# Postsecondary Labor Market Outcomes -Report Notes

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### **Overview**

The Connecticut State Department of Education (CSDE) has a persistent commitment to policies that <u>help meet the challenge of effectively preparing each student for learning, life, and work</u> <u>beyond the classroom</u>. This report presents data connected from the CSDE and the Department of Labor (DOL) via the <u>Preschool through 20 and Workforce Information Network</u> (P20WIN) to better understand the earnings outcomes of Connecticut's high school graduates.

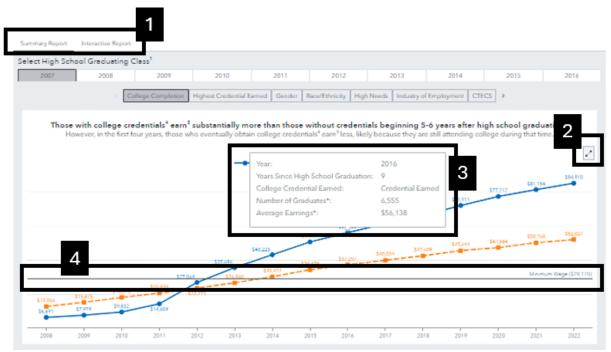
This report presents the average annual earnings (adjusted to 2022 dollars) of Connecticut's high school graduates. We report dollars earned in Connecticut in the (up to) 15 years after they graduate high school, through calendar year 2022. This report also includes the ability to disaggregate on a variety of measures including college attainment, various demographics, industry of employment, and public school district.

# How to Use this Report

This report contains a Summary Report view and an Interactive Report view. In the **Summary Report**, users can view key findings from the report by high school graduating class. In the **Interactive Report**, users investigate the data themselves with customizable viewing options. Users can access the two views using the **tabs at the top of the report** (see #1 below).

Line charts and data tables can be **maximized** using the using the diagonal arrow button at the top right of the chart/table (see #2 below). Once maximized, interactive filters will no longer be available. To **return to the original view and filters**, use the same button at the top right.

**Hover** over a data point in the line chart to view the current filters, year, average earnings, and number of graduates represented in the average (see #3 below). The line charts also include a **reference line** (see #4 below) indicating the annual earnings of someone who earns the 2022 Connecticut minimum wage (\$14 per hour) for 40 hours per week (\$29,120 per year).



#### Summary Report

The Summary Report includes key findings about the relationship between earning a college credential and wages earned over time. **Please note that these findings are not causal and are based on averages**; there are many additional underlying factors that affect this relationship.

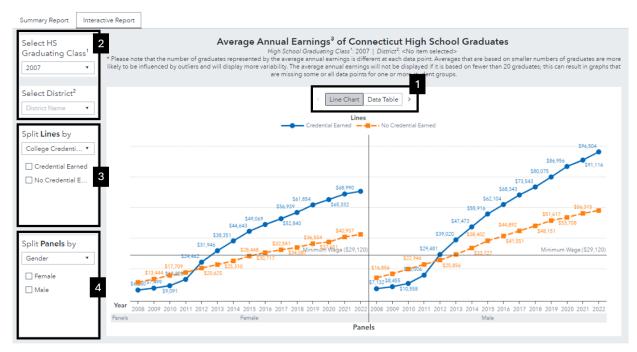
Use the **Select High School Graduating Class** button bar (see #1 below) to view different graduating classes. Use the buttons in the center (see #2 below) to view the **key findings** for the selected graduating class.

Each key finding has a line chart that presents the **average annual earnings** (in 2022 dollars, along the vertical axis) **over time** (in calendar years, along the horizontal axis). The **legend at the top** (see #3 below) shows the student group categories that are represented by the **different colors/patterns of lines**. In the example below, the solid blue line is the average for female graduates and the dashed orange line is the average for male graduates. The **legend at the bottom** (see #4 below) shows the student group categories that are represented by the **different panels**. In the example below, the left panel is graduates who earned a college credential, and the right panel is graduates who did not earn a college credential.



### Interactive Report

Users can access visual and tabular data in this report by selecting from the **Line Chart** and **Data Table** buttons in the center of the interactive report (see #1 below). Users can customize the data presented using the **high school graduating class** and **school district** drop-down filters (see #2 below) as well as the "**Split Lines By**" (see #3 below) and "**Split Panels By**" (see #4 below) menus on the left. The lines and panels can be filtered using the checkboxes below the dropdown menus. To see **statewide data**, select "Clear Filter" from the Select District drop-down menu.



#### Line Chart

The **line chart** presents the **average annual earnings** (in 2022 dollars, along the vertical axis) **over time** (in calendar years, along the horizontal axis). **Hover** over a data point to view the current filters, year, average earnings, and number of graduates represented in the average. The line chart includes a **reference line** indicating the annual earnings of someone who earns the 2022 Connecticut minimum wage (\$14 per hour) for 40 hours per week (\$29,120 per year).

When interpreting data in the line chart, please note that **the number of graduates represented by the average annual earnings is different at each data point**. Averages that are based on smaller numbers of graduates are more likely to be influenced by outliers and will display more variability. Data in the line chart will be **suppressed** according to the <u>CSDE's data</u> <u>suppression policy</u>; the average annual earnings will not be displayed if it is based on fewer than 20 graduates. **This can result in graphs that are missing some or all data points for one or more student groups.** 

The user can compare student groups with **lines of different colors/patterns** using the **"Split Lines By"** menu (see #1 below). In the example below, the "Split Lines" category is College Credential Earned. The solid blue line displays the earnings for graduates who earned a college credential, and the dashed orange line displays the earnings for high school graduates who did not earn a credential. The **legend above the graph** displays this information (see #2 below).

The user can also compare student groups in **side-by-side panels** using the "**Split Panels By**" menu (see #3 below). In the example below, the "Split Panels" category is Gender. The panel on the left displays earnings for female graduates, and the panel on the right displays earnings for male graduates. The **legend below the graph** displays this information (see #4 below).

More detailed information about filtering and grouping variables is available in the <u>Filters and</u> <u>Comparison Types</u> section below.



#### Data Table

The data table presents the **number of graduates** and their **average annual earnings** by calendar **year** for the student groups selected in the menus on the left (see #1 below). The data can be exported to Excel using the button on the right (see #2 below). The totals across all selected comparison groups appear in the two highlighted columns at the left (see #3 below). Please note that the total is not based on all graduates; it will change based on the selections.

Data in this table are **suppressed** according to the <u>CSDE's data suppression policy</u>. **Suppressed data appear as an asterisk (\*) in the data table and as a missing value when exported.** 

Select HS Graduating Class <sup>1</sup> 2007 •			ber of graduate	s represented b	High School G by the average a triability. The av		1:2007   Distri is different at e arnings will not	ct <sup>2</sup> : <noitem se<br="">ach data point. be displayed if</noitem>	elected> Averages that a it is based on fe	re based on sm	aller numbers of aduates; this can r
Select District <sup>2</sup>						< Line Cł	nart Data Tab	le >			
District Name 🔻	Lines 🖌	_	3	1	Credenti	al Earned	L	No (	Credential Earn	ied	EXPORT TO EXC
	Pan 🛦	Total		Female		Male		Female		Male	
Split <b>Lines</b> by College Credenti •	Year 🔺	Number of Graduates*	Average Earnings*	Number of Graduates*	Average Earnings*	Number of Graduates*	Average Earnings*	Number of Graduates*	Average Earnings*	Number of Graduates*	
College Credenti *	2008	24,397	\$10,228	5,499	\$6,260	5,360	\$7,132	5,447	\$11,264	8,091	
Credential Earned	2009	21,669	\$12,279	4,604	\$7,499	4,633	\$8,455	5,031	\$13,444	7,401	
No Credential E	2010	20,577	\$14,874	4,125	\$9,091	4,215	\$10,558	4,919	\$15,841	7,318	
	2011	20,649	\$18,270	4,290	\$13,225	4,218	\$16,006	4,886	\$17,709	7,255	
	2012	20,231	\$25,109	3,957	\$24,462	4,258	\$29,481	4,785	\$20,625	7,231	
	2013	19,692	\$30,334	3,639	\$31,946	4,104	\$39,020	4,713	\$22,867	7,236	
	2014	18,974	\$35,309	3,375	\$38,351	3,869	\$47,473	4,607	\$25,310	7,123	
Split <b>Panels</b> by	2015	18,450	\$40,528	3,210	\$44,643	3,684	\$55,916	4,554	\$28,448	7,002	
	2016	17,890	\$44,201	3,000	\$49,069	3,555	\$62,104	4,451	\$30,717	6,884	
Gender •	2017	17,354	\$47,709	2,863	\$52,840	3,410	\$68,343	4,358	\$32,541	6,723	
Eemale	2018	16,879	\$51,009	2,714	\$56,939	3,326	\$73,543	4,271	\$34,087	6,568	
🗌 Male	2019	16,443	\$54,911	2,599	\$61,854	3,202	\$80,075	4,220	\$36,554	6,422	
	2020	15,873	\$57,968	2,541	\$65,332	3,098	\$86,956	4,043	\$37,651	6,191	
	2021	15,654	\$61,444	2,550	\$68,990	3,114	\$91,116	3,928	\$40,937	6,062	
	2022	15,559	\$63,927	2,533	\$70,730	3,098	\$96,504	3,937	\$42,612	5,991	

## Filters and Comparison Types

#### Select High School (HS) Graduating Class

This drop-down filter allows the user to filter the line chart and data table by high school graduating class, which is defined as the students who graduated from high school between September 1 of the previous year and August 31 of the selected year. For example, students in the high school graduating class of 2007 graduated between September 1, 2006 and August 31, 2007. Note that the number of years of earnings included in the line chart decreases as the high school graduating class gets higher because the average annual earnings is only displayed for years after graduation.

#### Select District

This drop-down filter allows the user to filter the line chart and data table by school district. **Note that when selecting smaller districts, data may appear to be missing due** to the <u>CSDE's</u> <u>data suppression policy</u>. To return to viewing the entire state, select "Clear Filter."

#### Split Lines/Panels By

Users can select up to two student group categories for comparison using the drop-down menus on the bottom left. On the line chart, the "Split Lines By" menu controls the group comparisons using multiple lines of different colors/pattern, while the "Split Panels By" menu controls the group comparisons in the side-by-side panels.

The available student group categories are the same for both of the drop-down menus. See the <u>Terms and Definitions section</u> for complete definitions of the categories and their values.

- All Students
- College Credential Earned
- Highest Credential Earned
- English Learner (EL) Status
- Free/Reduced-Price Meal Eligibility
- Gender

- High Needs (F/R, EL, or SWD)
- Homeless Status
- Race/Ethnicity
- Special Education Status (SWD)
- Number of Years Chronically Absent
- Industry of Employment

By default, the report presents all available values for a student group category. Specific **groups can be subsequently shown/hidden using the checkboxes below the drop-down menu**. Note that some student group categories (e.g., Industry of Employment) have many available values; selecting a few values can make the line chart more readable. Note that adding additional filters/splits will result in fewer graduates included in each data point, which may result in data being suppressed according to the <u>CSDE's data suppression policy</u>. **Suppressed data appear missing in the line chart and as an asterisk (\*) in the data table.** 

**College credentials are reported as ever-earned**, so they are static per-person across years. For example, if a student graduates from high school in 2009 and earns a bachelor's degree in 2014, they are included in the bachelor's degree classification through the entire year range, including between 2009 and 2014. Industry of employment is reported by year, meaning that a graduate may have different industries of employment across different years. **Demographic variables and chronic absence are static across years**, as they are based on student data in grades 9-12.

Additional notes on these classifications are included in the <u>Terms and Definitions</u> section of this document.

# **Inclusion/Exclusion Rules**

All graduates of Connecticut public schools in the high school graduating classes of 2007 through 2016 with earnings reported in Connecticut are included in this report. Graduates are only included in the average annual earnings for a particular year if they have earnings reported in Connecticut for that year; as such, it is possible for a graduate to be included in some of the years and not others.

The dataset does not include:

- Connecticut residents who did not graduate from a Connecticut public school, either because they did not graduate or they graduated from a private or out-of-state school;
- Connecticut public school graduates who are unemployed; or
- Connecticut public school graduates who are earning a salary in a different state.

Conditional Exclusions:

- If a graduate is reported as having graduated from a postsecondary institution, but the *level of their credential was not reported*, they are excluded from the dataset *only when the "Highest Credential Earned" is selected* in one of the "Split By" menus. Otherwise, they are included as part of the Credential Earned student group.
- If a graduate is reported as having earnings in a given year, but the *industry of employment is not reported*, they are excluded from the dataset *only when "Industry of Employment" is selected* in one of the "Split By" menus.

Term	Definition
Annual Earnings	Dollars earned during a calendar year, as reported to the Connecticut Department of Labor (DOL), adjusted for inflation to 2022 using the <u>CPI</u> <u>Inflation Calculator (US BLS)</u> .
	The Average Annual Earnings measure is based on the graduates who were employed during the given year. Graduates may be included in some years but not others, depending on their employment status. Graduates who were unemployed or earned their salary in a different state will not be included in the average annual earnings for that year.
High School (HS) Graduating Class	Students who graduated from a Connecticut public high school between September 1 of the previous year and August 31 of the selected year. For example, students in the high school graduating class of 2007 graduated between September 1, 2006 and August 31, 2007.
College Credential	Graduates are categorized as having <b>earned a college credential</b> if they have earned a <b>certificate, associate's degree, or bachelor's degree (or higher)</b> at a postsecondary institution within 7 years of high school graduation.

### **Terms and Definitions**

Term	Definition			
College Credential (continued)	Graduates who were enrolled in a postsecondary institution but did not earn a college credential within 7 years of high school graduation are categorized as having <b>some college</b> .			
	Graduates who were never enrolled in a postsecondary institution in the 7 years following high school graduation are categorized as having <b>no college</b> .			
	Credentials are reported as <i>ever-earned</i> , meaning they are static per-person across years. For example, if a student graduates from high school in 2009 and earns a bachelor's degree in 2014, they are still included in the bachelor's degree classification through the entire year range, including between 2009 and 2014.			
English Learner (EL) Status	Students who were identified as an <u>English Learner (EL)</u> at some time in grades 9-12.			
Free/Reduced-Price Meal Eligibility (2- level)	Students who were identified as <u>eligible for free or reduced-price meals</u> or free milk in accordance with the <u>Income Guidelines for the National School Lunch</u> <u>Program</u> (Title 7, CFR 245) at some time in grades 9-12.			
Gender	Students' declared gender, as reported by their district, during their final year of high school.			
High Needs	Students who were identified as either an English Learner, Eligible for Free/Reduced-Price Meals, or a Student with Disabilities at some time in grades 9-12.			
Homeless status	Students who were identified by school/district staff as <u>homeless</u> at some time in grades 9-12.			
Race/Ethnicity	<ul> <li>Students' declared race/ethnicity, as reported by their district, during their final year of high school.</li> <li>American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.</li> <li>Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.</li> <li>Black or African American: A person having origins in any of the black racial groups of Africa.</li> <li>Hispanic/Latino of any race: A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race</li> <li>Native Hawaiian or Other Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.</li> <li>Two or more Races: A person having origins in two or more of the racial descriptions who is not of Hispanic or Latino ethnicity.</li> <li>White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.</li> </ul>			

Term	Definition				
Special Education Status (SWD)	<u>Students with a disability</u> for which an Individualized Education Plan (IEP) was implemented at some time in grades 9-12.				
Years Chronically Absent	The number of years a student was chronically absent (Attendance Rate ≤ 90%) in grades 9-12.				
Industry of Employment	<ul> <li>Industry in which the graduate earned the majority of their earnings for a given year, as defined by the <u>North American Industry Classification System</u> (<u>NAICS</u>). The industry of employment for a particular graduate may change from year to year.</li> <li>Accommodation and Food Services</li> <li>Administrative and Support and Waste Management and Remediation Services</li> <li>Agriculture, Forestry, Fishing and Hunting</li> <li>Arts, Entertainment, and Recreation</li> <li>Construction</li> <li>Educational Services</li> <li>Finance and Insurance</li> <li>Health Care and Social Assistance</li> <li>Information</li> <li>Management of Companies and Enterprises</li> <li>Manufacturing</li> <li>Mining, Quarrying, and Oil and Gas Extraction</li> <li>Professional, Scientific, and Technical Services</li> <li>Public Administration</li> <li>Real Estate and Rental and Leasing</li> <li>Retail Trade</li> <li>Transportation and Warehousing</li> <li>Utilities</li> <li>Wholesale Trade</li> <li>Other Services (except Public Administration)</li> </ul>				

# Sources and Update Schedule

The <u>Public School Information System</u> (PSIS) is used to collect the **demographic**, **attendance**, **and school entrance/exit (including graduation dates) data** on Connecticut's public school students that were used in this report. The data are reported by districts to CSDE on an ongoing basis and are frozen twice each school year in October and June. The data are static across time for the high school graduates in this report.

The <u>Connecticut Department of Labor</u> (DOL) collects **quarterly wage and industry of employment data** through the <u>unemployment insurance benefits division</u>. These data are provided to the CSDE through the <u>Preschool through 20 and Workforce Information Network</u> (P20WIN). The <u>National Student Clearinghouse</u> (NSC) collects **college enrollment, graduation, and credential data** from <u>97% of postsecondary educational institutions</u> nationwide. These data are reported to the CSDE on all Connecticut public high school graduates. Note that graduates who attend a postsecondary institution may not appear in the NSC data if the institution is outside of the United States or the student places a block on their records through the Family Educational Rights and Privacy Act (FERPA).

Matching between these three datasets is done through <u>P20WIN</u> using a <u>probabilistic data</u> <u>linking</u> process using nonpublic data captured by all three sources including name and date of birth.

This report will be updated annually.

# **Data Contact**

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