CONNECTICUT'S SHORT-TERM EMPLOYMENT OUTLOOK 2023-2025

Connecticut Department of Labor

Office of Research
200 Folly Brook Blvd. Wethersfield, CT 06109

Connecticut's Short-Term Employment Outlook: 2023-2025

June 2024
Office of Research, CT. Department of Labor

Prepared by:
Matthew Krzyzek
Economist

The Connecticut Economy
Four Years After the 2020 Recession

This annual outlook includes a review of various data sources to help contextualize the recent economic trends and the current state of our labor force. It also contains a detailed review of short-term employment projections through 2025 to help illustrate where we expect the state economy will add jobs. Additional areas of focus include a look at STEM occupational projections, the housing market, Bioscience, Current Job Ads, and Connecticut population trends.

The Connecticut Labor Market

Current Situation

In the four years since the brief 2020 recession, the US and Connecticut have recovered all their respective jobs lost during the 2020 recession. As of April 2024, the US has a recovery rate of 127% and Connecticut has a 102% recovery rate. Most northeast states have recovered all the jobs lost during the 2020 recession. Connecticut has present employment of 1.706 million, just over peak February 2020 levels. The nearby states of New York, Massachusetts, and Rhode Island are respectively at -0.1%, -0.3%, and 1.1% of February 2020 employment levels.

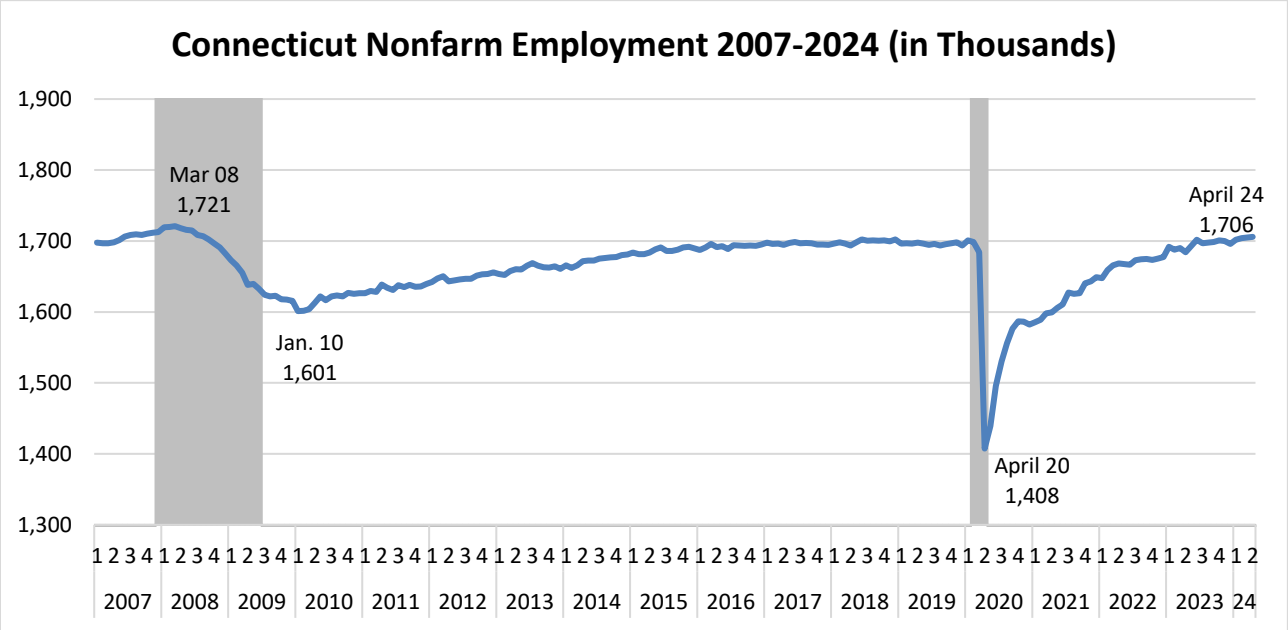
Total Nonfarm Jobs Lost & Recovered Since 2020 in the U.S., CT, & Nearby States (in Thousands)

Area	U.S. Peak	U.S. Trough	Peak/Trough Change		Current Month	Peak to Current Month Change		Recovery
	Feb. 2020	Apr. 2020	#	%	April 2024	#	%	Rate
United States	**152,309**	**130,421**	**-21,888**	**-14.4%**	158,271	**5,962**	**3.9%**	**127%**
Connecticut	1,699	1,408	-291	-17.1%	1,706	7	0.4%	102%
Maine	638	544	-94	-14.7%	656	18	2.9%	119%
Massachusetts	3,746	3,064	-683	-18.2%	3,733	-13	-0.3%	98%
New Hampshire	690	572	-118	-17.1%	705	15	2.2%	113%
New Jersey	4,218	3,491	-726	-17.2%	4,374	157	3.7%	122%
New York	9,836	7,853	-1,983	-20.2%	9,830	-6	-0.1%	100%
Pennsylvania	6,086	4,961	-1,126	-18.5%	6,150	63	1.0%	106%
Rhode Island	508	399	-109	-21.4%	514	6	1.1%	105%
Vermont	316	249	-67	-21.3%	315	-1	-0.3%	98%

Seasonal Adjusted

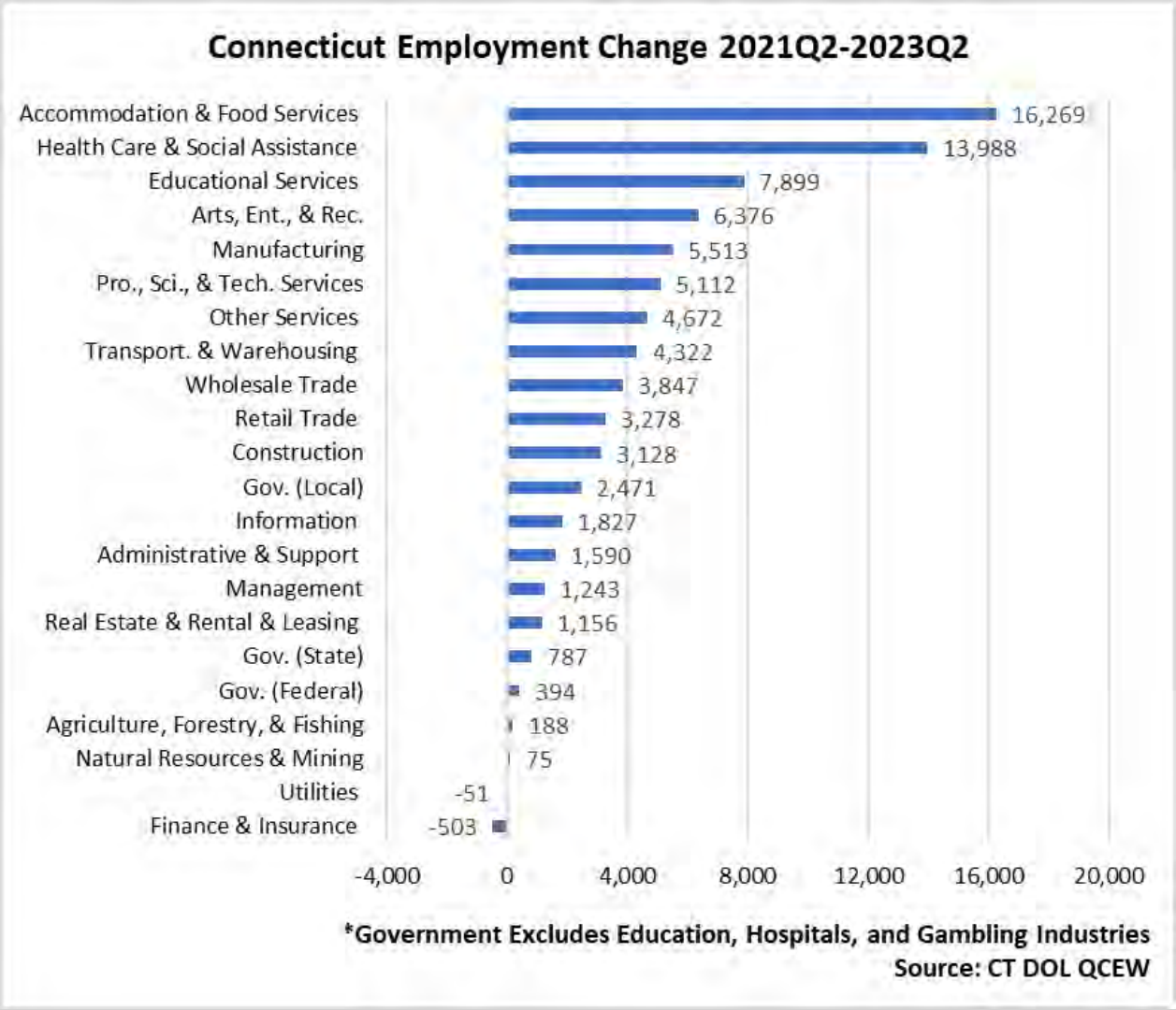
Source: CT Dept. of Labor & BLS CES

The following figure illustrates total Nonfarm Employment in Connecticut from 2007-2024. This range includes two employment peaks, two recessions, and two employment troughs. It contextualizes the short and steep nature of the 2020 recession compared to the great recession and how the state has steadily added jobs from 2020 through April 2024. The post-2020 recovery slope has been much steeper than the more gradual recovery that occurred after the 2007-2009 recession. The state's employment is now within 15,000 of the previous peak that occurred during March 2008.



Industry Employment Change

Each year, the Connecticut Department of Labor produces short-term projections by industry and occupation. The most recent projections are for the two-year period 2023Q2 through 2025Q2. The previous two-year period (2021Q2 to 2023Q2) begins one year after the start of the pandemic and as restrictions to the economy began to be lifted along with the rollout of widespread vaccination campaigns. Connecticut's overall employment was up 83,582 or +5.3% from 2021Q2 to 2023Q3. Over half of the two-year employment increase occurred in four sectors. These sectors were Accommodation & Food Services (19% of total growth or +16,269), Health Care & Social Assistance (17% or +13,988), Educational Services (9% or +7,899), and Arts, Entertainment & Recreation (8% or +6,376).



As shown in the chart above, during the two years leading up to the 2023Q2 base period, Finance & Insurance (-503) and Utilities (-51) were the only two declining industries. The following table includes second-quarter industry employment from 2021-2023.

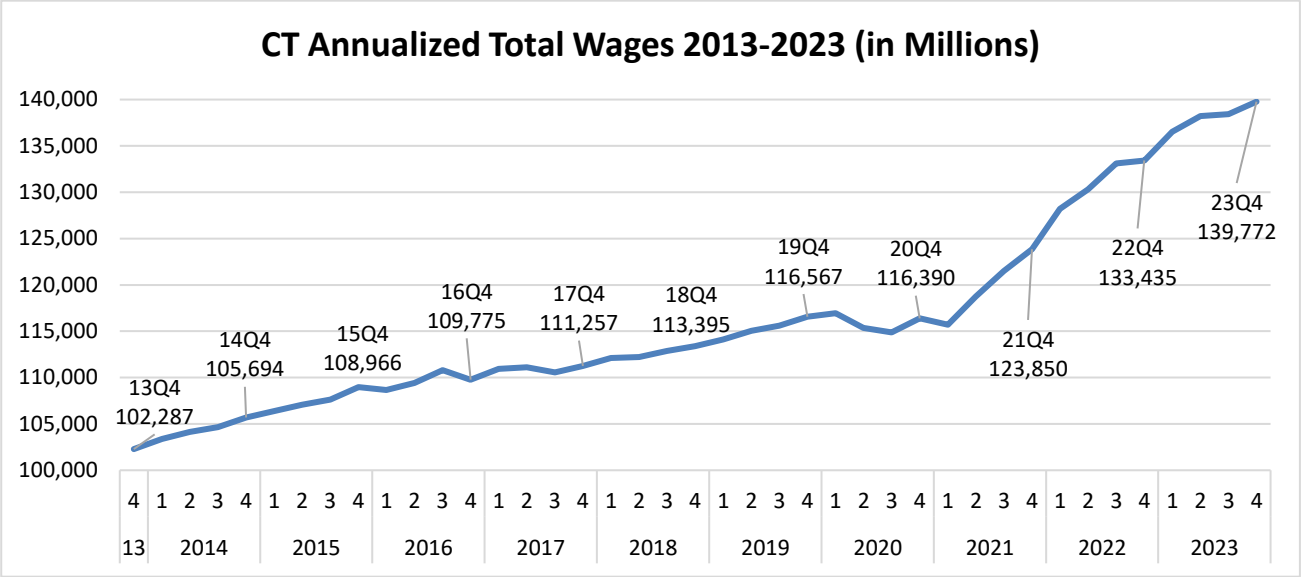
Total Employment By Industry

NAICS	Industry	2021Q2	2023Q2	21Q2-23Q2 Change	
				#	%
00	**Total**	**1,583,188**	**1,666,770**	**83,582**	**5.3%**
11	Agriculture, Forestry, & Fishing	5,267	5,455	188	3.6%
21	Natural Resources & Mining	483	558	75	15.5%
22	Utilities	5,004	4,953	-51	-1.0%
23	Construction	60,064	63,192	3,128	5.2%
31-33	Manufacturing	152,360	157,873	5,513	3.6%
42	Wholesale Trade	56,938	60,785	3,847	6.8%
44-45	Retail Trade	162,503	165,781	3,278	2.0%
48-49	Transportation and Warehousing	65,349	69,671	4,322	6.6%
51	Information	29,346	31,172	1,827	6.2%
52	Finance and Insurance	97,110	96,608	-503	-0.5%
53	Real Estate and Rental and Leasing	18,461	19,617	1,156	6.3%
54	Pro., Sci., & Tech. Services	94,999	100,111	5,112	5.4%
55	Management of Companies and Enterprises	30,358	31,602	1,243	4.1%
56	Administrative & Support	88,748	90,338	1,590	1.8%
61	Educational Services	167,311	175,211	7,899	4.7%
62	Health Care and Social Assistance	284,948	298,937	13,988	4.9%
71	Arts, Entertainment, and Recreation	23,622	29,998	6,376	27.0%
72	Accommodation and Food Services	110,893	127,162	16,269	14.7%
81	Other Services	50,104	54,775	4,672	9.3%
921	Total Federal Government Employment	6,184	6,578	394	6.4%
922	State Government, Excluding Education and Hospitals	25,737	26,524	787	3.1%
923	Local Government, Excluding Education and Hospitals	47,399	49,870	2,471	5.2%

Source: CT DOL, QCEW

Total Wage Change

Total wages by industry is an important measure of the overall impact of major sectors on the Connecticut economy. In 2020, the impact of the brief shutdown recession on total wages can be seen in the graph below. From 2019 to 2020, total wages remained flat at approximately $116 billion. During 2021 and 2022, total wages rose by 6.4% to $123.9 billion in 2021 and by 7.7% in 2022 to $133.4 billion. As of the fourth quarter of 2023, the four-quarter total wages for Connecticut are $139.8 billion, up $6.4 billion from a year ago and up $23.4 billion from 2020.



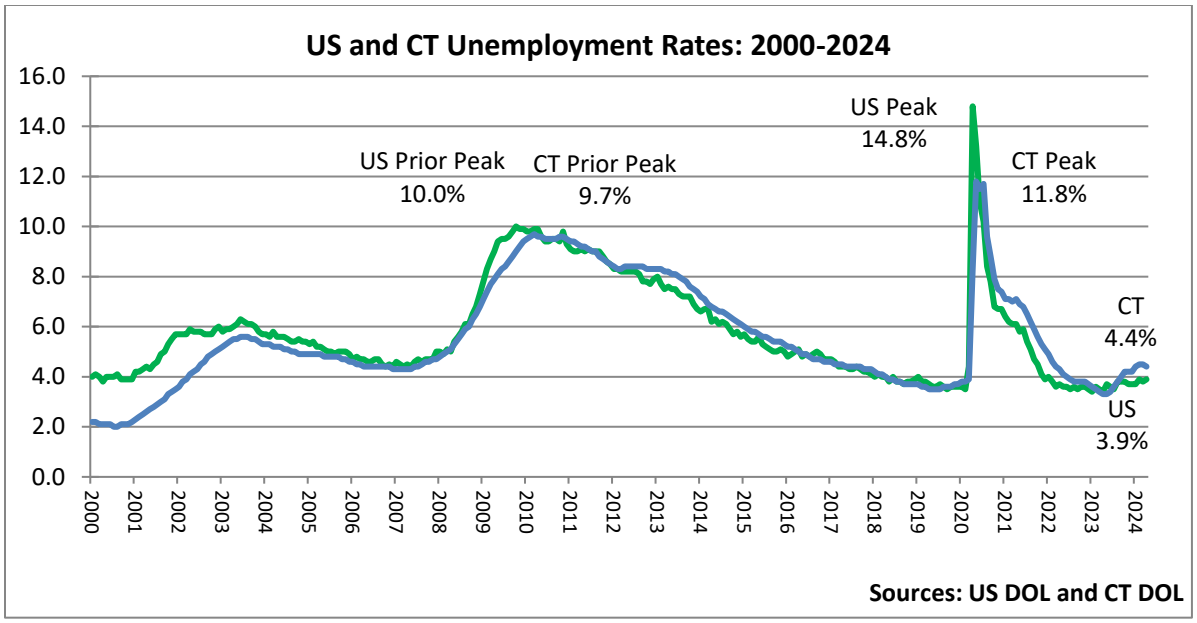
Comparing industry total wages for 2021Q2 and 2023Q2 helps illustrate how the state economy was performing in the two years leading up to our 2023-2025 projections. During that two-year period, total wages were up $19.5 billion or +16.4%. At the industry level, the largest two-year increases in quarterly total wages occurred in Health Care & Social Assistance (+511 mill. or +11.7%) and Professional, Scientific, & Technical Services (+$413 mill. or +15.2%). By two-year percent change, the largest two year industry increases occurred in Arts, Entertainment, & Recreation (+32.1% or +$76 mill.) and Accommodations & Food Services (+28.2% or +$229 mill). These two industries were among the hardest hit during the 2020 recession, which explains their large percent increase in total wages during the subsequent years as those industries recovered their large employment losses.

Total Quarterly Wages by Industry (In Millions)

NAICS	Industry	2021Q2	2023Q2	21Q2-23Q2 Change	
				#	%
0	**Total**	**$29,109**	**$32,927**	**$3,818**	**13.1%**
11	Agriculture	$57	$63	$6	10.5%
21	Mining & Extraction	$8	$9	$1	10.3%
22	Utilities	$205	$230	$26	12.5%
23	Construction	$1,162	$1,348	$186	16.0%
31	Manufacturing	$3,215	$3,575	$360	11.2%
42	Wholesale Trade	$1,495	$1,727	$231	15.5%
44	Retail Trade	$1,701	$1,793	$92	5.4%
48 -49	Trans. & Warehousing	$869	$1,042	$173	19.8%
51	Information	$1,085	$1,088	$4	0.3%
52	Finance & Insurance	$3,698	$4,107	$409	11.1%
53	Real Estate	$339	$388	$49	14.5%
54	Pro., Sci., & Tech. Services	$2,707	$3,120	$413	15.2%
55	Management	$1,156	$1,262	$107	9.3%
56	Administrative & Support	$1,166	$1,372	$206	17.7%
61	Educational Services	$3,157	$3,508	$351	11.1%
62	Health Care & Social Assistance	$4,353	$4,865	$511	11.7%
71	Arts, Ent., & Rec.	$237	$313	$76	32.1%
72	Accom. & Food Services	$812	$1,041	$229	28.2%
81	Other Services	$540	$656	$116	21.4%
92	Government (Federal)	$151	$169	$18	12.0%
92	Gov. (State)	$477	$579	$103	21.5%
92	Gov. (Local)	$806	$879	$74	9.1%

Unemployment Rate

During 2022 and into 2023, the unemployment rates for the United States and Connecticut both fell back to pre-COVID levels near or below 4.0%. In recent months, Connecticut's unemployment rate has increased to 4.4% as of April 2024, whereas the U.S. rate remains below 4.0% and was 3.9% in April. Connecticut's current unemployment rate is currently at levels comparable to the middle of 2017.



The following table illustrates additional detail on how the COVID pandemic and four years of recovery have impacted specific demographic groups within the U.S. Economy through April 2024. Over the four years since the April 2020 unemployment rate peak, every demographic group shown below experienced an unemployment rate drop of 9 percentage points or more. Additionally, every demographic group is within half a percent of their corresponding rate during the February 2020 overall unemployment rate low.

US Unemploy. Rate Change - Trough, Peak, and Current Month (Seasonally Adjusted)

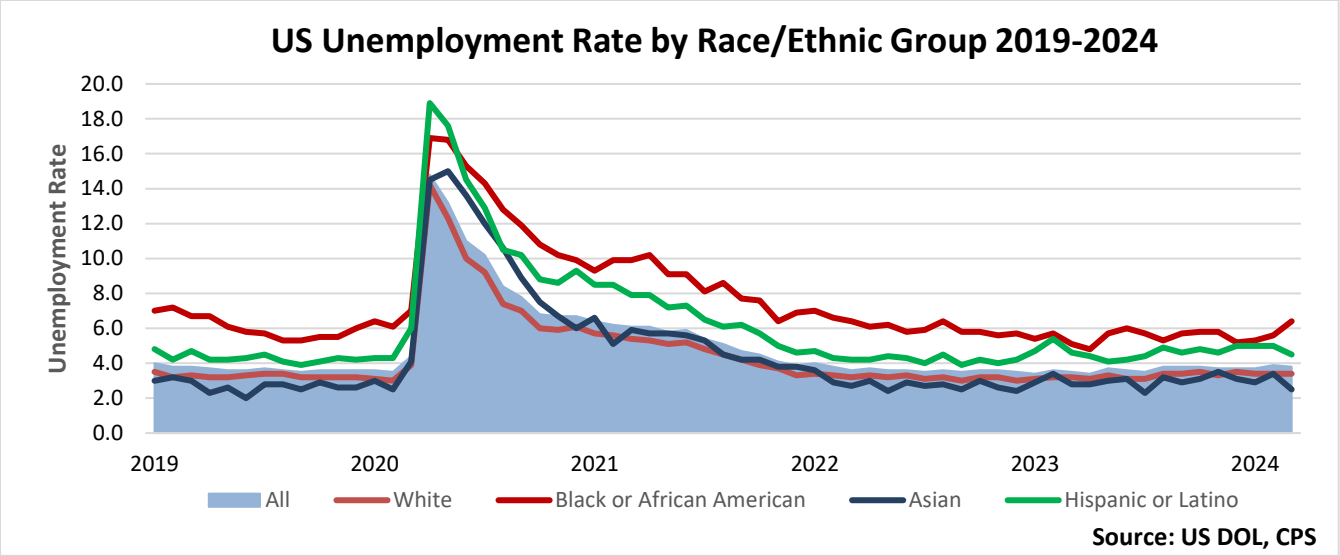
Group	UR Trough Feb. 2020	UR Peak April 2020	Current Month April 2024	% Pt. change Feb. 2020 to Peak	% Pt. change Peak to April 2024
All	3.5	14.8	3.9	11.3	-10.9
Male	3.5	13.5	3.9	10.0	-9.6
Female	3.5	16.2	3.8	12.7	-12.4
Age					
Under 25	7.9	27.5	8.2	19.6	-19.3
25-54	3.0	12.8	3.2	9.8	-9.6
55 and over	2.6	13.6	3.0	11.0	-10.6
Race/Ethnic Group					
White	3	14.2	3.5	11.2	-10.7
Black or African American	6.1	16.9	5.6	10.8	-11.3
Asian	2.5	14.5	2.8	12.0	-11.7
Hispanic or Latino	4.3	18.9	4.8	14.6	-14.1

Source: US DOL, CPS

In February 2020, the unemployment rates for males and females equaled the overall rate of 3.5%. During the two-month recession, the female unemployment rate spiked to 16.2 percent, 1.4 percentage points above the overall rate while the male rate peaked at 13.5 percent. This difference relates to the most heavily-impacted industries employing more females than males. As of April 2024, the female unemployment rate has fallen to 3.8 percent, one percentage point below the male and overall rates.

By age cohort, the Under 25 age group had the largest percentage point increase, up 19.6 points. That increase is 3.5 times higher than February 2020 levels. The 25-54 and Over 54 cohorts had smaller percentage point changes, but due to them having much lower base levels, their rates respectively increased by 4.3 and 5.2 times their February 2020 levels. As of April 2024, the Under-25 U.S. population has an unemployment rate of 8.2%, and the two other cohorts have rates of 3.2 and 3.0 percent.

From February 2020 to April 2020, the four available race/ethnic groups experienced unemployment rate increases of between +10.6 to +14.4 percentage points. In the four years since they have all experienced drops in unemployment rates ranging from 2.8% to 5.6%. Among the four groups, Hispanic or Latino saw the largest February 2020-April 2020 increase and four-year decrease while Black or African American workers have an April 2024 unemployment rate 0.5 percentage points below pre-COVID February 2020 levels. The Asian and White U.S. populations had the lowest base month unemployment rates, peaked at 14.5% and 14.2%, and were respectively 2.8% and 3.5% as of April 2024.



Connecticut unemployment rates by gender and available demographic groups are shown below. Connecticut's year ending March 2024 unemployment rate was 3.7%. The male unemployment rate was 4.4 percent and the female rate was 3.1 percent. From 2021-2023, the female unemployment rate fell by more than half, whereas the male rate was down just over a third.

Among the three available race/ethnic groups, by the year ending March 2024, the unemployment rates for the Black/African American and Hispanic or Latino populations were below 2019 levels. The rate for the White population was up 0.2 percentage points from 2019.

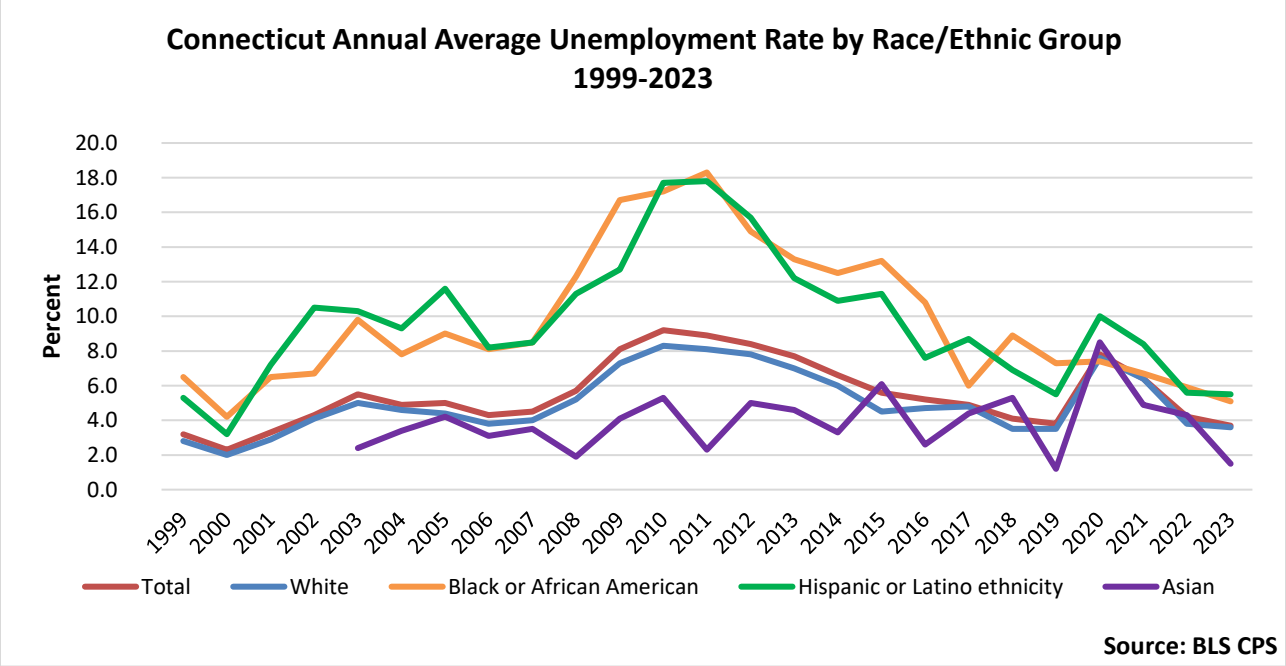
CT Annual Unemployment Rate Change Through 2023 and Year Ending March 2024

Group	Prior UR High 2010	UR Low 2019	2020	2021	2022	2023	Year Ending March 2024	21-22 % Pt Change	22-23 % Pt Change
Total	9.2	3.8	7.8	6.4	4.2	3.7	3.7	-2.2	-0.5
Men	9.9	4.2	8.3	6.6	4.9	4.4	4.4	-1.7	-0.5
Women	8.4	3.4	7.2	6.2	3.3	3	3.1	-2.9	-0.3
Race/Ethnic Group									
White	8.3	3.5	7.6	6.4	3.8	3.6	3.7	-2.6	-0.2
Black or African American	17.2	7.3	7.4	6.7	5.9	5.1	4.5	-0.8	-0.8
Asian	5.3	1.2	8.5	4.9	4.3	1.5	n/d	-0.6	-2.8
Hispanic or Latino	17.7	5.5	10.0	8.4	5.6	5.5	4.7	-2.8	-0.1

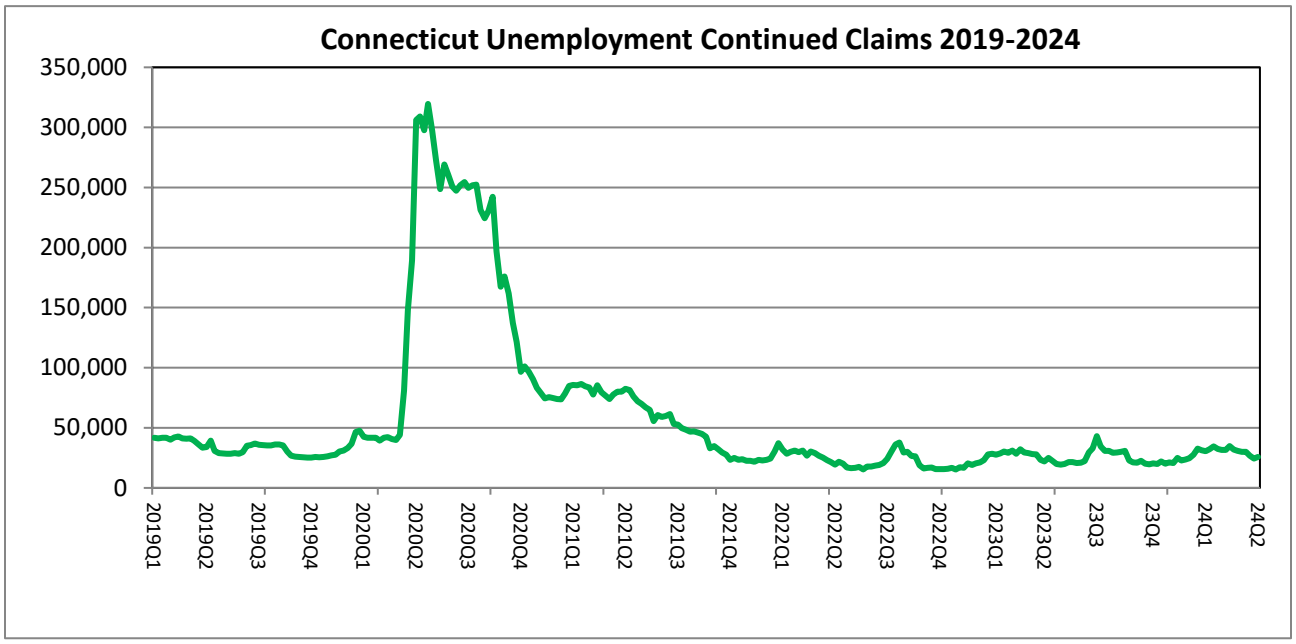
n/d = no data

Source: US DOL, LAUS

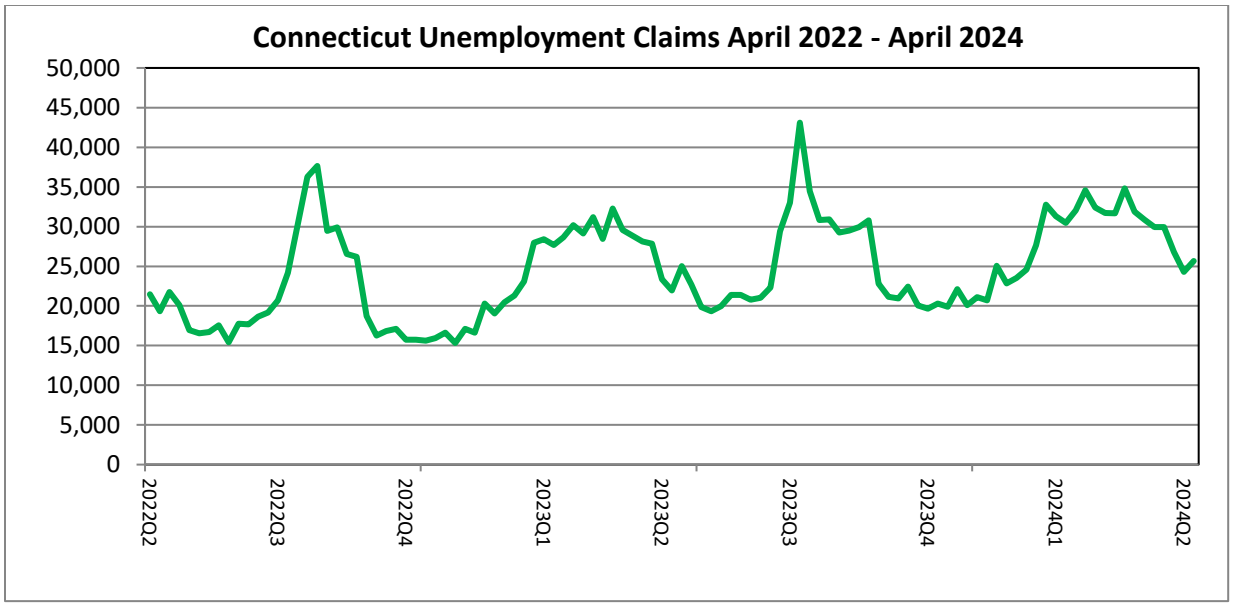
The following graph shows the annual average unemployment rates by race/ethnic group in Connecticut. The 2020-2023 period shows consistent annual average unemployment rate declines across all available race/ethnic groups. The Asian and Black or African American demographic groups had the largest 2022 to 2023 unemployment percentage point decreases, falling by 2.8 and 0.8 percentage points respectively. When compared to pre-COVID 2019 levels, the 2023 overall annual average unemployment rate was 0.1 points lower, at 3.7% vs 3.8%. For specific groups, Black or African American demographic group had the largest percentage point decrease, down 2.2 percentage points from 2019. The unemployment rate for Hispanic or Latino in 2023 was equal to 2019 levels, the 2023 rate for the White group was 0.1 points higher, and the Asian demographic group was 0.3 percentage points above 2019 levels.



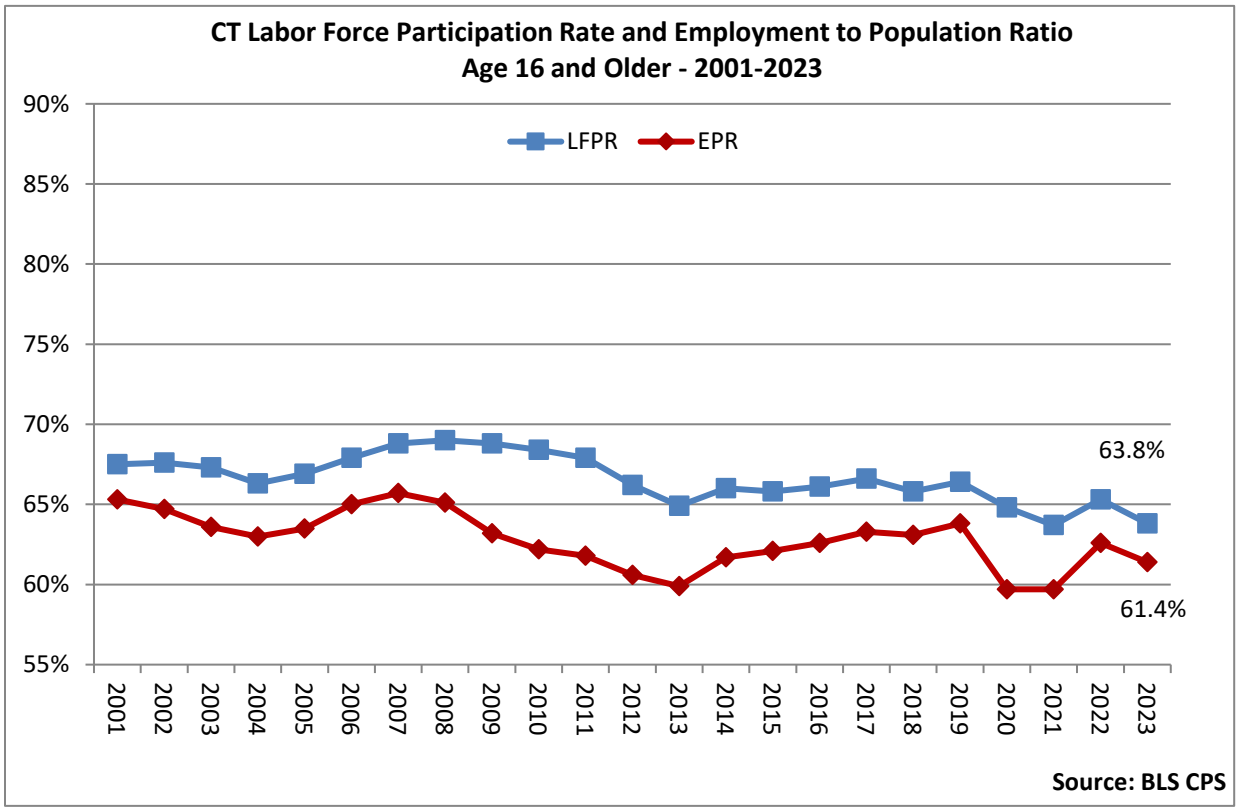
Unemployment Claims



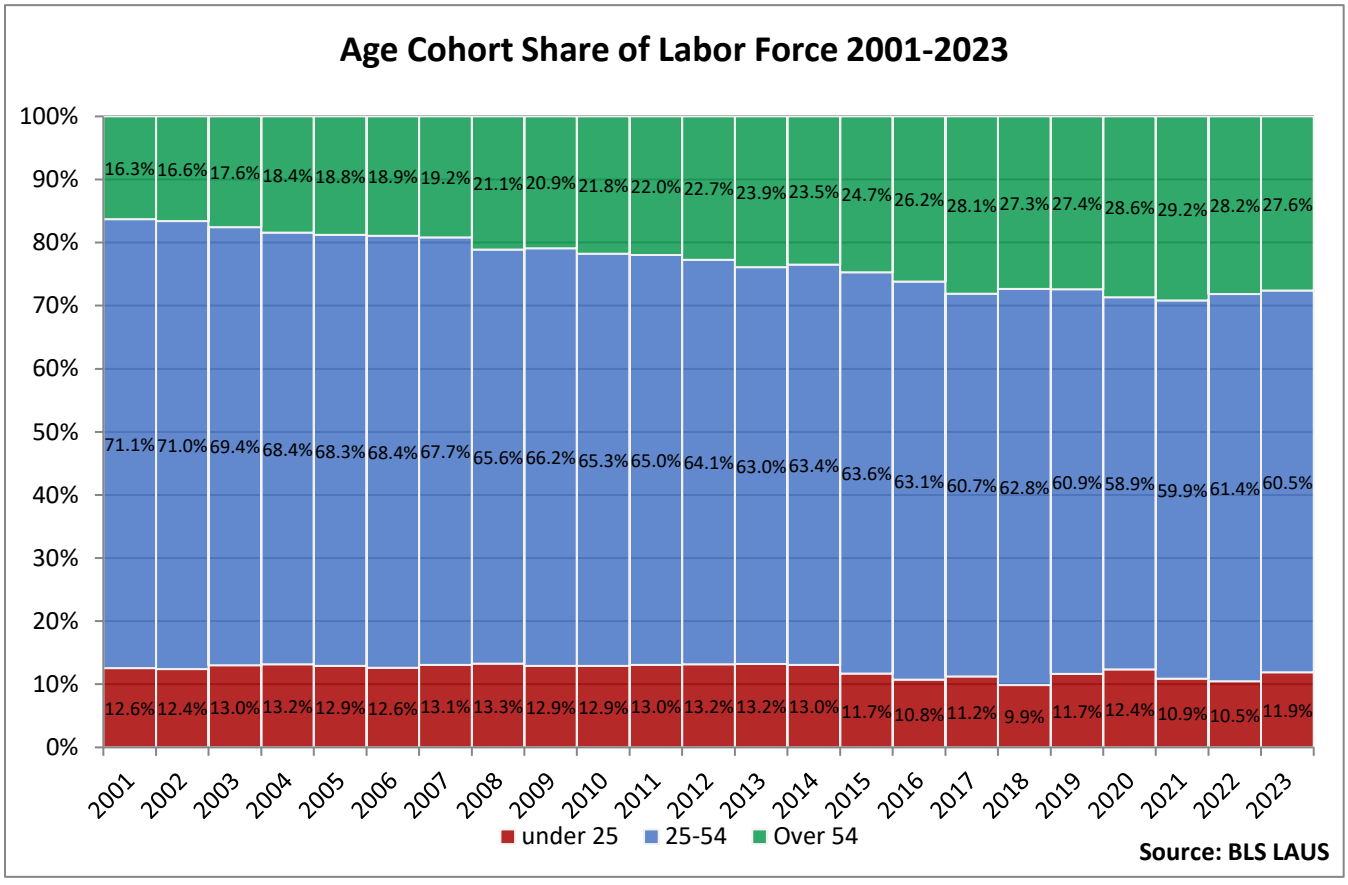
The unprecedented spike in unemployment insurance claims during the first half of 2020 is illustrated in the above graph. During 2019, continued claims averaged less than 34,000 continued claims per week. Claims spiked after the March 2020 COVID lockdown and reached a peak of over 319,000 during the week ending May 2nd, 2020. Claims remained above pre-COVID levels until the end of the third quarter of 2021. In 2022, continued claims averaged under 23,000 per week and reached a series low of 15,329 claims during the week ending November 5, 2022. As of the week ending April 13, 2024, Connecticut had 25,657 weekly continued claims. This weekly level is 618 claims above a year ago, which had 25,039 continued claims during the week ending April 15, 2023.


Connecticut Unemployment Claims April 2022 - April 2024
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
2022Q2
2022Q3
2022Q4
2023Q1
2023Q2
2023Q3
2023Q4
2024Q1
2024Q2

Labor Force

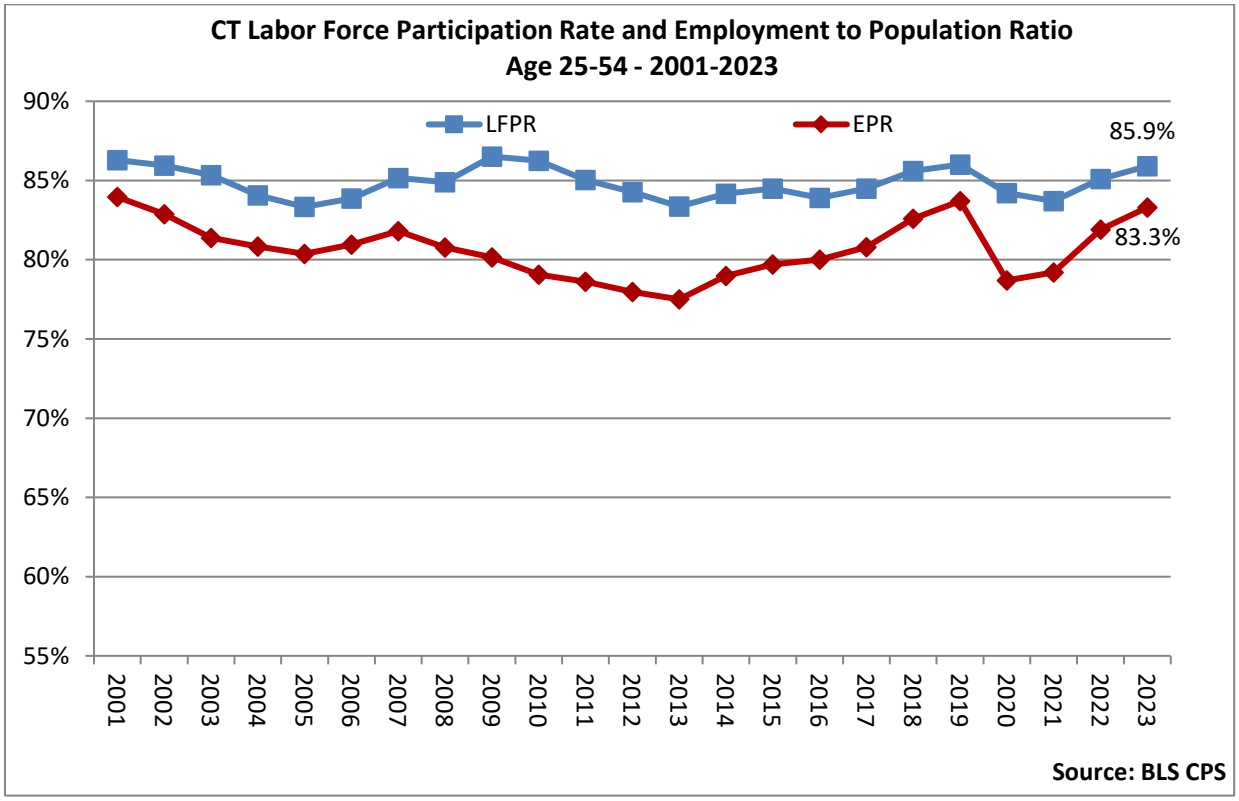

CT Labor Force Participation Rate and Employment to Population Ratio
Age 16 and Older - 2001-2023
LFPR
EPR
90%
85%
80%
75%
70%
65%
60%
55%
63.8%
61.4%
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Source: BLS CPS

During 2022-23, the overall labor force participation rate shifted to 63.8%, down 1.4 percentage points from the year before. This participation rate is the second lowest shown in the above graph. A contributing factor for this drop is the demographic shifts within the state labor force. State-level annual average labor force data by age is shown below from 2001 through 2023. During that 23-year span, the portion of the labor force Over 54 had increased from 16.3% in 2001 to over 29.2% in 2021. By 2023, the Over 54 cohort has fallen to 27.6% of the overall labor force. The prime-age labor force share also fell by 0.9 percentage points to 60.5% and the under-25 labor force share increased by 1.4 percentage points to 11.9% from a year before. The decreasing prime age cohort had a 2023 labor force participation rate of 85.9%, whereas the increasing under-25 cohort had a rate of 50.4%.

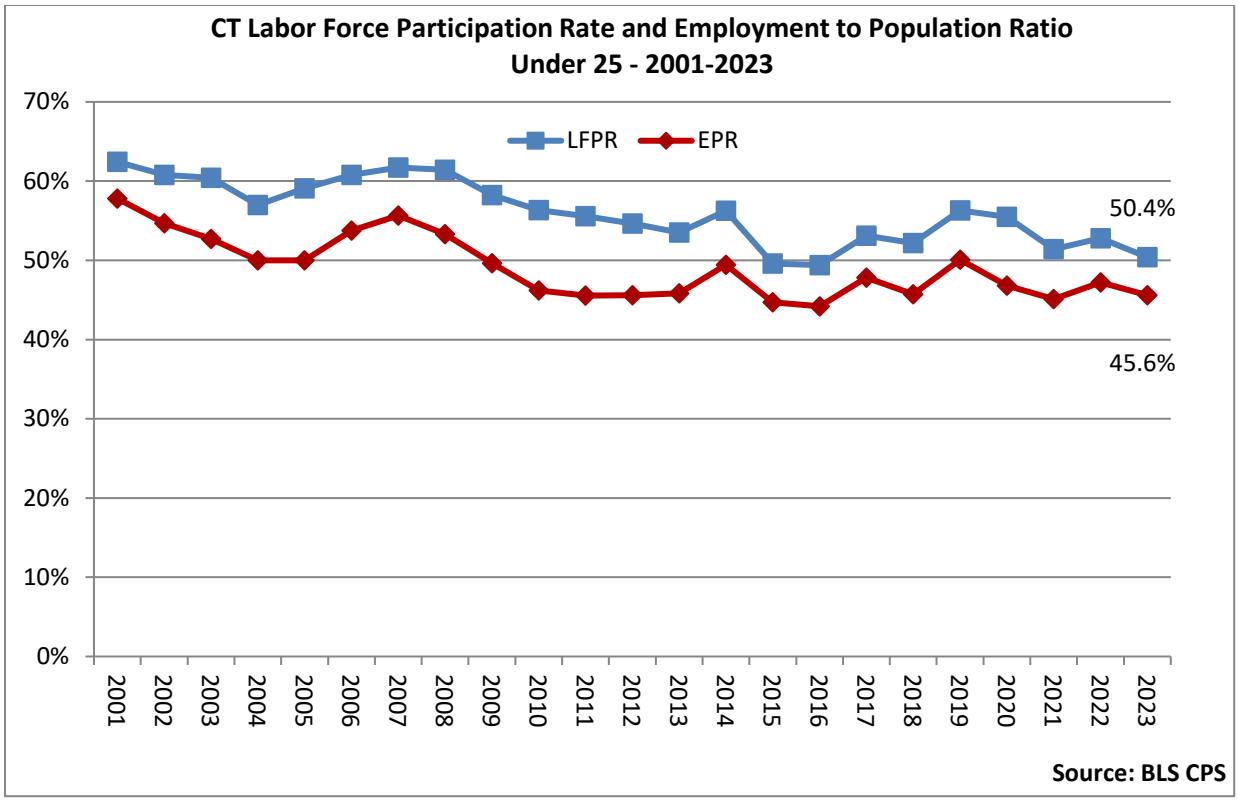


The graph on the next page shows annual average Labor Force Participation Rate (LFPR) and Employment/Population Ratio (EPR) for prime-age workers in Connecticut from 2001 to 2023.

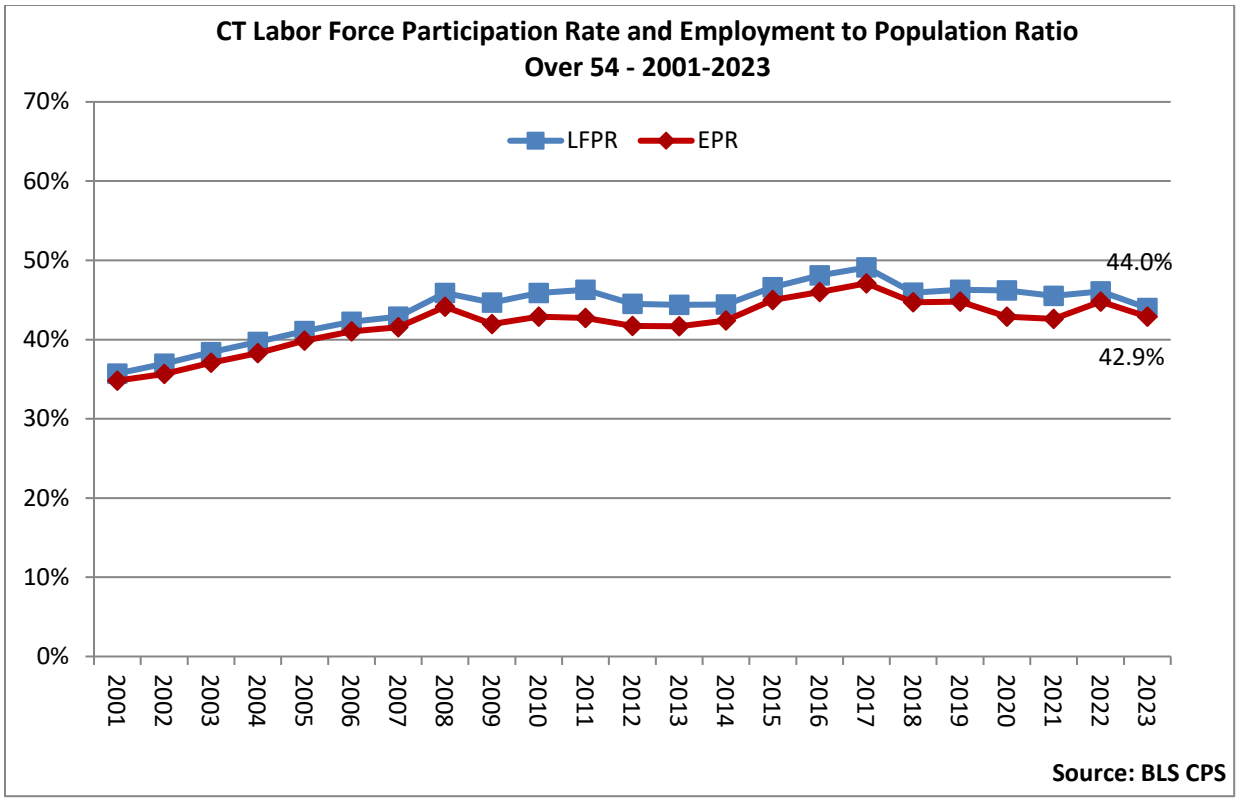
Since reaching a 2013 trough of 83.4 percent, overall prime-age LFPR has remained between that level and 86 percent (2019). In 2021, it fell to 83.7%. In 2023 the prime age LFPR increased to 85.9%. This level is just under the 86% rate for 2019. The prime age EPR had strong gains in 2023 and at 83.3% of the population it is at its third highest level of the past 23 years.



The younger 16 to 24 age cohort has LFPR below that of prime-age workers due primarily to school enrollment. In the early 2000s, the cohort's peaks and troughs largely corresponded with the overall labor force. Since the 2007 recession, the cohort gradually fell from a 2007 LFPR peak of 61.7% to a low of 49.4% in 2016. After that series low, the Under-25 LFPR had trended upward, rising to a 2019 level of 56.6%. It again slid down to 51.4% in 2021, then increased to 52.8% in 2022, and fell to 50.4% in 2023. Amid this 2.4 percentage point decrease in LFPR, the employment to population ratio fell by 1.6 percentage points. Underlying these rates are increases in the overall under-25 population, which increased by 65,000 to 447,000 from 2022 to 2023. The labor force increased by 23,000, employment increased by 24,000.



For the Over-54 cohort, LFPR reached a high of 49% in 2017 and fell to the mid-40s during the six subsequent years through 2021. It remained relatively flat in 2020 and 2021 as the employment-to-population ratio increased from 44.8% in 2019 to 46.1% in 2022. In 2023, the over 54 LFPR fell to 44%, which is a 15-year low. The decrease in both LFPR and EPR is expected as the population within the over 54 cohort ages. The very slight gap between the two lines signifies the low unemployment rate of the cohort. This differs from the years following the 2020 and great recessions, which had larger gaps amid increased unemployment.



Changing Demographic Composition of Connecticut's Labor Force

CT Annual Labor Force Share by Demographic Group (# in Thousands)

Group	2010		2019		2020		2021		2022		2023	
	#	%	#	%	#	%	#	%	#	%	#	%
Total	1,892	100.0%	1,914	100.0%	1,868	100.0%	1,865	100.0%	1,925	100.0%	1,888	100.0%
Men	990	52.3%	990	51.7%	982	52.6%	981	52.6%	1,006	52.3%	978	51.8%
Women	902	47.7%	923	48.2%	886	47.4%	884	47.4%	919	47.7%	911	48.3%
Age												
Under 25	244	12.9%	223	11.7%	231	12.4%	203	10.9%	202	10.5%	225	11.9%
25-54	1,236	65.3%	1,166	60.9%	1,101	58.9%	1,118	59.9%	1,182	61.4%	1,142	60.5%
Over 55	412	21.8%	524	27.4%	535	28.6%	544	29.2%	542	28.2%	521	27.6%
Race/Ethnic Group												
White	1,605	84.8%	1,549	80.9%	1,451	77.7%	1,472	78.9%	1,526	79.3%	1,494	79.1%
Black or African American	180	9.5%	216	11.3%	234	12.5%	228	12.2%	247	12.8%	246	13.0%
Asian	83	4.4%	102	5.3%	144	7.7%	128	6.9%	104	5.4%	104	5.5%
Hispanic or Latino	193	10.2%	285	14.9%	279	14.9%	308	16.5%	324	16.8%	346	18.3%

n/d = no data **Source: US DOL, LAUS**

The above table illustrates how the demographic distribution of Connecticut's labor force has changed since 2010 and during the five most recent years. In 2010, The Black, Asian, and Hispanic workforces were a smaller share of the Connecticut labor force than they were in 2023. In 2020, the White workforce had a 3.2 percentage point drop from 2019 levels of 80.9 to 77.7%

in 2020. That group was 79.1% in 2023. During 2020, the labor force shares for the Black and Asian groups increased to 12.5% and 7.7% respectively. As of 2023, the Black workforce edged up slightly to 13% and the Asian Workforce increased to 5.5%. The Hispanic/Latino workforce has steadily increased its share of the labor force, increasing from 10.2% in 2010 to 18.3% in 2022.

Connecticut Projections Through 2025

Connecticut Short-Term Projections: 2023Q2 to 2025Q2

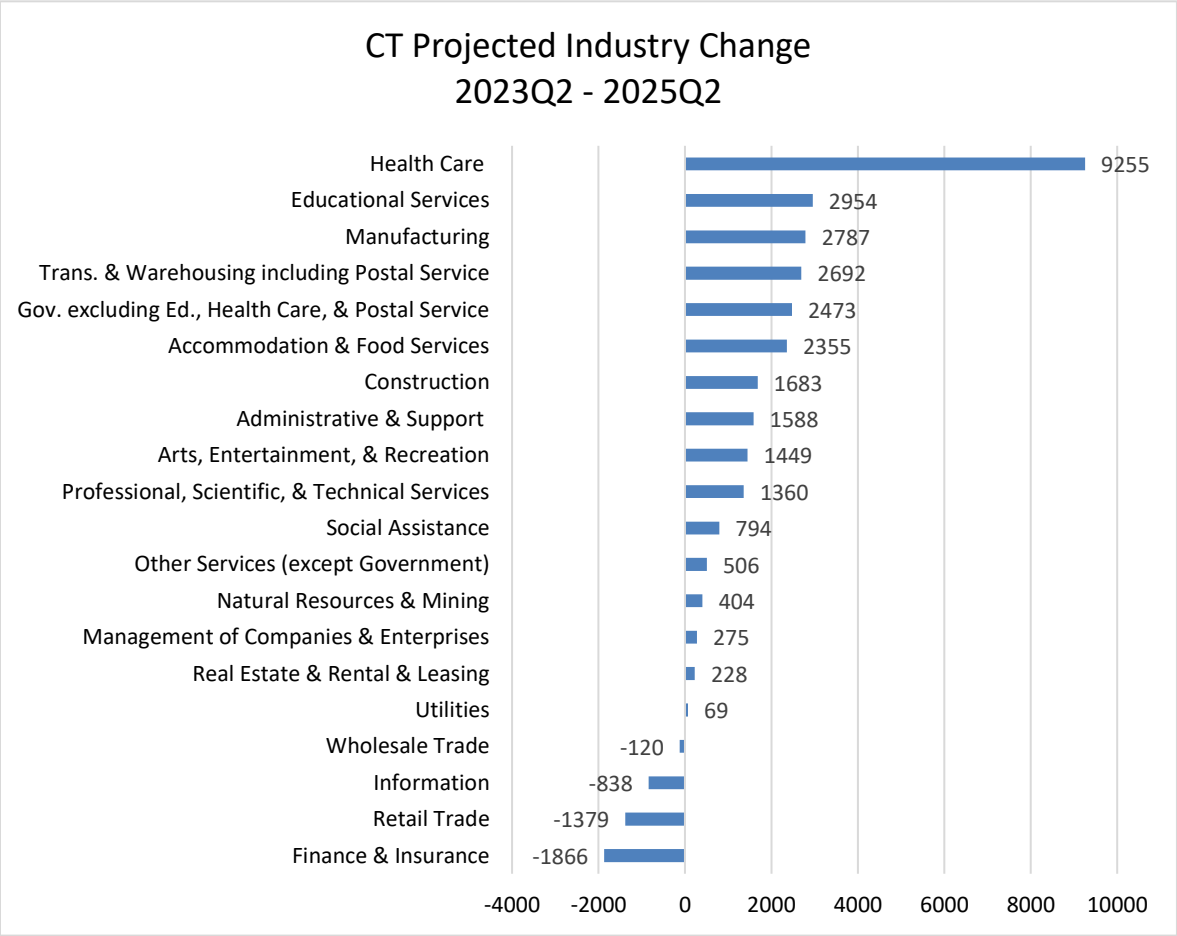
Connecticut's economy is projected to add almost 30,000 jobs through the end of the short-term projections period (2nd quarter 2025). In addition to that net increase, the state is projected to have over 425,000 openings across all occupational categories and every educational level. The industries driving this growth include Health Care, Educational Services, Manufacturing, and Transportation & Warehousing. Through 2025Q2, we project overall employment in Connecticut to increase by 1.6% from 1,824,865 to 1,854,557 including self-employment and unpaid family workers (UFW). The Goods-Producing sector is projected to grow by 2.1% and the Service-Providing sector is projected to grow by 1.5% over two years. This latter sector represents 86.6% of industry employment in the state. The current projections round spans the second quarter of 2023 to the second quarter of 2025.

Industry Projections

Industry	2023 Q2 Base	2025 Q2 Projections	Emp Change	% Change
Total All Industries	**1,824,865**	**1,854,557**	**29,692**	**1.6%**
Self Employed & Unpaid Family Workers	**131,835**	**134,858**	**3,023**	**2.3%**
Goods Producing	**227,077**	**231,951**	**4,874**	**2.1%**
Natural Resources and Mining	6,009	6,413	404	6.7%
Construction	63,191	64,874	1,683	2.7%
Manufacturing	157,877	160,664	2,787	1.8%
Services Providing	**1,465,953**	**1,487,748**	**21,795**	**1.5%**
Wholesale Trade	60,784	60,664	-120	-0.2%
Retail Trade	165,783	164,404	-1,379	-0.8%
Transportation and Warehousing including Postal Service	72,750	75,442	2,692	3.7%
Utilities	4,953	5,022	69	1.4%
Information	31,079	30,241	-838	-2.7%
Finance and Insurance	98,349	96,483	-1,866	-1.9%
Real Estate and Rental and Leasing	19,616	19,844	228	1.2%
Professional, Scientific, and Technical Services	100,110	101,470	1,360	1.4%
Management of Companies and Enterprises	31,602	31,877	275	0.9%
Administrative and Support	90,338	91,926	1,588	1.8%
Educational Services	183,092	186,046	2,954	1.6%
Health Care	224,952	234,207	9,255	4.1%
Social Assistance	75,066	75,860	794	1.1%
Arts, Entertainment, and Recreation	29,997	31,446	1,449	4.8%
Accommodation and Food Services	127,162	129,517	2,355	1.9%
Other Services (except Government)	67,111	67,617	506	0.8%
Government excluding Education, Health Care, and Postal Service	83,209	85,682	2,473	3.0%

Projections by Industry

Each year, the Office of Research at the Connecticut Department of Labor produces short-term employment projections by industry and occupation. Among the 20 industry groups shown below, 16 are projected to increase over two years and 4 are projected to decline. The largest increases are expected in Health Care (+9,255), Educational Services (+2,954), Manufacturing (+2,787), and Transportation & Warehousing (+2,692).



The Health Care and Social Assistance sector is projected to add 10,049 jobs over the projections period with Health Care up 9,255. Health Care employment recovered its COVID-19 recession employment losses by the end of the 2023Q2 base quarter and has continued to steadily add

jobs. The two-year Health Care projections have more than half of its growth occurring in its Ambulatory Health Care Services (NAICS 621) component industry, with expected employment gains of 5,189. Hospitals are projected to add 1,911 jobs and Nursing and Residential Care Facilities projected to add 2,155 jobs with approximately half of those in Skilled Nursing Facilities (+1,021).

Projected Educational Services employment growth of 2,954 is mostly occurring in its two largest component industries, Elementary and Secondary Schools (NAICS 6111) and Colleges, Universities, and Professional Schools (NAICS 6113). Elementary and Secondary Schools, which account for 60% of employment in this sector, are projected to add 1,253 jobs (up 1.1%) while Colleges and Universities are projected to add 1,157 jobs (up 2.0%).

The projected gains in Manufacturing continue a trend of employment recovery from 2020. This projected growth is driven by gains within Transportation Equipment Manufacturing (NAICS 336), which represents 29% of overall manufacturing employment. Transportation Equipment Manufacturing is projected to grow by 2,547 or 5.5% over two years.

Transportation & Warehousing's projected 2,692 employment increase continues the expansion that began over 10 years ago with 54% of that increase driven by projected gains in the Warehousing & Storage (NAICS 493) component of that sector, which is expected to add 1,438 jobs.

Four sectors projected to lose employment through 2025 are Finance & Insurance (-1,866 or -1.9%), Retail Trade (-1,379 or -0.8%), Information (-838 or -2.7%), and Wholesale Trade (-120 or -0.2%) with a slight two-year drop. The projected losses in Finance and Retail Trade continue long-term declines. Within Finance & Insurance, component industries with declines include a 1,350 drop in Credit Intermediation (Banks — NAICS 522) and a 1,169 drop in Insurance Carriers & Related (NAICS 524). The expected 2.7% decline in Information is driven in part by declines in Publishing (NAICS 513), which is expected to have an employment drop of 341 or 4.1%.

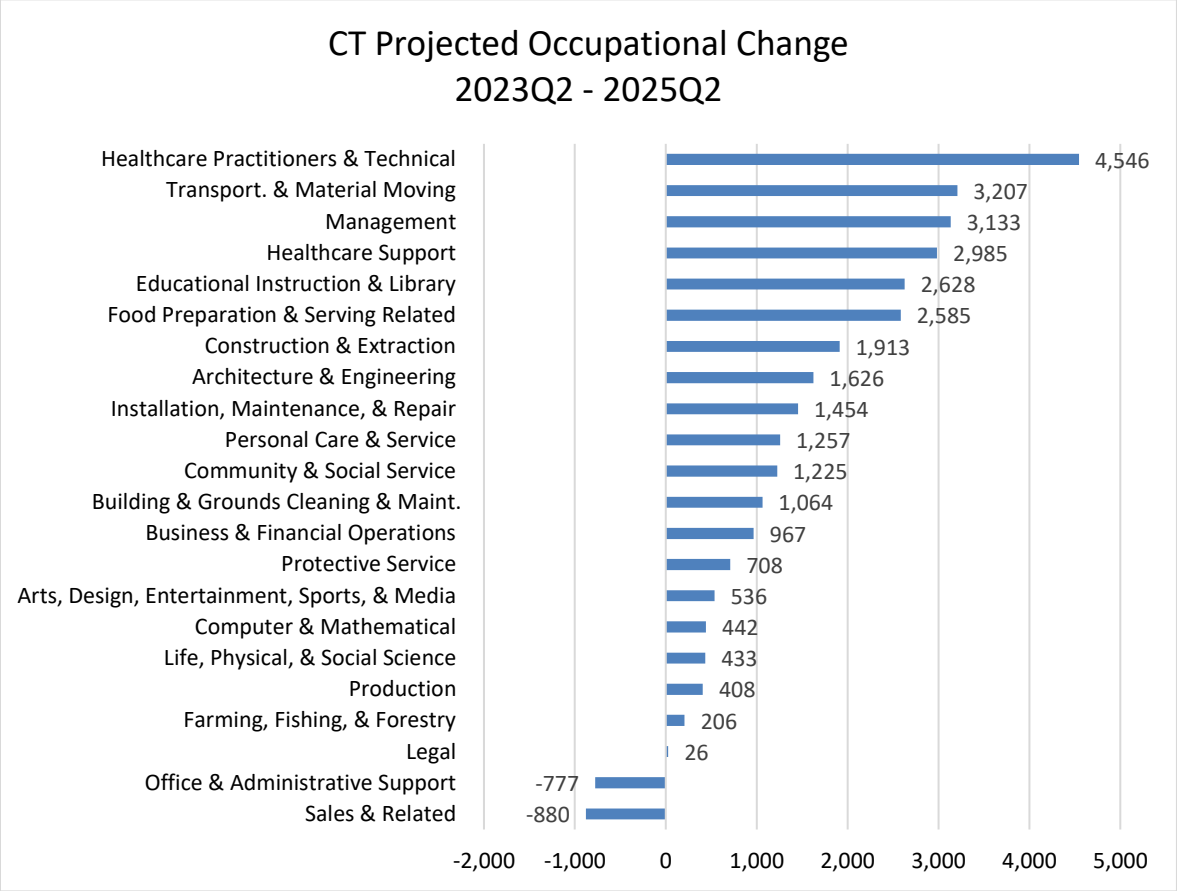
Projections by Occupation

Occupational Projections

	Occupational Group	2023 Q2 Base	2025 Q2 Proj.	Emp Change	% Change	Total Openings
00-0000	Total, All Occupations	1,824,865	1,854,557	29,692	1.6%	425,505
11-0000	Management Occupations	172,125	175,258	3,133	1.8%	29,175
13-0000	Business and Financial Operations Occupations	106,396	107,363	967	0.9%	17,608
15-0000	Computer and Mathematical Occupations	50,390	50,832	442	0.9%	6,319
17-0000	Architecture and Engineering Occupations	35,508	37,134	1,626	4.6%	6,139
19-0000	Life, Physical, and Social Science Occupations	13,291	13,724	433	3.3%	2,582
21-0000	Community and Social Service Occupations	39,934	41,159	1,225	3.1%	8,113
23-0000	Legal Occupations	15,884	15,910	26	0.2%	1,936
25-0000	Educational Instruction and Library Occupations	127,707	130,335	2,628	2.1%	25,772
27-0000	Arts, Design, Entertainment, Sports, and Media Occs.	35,609	36,145	536	1.5%	7,710
29-0000	Healthcare Practitioners and Technical Occupations	112,820	117,366	4,546	4.0%	17,193
31-0000	Healthcare Support Occupations	94,658	97,643	2,985	3.2%	30,456
33-0000	Protective Service Occupations	35,123	35,831	708	2.0%	8,741
35-0000	Food Preparation and Serving Related Occupations	128,992	131,577	2,585	2.0%	51,367
37-0000	Building and Grounds Cleaning and Maintenance Occs.	66,979	68,043	1,064	1.6%	19,057
39-0000	Personal Care and Service Occupations	56,013	57,270	1,257	2.2%	20,039
41-0000	Sales and Related Occupations	152,817	151,937	-880	-0.6%	39,053
43-0000	Office and Administrative Support Occupations	226,295	225,518	-777	-0.3%	49,953
45-0000	Farming, Fishing, and Forestry Occupations	4,576	4,782	206	4.5%	1,590
47-0000	Construction and Extraction Occupations	65,798	67,711	1,913	2.9%	13,144
49-0000	Installation, Maintenance, and Repair Occupations	59,854	61,308	1,454	2.4%	11,957
51-0000	Production Occupations	94,130	94,538	408	0.4%	20,399
53-0000	Transportation and Material Moving Occupations	129,966	133,173	3,207	2.5%	37,202

The occupational distribution of projected growth reflects the projected industry growth, with the top four occupational sectors accounting for 47% of the projected 29,692 two-year employment growth. The top four growth sectors are Healthcare Practitioners and Technical Occupations (+4,546), Transportation & Material Moving Occupations (+3,207), Management (+3,133) and Healthcare Support (+2,985). This top-line net change increase overlays much larger projected total labor market openings. Total openings are the sum of net change, transfers, and labor force exits. Net change is the aforementioned overall employment change. Transfers are workers who permanently leave an occupation and transfer to another. Labor force exits are workers that leave an occupation and exit

the labor force, most commonly retiring older workers.[i] Across all occupations, there are projected to be over 425,000 total openings during the two-year projections period in the above table. The table also highlights that there are projected to be thousands of job openings in all occupational groups, including those that are projected to have top-line declines over two years.



Each occupation is assigned an education value based on the minimum education necessary to enter an occupation. Over the two years, 42% of job growth will be in occupations that require a bachelor's or more, 16% will be in occupations that on average require an associate's, postsecondary non-degree award, or some training beyond high school, and 42% will be in occupations that generally require a high school diploma or no educational credential.

Occupational Projections by Educational Attainment

Level of Educational Attainment	2023 Q2	2025 Q2	Emp. Change	% Change	Total Openings
Total All Occupations	**1,824,865**	**1,854,557**	**29,692**	**1.6%**	**425,505**
No formal educational credential	356,106	360,642	4,536	1.3%	117,771
High school diploma or equivalent	673,233	681,094	7,861	1.2%	162,577
Postsecondary non-degree award	119,694	122,855	3,161	2.6%	29,432
Some college, no degree	59,677	60,202	525	0.9%	13,763
Associate's degree	38,113	39,308	1,195	3.1%	8,077
Bachelor's degree	481,032	490,201	9,169	1.9%	79,193
Master's degree	40,159	41,804	1,645	4.1%	7,088
Doctoral or professional degree	56,851	58,451	1,600	2.8%	7,604

Concluding Thoughts on the Short-Term Projections

Connecticut's short-term employment projections show that the state is expected to grow by almost 30,000 or 1.6% over the two-year period from the second quarter of 2023 to the second quarter of 2025. This projected growth rate is slower than the rates projected during 2021, 2022, and 2023. This reflects the years of employment gains back to pre-COVID levels after the steep losses that occurred during the first half of 2020. The employment projections through 2025Q2 suggest that the state will continue this growth at a rate more in-line with longer-term trends. This growth is projected to be driven by Health Care, Educational Services, Manufacturing, and Transportation & Warehousing. Connecticut has recovered all the jobs lost during the 2020 COVID-19 recession. In 2024, the state had preliminary CES total employment of 1,706,000 which exceeds corresponding pre-pandemic February 2020 levels by over 7,000 jobs. Though headwinds and uncertainty exist, the state is expected to continue its growth and have hundreds of thousands of job openings as workers enter and exit the labor market or find new opportunities in a different occupation.

Economic Outlook Focus Areas:

The following three sections of the Outlook contain an overview of STEM occupational projections through 2025Q2, a look at Connecticut's housing market, a review of monthly job postings, and an overview of Connecticut's short-term population growth and interstate migration.

Projected STEM Employment Growth in Connecticut Through 2025

This section examines the employment trends and projections for STEM occupations using the 2023-25 short-term employment projections.

Science, Technology, Engineering, and Math (STEM) occupations are projected to grow faster than all occupations in Connecticut through the middle of 2025. All occupations are projected to increase by 1.6% from 2023Q2 to 2025Q2, whereas STEM occupations have a combined projected growth rate of 14% over the two-year projection period. During 2023Q2, STEM occupational employment totaled over 115,000 and is projected to increase by over 16,000 over two years. These high-growth, good-paying occupations are distributed throughout most major industries in the state and include a variety of career opportunities for Connecticut workers.

Top Ten STEM Occupations in CT

The ten largest STEM occupations account for 54% of overall STEM employment in the state. Among these ten occupations, six are engineering occupations (SOC 17), three are computer occupations (SOC 15), and one is within management (SOC 11). The largest STEM occupation in the state, Software Developers (15-1252) had 2023Q2 employment of 16,763 and is expected to grow by 3,757 or 22% to 20,520 by 2025Q2. The other 9 STEM occupations shown below are projected to grow between 5% and 56% through 2025Q2. Marine Engineers and Naval Architects (SOC 17-2121) projected to increase by 56% over two years and reflects very strong growth for shipbuilding in the state. Recent press releases by Electric Boat suggest the company is looking to hire over 5,000 workers in 2024 alone.[ii]

Top 10 STEM Occupations (# Change)

SOC Code	Occupation	2023Q2 Base	2025Q2 Projection	# Change	% Change	Annual Openings
	All STEM Occupations	**115,638**	**131,747**	**16,109**	**14%**	**9,399**
15-1252	Software Developers	16,763	20,520	3,757	22%	1,363
17-2112	Industrial Engineers	6,246	7,386	1,140	18%	487
11-3021	Computer and Information Systems Managers	9,506	10,641	1,135	12%	757
17-2141	Mechanical Engineers	4,029	5,149	1,120	28%	361
17-2121	Marine Engineers and Naval Architects	1,497	2,335	838	56%	172
17-2072	Electronics Engineers, Except Computer	1,847	2,626	779	42%	196
17-2051	Civil Engineers	3,808	4,337	529	14%	292
15-1232	Computer User Support Specialists	9,523	10,040	517	5%	694
15-1211	Computer Systems Analysts	6,656	7,126	470	7%	449
17-2071	Electrical Engineers	2,601	2,997	396	15%	188
	All Other STEM Ocupations	53,162	58,590	5,428	1053%	4,440

Growth and Education

Based on research conducted by the U.S. Department of Labor, each occupation is assigned to an educational category based on the minimum education generally required to enter that occupation nationally. Using these categories, most STEM occupations require a Bachelor's Degree. Our projections show that 85% of Connecticut STEM job growth from 2023 to 2025 will be in occupations that on average require that level of educational attainment. This is more than twice the 30% share of total growth for Bachelor's degree occupations across all occupations. STEM occupations that require a high school diploma or less make up a smaller share of growth than they do for all occupations in the state. Additionally, 8% of STEM growth will be in occupations that on average require either an Associate's Degree or some college courses, while those educational attainment levels comprise a combined 5.8% of growth across all employment. An occupation is a broader category than a job. Within each occupation, there may be jobs that require more or less education than is on average required for the occupation as a whole.

Annual STEM Openings

Within Connecticut, there are expected to be over 9,000 annual openings in STEM occupations during the short-term projections period, this count includes openings from overall employment growth,

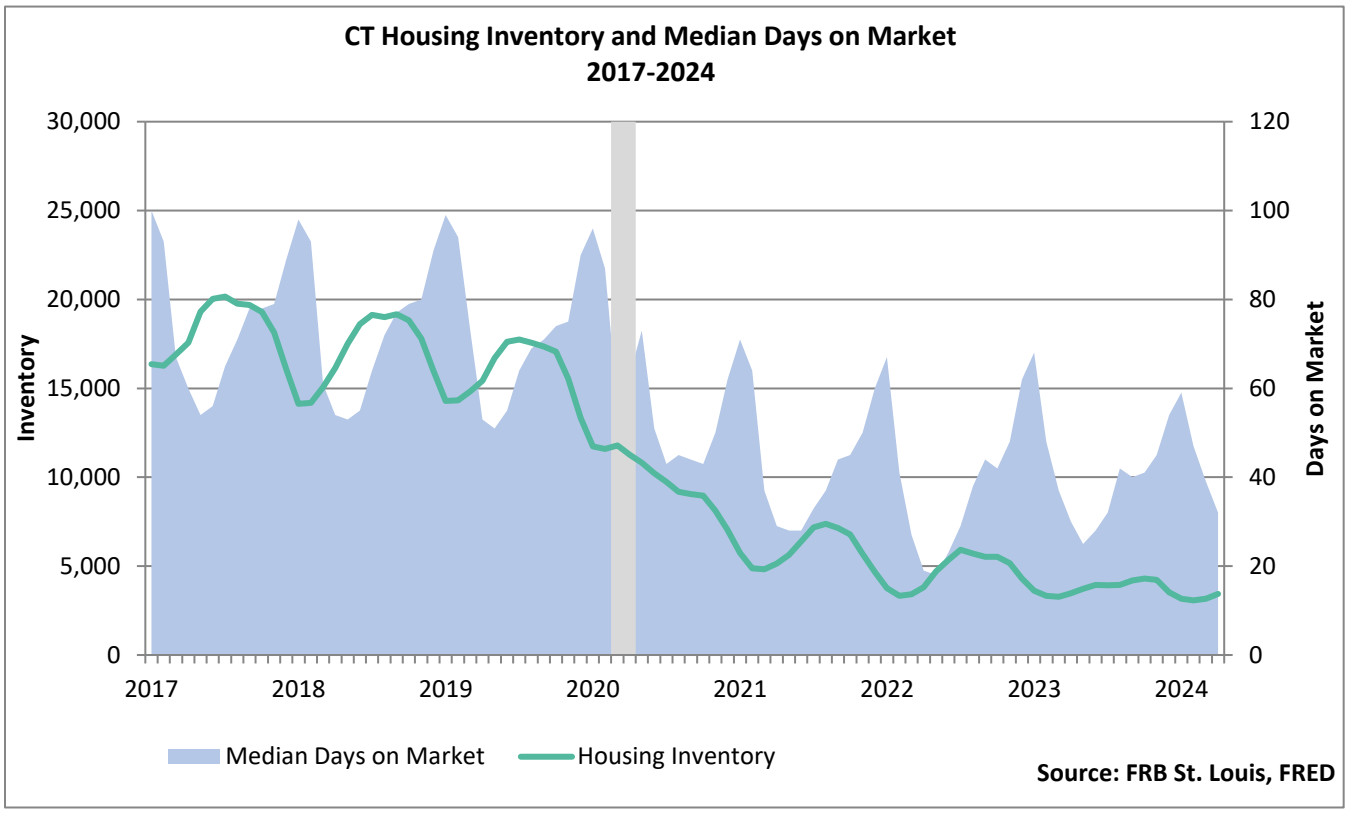
transfers (the remaining vacancy when someone leaves an occupation for another) and exits (when someone leaves the labor force). While growth is important, the vast majority of hiring is to replace workers who have left the labor force (such as for retirement) or who have moved on to other occupations. Openings capture both new jobs and replacement hiring.

Concluding Thoughts on STEM Employment and Projections

STEM occupations represent a growing and high-paying segment of the labor market. These occupations are integrated into every major industry in the state. STEM occupations average $105,860 per year and are expected to grow much faster than the overall economy through 2025. Most STEM jobs require a Bachelor's or more, but compared to the overall labor force, a larger share of STEM employment requires an Associate's or Some College, which indicates that there are employment opportunities for workers at every educational attainment level. Through the second quarter of 2025, STEM occupations are projected to have over 9,000 openings per year in the state.

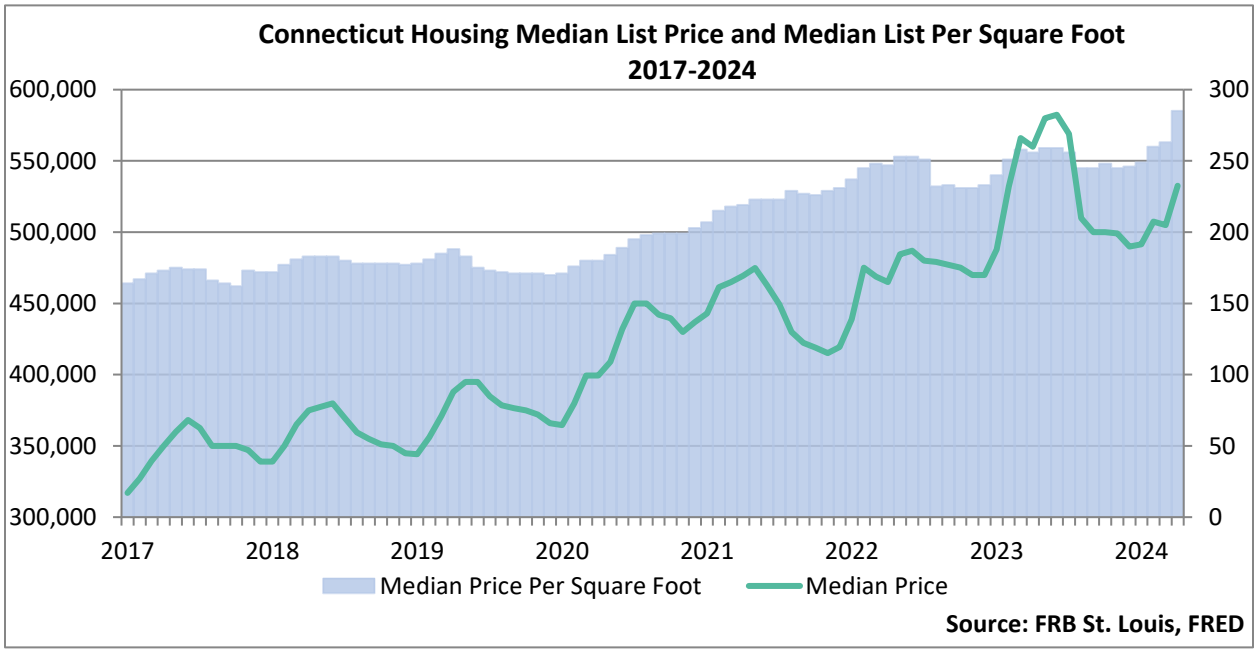
Housing Market Trends

In the years after the brief 2020 COVID-recession, Connecticut has experienced numerous shifts that have impacted the housing market. Inventory is down, prices are increasing, and multi-unit construction has become a majority of new housing development in the state.



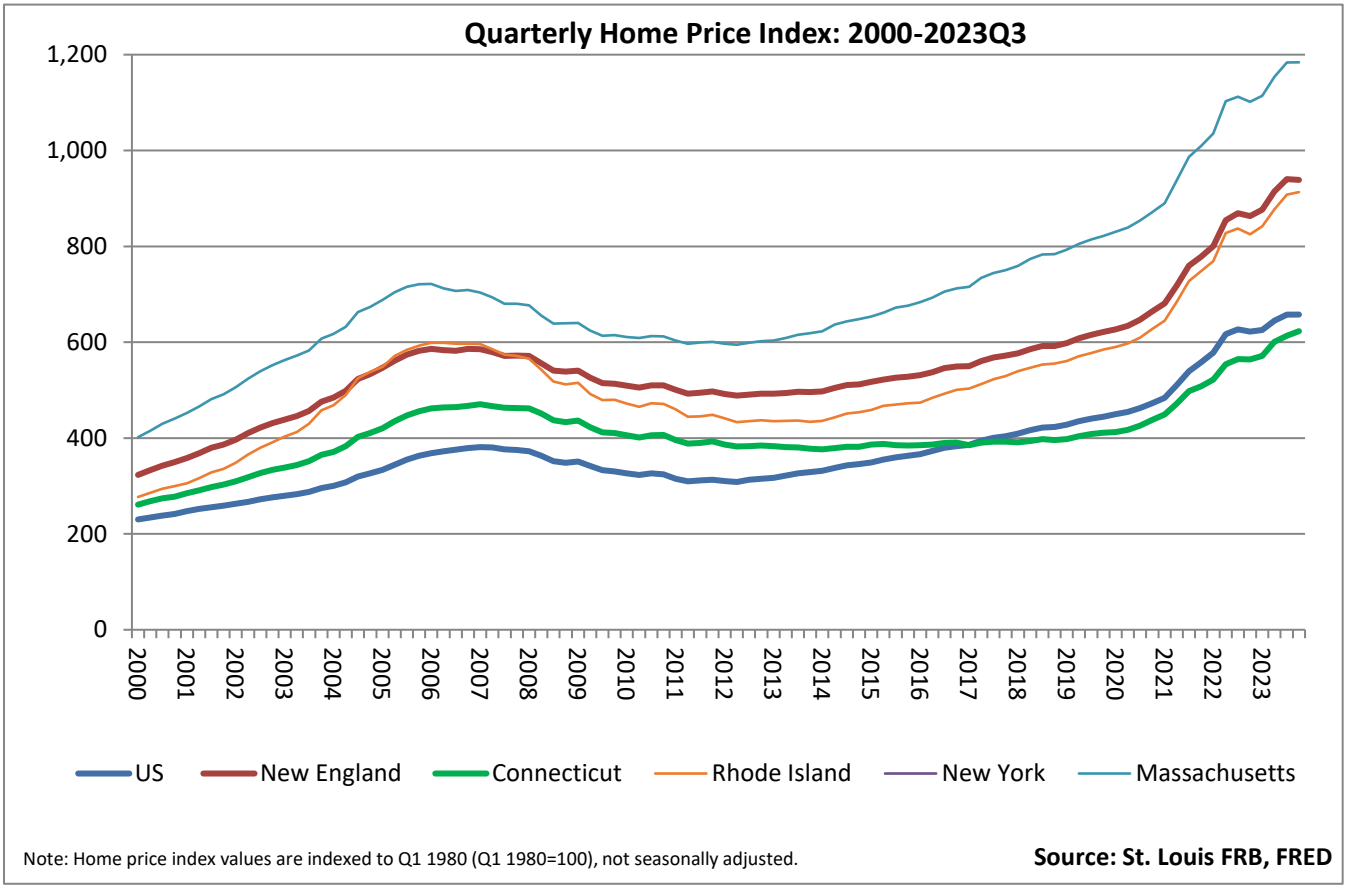
From 2017-2019, the pre-COVID housing monthly inventory ranged between 14,000 and 20,000 units in the state.[iii] After 2020, inventories tracked downward through 2024 and reached a low of 3,071 by February 2024. Part of the inventory decline is due to the large decrease in the time that a home is on the market. The median number of days a home was on the market in Connecticut from 2017-2019 ranged between about 50 days during peak summer months to a high of over 80 days during January of those years.[iv] After 2020, the median number of days on the market reached a low of 18 in May 2022. As inventory fell, buyers had fewer options and were eager to secure a sale, which helped shorten listing duration, further reducing inventory. In April 2024, statewide inventory was 3,432 and homes were on the market for a median of 32

days. Five years earlier (April 2019), inventory was over 15,000 and homes were on the market for a median of 53 days.



As of April 2024, house prices in Connecticut had a median list price of $532,500. This median price is down from the June 2023 high of $582,400. The above figure includes median price and median price per square foot from 2017 to 2024. Though median price is down from a year ago, median price per square foot is at a high of $285 per square foot. The strong demand for housing that occurred after 2020 was dampened by rising sale prices and mortgage interest rates beginning in early 2021. The 30-year fixed mortgage interest rate hit a low of 2.65% in January 2021 and was over 6% by September 2022. In 2021, the median list price of home sales in Connecticut slumped from the mid-to-high $400,000s to a 2021 low of $415,000 by November 2021. By 2022, the median price recovered to the high $400,000s and remained there through the end of the year. During this time the median price per square foot fell from a high of $253 per square foot in May 2022 to $231 per square foot by November 2022. In early 2023, the median list price and price per square foot grew to $582,400 and $259 per square foot by June 2023. After this peak, median price slumped to $490,000 by December 2023 and increased to

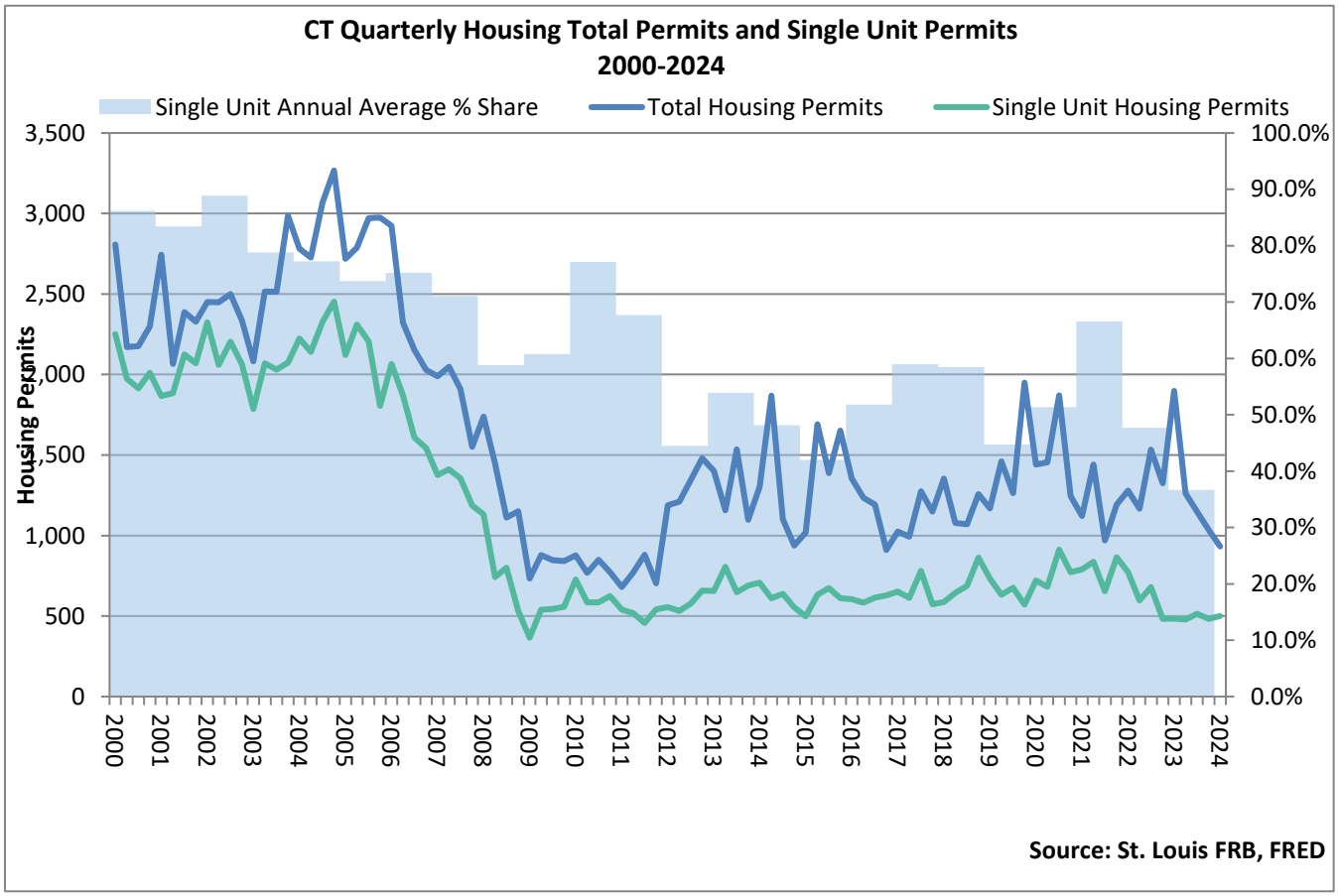
$532,500 and $285 per square foot by April 2024.



Comparing the increase in Connecticut home prices to adjacent states, New England, and the U.S. shows that home price increases in Connecticut remained flatter than the other areas in the years leading up to the COVID-recession. From 2012 to early 2020, Connecticut's house price index was up 8% while the other geographic areas were up between 27% (New England) and 44% (United States).[v] The adjacent states of New York, Rhode Island, and Massachusetts were respectively up 30%, 36%, and 40% during that time. However, since the COVID recession, all areas have experienced similar increases. From 2020 to 2023, U.S. prices are up 46%, New England prices are up 50%, and Connecticut is up 51%. The adjacent states of New York, Rhode Island, and Massachusetts are up 42%, 55%, and 43% respectively.

The rising prices and historically low inventory in Connecticut had led to an increase in housing permits from 2021-2023, although there was a drop in multi-unit permits in the first quarter of

2024. Total housing permits peaked in 2004Q4 at 3,267 permits and fell to below 1,000 permits per quarter from 2009-2011 during the aftermath of the Great Recession. Total permits ranged between 1,000-2,000 permits for most quarters in subsequent years leading up to the 2020 recession. During this time, single-unit permits ranged between 366 and 913 from 2009-2024. After reaching a low of 977 permits in 2021Q3, total housing permits increased back to 1,949 during the first quarter of 2023. During the first quarter of 2024, there were 959 total and 503 single unit permits in Connecticut.



The above figure illustrates the relationship of total and single-unit housing permits from 2000 to 2024. The total permit four-quarter moving average fell from 1,488 in the year ending 2023Q1 to 1,099 in the year ending 2024Q1. Single unit permits have remained fairly steady, permits averaged 561 during the year ending 2023Q1 and 495 permits in the year ending

2024Q1. The four-quarter average for total permits has generally fluctuated between 1,000 and 1,500 over the past decade. The most recent (2024Q1) overall quarterly permit count of 959 permits is at the low end of that range with single-unit permits averaging around 500 per quarter. From 2000-2006, single unit housing was between 71-91% of total permits. That has changed since the Great Recession. Since then, they've typically been below 70% of permits in the state and were 36% percent of permits in 2023.

The latest monthly data (April 2024) show total permit counts were 557, up from 297 in March 2024. Monthly single-unit permits were up 17% over the month. April's increase follows a first quarter at the low end of the recent range continuing the recent pattern of permit activity.

Looking within the state, Connecticut had 5,249 total housing permits in 2023. The table below shows the twenty towns with the largest three-year permit totals from 2021-2023. New Haven, Stamford, and Bridgeport had the most permits over three years. Eight of the towns in the top twenty were in the North Central Workforce Development Area (WDA), seven were in the Southwest WDA, three were in the South Central WDA, one town was in the Eastern WDA, and one town was in the Northwest WDA.

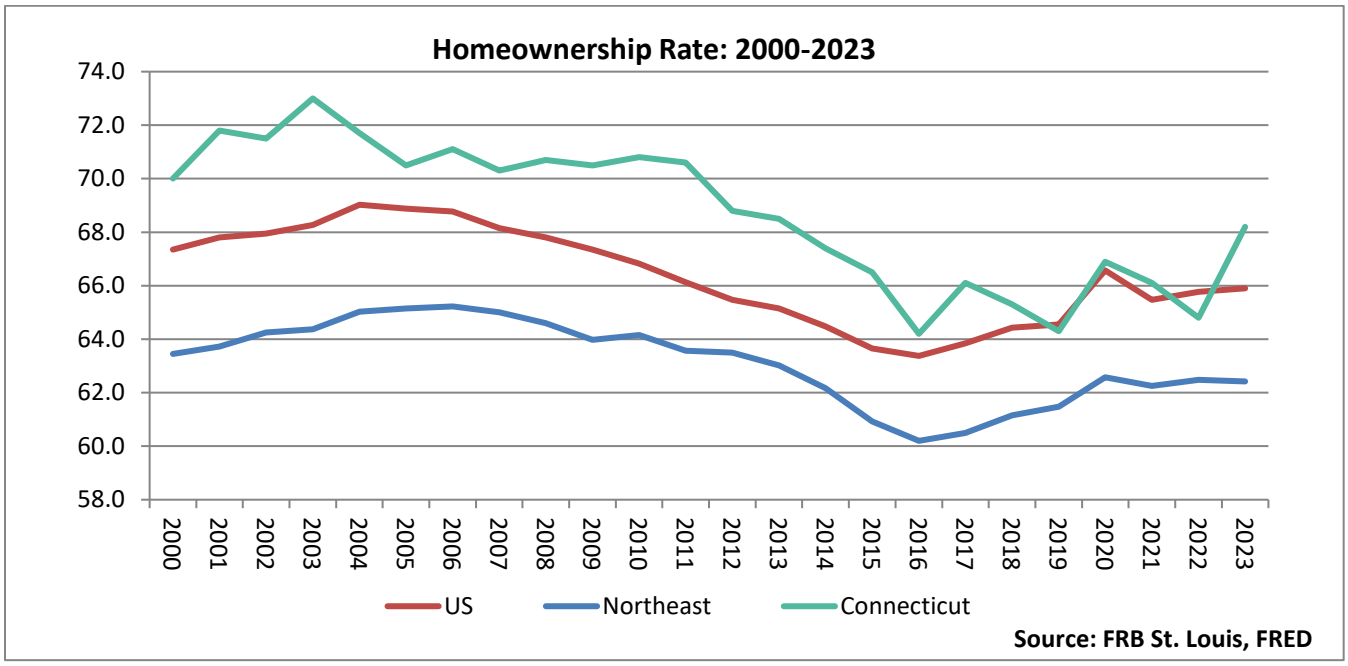
CT Towns with the most total permits 2021-23

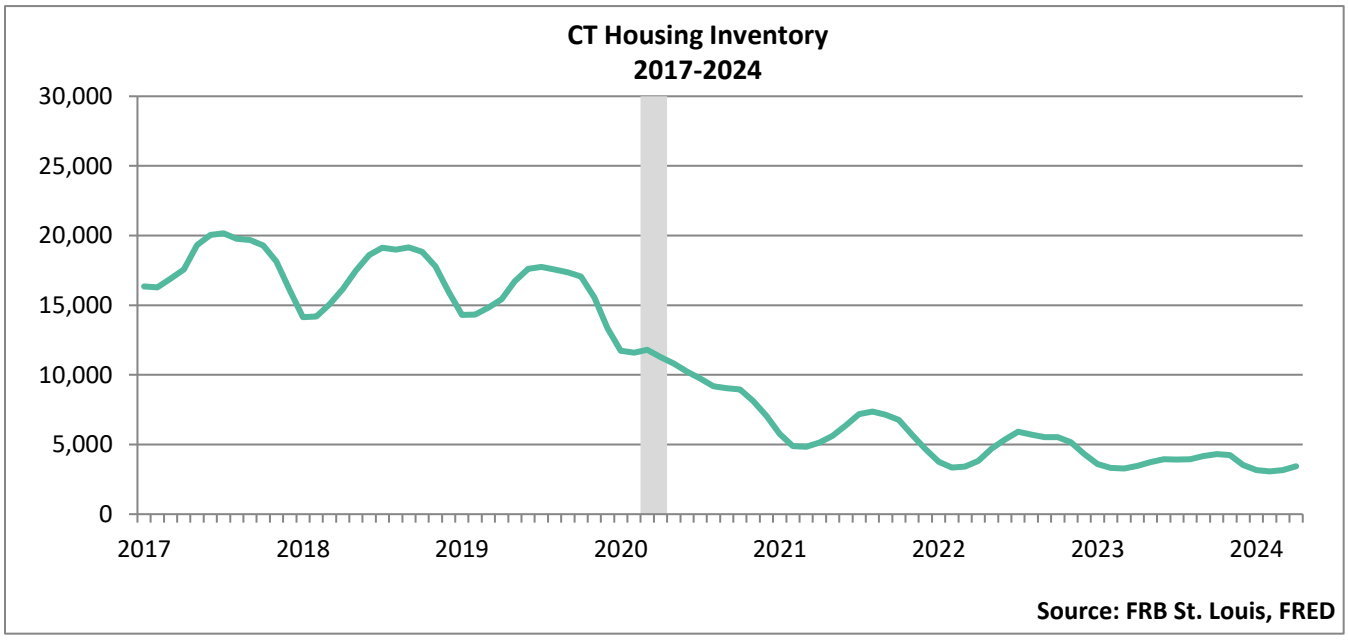
	2021	2022	2023	21-23 Total
Connecticut	**4,651**	**5,244**	**5,249**	**15,144**
New Haven	299	633	307	1,239
Stamford	55	153	423	631
Bridgeport	62	492	15	569
Milford	199	165	121	485
Fairfield	94	189	155	438
Bethel	79	46	262	387
Farmington	42	35	309	386
Vernon	140	122	85	347
Rocky Hill	3	9	311	323
Branford	48	38	217	303
Greenwich	116	108	79	303
Bloomfield	46	183	64	293
Ellington	151	123	14	288
Darien	159	90	29	278
Norwalk	149	67	42	258
West Hartford	106	92	57	255
Granby	41	20	175	236
Westport	77	75	78	230
Stonington	35	31	162	228
Newington	4	4	210	218
Eastern WDA	661	596	536	1,793
North Central WDA	1,208	1,261	1,659	4,128
Northwest WDA	712	646	780	2,138
South Central WDA	982	1,170	1,195	3,347
Southwest WDA	1,088	1,571	1,079	3,738

Source: CT DECD

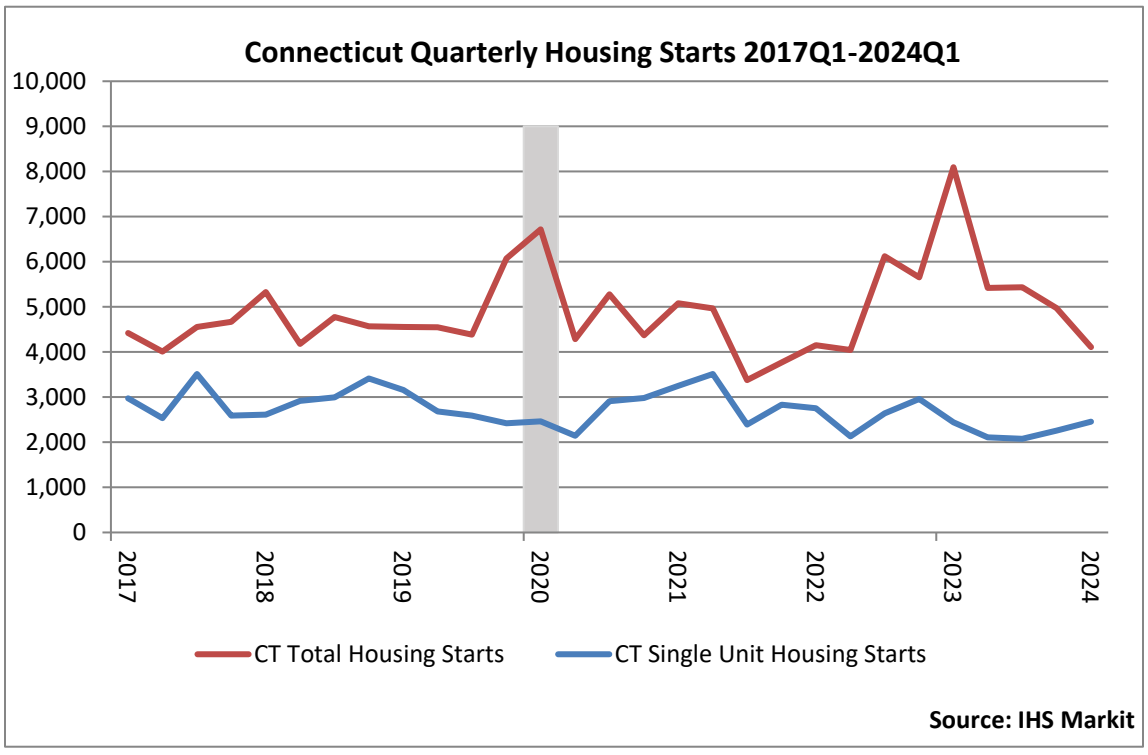
The graph below illustrates the homeownership rate for Connecticut, the Northeast, and the U.S. from 2000-2023. For all three areas, the homeownership rate slid from early 2000s highs due to the aftermath of the housing crisis. During this time Connecticut had rates consistently above the US rate, which was also above the Northeast rate. Beginning in 2016, the U.S. and Northeast homeownership rates began to increase, while Connecticut's rate bounced between

64% and 67%. By 2019, the rates for the U.S. and Connecticut converged at Just above 64%. In 2023, the homeownership rate for the U.S. was 65.9% and Connecticut's rate had jumped to 68.2%.





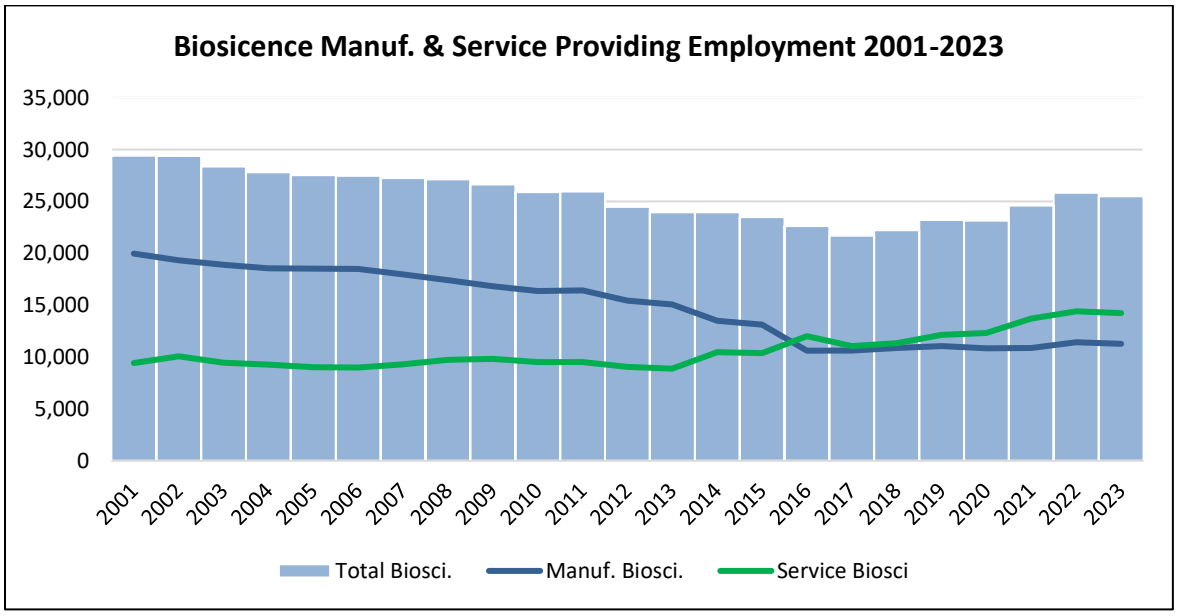
In the four years since the 2020 recession, Connecticut's housing market has had some pronounced changes. At present, homes in the state have median list prices and prices per square foot that are respectively 37% and 52% higher than pre-COVID April 2019 levels. Inventory as of April 2024 is 3,432, down 78% from corresponding April 2019 levels. Indicators of future supply increase suggest that the state's housing stock will have more multi-unit housing in the near future. In contrast to the Northeast and the U.S., the state has seen total housing starts grow in recent years. In 2023, Connecticut had almost 24,000 housing starts which suggests that the low-inventory supply pressures contributing to the increase in home prices will be somewhat alleviated in coming years as the overall housing stock increases. Amid this coming supply increase, high-interest rates that began after COVID will continue to impact the housing within both Connecticut and the broader U.S. market.



Bioscience Industry Employment Trends 2001-2023

Connecticut's bioscience cluster includes advanced manufacturing and service sector Research and Development (R&D) industries focused on the design and production of pharmaceuticals and other medical equipment and technology.

The Figure below shows annual average Bioscience employment from 2001 to 2023. Overall, Bioscience employment fell from 2001 to 2017 driven by declines in its manufacturing component industries. The combined Bioscience cluster grew 2.5% and 4.4% in 2018 and 2019. After a slight 0.3% dip from 2019 to 2020, the cluster grew by 6.2% and 5.1% in 2021 and 2022. Bioscience fell slightly in 2023, down 344 or -1.3% in 2023 but the number of establishments increased.



The overall employment stabilization and growth in recent years is the result of gains within its service-providing component which was up by more than 5,000 jobs in 2023 from ten years prior. In recent years, Bioscience manufacturing has added jobs in four of the past six years and are up more than 650 jobs from its 2016 level. Both Bioscience components saw employment growth in 2018, 2019, 2021, and 2022. The long-term Bioscience manufacturing change reflects shifts that have occurred within manufacturing overall. Connecticut manufacturing (NAICS 31-33) had declined from the early 1990s through mid-2016 and has since added jobs. Overall manufacturing increased from 156,400 in 2016 to 161,900 in 2019. After falling due to

COVID, Manufacturing has increased from 152,900 in 2021 to 157,500 in 2023. Most of the overall manufacturing gains have occurred within Transportation Equipment Manufacturing, which is the largest component of manufacturing in the state.

Connecticut Bioscience Employment: 2001-2023

Year	All Emp.	# of Estab-lishments	Total Wages	Ann. Avg. Pay
2001	29,407	817	$2,234,641,965	$75,990
2002	29,398	846	$2,140,502,859	$72,812
2003	28,361	853	$2,159,899,671	$76,159
2004	27,826	868	$2,219,372,064	$79,759
2005	27,540	892	$2,241,668,745	$81,396
2006	27,484	896	$2,366,315,861	$86,098
2007	27,270	844	$2,487,562,152	$91,219
2008	27,132	871	$2,509,921,239	$92,509
2009	26,644	898	$2,540,530,536	$95,349
2010	25,892	912	$2,506,726,887	$96,815
2011	25,957	914	$2,621,852,036	$101,006
2012	24,476	903	$2,552,305,084	$104,280
2013	23,960	913	$2,525,843,340	$105,418
2014	23,970	916	$2,582,457,780	$107,739
2015	23,486	956	$2,546,626,307	$108,434
2016	22,616	985	$2,502,945,869	$110,671
2017	21,689	935	$2,514,843,016	$115,950
2018	22,228	983	$2,648,221,515	$119,141
2019	23,204	1,023	$2,814,321,968	$121,287
2020	23,146	1,077	$2,813,293,697	$121,548
2021	24,590	1,235	$3,297,514,632	$134,098
2022	25,838	1,401	$3,593,252,350	$139,071
2023	25,493	1,647	$3,534,604,640	$138,650

Source: CT DOL, QCEW

Bioscience During the Past Two Years

The preceding section utilized the most current annual average data from 2001 to 2023 to illustrate long-term trends in Connecticut's Bioscience industry. A more detailed industry-level review of 2022 and 2023 can help explain how Bioscience has shifted in the short term Overall, Bioscience is up 903 jobs or 3.7% from 2021 with solid growth in 2022 followed by a small decline in 2023. Bioscience Manufacturing is up 3.5% while Bioscience Service Providing is up 3.8% over the two-year period with both seeing 2022 growth followed by smaller 2023

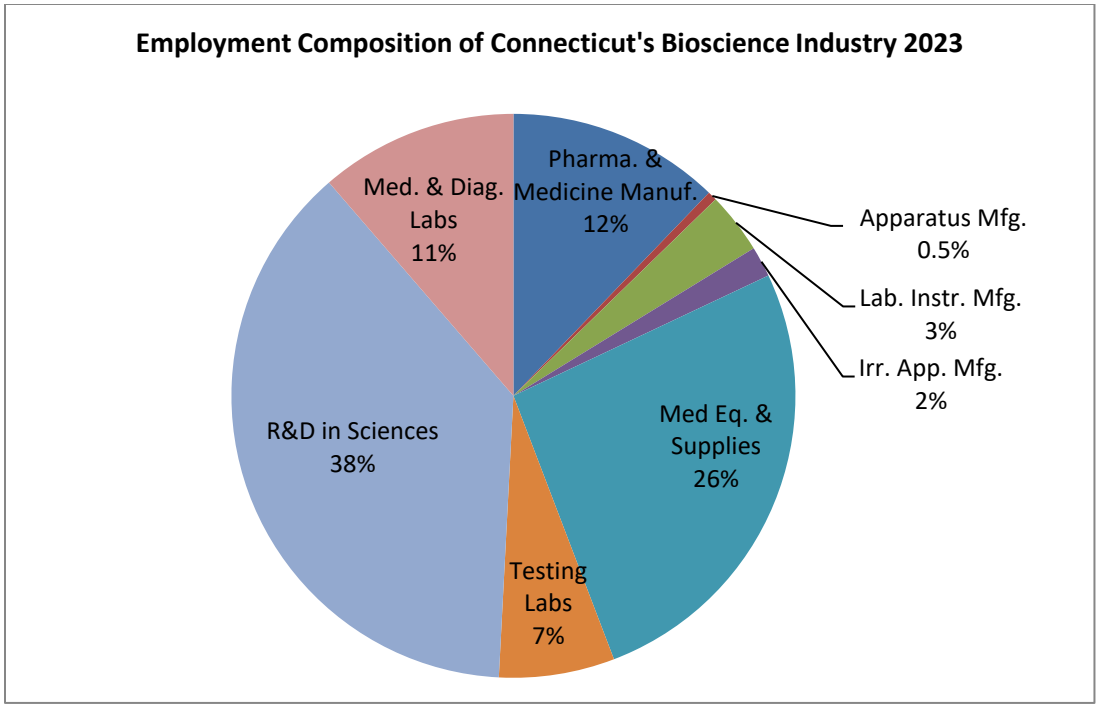
declines. The 2023 decline was concentrated. Among the eight component industries, most of the 2022-23 overall bioscience decline occurred in the R&D in Sciences Bioscience component industry, down 166 jobs from 2022 or 48% of the total bioscience drop. This industry was 38% of 2022 bioscience employment. Importantly, even as total employment declined slightly in 2023, the number of establishments in every industry in the bioscience cluster continued to increase.

2023 Composition of Connecticut's Bioscience Industry

NAICS	Bioscience Industry	All Employees			Change	Establishments			Change	Total Wages (thousands)	Average Annual Pay
		2021	2022	2023	21-23	2021	2022	2023	21-23	2023	2023
3254	Pharma. & Medicine Manuf.	3,057	3,161	3,110	52	30	36	53	24	528,853,720	$170,059
334510	Apparatus Mfg.	108	133	135	27	9	12	15	6	11,380,551	$84,352
334516	Lab. Instr. Mfg.	822	965	894	73	20	19	20	0	87,200,090	$97,485
334517	Irr. App. Mfg.	558	500	445	-113	8	7	9	1	59,232,100	$132,956
3391	Med Eq. & Supplies	6,342	6,667	6,682	340	123	124	138	15	582,043,400	$87,106
54138	Testing Labs	1,721	1,724	1,690	-31	166	171	178	13	151,199,340	$89,471
54171	R&D in Sciences	9,152	9,809	9,644	492	633	779	909	275	1,905,676,857	$197,606
6215	Med. & Diag. Labs	2,830	2,876	2,893	63	246	253	324	78	209,018,480	$72,260
	Total	**24,590**	**25,835**	**25,493**	**903**	**1,235**	**1,401**	**1,646**	**412**	**3,534,604,538**	**$138,650**

The table also illustrates that the cluster is high-paying. In 2023, the cluster had an average pay of 138,650, which is 63% above the annual average across all industries.

Across all Bioscience industries, about 56 percent of employment is in the service sector and 44 percent is in the goods producing sector as is shown below. Among the eight industries, the largest two industries, Research & Development in Sciences (38%) and Medical Equipment & Supplies Manufacturing (26%) account for more than half of Bioscience employment in the state.



Bioscience Industry Job Ads

Connecticut Bioscience HWOL Job Ads - Largest Employers and Industry Occupation - May 2023

NAICS Bioscience Industries		All Ads	Employer with most ads	Ads	Occupation with most ads	Ads
	Bioscience Industries Combined	**1,499**	**Johnson & Johnson**	**169**	**Medical and Health Service Mangers**	**61**
3254	Pharma. & Medicine Manuf.	811	Johnson & Johnson	169	Medical & Health Service Managers	47
334510	Apparatus Mfg.	12	Beekley Corporation	5	Magnetic Resonance Imaging Technologists	3
334516	Lab. Instr. Mfg.	39	Thermo Fischer Scientific	21	General Operations Managers	4
334517	Irr. App. Mfg.	1	Varian Medical Systems	1	Electronics Engineers	1
3391	Med Eq. & Supplies	294	Medtronic	124	Industrial Engineers	19
54138	Testing Labs	29	Microbac Laboratories	5	Clinical Lab. Technologists and Technicians	8
54171	R&D in Sciences	154	Pacific Northwest National Laboratory	44	Registered Nurses	15
6215	Med. & Diag. Labs	159	Quest Diagnostics	75	Phlebotomists	57

CT DOL Analysis of HWOL Job Ads

In May 2024, there were 1,499 Bioscience job ads across the eight specific bioscience industries according to Help Wanted OnLine (HWOL). Manufacturing accounted for 1,157 ads or 77% of total bioscience ads and the three service providing bioscience industries had 342 ads combined. Johnson and Johnson had the most job ads in the bioscience cluster with 169 and the occupation with the most job ads was Medical and Health Services Managers with 61 ads. More than half of total job ads in the bioscience cluster in May 2024 were within the Pharmaceutical and Medicine Manufacturing

(NAICS 3254) component industry. The occupation present in the most industries within the bioscience cluster was Wholesale and Manufacturing Sales Representatives. Job ads for this occupation were found in seven of eight industries within the bioscience cluster and with 60 total ads was the second most common occupation within the bioscience cluster.

Bioscience Projections and Conclusions

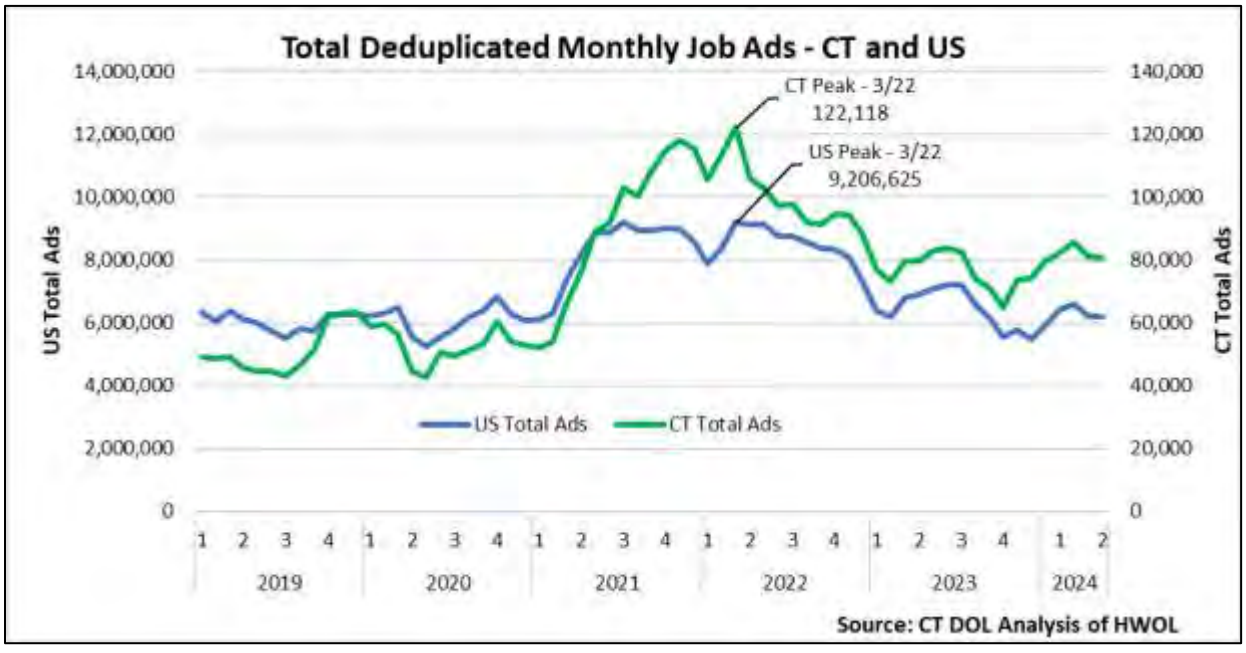
Bioscience Industries Short Term Projections 2023Q2-2025Q2		**23q2**	**25q2**	**Two Year Change**	
NAICS	Industry			#	%
3254	Pharmaceutical and Medicine Manufacturing	3,117	3,187	70	2.2%
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	5,653	5,983	330	5.8%
5413	Architectural, Engineering, and Related Services	13,329	13,700	371	2.8%
5417	Scientific Research and Development Services	9,892	10,192	300	3.0%
6215	Medical and Diagnostic Laboratories	2,907	2,932	25	0.9%

Earlier this year, the CT Department of Labor, along with agencies in all 50 states and U.S. territories conduct annual short-term two-year projections. These projections are done at 6-digit occupation and 4-digit industry level. The five industries shown above encompass the eight industries within the bioscience cluster. These five industries are projected to grow by a combined 3.1% through 2025Q2. The growth ranges from +0.9% in Medical and Diagnostic Laboratories to 5.8% in Navigational, Measuring, Electromedical, and Control Instruments Manufacturing. Overall, the Bioscience industry cluster in Connecticut has grown from 2017 to 2022, was down slightly in 2023, but is projected to add jobs through the middle of 2025 with the increase in establishments suggesting the potential for additional growth in the years to come.

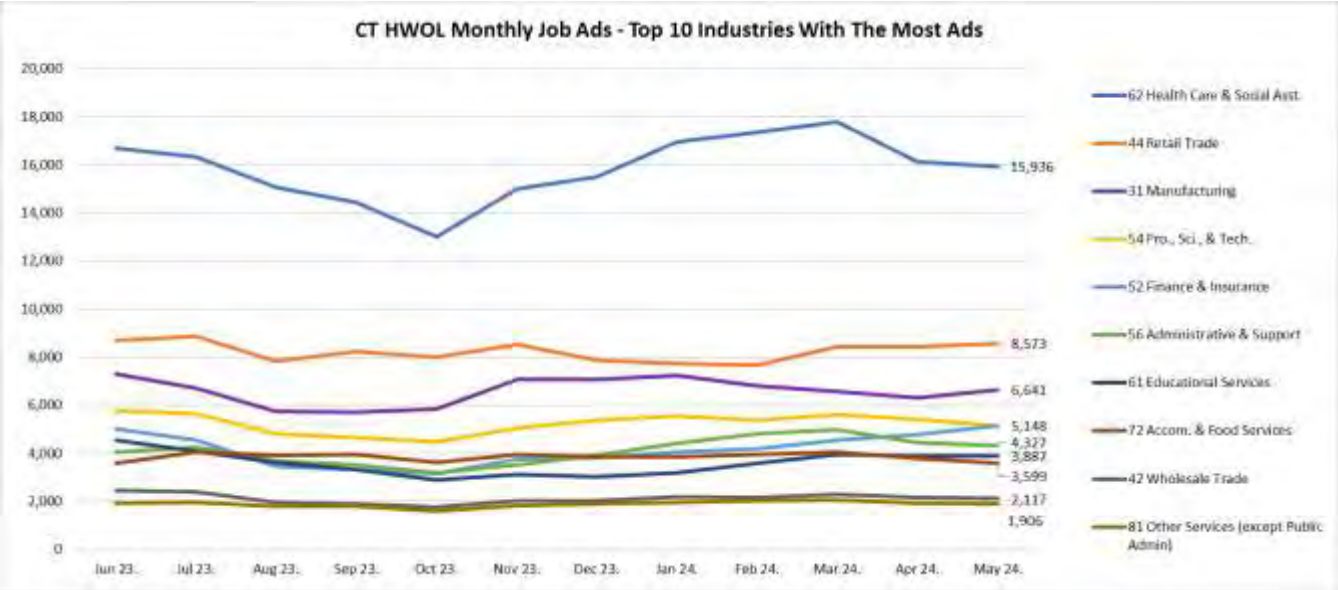
Help Wanted Online Job Ads[vi]

The Connecticut Department of Labor publishes monthly Help Wanted OnLine (HWOL) job ad data to overview the types of job ads posted by employers in the state. These monthly reports include deduplicated breakouts by workforce development area to provide jobseekers with information relevant to their local market.

The dramatic shifts the economy has experienced since 2019 are reflected in the total job ad count at both the state and national level. Monthly total deduplicated job ad counts for the US and CT began to increase dramatically during the beginning of 2021. The graph below illustrates this rise to series peaks of over 122,000 in Connecticut and over 9.2 million in the US by March 2022. This compares to respective March 2021 levels of 66,500 in Connecticut and 7.4 million in the US. After remaining above 100,000 ads per month in Connecticut through May 2022, total monthly job ads have remained above 70,000 most subsequent months and were 80,663 in May 2024. This total count is 45 percent higher than pre-COVID May 2019 levels. While the state currently has job ad counts above pre-COVID levels, the US has 6.2 million total unique job ads as of May 2024, which is 3 percent above the 6 million it had in May 2019.



The Following graph illustrates the shifts experienced over the past year by the 10 industries with the most ads in May 2024, the most recent month available. Therein it illustrates how Health Care & Social Assistance, Retail Trade, Manufacturing, and Professional, Scientific, & Technical Services are consistently the industries with the most monthly ads. During the past 12 months, these four industries account for between 45%-49% of total ads during a given month. The table also illustrates the large ad count swing experienced by Health Care & Social Assistance, which ranged between a low of 13,024 (October 2023) to a high of 17,786 (March 2024) during the past 12 months.



In May 2024, these four industries comprise a combined 45% of total ads, which is 3 percentage points higher than their combined 2023 annual average employment share.

CT Job Ads by Industry May 2024		
Industry	**Job Ads**	**%**
Total Across All Industries	**80,663**	**100.0%**
Health Care and Social Assistance	15,936	19.8%
Retail Trade	8,573	10.6%
Manufacturing	6,641	8.2%
Professional, Scientific, and Technical Services	5,150	6.4%
Finance and Insurance	5,148	6.4%
Administrative and Support	4,327	5.4%
Educational Services	3,887	4.8%
Accommodation and Food Services	3,599	4.5%
Wholesale Trade	2,117	2.6%
Other Services (except Public Administration)	1,906	2.4%
Construction	1,743	2.2%
Information	1,723	2.1%
Transportation and Warehousing	1,546	1.9%
Public Administration	1,392	1.7%
Real Estate and Rental and Leasing	1,274	1.6%
Arts, Entertainment, and Recreation	658	0.8%
Utilities	474	0.6%
Management of Companies and Enterprises	159	0.2%
Mining, Quarrying, and Oil and Gas Extraction	134	0.2%
Agriculture, Forestry, Fishing and Hunting	106	0.1%
unclassified	14,170	17.6%
Source: CT DOL Analysis of HWOL		

The following table highlights the occupations with the most job ads within the four industries with the most ads and across all industries. In May 2024, the three occupations across all industries with the most job ads were Registered Nurses (4,576 ads), Retail Salespersons (2,918 ads), and Home Health & Personal Care Aides (1,755 ads).

Top Three Occupations in Industries With The Most Ads - May 2024	
All Industries - CT Statewide	**80,663**
Registered Nurses	4,576
Retail Salespersons	2,918
Home Health & Personal Care Aides	1,755
Health Care and Social Assistance	**15,936**
Registered Nurses	2,866
Home Health and Personal Care Aides	958
Licensed Practical and Vocational Nurses	567
Retail Trade	**8,573**
Retail Salespersons	1,774
First-Line Supervisors of Retail Sales Workers	983
Customer Service Representatives	350
Manufacturing	**6,641**
Production Workers	232
Industrial Engineers	165
Computer Occupations	163
Pro., Sci., & Tech. Services	**5,150**
Software Developers	248
Computer Occupations	233
Project Management Specialists	119
Source: CT DOL Analysis of Help Wanted Online	

Across all five workforce areas, Health Care and Social Assistance was the industry with the most ads and Registered Nurses was the occupation with the most ads.

Workforce Area	May Total Ads	Industry Sector With Most Ads	Ads	Occupation With Most Ads	Ads
Eastern	5,810	Health Care & Soc. Asst.	1,449	Registered Nurses	374
North Central	29,381	Health Care & Soc. Asst.	5,400	Registered Nurses	1,747
Northwest	9,533	Health Care & Soc. Asst.	2,418	Registered Nurses	552
South Central	14,156	Health Care & Soc. Asst.	3,054	Registered Nurses	915
Southwest	16,138	Health Care & Soc. Asst.	2,730	Registered Nurses	773

Source: CT DOL Research Office Analysis of HWOL Data Series

The distribution of job ads by employer in the state reflect the industries and occupations with the most job ads. In May 2024, five of the ten employers with the most job ads were in Health Care & Social Assistance.

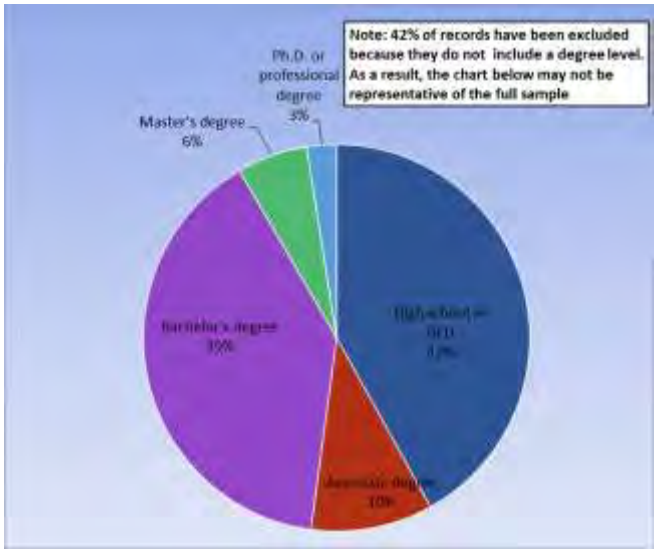
Connecticut Employers with the Most Job Ads – May 2024

Employer	Ads	Employer (continued)	Ads
Hartford HealthCare	2,482	Lumen Technologies	243
Yale New Haven Health	1,150	Accenture	239
CVS Health	957	Elevance Health	236
State Of Connecticut	774	BJ's Wholesale Club	230
Travelers	688	Maximus	229
Echn	662	Raytheon Technologies	227
Nuvance Health	552	Optum	220
Actalent	513	Starbucks	215
Trinity Health	497	ASML	213
Yale University	478	Humana	213
Marriott International	399	Lowe's	213
Cigna	375	TJX	209
Connecticut Children's Medical Center	367	General Dynamics	208
UnitedHealth Group	347	Ford	204
Walmart	342	AutoZone	163
Marrakech	340	Middlesex Health System	162
Stamford Health Ltd	329	Dattco	160
Walgreens Boots Alliance	328	Dunkin' Brands	159
Masonicare	277	Johnson & Johnson	147
Elara Caring	269	YMCA	133
Manchester Community College	266	National Health Care Associates	126
Eversource Energy	264	Waterbury Public Schools	121
University of Connecticut	262	Benchmark Senior Living	119
The Hartford	252	Prime Therapeutics	117
Compass Group	243		

HWOL Job Ads by Educational and Skill Requirements

The HWOL data series includes detailed breakouts of job ads by educational attainment requirements and skills categories. In May 2024, 58 percent of job ads had information on minimum educational requirements. Within those ads, 42% required at least a High School Diploma or GED, 10% required at least an Associate Degree, and 48% required a Bachelor's or more. This minimum educational breakout for May 2024 is typical of a given month.

May 2024 Job Ads by Minimum Educational Requirement



In addition to minimum educational requirements, the HWOL data series includes detailed information on skills found in job ads. The following table includes general skills categories, specialized skills, and specific software skills noted in Connecticut's job ads. The most common skill categories were "Communication", "Customer Service", and "Management". These skill categories were found in more than a quarter of job ads in the state. Many of the top specialized skills such as "Nursing", "Merchandizing", and "Selling Techniques" relate directly to specific occupations with the most ads such as Registered Nurse and Retail Salesperson. The top software skills reflect some common programs including Microsoft office, which is used across a variety of occupations. The top software list also includes the SQL and Python programming languages.

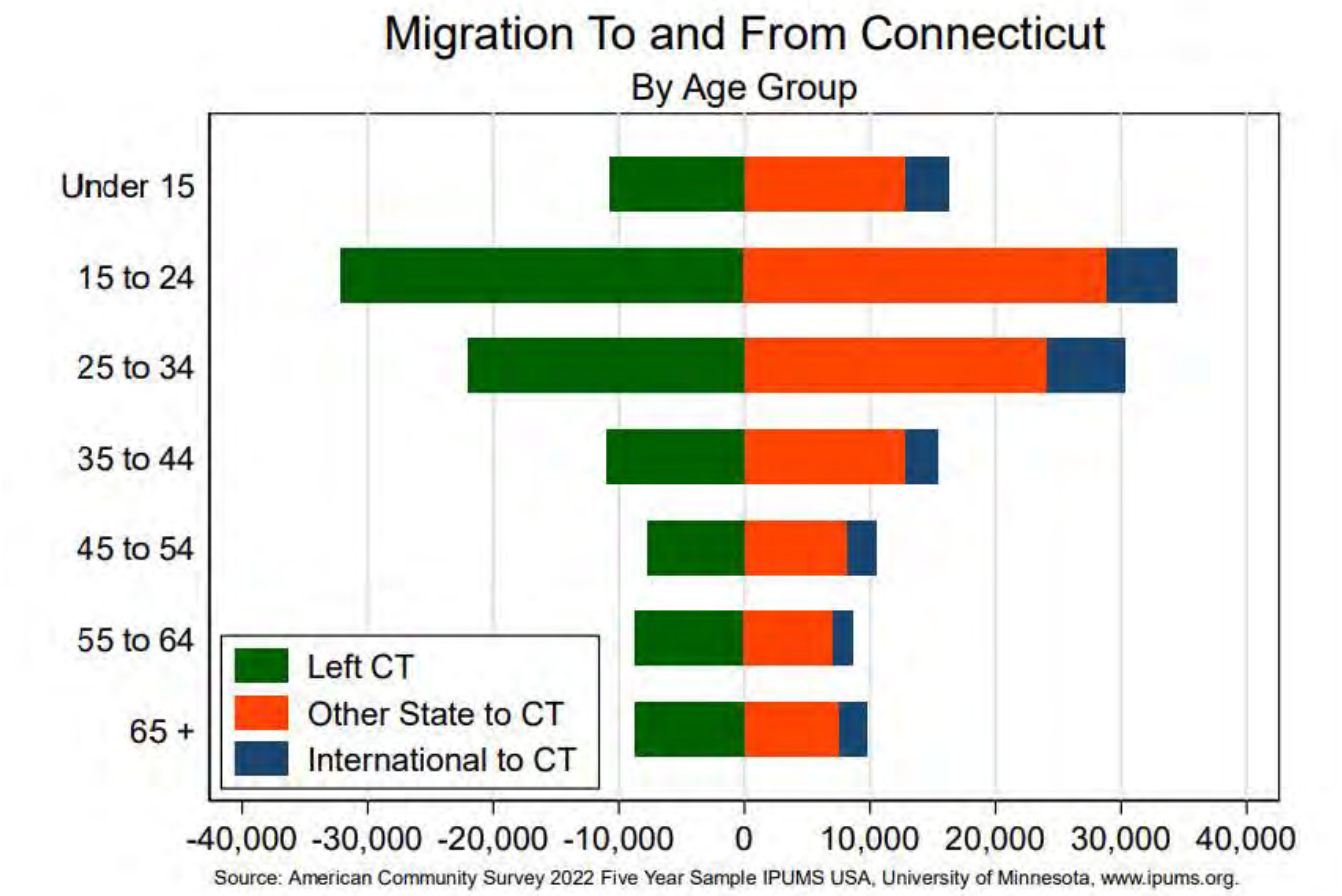
Job Ads by Skill Category Type - May 2024

Skill Categories	Ads	Specialized Skills	Ads	Software Skills	Ads
Communication	31,068	Nursing	6,209	Microsoft Excel	6,380
Customer Service	21,527	Merchandising	5,330	Microsoft Office	6,288
Management	19,744	Project Management	5,165	Microsoft Outlook	3,453
Sales	14,949	Marketing	4,869	Microsoft PowerPoint	3,285
Leadership	14,605	Auditing	4,371	Microsoft Word	2,130
Operations	13,500	Selling Techniques	3,664	SQL (Programming Language)	1,442
Detail Oriented	10,456	Finance	3,358	Python (Programming Language)	1,139
Problem Solving	10,029	Accounting	2,995	Salesforce	1,125
Writing	9,290	Workflow Management	2,892	Epic EMR	1,028
Planning	8,647	Restaurant Operation	2,577	SAP Applications	934
Interpersonal Communications	8,595	Billing	2,562	Spreadsheets	876
Organizational Skills	6,531	Housekeeping	2,530	Amazon Web Services	766
Microsoft Excel	6,380	Inventory Management	2,495	Application Programming Interface (API)	720
Microsoft Office	6,288	Data Analysis	2,477	Dashboard	679
Lifting Ability	6,275	Medical Records	2,384	Microsoft Access	647
Multitasking	6,177	Warehousing	2,347	Microsoft Azure	645
Coordinating	5,967	Process Improvement	2,321	Power BI	595
Computer Literacy	5,784	Effective Communicatior	2,271	Operating Systems	588
Research	5,713	Product Knowledge	2,233	JavaScript (Programming Language)	552
Scheduling	5,683	Customer Relationship M	2,218	Microsoft SharePoint	529

Connecticut Population Gains in 2023[vii]

The latest population estimates from the U.S. Census Bureau show that Connecticut's population increased by 8,470 in 2023 with births outnumbering deaths by 2,115 and net migration from other states and countries totaling 6,248. While it will be some months before a breakdown by state and age will be available for 2023, the available data through 2022 show encouraging signs for Connecticut.

The American Community Survey (ACS) is conducted by the U.S. Census and surveys approximately 1% of the U.S. population each year. Both a one-year and a five-year sample are published. The five-year sample includes responses for five consecutive years, so the estimates are based on a survey of approximately 5% of the population. In general, a larger sample will make detailed estimates more reliable. The latest five-year sample (through 2022) shows that more people moved to Connecticut from other states and countries than left Connecticut in every age group except those aged 55 to 64. For that group, the net loss was small, averaging just 220 per year. The largest net increases were in those aged 25 to 34 and 35 to 44, with over 8,000 more people aged 25 to 34 moving to Connecticut each year (on average) than leaving and 4,500 more in the 35 to 44 age group. Excluding international migration, approximately 2,000 more people in each of these age groups moved to Connecticut from other states each year than moved to other states from Connecticut. Connecticut also had a net gain of people aged 45 to 54, with more moving to Connecticut from other states than leaving Connecticut for other states. These age groups are considered "prime working age". The net losses to other states were those aged 15 to 24, 55 to 64, and age 65 and over.



As the chart shows, those in their late teens and early twenties move across state lines more than other groups. Tens of thousands of people in this age group move to Connecticut each year from other states and slightly more move from Connecticut to other states. When international migration is considered, Connecticut gains in this age group. Even in the age groups 55 and over, migration goes both ways. While Connecticut loses slightly more to other states in these age groups than we gain from other states (for reasons such as the weather) there are still thousands of people moving to Connecticut in these age groups each year.

The ACS migration data show that India was the country with the most immigrants to Connecticut according to the 2022 five-year sample followed by Brazil, China, Ecuador, and the United Kingdom. India and China were the top two in the 2012 five-year sample (ten years prior) followed by Jamaica, Canada, and Japan.

Recently released population figures for 2023 show that Connecticut ranked 29th in the country in population increase from April 1, 2020 to July 1, 2023. As would be expected, some much larger states had larger increases (Texas and Florida had the largest population increases). Connecticut's increase occurred even as the Northeast region lost population over this period. While 2023 details are not yet available, details through 2022 demonstrate that Connecticut is attracting residents of all age groups from other states and other countries.

Risks to Projection

The projections referenced in this article were produced during the first two months of 2024 using the most recently available QCEW employment data from the second quarter of 2023. In the four years since the start of the COVID-19 lockdowns, interest rates to quell inflation remain higher than pre-COVID levels, geopolitical uncertainty persists, as does the potential rise of additional variables such as emerging technology that can impact the labor market and employment levels in unforeseeable ways. Though down from the highs of mid-2022, inflation remains elevated above target levels and was 3.3% during the year ending May 2024.[viii] Additionally, some leading indicators such as the yield curve and "Sahm Rule" suggest that the likelihood of a US slowdown may be increasing, but the most recent job numbers (through March 2024) show solid job growth at both the state and national levels.[ix] Unemployment remains low and employment growth has exceeded the expectations of most national labor market experts.[x]

Data Limitations: The Department of Labor's short-term projections in this report have been carefully prepared to ensure accuracy, but by nature are subject to error. For more detail on the short-term occupational projections, visit https://projectionscentral.org/Projections/ShortTerm

[i] BLS. Employment Projections Definitions. https://www.bls.gov/emp/documentation/definitions.htm

[ii] CBIA. Electric Boat: Our Workforce is Our Weapon. February 23, 2024. https://www.cbia.com/news/featured/electric-boat-workforce/

[iii] FRB St. Louis, Housing Inventory: Active Listing Count in Connecticut [ACTLISCOUCT] https://fred.stlouisfed.org/series/ACTLISCOUCT

[iv] FRB St. Louis, Housing Inventory: Median Days on Market in CT [MEDDAYONMARCT] https://fred.stlouisfed.org/series/MEDDAYONMARCT

[v] FRB St. Louis, All-Transactions House Price Index for CT [CTSTHPI], https://fred.stlouisfed.org/series/CTSTHPI

[vi] CT DOL, Office of Research. Help Wanted Online Job Ads. https://www1.ctdol.state.ct.us/lmi/hwol.asp

[vii] Flaherty, Patrick. Connecticut's Population Gains. CT Economic Digest. April 2024. https://www1.ctdol.state.ct.us/lmi/digest/articles/April2024-2.pdf

[viii] FRB St. Louis, Consumer Price Index for All Urban Consumers (CPI-U). https://www1.ctdol.state.ct.us/lmi/cpi.asp

[ix] Sor, Jennifer. The Job Market Looks Rock-Solid, But There Are 4 Signs It's Weakening as Labor Trends Mirror Past Recessions. Business Insider. April 10, 2024. https://www.businessinsider.com/job-market-layoffs-recession-outlook-us-economy-hiring-unemployment-slowdown-2024-4

[x] Lahart, Justin. Brisk Hiring Bolsters Fed's Cautious Stance on Rate Cuts. Wall Street Journal. April 5, 2024. https://www.wsj.com/economy/jobs/jobs-report-march-unemployment-02c4050d