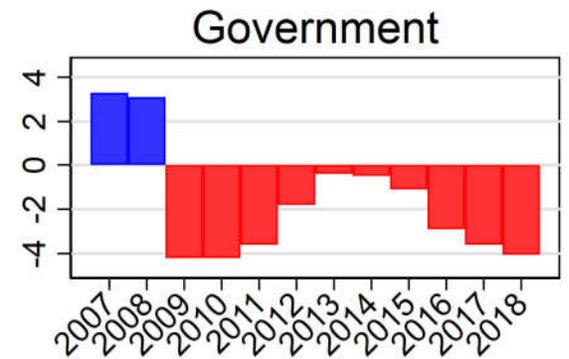
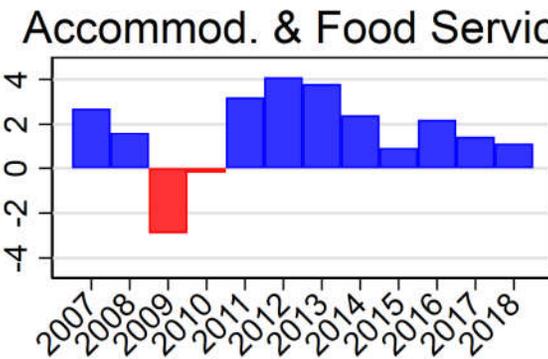
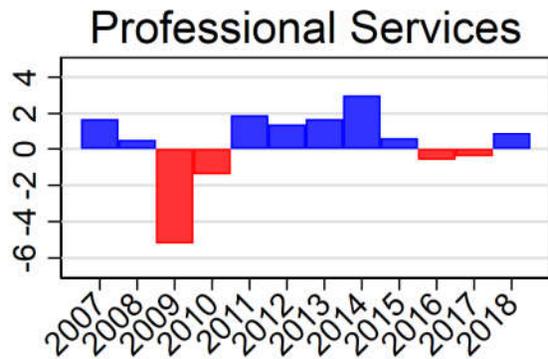
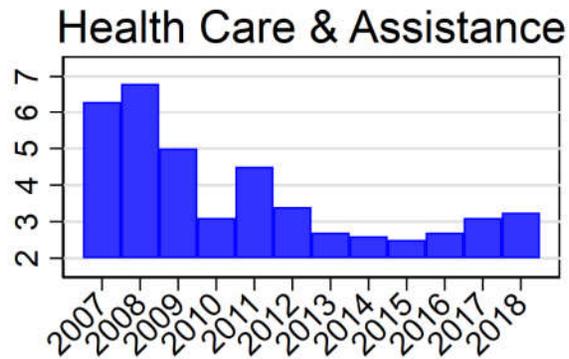
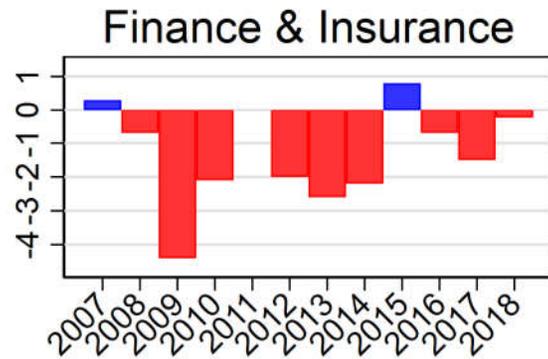
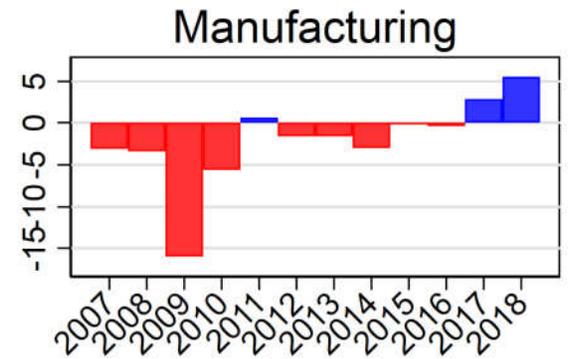
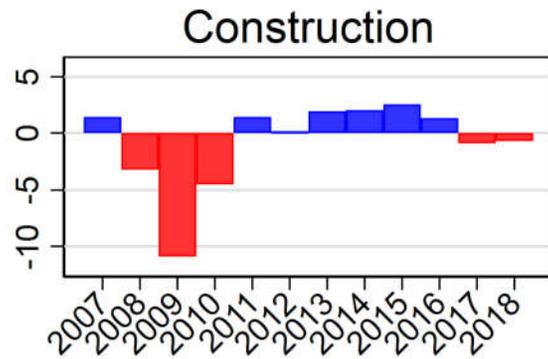
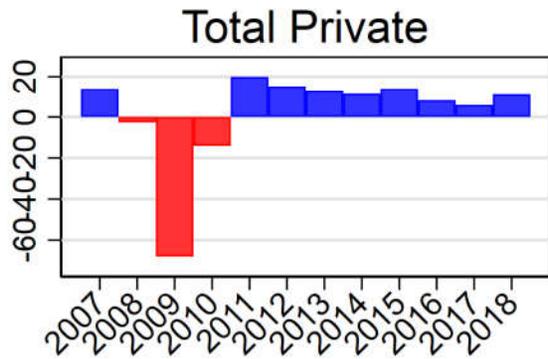
Connecticut Employment Change By Industry

Connecticut Employment Change

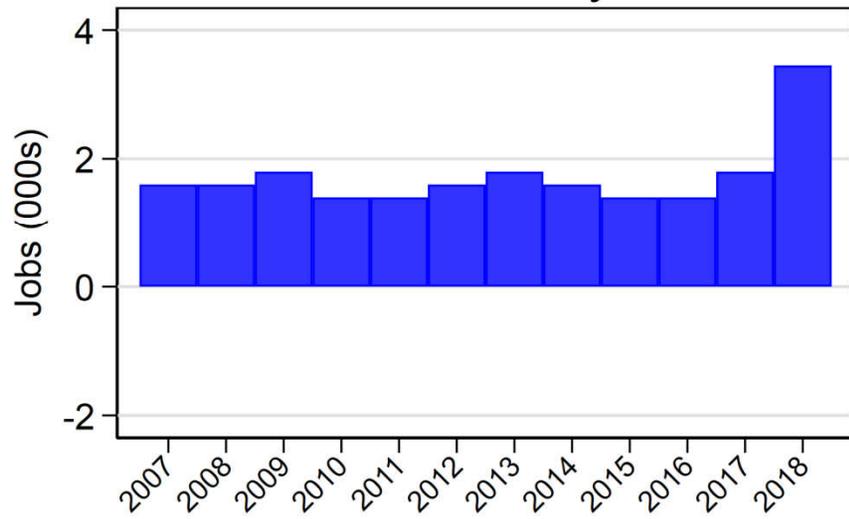
Total Employment



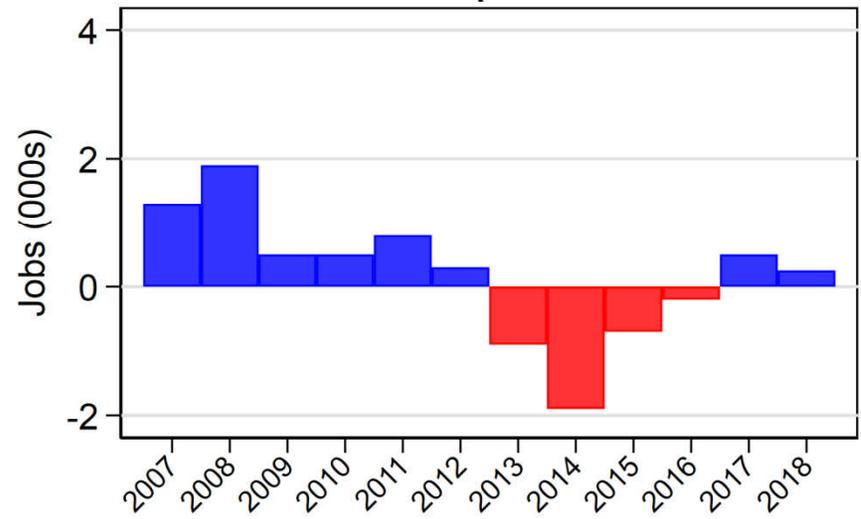
- For this and the following charts – change in average employment for calendar year compared to average employment in previous calendar year.
- For 2018 change from Jan/Feb 2017 average to Jan/Feb 2018 average.



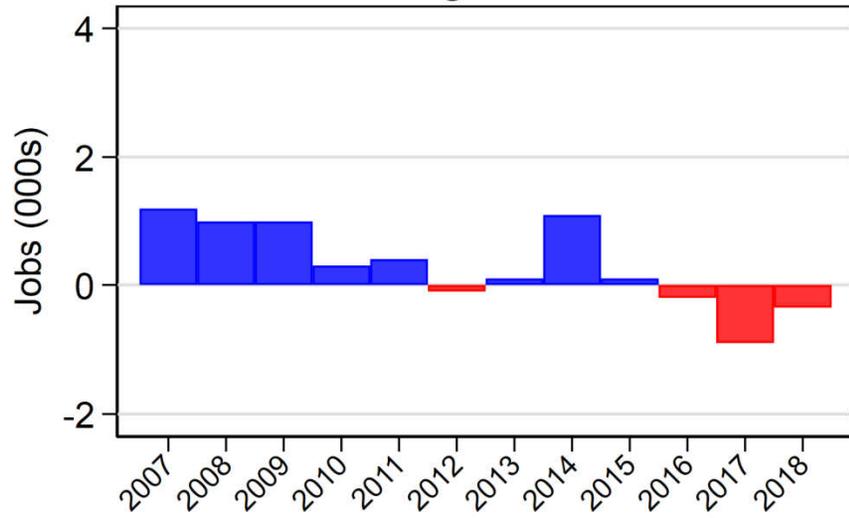
Ambulatory



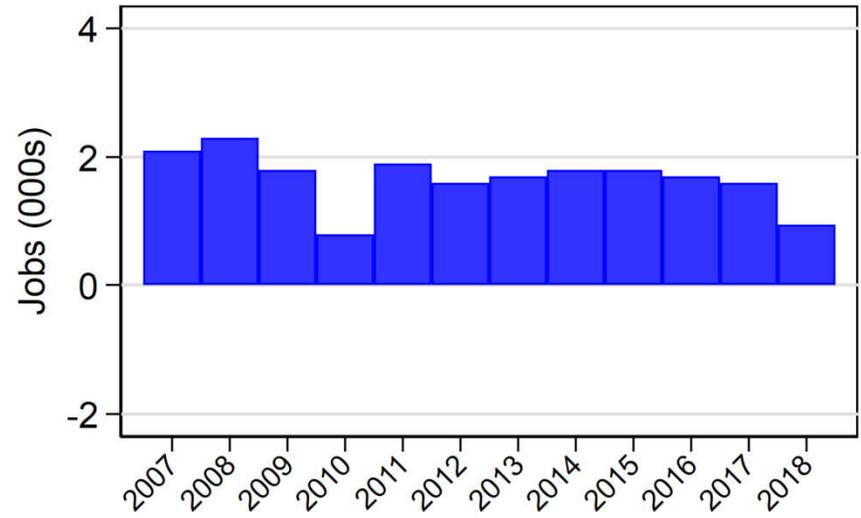
Hospitals



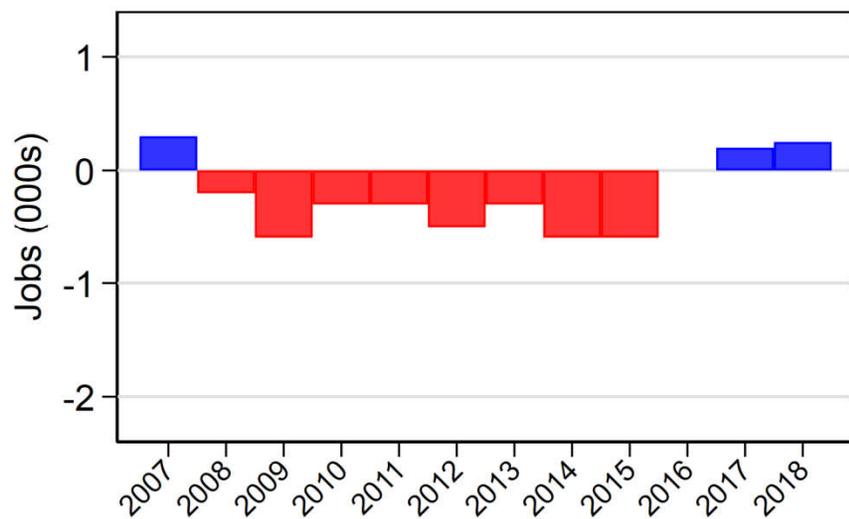
Nursing Facilities



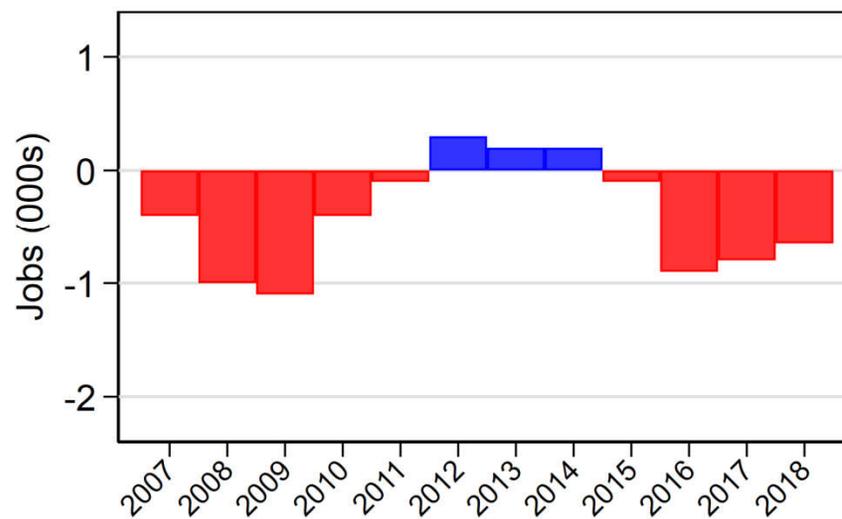
Social Assistance



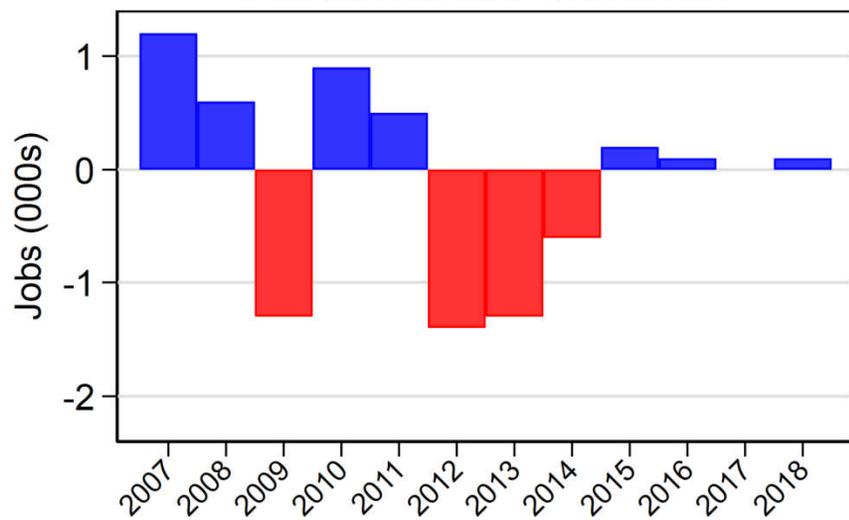
Banks



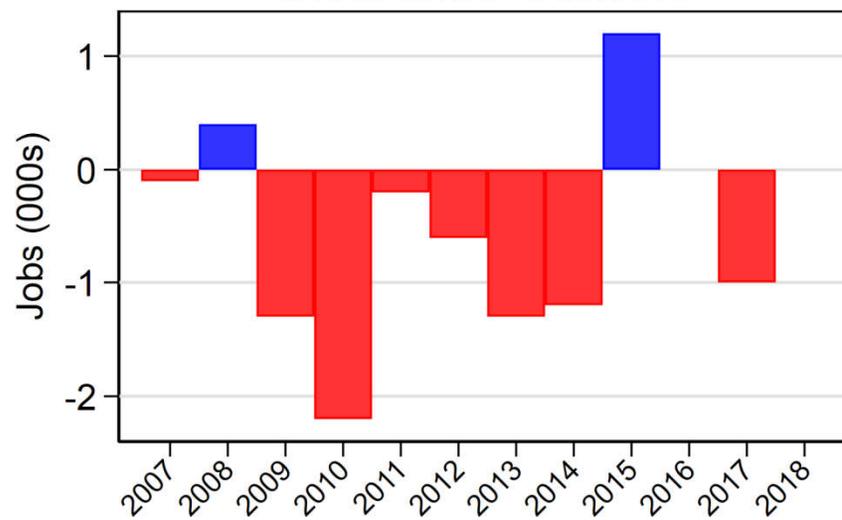
Non-bank Credit Intermediation



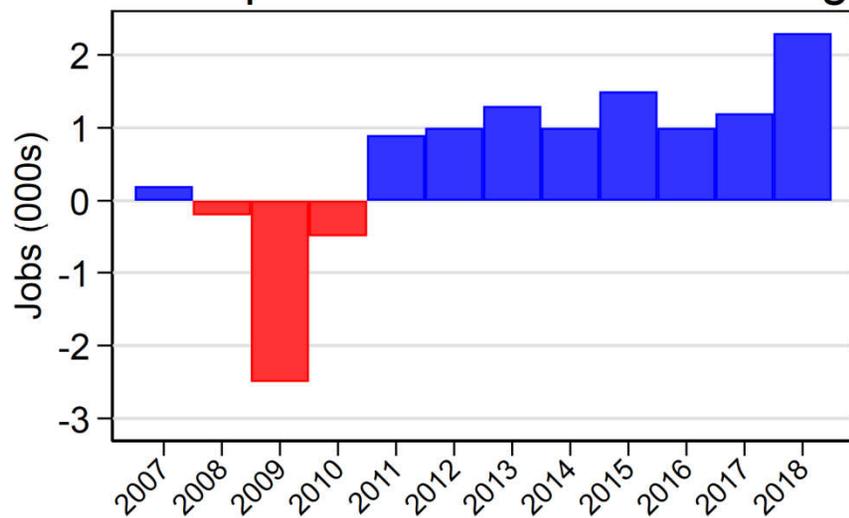
Financial Investments



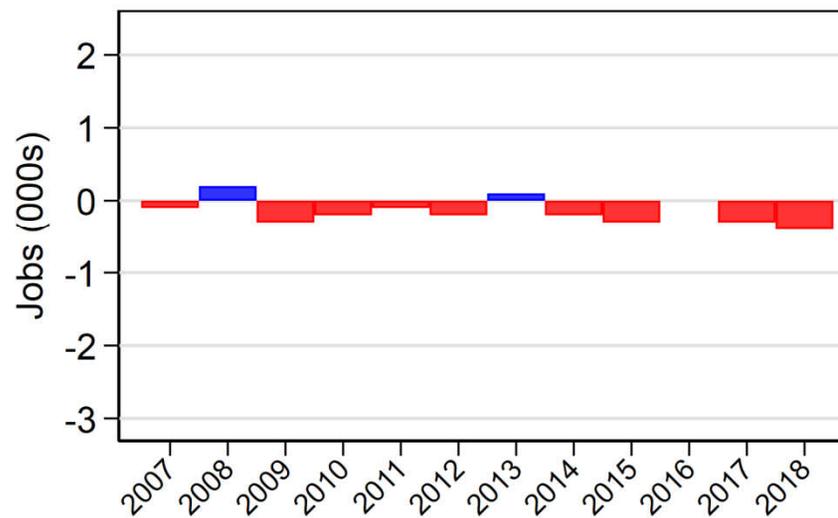
Insurance Carriers



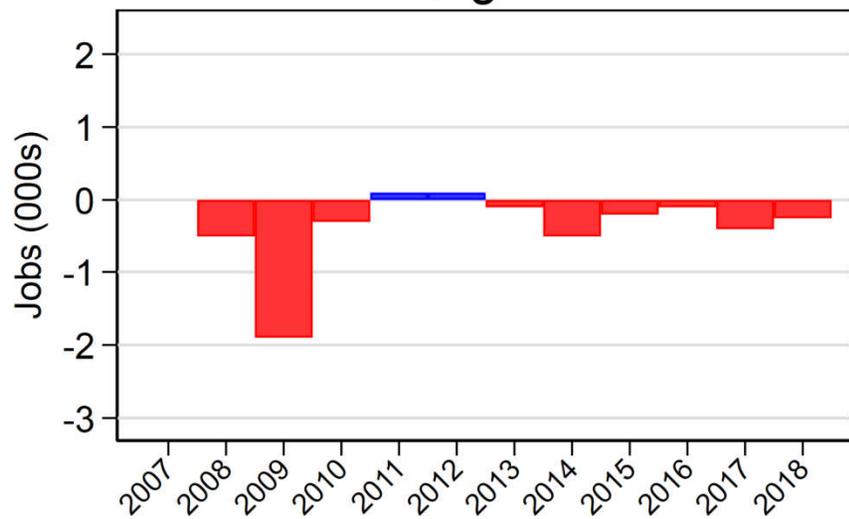
Transportation and Warehousing



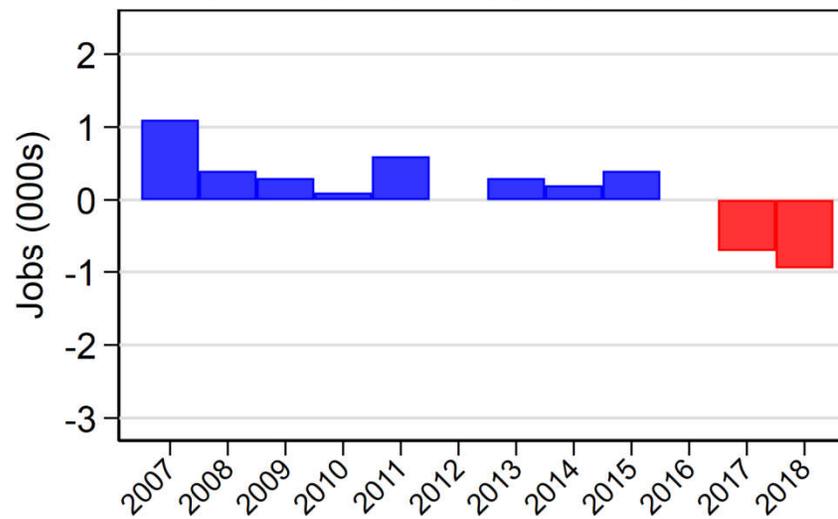
Utilities



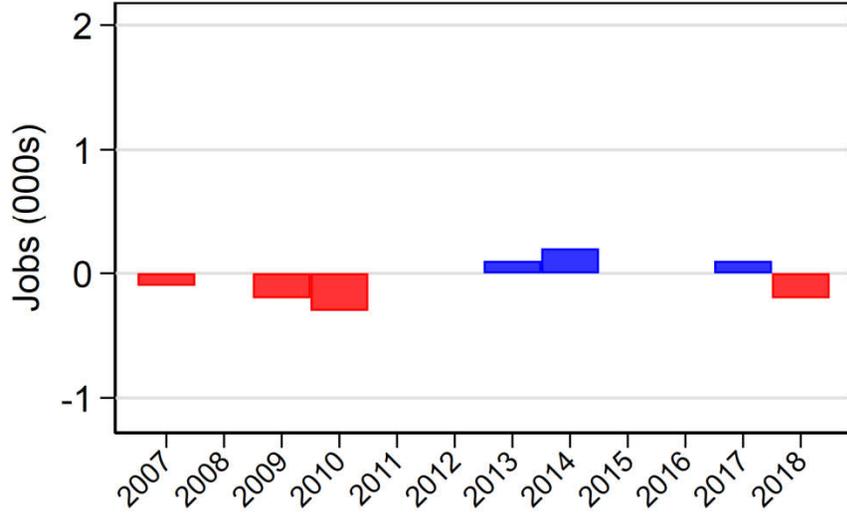
Clothing Stores



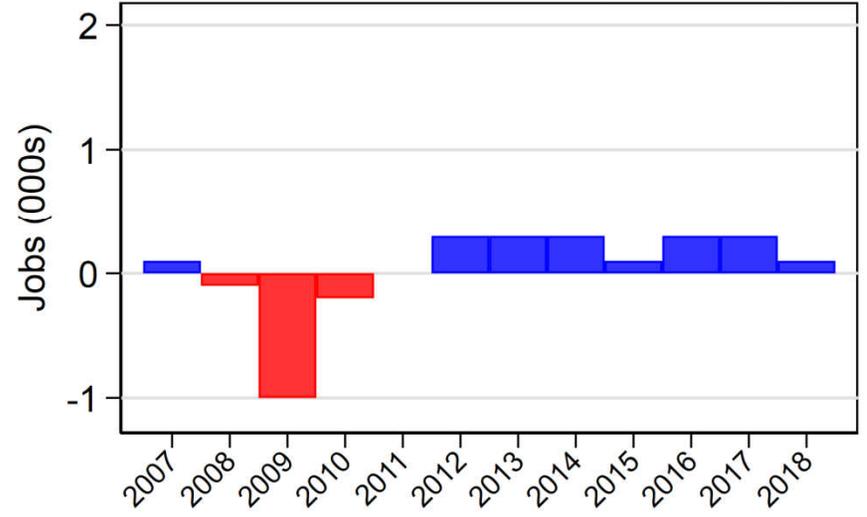
General Merchandise Stores



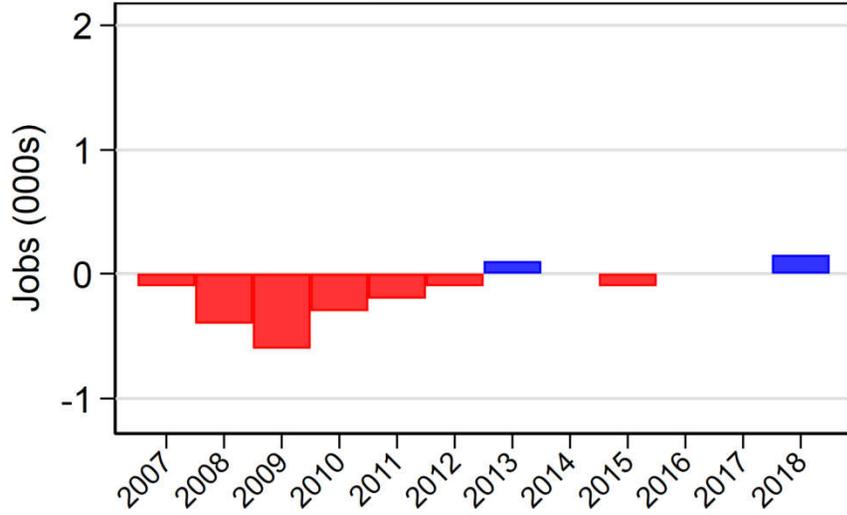
Accounting



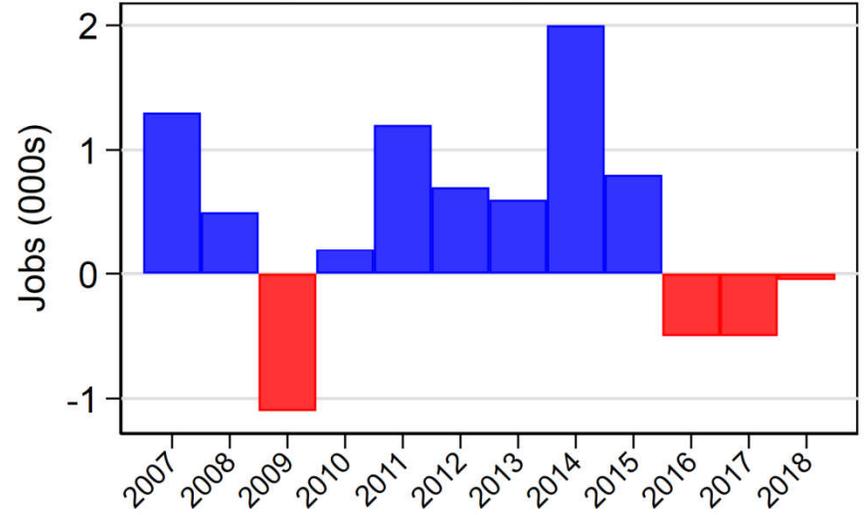
Architectural & Engineering



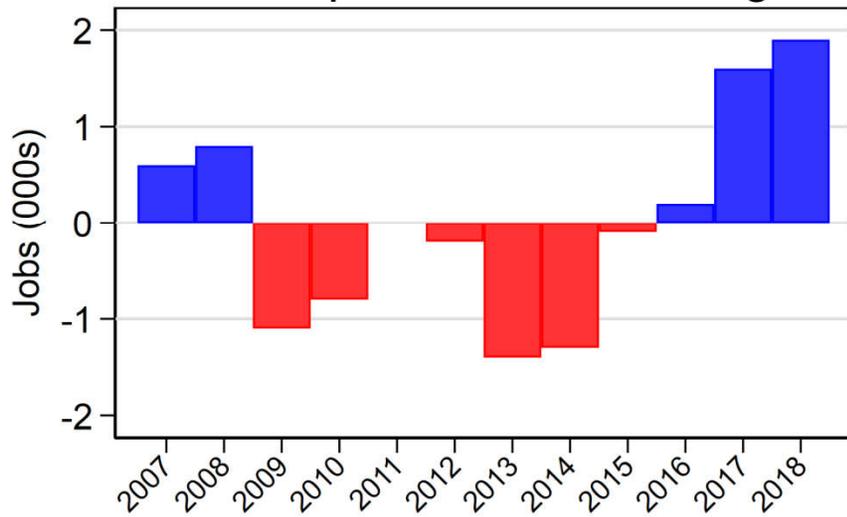
Legal Services



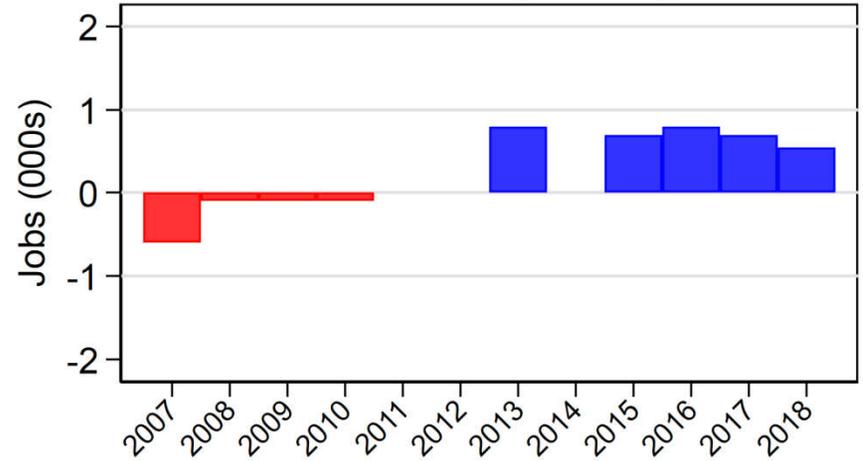
Computer Design & Related



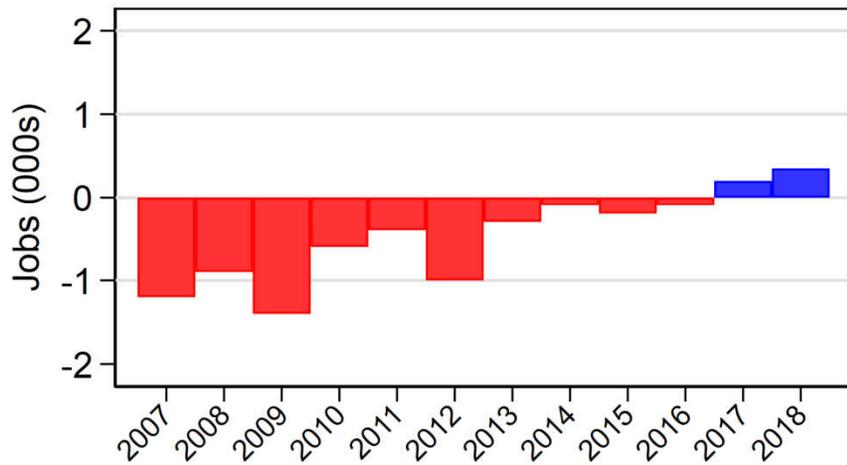
Aerospace Manufacturing



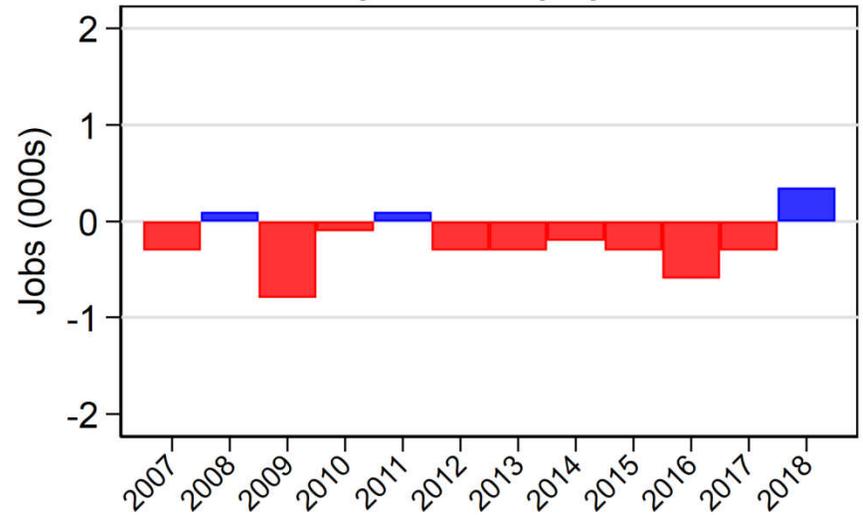
Other Transportation Includes Shipbuilding



Chemical Manufacturing Includes Pharmaceuticals



Computer Equipment



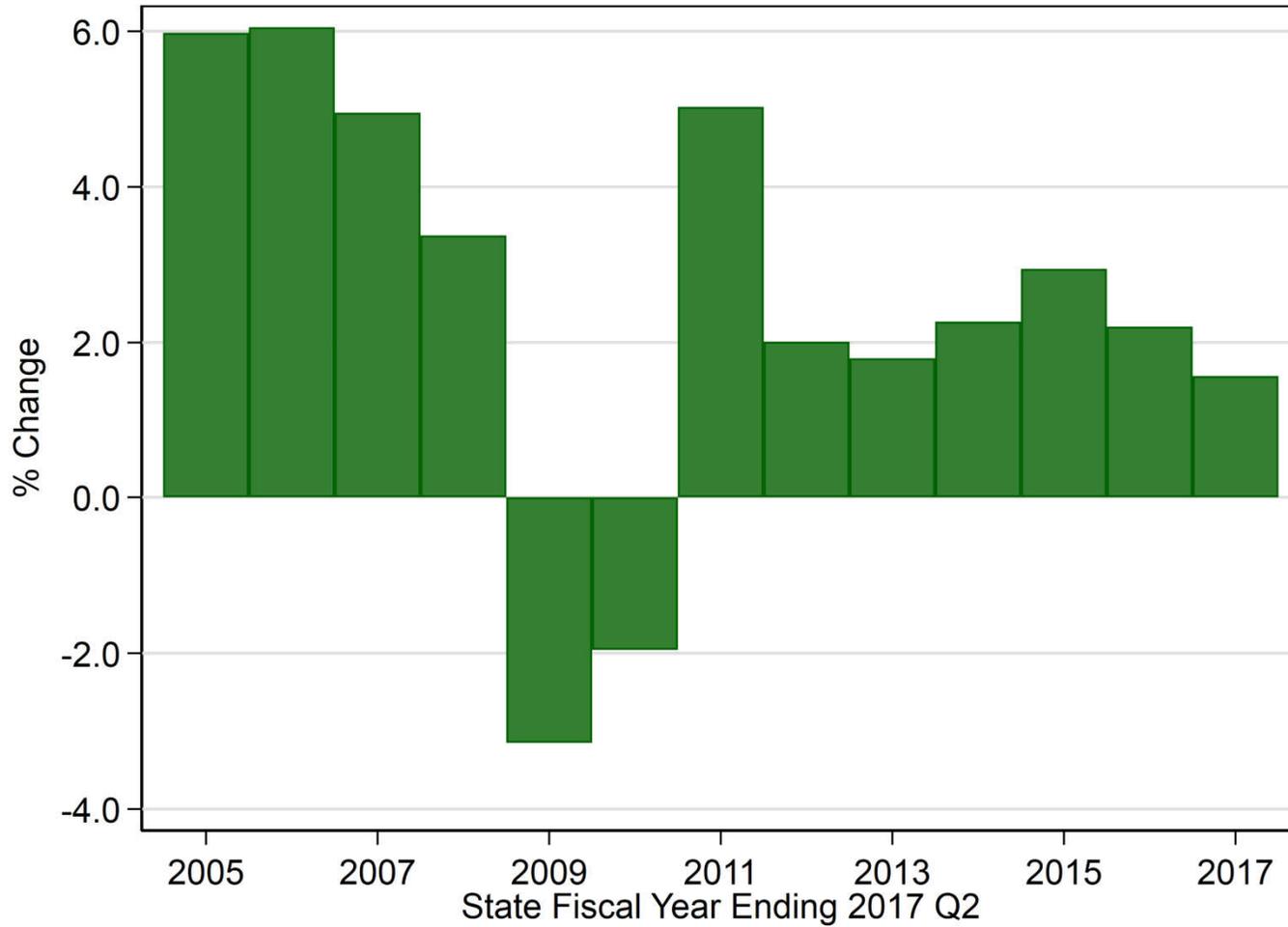
Total Wages



"No, literally, your money's no good here."

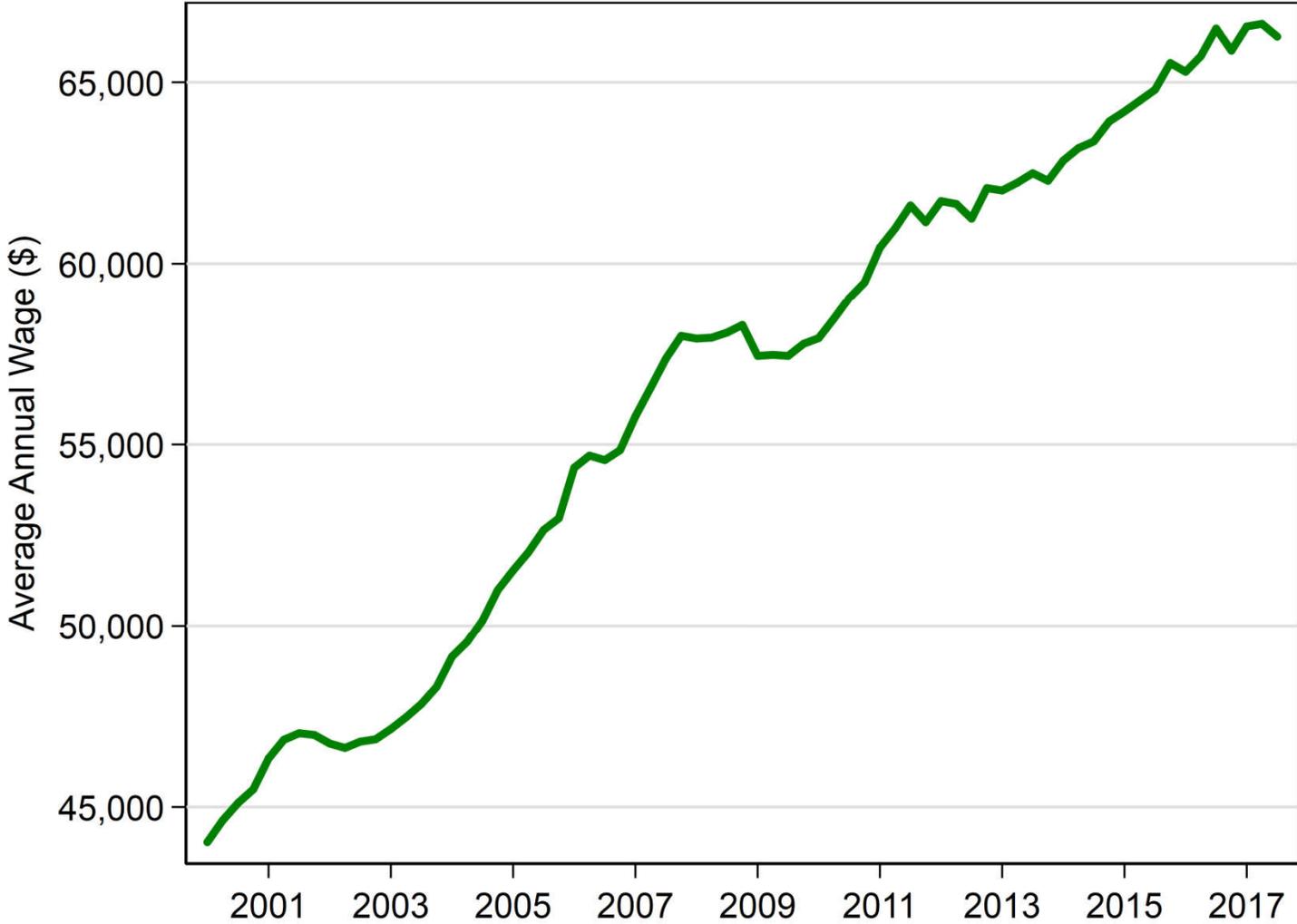
Total Wages & Salaries

Annual % Change



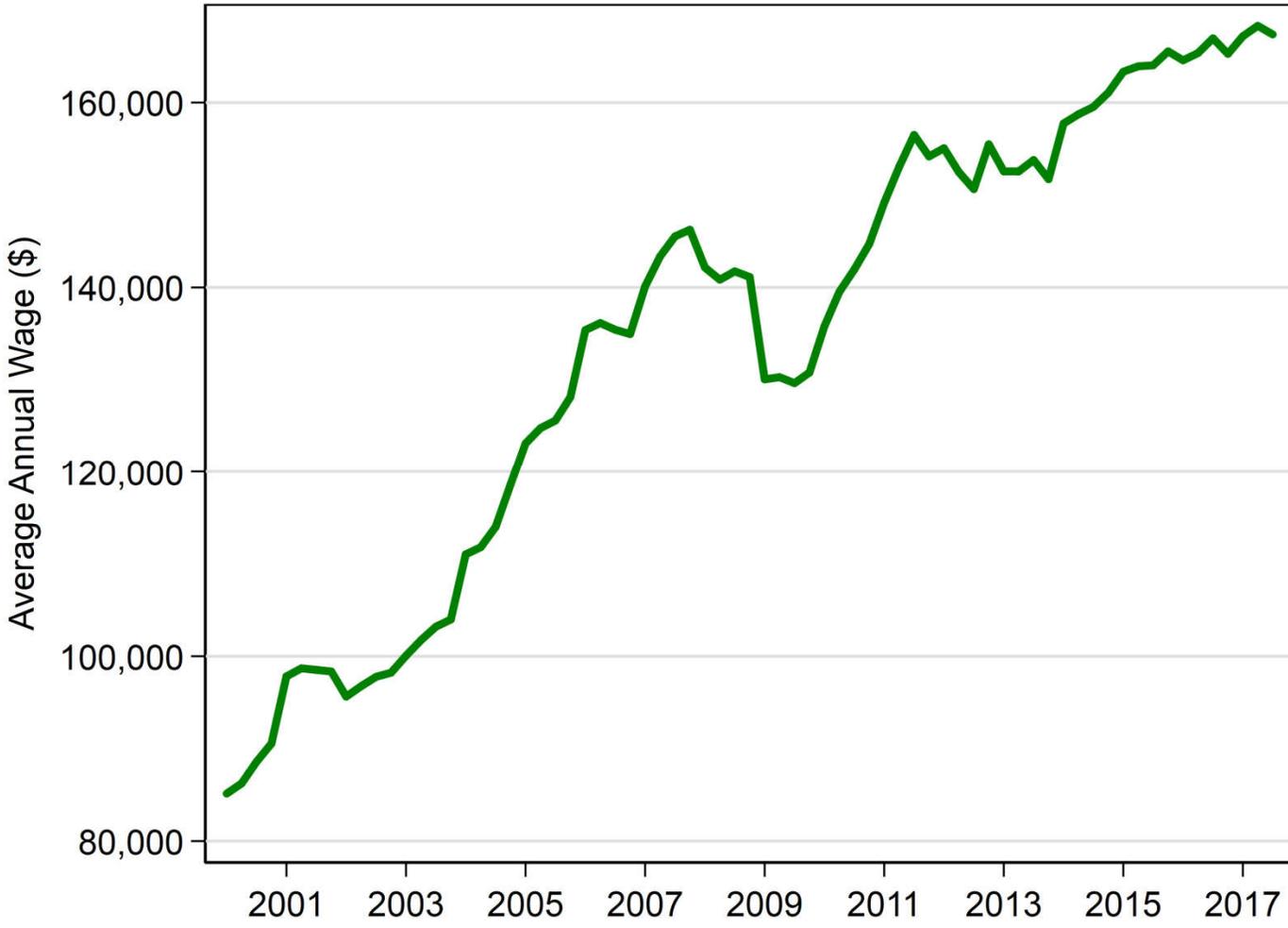
Average Wages & Salaries

All Industries

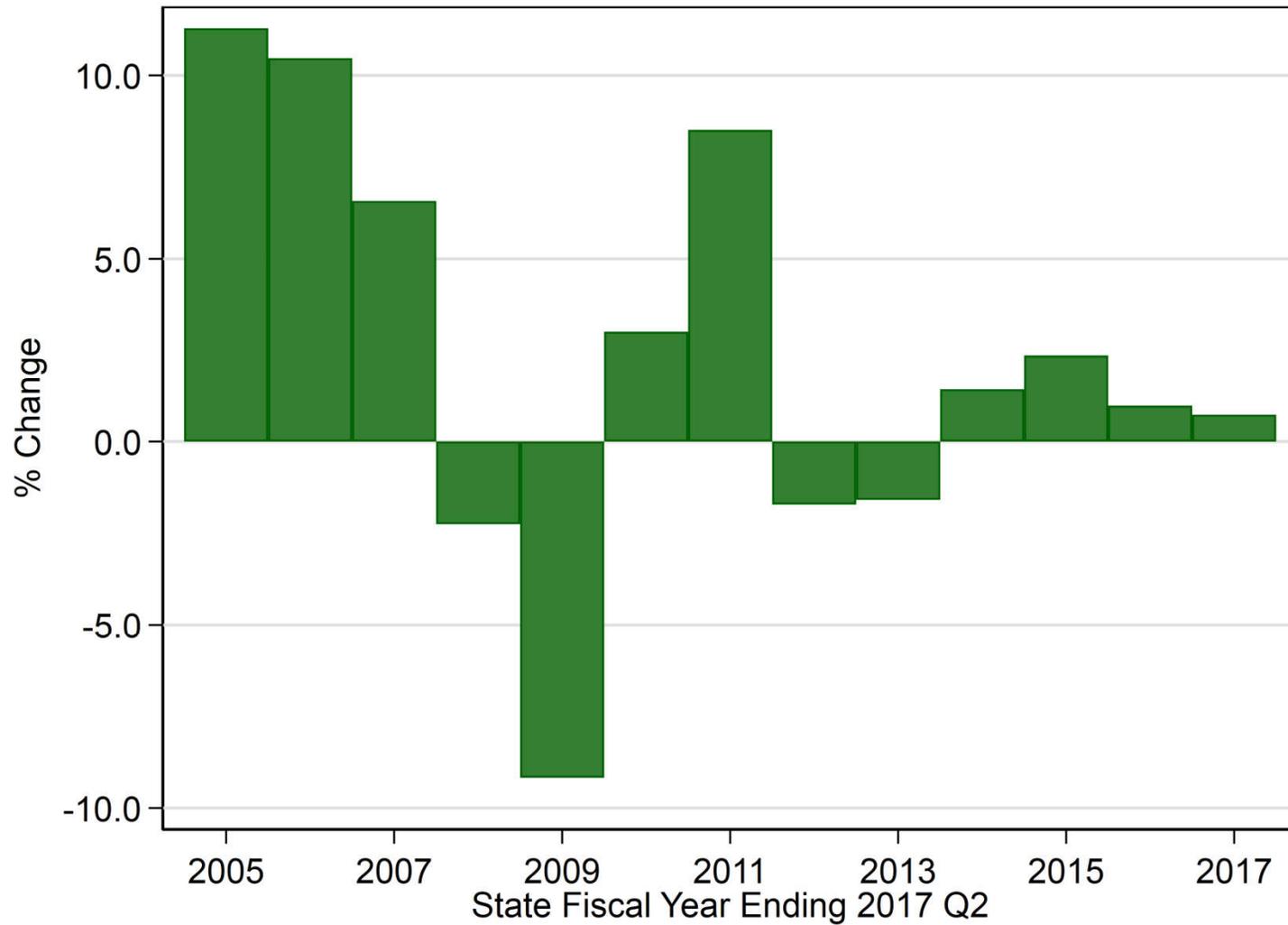


Average Wages & Salaries

Finance & Insurance

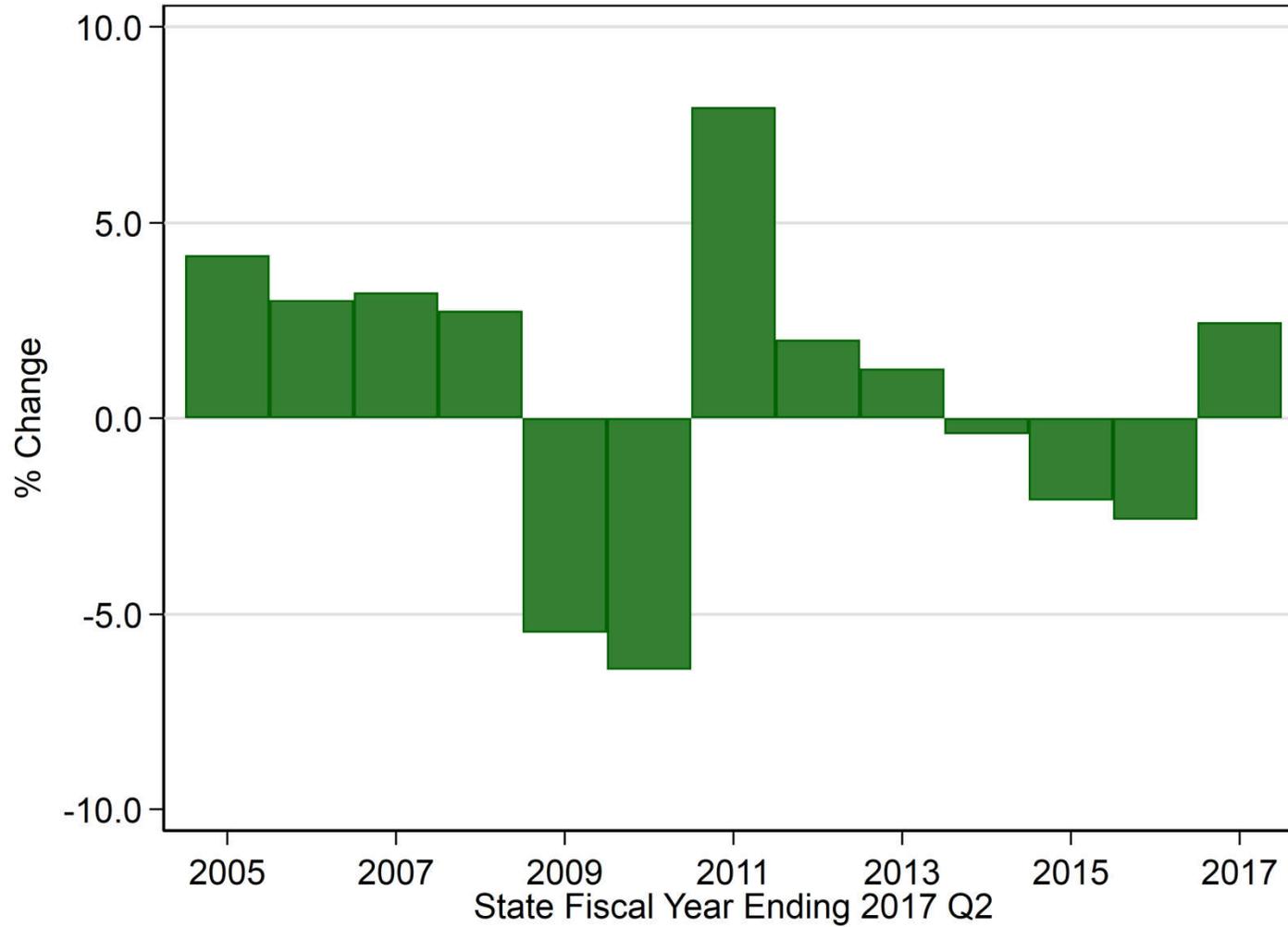


Total Wage Change Finance & Insurance



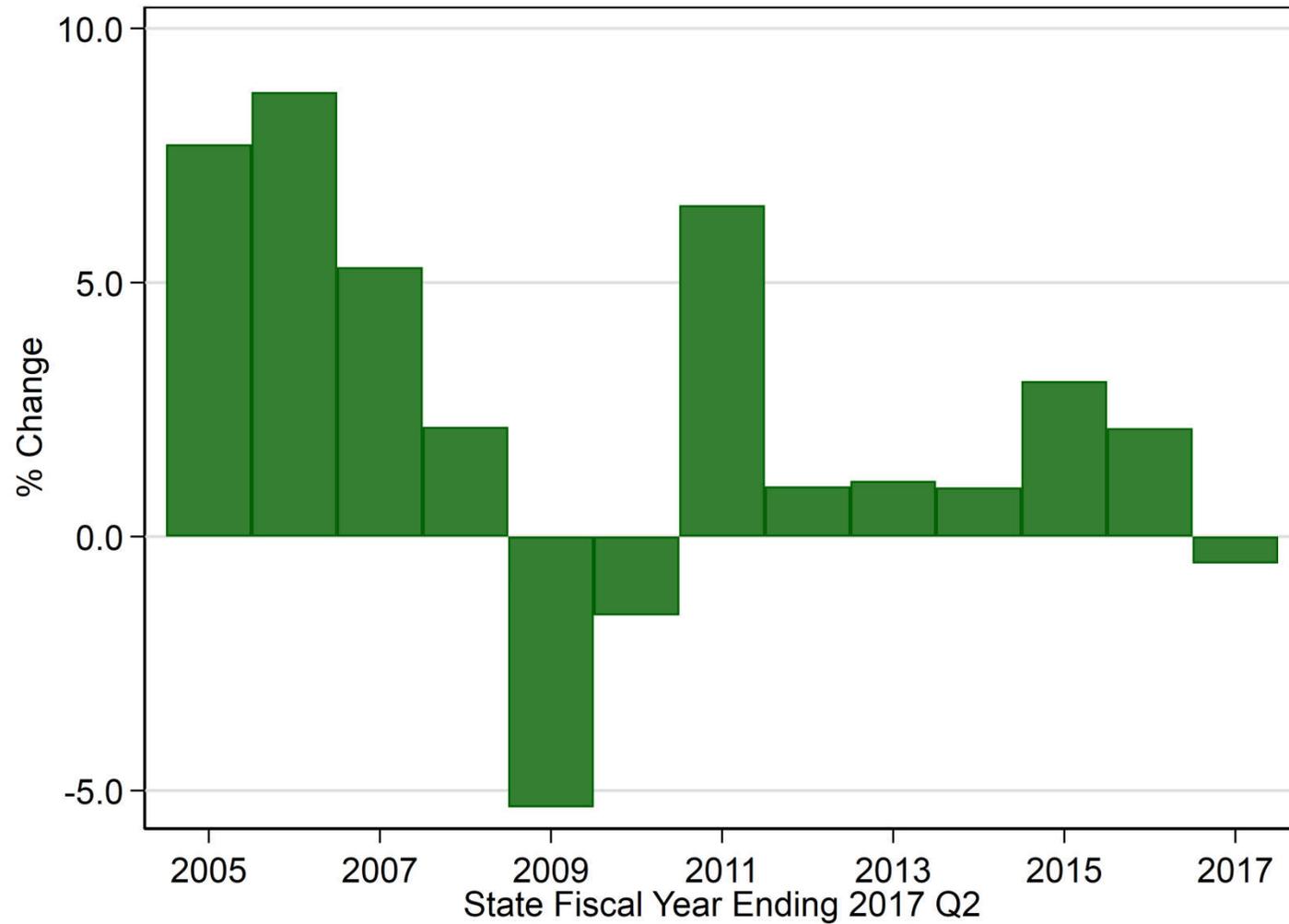
Total Wage Change

Manufacturing



Total Wage Change

All Industries – Southwestern Connecticut



Population Projections

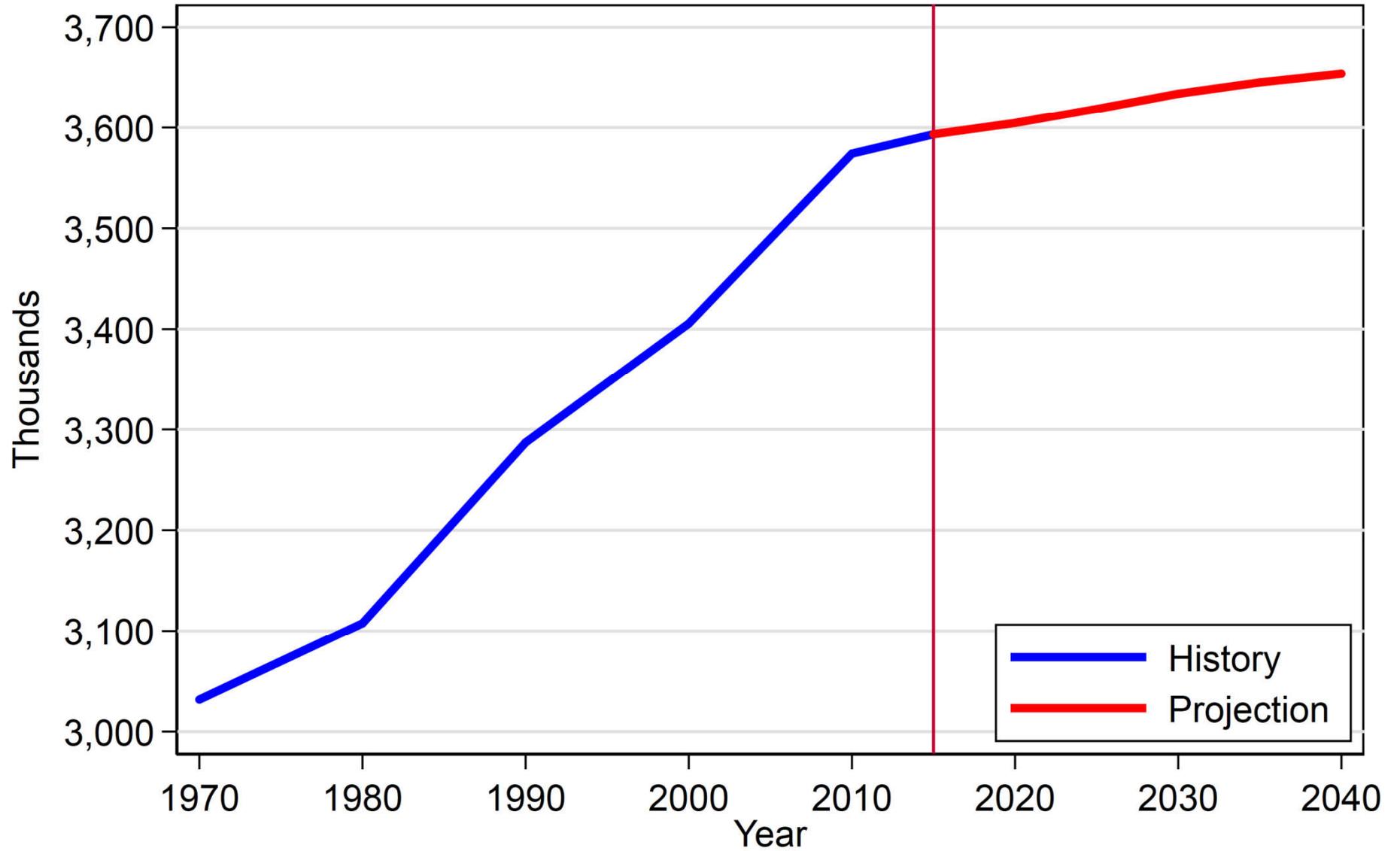
 Wash Post 9:09 AM ^

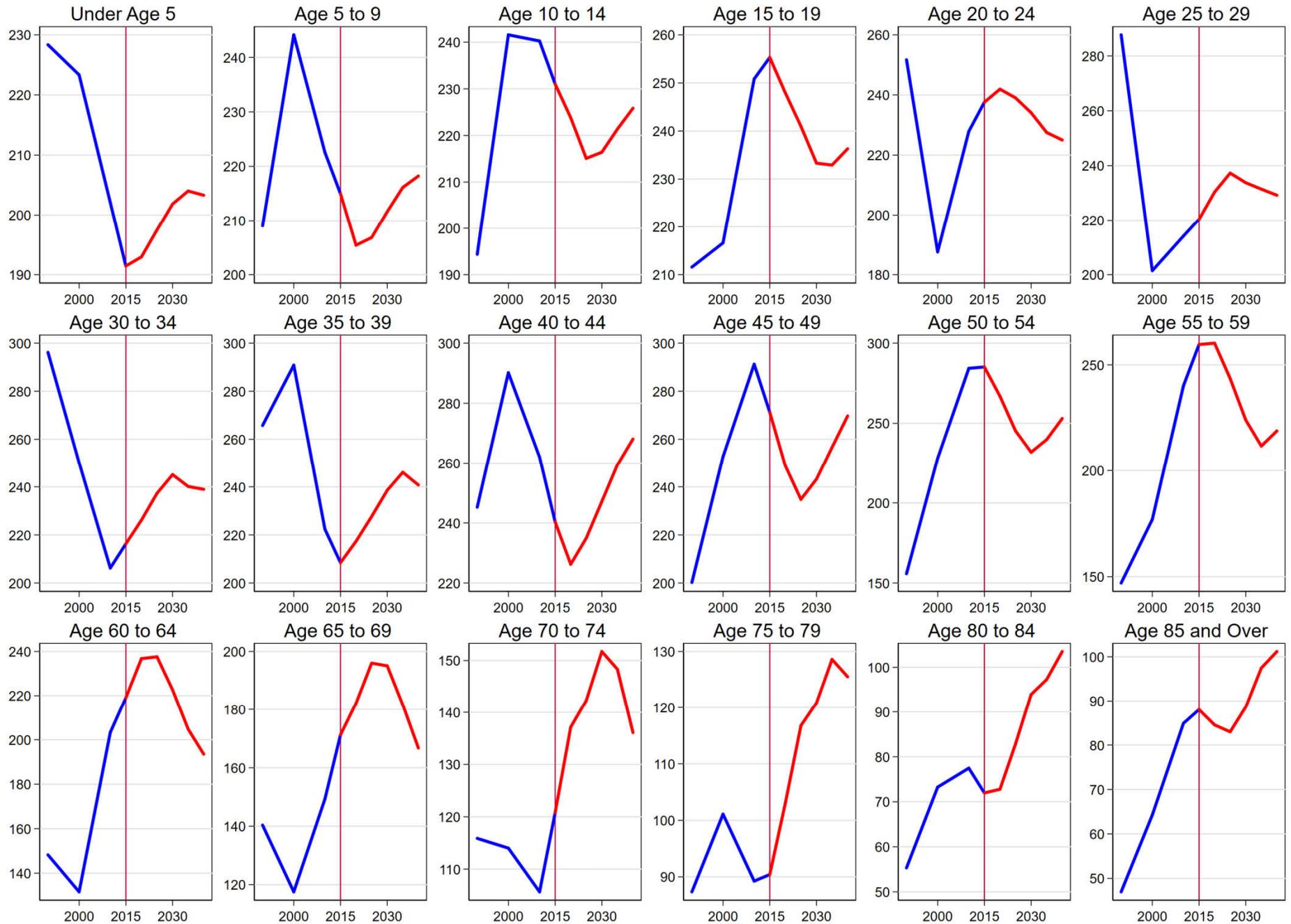
Baby bust

One troubling reason Toys R Us says it had to shut down: Not enough American babies

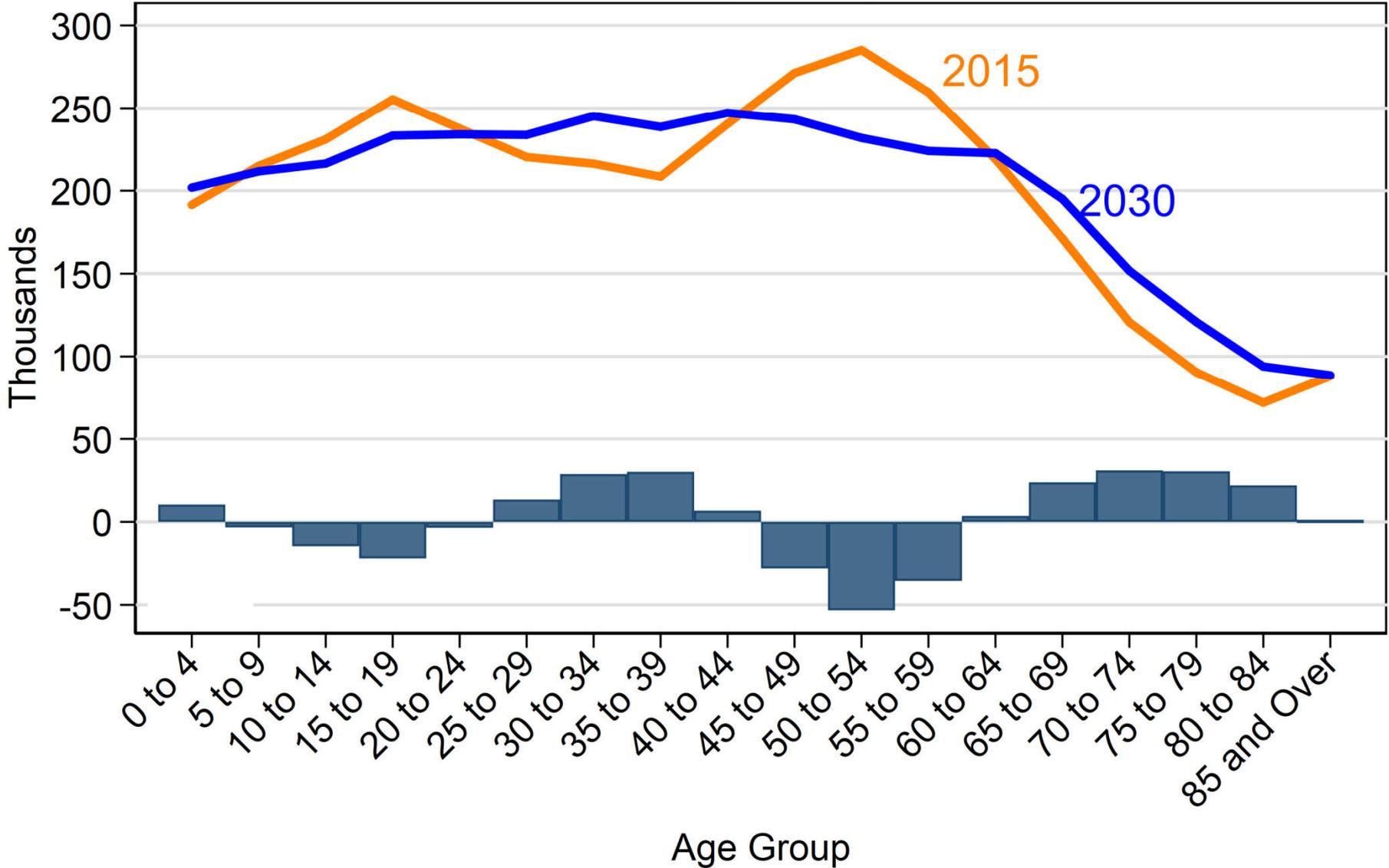
Connecticut Population

Total

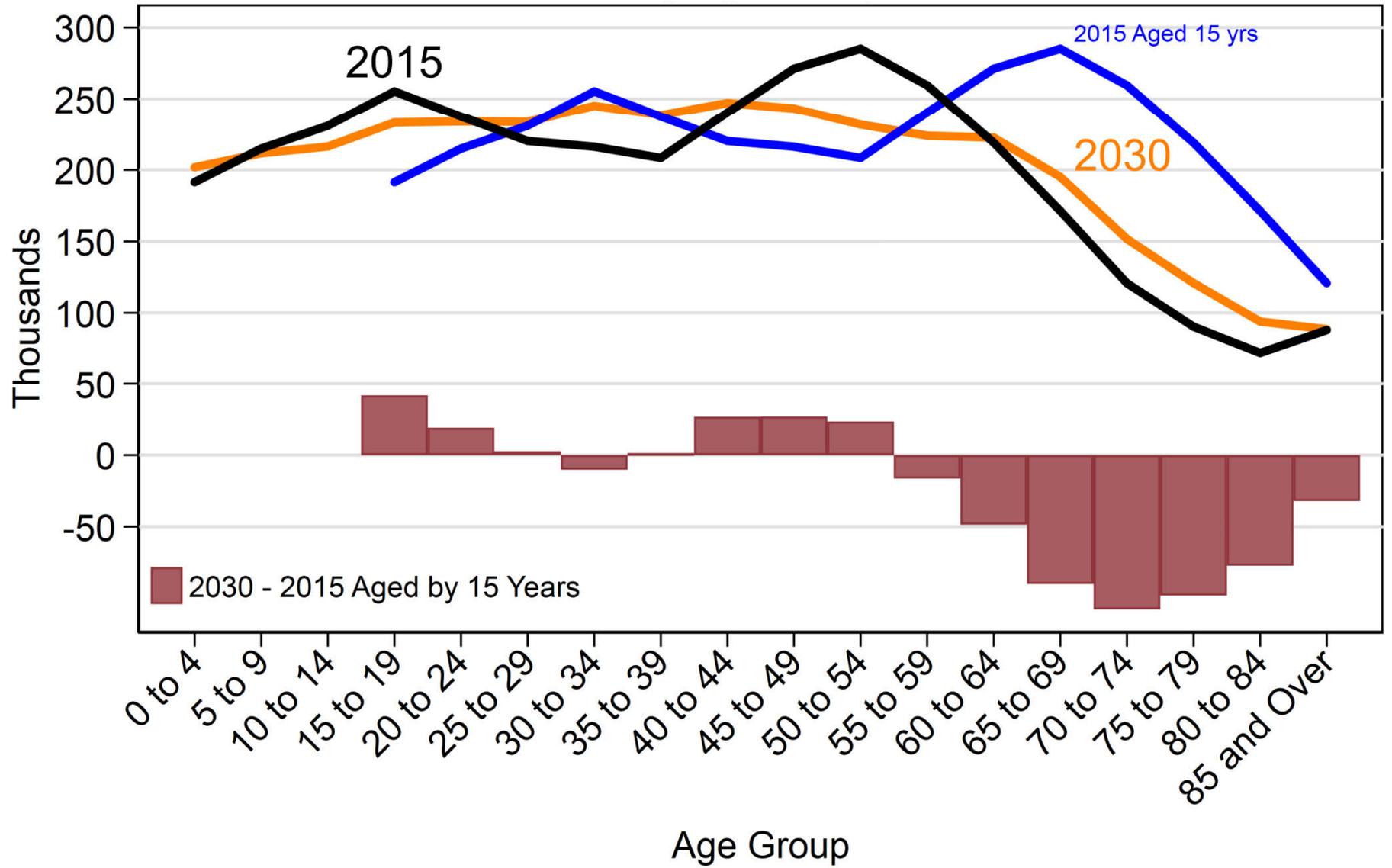




Connecticut Population By Age Group

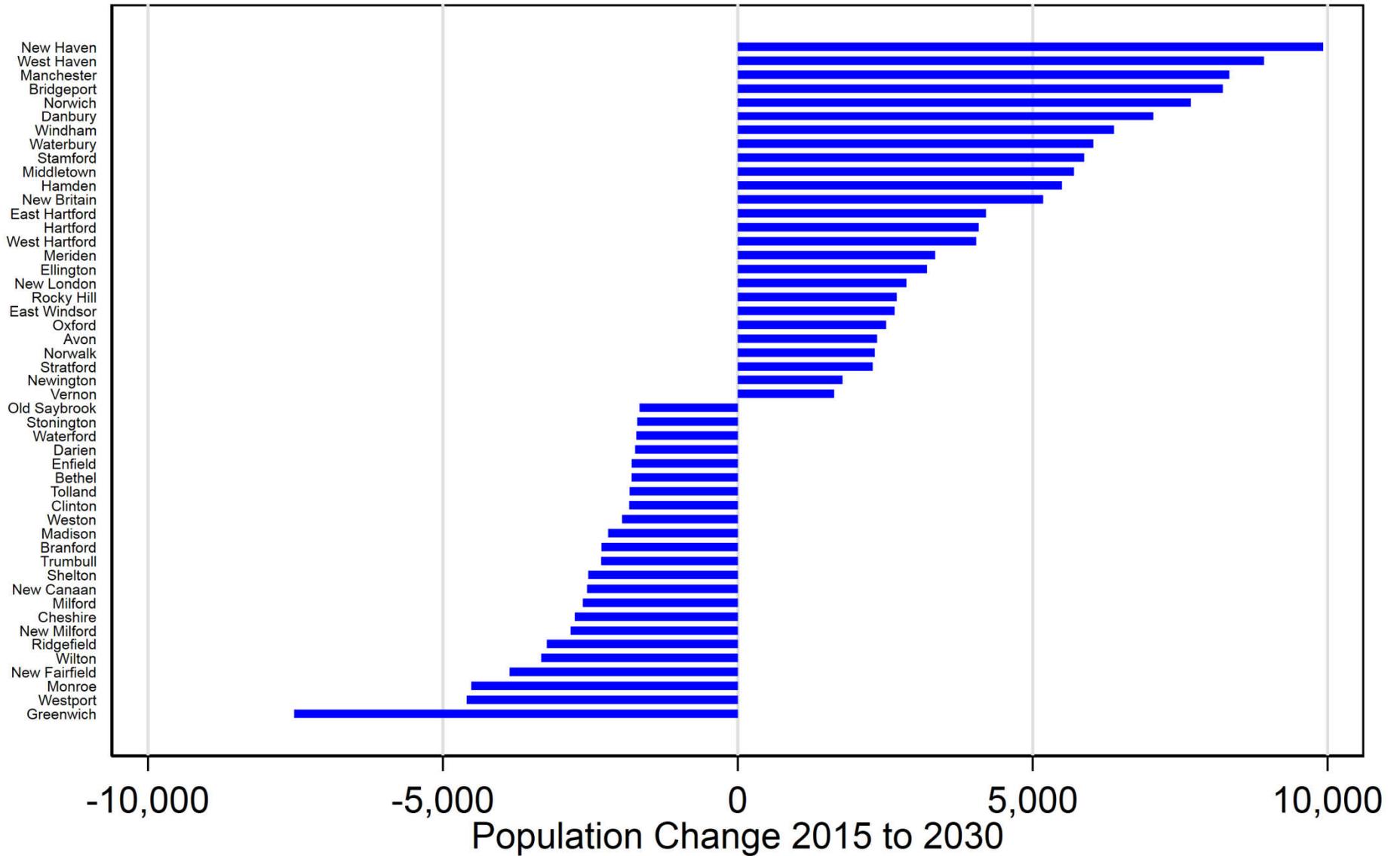


Connecticut Population By Age Group



Population Gains or Losses

Towns with Increase or Decline 1,500 or More



Projected Population Change 2015 to 2030

Largest Increases

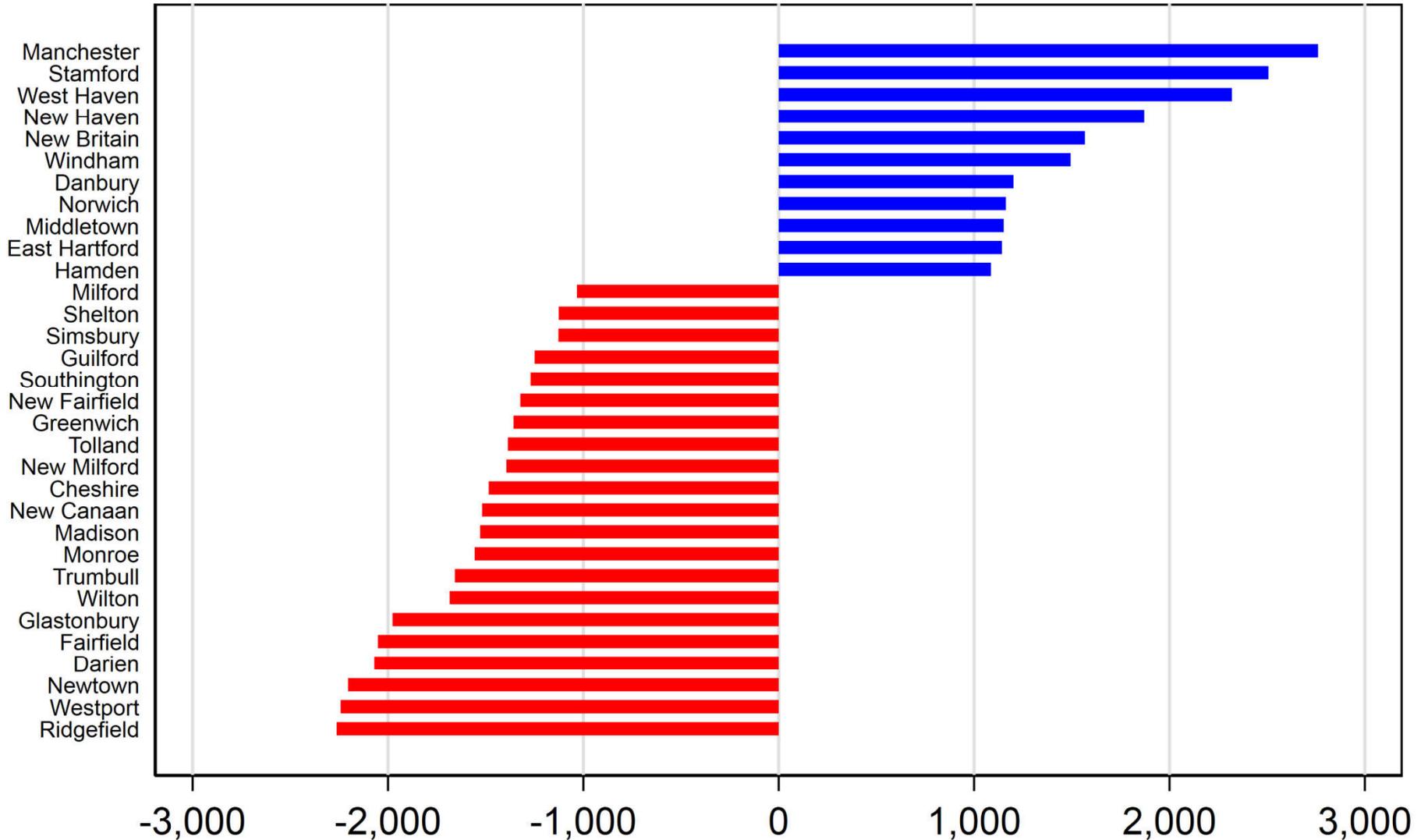
- New Haven
- West Haven
- Manchester
- Bridgeport
- Norwich
- Danbury
- Windham
- Stamford

Largest Declines

- Greenwich
- Westport
- Monroe
- New Fairfield
- Wilton
- Ridgefield
- New Milford
- Cheshire

School-Aged Population Gains or Losses

Towns with Increase or Decline 1,000 or More



For this chart "School-Aged" is population aged 5 to 19

School-Aged Population Gains or Losses Projections 2015 to 2030

Largest Increases

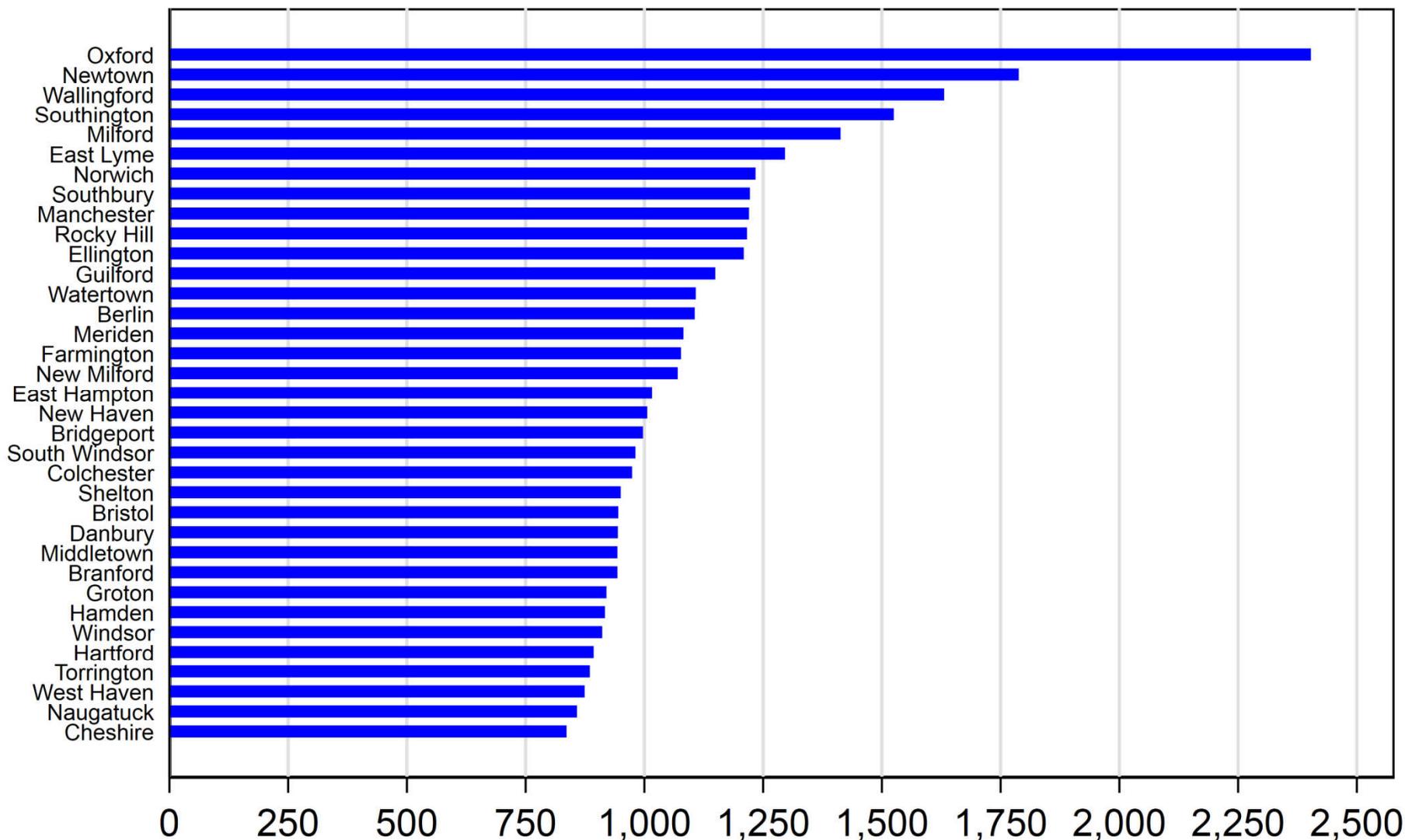
- Manchester
- Stamford
- West Haven
- New Haven
- New Britain
- Windham
- Danbury
- Norwich
- Middletown
- East Hartford

Largest Decreases

- Ridgefield
- Westport
- Newtown
- Darien
- Fairfield
- Glastonbury
- Wilton
- Trumbull
- Monroe
- Madison

Senior Population Gains

Towns with Increase of 750 or More



For this chart "Seniors" is population aged 70 and Above

From: Bentsen, Todd
To: Bentsen, Todd
Cc:

Sent: Wed 9/21/2016 5:35

Subject: August 2016 Labor Force Data for State of Connecticut Labor Market Areas & Towns

Message  aug2016laborsit.pdf (436 KB)  august2016glance.pdf (163 KB)  cedsep16.pdf (357 KB)  August2016BusChanges.pdf (241 KB)  august2016laus.pdf (23 KB)
 CTAffirmAction-2ndQtr2016.pdf (465 KB)



Connecticut Economic Digest

Every month the Economic Digest provides the most current economic data available for Connecticut. Decision-makers from many arenas are better informed because the Digest makes it possible to follow the trends and understand the status of economic forces that influence Connecticut's labor markets. We are pleased to continue providing information that is useful in making decisions, setting plans, and engaging in informed conversation. Go to www1.ctdol.state.ct.us/lmi/ctdigest.asp



Connecticut Labor Market Information At-A-Glance

The Office of Research gathers, analyzes, and disseminates information on the economy, workforce and careers that is used to evaluate the economic health of Connecticut, to support and promote state workforce development activities, and to assist students and job seekers in making career choices. At-A-Glance is a monthly pamphlet that contains the latest updates for data items most frequently requested. Go to www1.ctdol.state.ct.us/lmi/ataglance/ataglance.asp



Connecticut Labor Situation

Highlights changes from both a month and a year earlier in unemployment, nonfarm employment, and changes over-the-year for manufacturing wages and hours for the State and its nine labor market areas. Other economic indicators for CT, such as seasonally adjusted nonfarm employment, average weekly initial claims for unemployment insurance, the unemployment rate, and average manufacturing weekly hours, are listed by month for the entire previous year up to the current period. Go to www1.ctdol.state.ct.us/lmi/laborsit.asp



Connecticut Business & Employment Changes Announced in the News Media

This publication lists start-ups, expansions, staff reductions, and layoffs reported by the media, both current and future. The report provides company name, the number of workers involved, date of the action, the principal product or service of the company, a brief synopsis of the action, and the source and date of the media article. Go to www1.ctdol.state.ct.us/lmi/busemp.asp

Connecticut Department of Labor

Office of Research

Patrick J. Flaherty

Assistant Director of Research and Information & Economist

Office of Research, Department of Labor

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Wethersfield, CT 06109

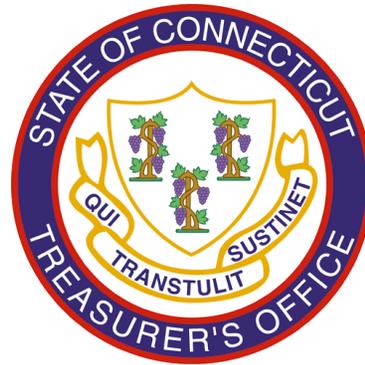
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Office of Connecticut State Treasurer Denise L. Nappier



2018 Public Finance Outlook Conference