



# Emerging Findings: A Landscape Review of Work-Based Learning Policies and Practices

Robert Merth, Associate Director of Policy and Research  
Amy Knott, Senior Project and Research Coordinator

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New England Board of Higher Education

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# Structure

- Communicate the context and need for work-based learning in higher education
  - Focus on paid internships for students pursuing and earning Bachelor's degrees
- Review the current landscape of internship demand among New England employers
- Review policies, programs, and practices related to expanding work-based learning opportunities for postsecondary students

# Context

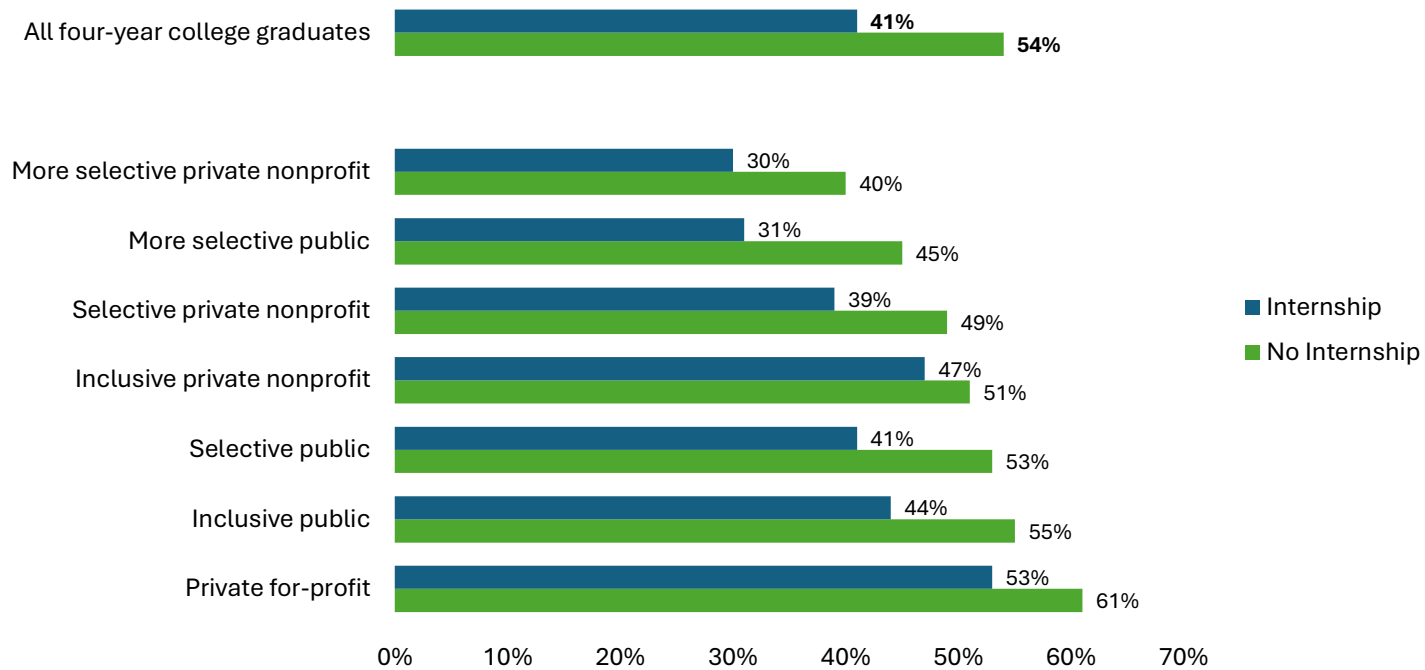
# Graduate Underemployment

- Underemployment: Working in a job that does not require a degree or make meaningful use of college-level skills.
- Only about half of bachelor's degree holding workers secure employment in a college-level job within a year of graduation, while the other **half are underemployed**.
- Graduates who start out in a college-level job largely remain in employment appropriate to their degree, while **underemployed graduates are about 3.5 times as likely to be underemployed a decade later**.

Source: [Burning Glass Institute \(2024\)](#)

# Internships Reduce Underemployment

Bachelor's-Holding Student Underemployment Rate by Internship Participation and Institutional Selectivity Type



Source: [Burning Glass Institute \(2024\)](#)



# Other Positive Effects of Internships

- The strongest evidence to date shows that internships have positive effects on...
  - Interview requests<sup>1</sup>
  - Job offers<sup>2</sup>
  - Earned employment and wages<sup>3</sup>
  - Job satisfaction<sup>4</sup>

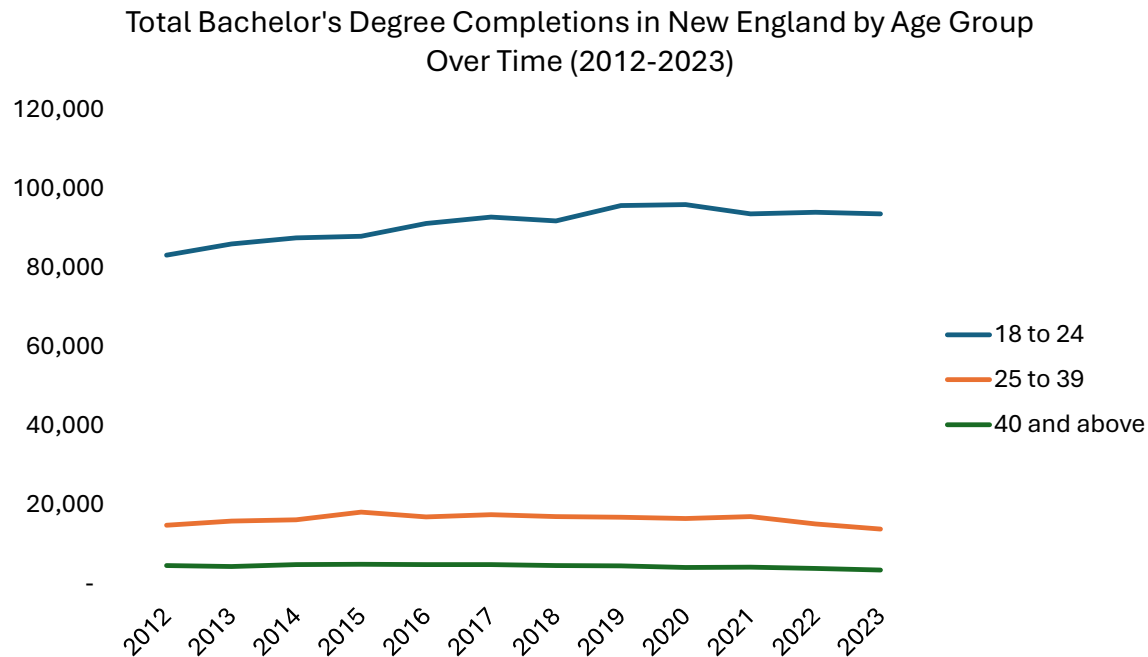
Source 1: [Nunley et al. \(2016\)](#)

Source 2: [Rigsby et al. \(2013\)](#)

Source 3: [Gault et al. \(2000\)](#); [Neumark & Rothstein \(2005\)](#)

Source 4: [Gault et al. \(2000\)](#)

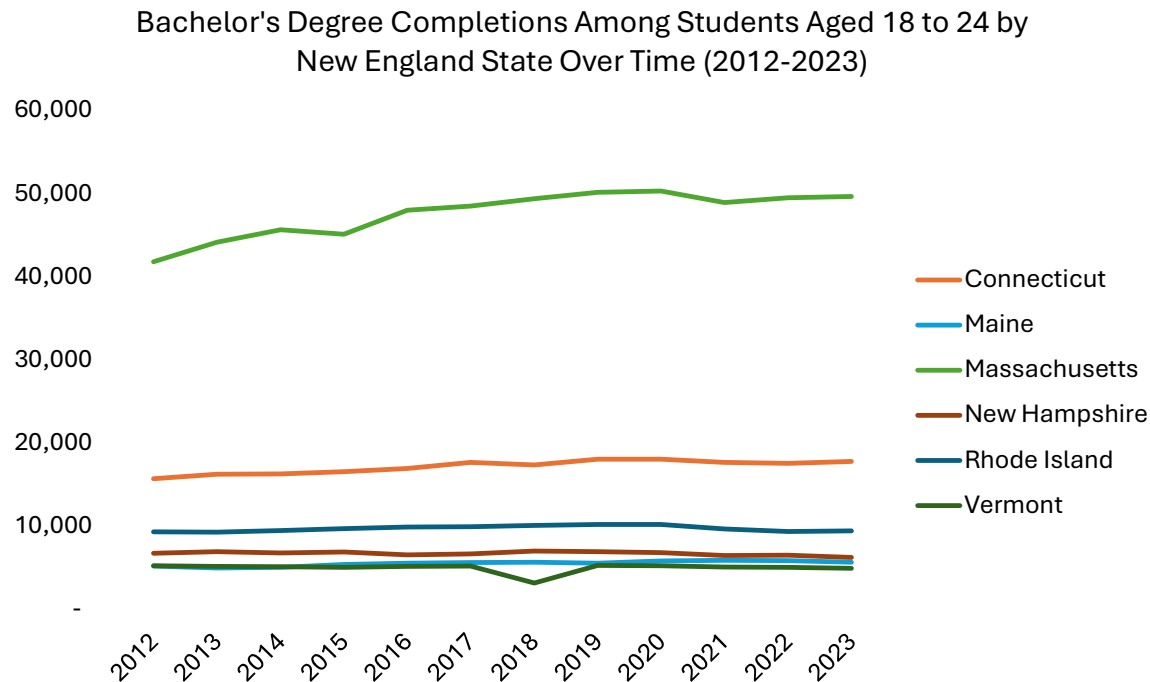
# Growth in Student Availability for Internships



Source: Integrated Postsecondary Education Data System (IPEDS)

*Note: Institutions were removed from this analysis that predominantly served both out-of-region and remote students (i.e., Post University, Unity College, Southern New Hampshire University, and Johnson & Wales University-Online).*

# Growth in Student Availability for Internships



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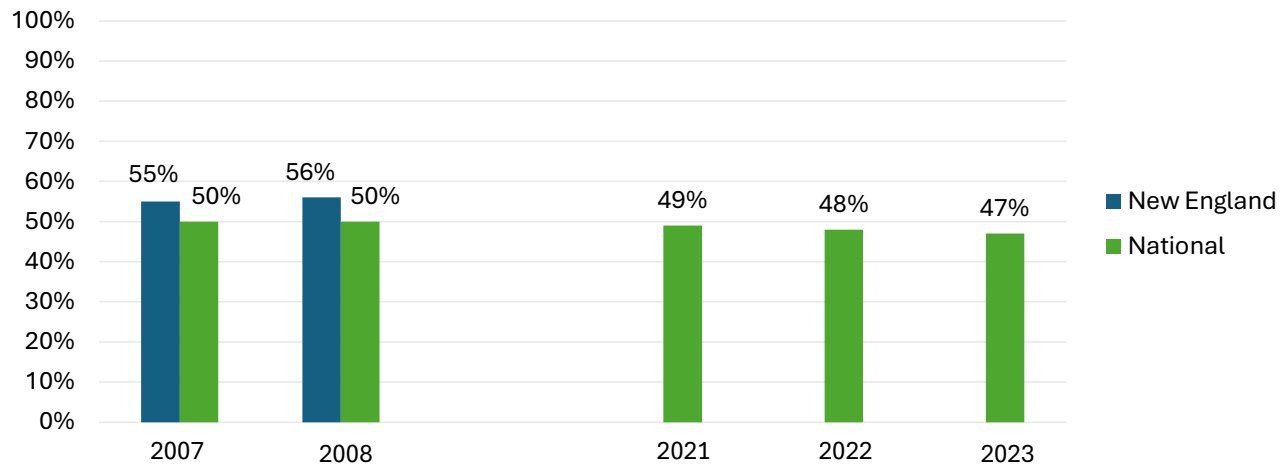
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# Flat Internship Participation Growth

Survey Estimates of Undergraduate Internship Participation Over Time



Sources:

Higher Education Research Institute (HERI)  
College Senior Survey

National  
Association of  
Colleges and  
Employers  
(NACE)

National Survey of  
Student Engagement

# Larger Effects for Paid Internships

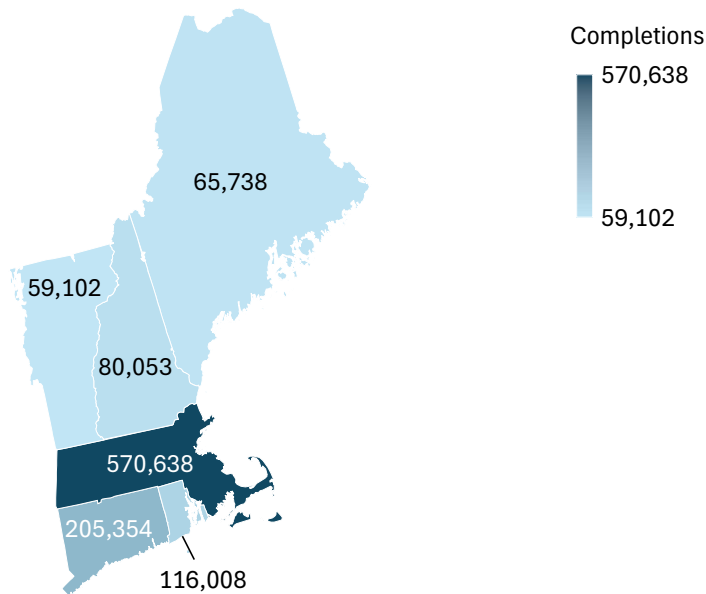
- Paid interns received an average **1.61 more job offers** than unpaid interns<sup>1</sup>
- Students who participated in paid internships report **higher earnings post internship** than those participating in unpaid internships<sup>2</sup>

Source 1: 2022 National Association of Colleges and Employers (NACE) student survey data

Source 2: [Torpey-Saboe, Leigh & Clayton \(2022\)](#) analysis of Baccalaureate and Beyond (B&B) longitudinal student survey data

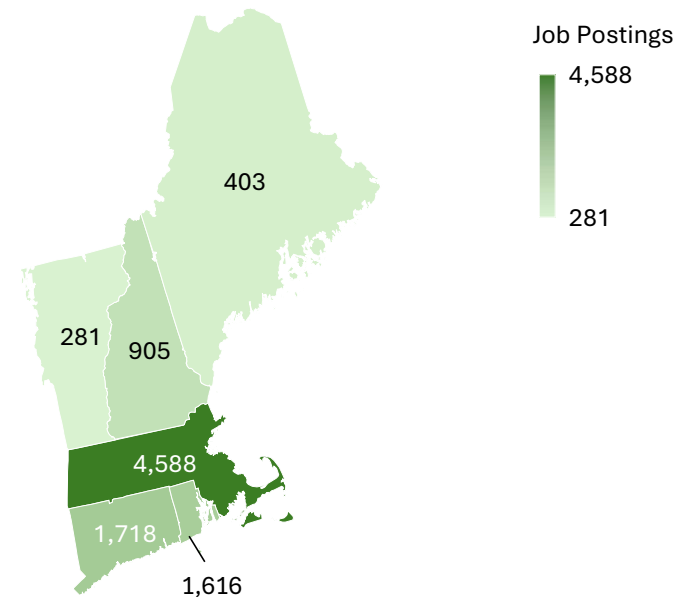
# Paid Internships Are in Short Supply

Total Bachelor's Degree Completions Among Students Aged 18 to 24 By New England State from 2012 to 2023



Source: Integrated Postsecondary Education Data System (IPEDS)

Total Number of Paid Internship Job Postings By New England State from 2012 to 2023



Source: Lightcast

*Note: Paid internship job postings data (right) display only those with salary information included in job descriptions, are entry level (0-3 years of experience), and reference any education requirement (including no education requirement) except graduate degrees.*

# Not All Internships Are Created Equal

- Elements of internship quality<sup>1</sup>
  - Learning plan, goal/task alignment, mentoring, network development, student satisfaction
- The current research suggests that...
  - Supervisor support and mentoring positively relate to intern **satisfaction, commitment, and attitudes toward the industry**<sup>2</sup>
  - Positive/negative supervisor communication lead to positive/negative **student evaluations of the efficacy of the internship**<sup>3</sup>

Source 1: [Center for Research on College-Workforce Transitions \(2020\)](#)

Source 2: [D'abate et al. \(2009\)](#); [Rose et al. \(2014\)](#)

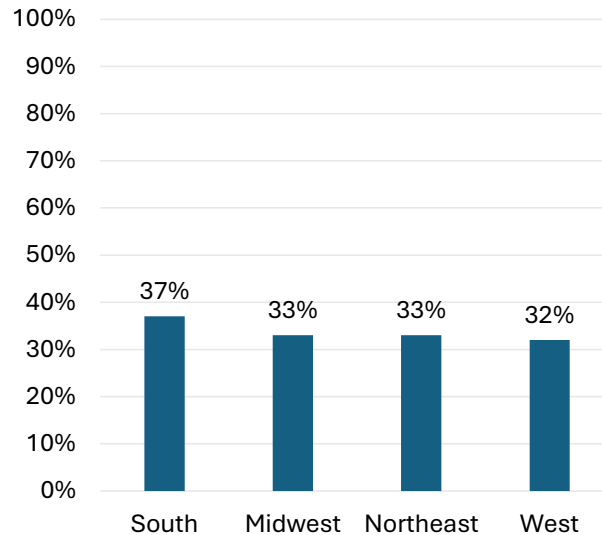
Source 3: [Hora et al. \(2023\)](#)

# Internship Quality Varies

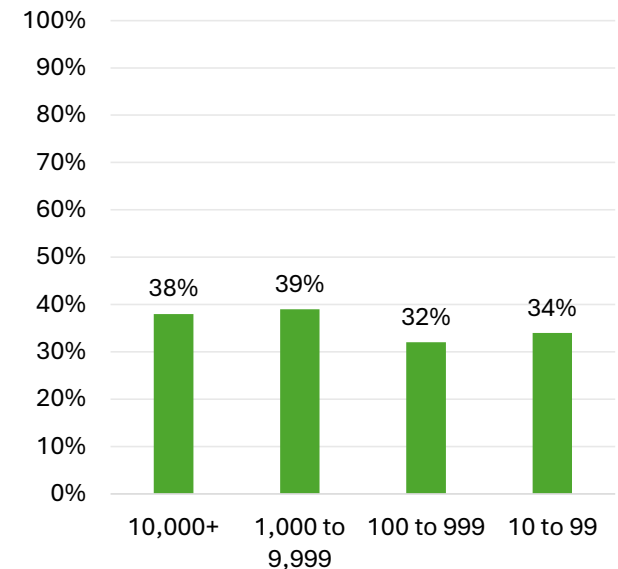
## Indicators of Internship Quality:

1. Formally onboard
2. Place with a trained supervisor
3. Provide resources and supports
4. Placed with mentor
5. Deliver regular feedback
6. Track satisfaction and engagement

Employer Survey Estimates of High Internship Quality by Region



Employer Survey Estimates of High Internship Quality by Employer Size



Source: [Business Higher Education Forum \(2024\)](#)

# Key Points

- Internships reduce underemployment
- However, student participation remains flat over time
  
- Paid internships report larger effects than unpaid internships
- However, the availability of paid internship opportunities is insufficient
  
- Internship quality is connected to student attitudinal outcomes
- However, internship quality varies by region and employer
  
- Therefore, **New England needs a robust policy and program ecosystem** to support the expansion of high quality and paid internship opportunities

# Internship Demand in New England

# Lightcast Job Posting Analytics

## Parameters

Select Timeframe: Jan 2024 - Jan 2025

Occupations:

24 items selected. See Appendix A for details.

Regions:

Code	Description	Code	Description
9	Connecticut	33	New Hampshire
23	Maine	44	Rhode Island
25	Massachusetts	50	Vermont

Minimum Experience Required: Any

Advertised Salary: Include all postings regardless

Education Level: Any

Job Type: Only Internships

Company Type:

Non-Staffing Companies

Keyword Search:

Posting Type: Newly Posted



# Top Internship Providers by State

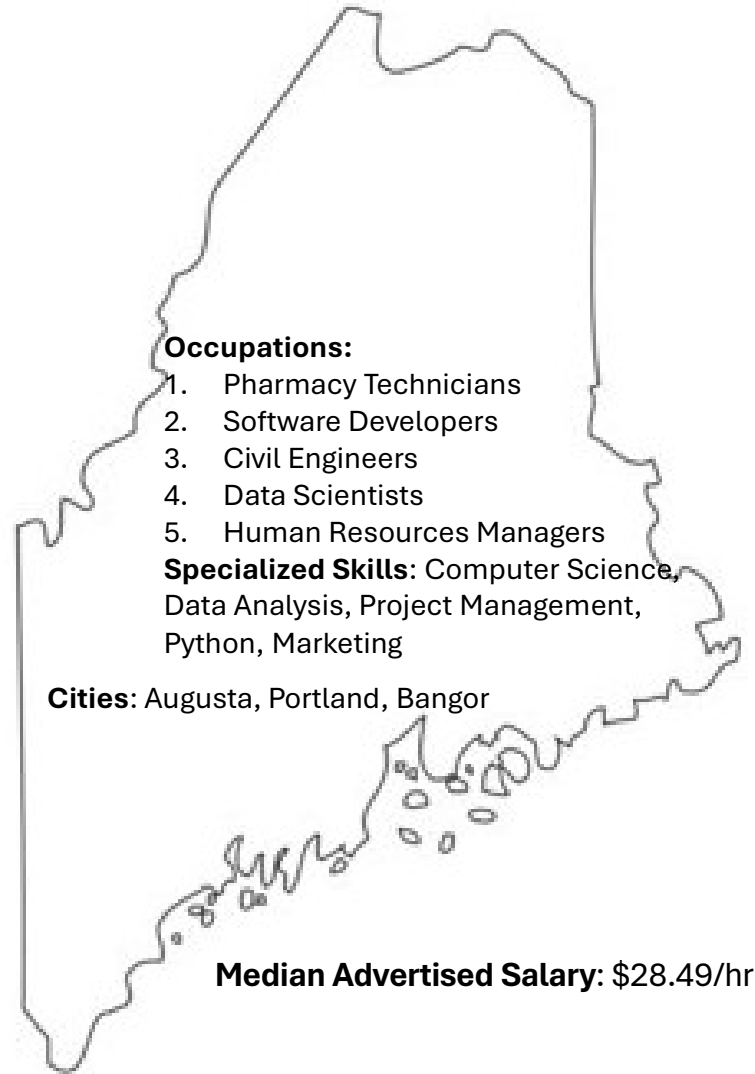
Connecticut	Rhode Island	Massachusetts
CVS Health	Year Up	Amazon
Pacific Northwest Laboratory	CVS Health	CVS Health
ASML	Pacific Northwest Laboratory	Year Up
Boehringer Ingelheim International	Citizens Bank	Takeda Pharmaceutical Company
Raytheon Technologies	Ocean State Veterinary Specialists	State of Massachusetts
Eversource Energy	FM Global	Walgreens Boots Alliance
Travelers	Lumen Technologies	Mass General Brigham
Arinc International of Canada Ulc	Intel	Brigham and Women's Hospital
Walgreens Boots Alliance	Nelnet	VF
Intel	Verint Systems	Boston Medical Center

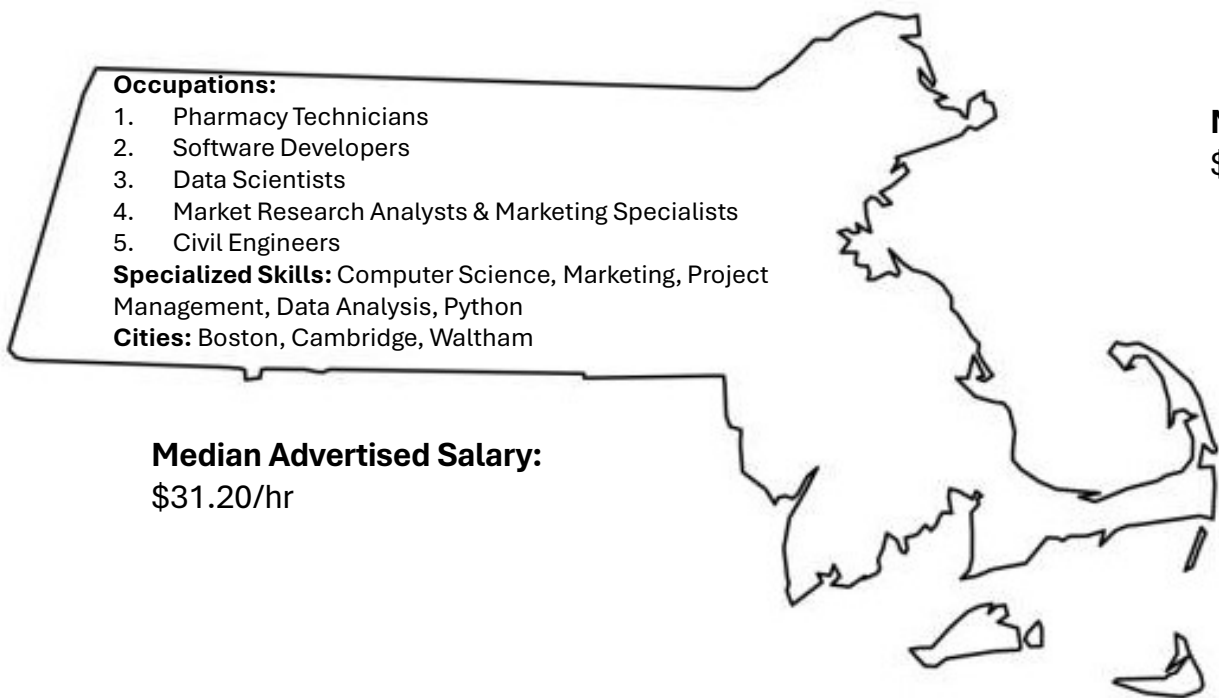
\*Based on top company postings from Jan '24 – Jan '25 via *Lightcast*

# Top Internship Providers by State

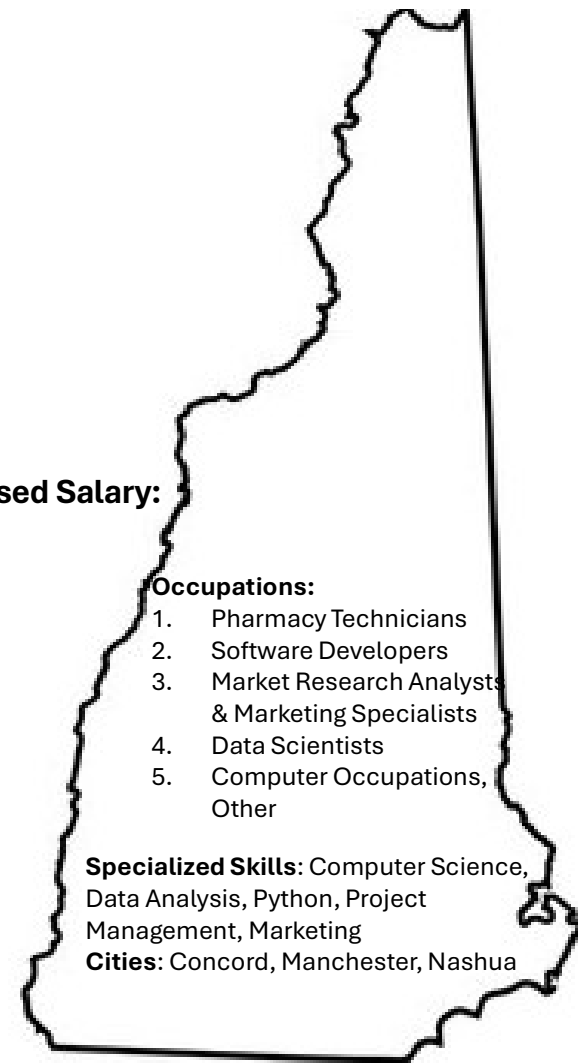
Vermont	New Hampshire	Maine
<b>Pacific Northwest National Laboratory</b>	<b>Pacific Northwest National Laboratory</b>	<b>Pacific Northwest National Laboratory</b>
GlobalFoundries	BAE Systems	Maine Medical Center
<b>Intel</b>	<b>Intel</b>	<b>Intel</b>
State of Vermont	Subcom	<b>Walgreens Boots Alliance</b>
<b>Lumen Technologies</b>	<b>CVS Health</b>	<b>Lumen Technologies</b>
<b>Verint Systems</b>	UNH at Manchester	Consigli Construction Co
Middlebury College	VF	Spurwink Services
Rutland Regional Medical Center	<b>Lumen Technologies</b>	CRH Americas
Highmark Health	Dartmouth Health	Wex Corporate Payments
Teradata Operations	HealthEdge	Avangrid

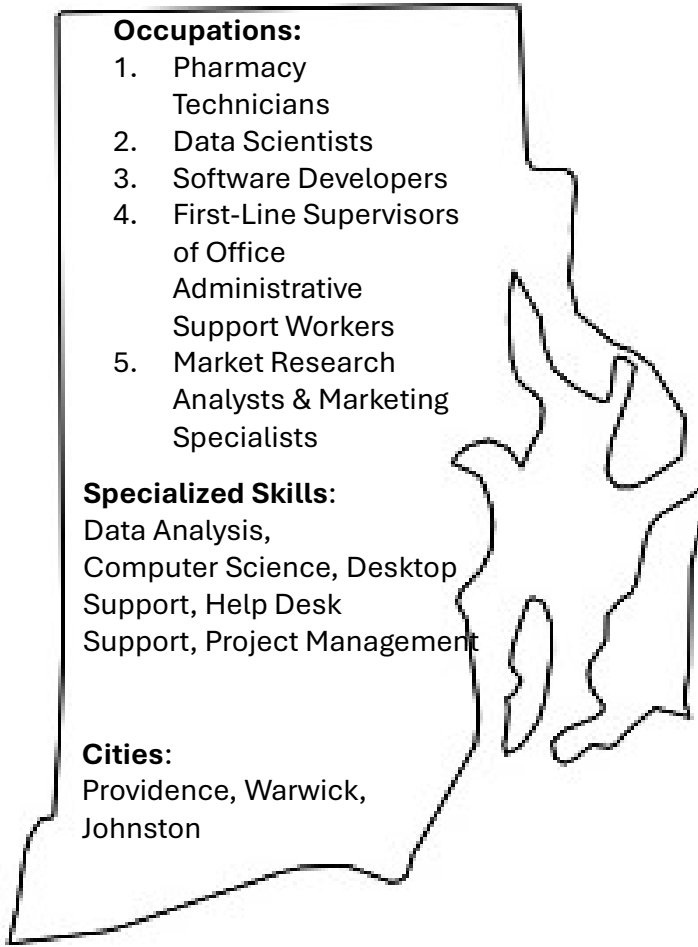
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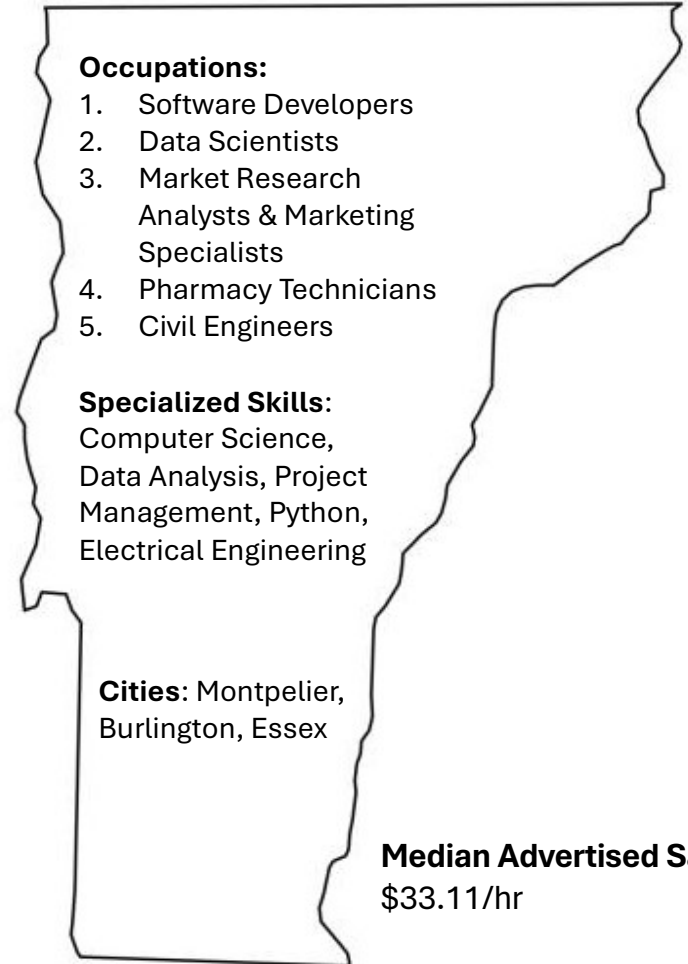


**Median Advertised Salary:**  
\$28.86/hr





**Median Advertised Salary: \$28.49/hr**



**Median Advertised Salary: \$33.11/hr**

# Policies, Programs, and Practices

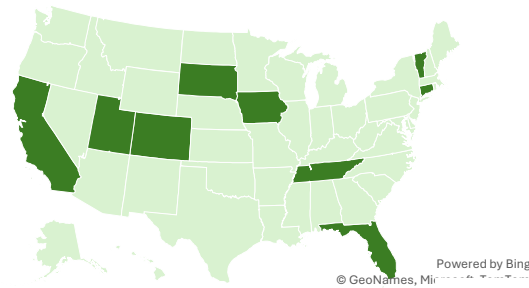
All 6 New England states identify apprenticeships and/or work-based learning as a state strategy in their Workforce Innovation and Opportunity Act state plan (WIOA State Plan).

5 out of the 6 states (excluding MA) have a statewide apprenticeship program.

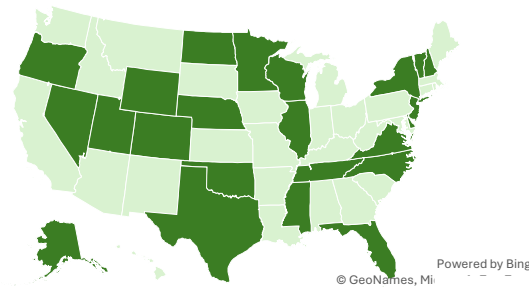
## State Policy Elements:

- Definition of WBL for postsecondary education
- Definition for quality in WBL
- At least one financial incentive program in state policy for WBL

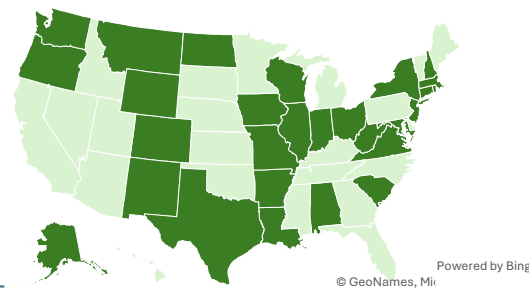
Postsecondary WBL Definition



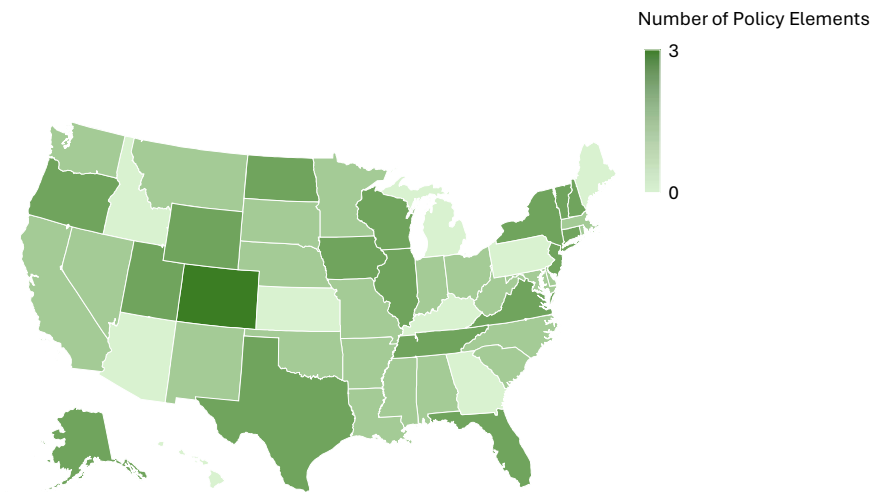
Definition of WBL Quality



At Least 1 Financial Incentive Policy



Sum of Policy Elements





# Defining Work-Based Learning

State-wide definition of work-based learning — post-secondary  
*(in state statute or regulation)*

## Connecticut:

Outlines work-based instruction requirements; defines "career cluster"

*Conn. Gen. Stat. Ann. § 10-20a*

## Vermont:

Defines "Internship" and "Returnship" in relation to the Vermont Work-Based Learning and Training Program

*Vermont Statute Ann. Tit. 10 § 547*

# Defining Work-Based Learning

## Defines Quality of Work-Based Learning Experiences

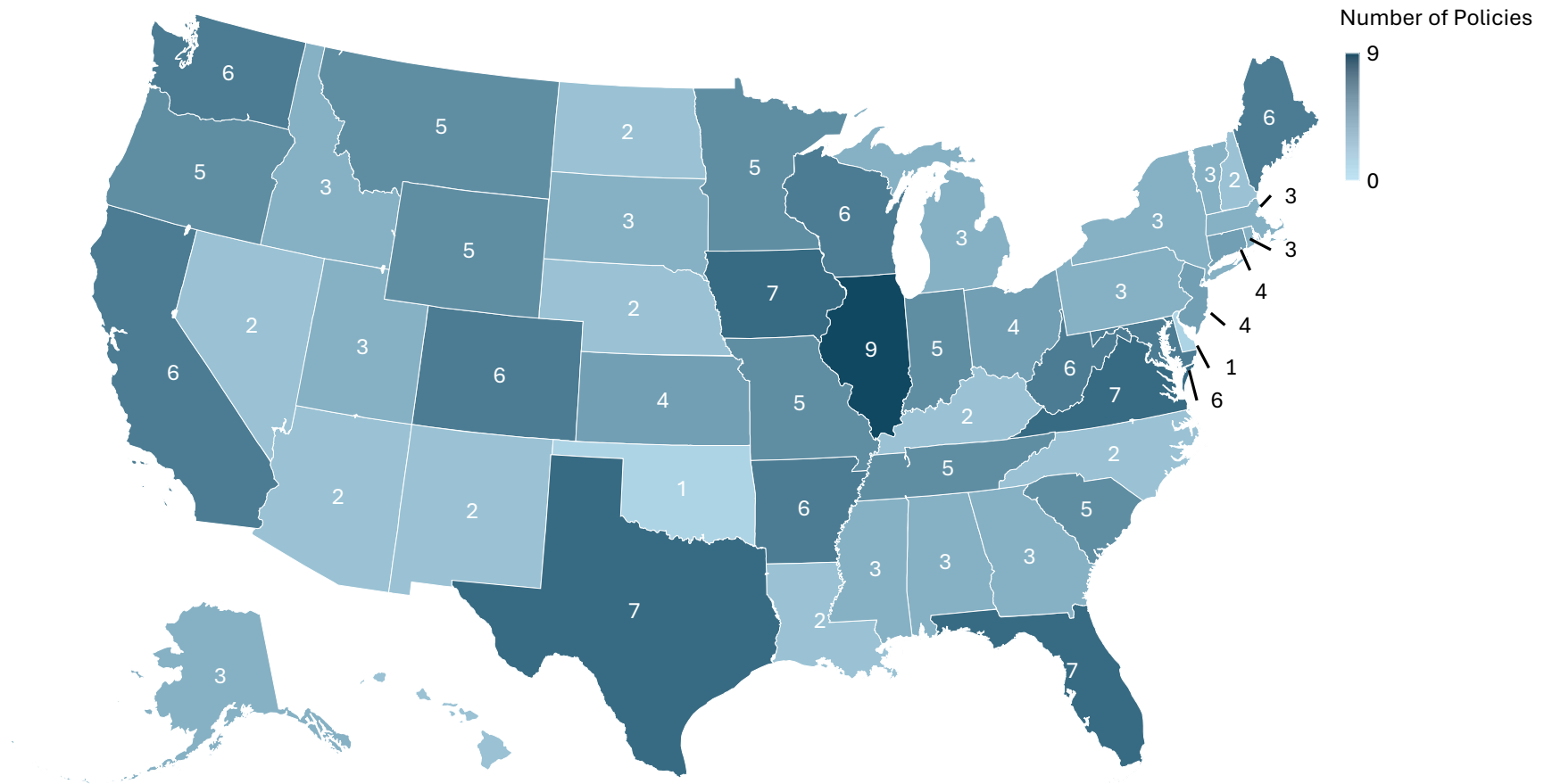
### New Hampshire (NH Dept of Labor):

- Identifies operational aspects/protocol

### Vermont (Vermont Agency of Education):

- Each standard provides indicators and examples of evidence
  1. Every high school provides WBL experiences that contribute to college and career readiness
  2. WBL Coordinator to reinforce student goals in personalized learning plan (PLP)
  3. WBL Coordinators partner with employers
  4. PLPs include WBL that support student goals
  5. WBL a part of career development progression
  6. WBL reflect academic and career-specific proficiencies
  7. WBL compliant with legal, health and safety regulations

## WBL Financial Incentive Policies



Erwin and Keily, "State Financial Incentives for Work-Based learning," Appendix A: 50-State Scan, *Education Commission for the States (ECS)*, May 2024 [https://www.ecs.org/wp-content/uploads/PB\\_0524\\_State-Financial-Incentives-for-Work-Based-Learning.pdf](https://www.ecs.org/wp-content/uploads/PB_0524_State-Financial-Incentives-for-Work-Based-Learning.pdf)

# State Financial Incentives for Work-Based Learning

ECS Policy Brief, May '24

State	# Policies	Tax Credit for Employers	Financial Support to Employers	Financial Aid for Workforce Training	Financial Incentives to Postsecondary Institutions
CT	4	Yes	Yes		Yes
ME	6			Yes	
MA	3	Yes		Yes	
NH	2			Yes	
RI	3	Yes	Yes		
VT	3		Yes	Yes	Yes

Erwin and Keily, "State Financial Incentives for Work-Based learning," Appendix A: 50-State Scan, *Education Commission for the States (ECS)*, May 2024 [https://www.ecs.org/wp-content/uploads/PB\\_0524\\_State-Financial-Incentives-for-Work-Based-Learning.pdf](https://www.ecs.org/wp-content/uploads/PB_0524_State-Financial-Incentives-for-Work-Based-Learning.pdf)

# Financial Incentives

## Tax Credit for Employers:

- [CT Gen Stat § 12-217x](#) -
  - Tax credits for companies that invest in workforce training, education, and childcare in CT
- [Mass. Gen. Laws Ann. ch. 63, § 38HH](#) -
  - Tax credit for employers equal to \$4,800 or 50% of wages paid to each apprentice
    - Computer occupations/healthcare support occupations/production occupation

# Financial Incentives

## Financial Support to Employers:

- [Me. Rev. Stat. tit. 26, § 3211](#) -
  - Provides financial incentives (funding for training costs, wages, and stipends) to apprentices in Maine Apprenticeship Program
- [Me. Rev. Stat. tit. 26, § 2033](#) -
  - Competitive Skills Scholarship Program
    - Financial support for training in high-demand industries (tuition, educational supplies, childcare, transportation)

# Financial Incentives

## Financial Aid for Workforce Training/Apprenticeship Expenses:

- [N.H. Rev. Stat. Ann. § 188-E:9-a](#) -
  - Tax credits from donations to Regional Career and Technical Education Center Programs
- [42 R.I. Gen. Laws Ann. § 42-102-11](#) -
  - State work immersion program and non-trade apprenticeship program
    - Funds match investments made by employers; employers eligible for reimbursement up to 75% of participant's wages

# Financial Incentives

## Financial Incentives to Schools/Post-Secondary Institutions/Intermediaries:

- [Vt. Stat. Ann. tit. 10, § 543](#) -
  - Workforce Education and Training Fund; Grant Programs
    - Supports training, work-based learning, and other workforce development initiatives



# Themes: New England Work-Based Learning Initiatives and Programs

## Apprenticeships and Subsidized Training Programs

- CT - [Subsidized Training and Employment Program \(Step Up\)](#)
- NH - [ApprenticeshipNH](#)
- ME - [ReMaine Clean Energy Internship Program](#)
- RI - [Work Immersion](#)

## Career Exploration and Internships

- MA - [Massachusetts Life Sciences Center Internship Challenge](#)

## Workforce Development and Skills Training

- ME - [Maine Community College System Workforce Training Programs](#)
- MA - [MassReconnect](#)
- RI - [RI Reconnect](#)
- RI - [Road to RI 2030 / Rhode to Prosperity](#)

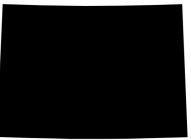
## Statewide Education and Career Pathways

- RI - [Pathways in Technology Early College High School \(P-TECH\)](#)
- VT - [Advance Vermont](#)

## Business and Community Partnerships

- ME - [Jobs for Maine Graduates \(JMG\)](#)
- VT - [The Vermont Businesses for Social Responsibility](#)

# National Snapshot



CO - [Executive order](#) to expand WBL within state depts and encouragement for private sector expansion

- Additional [legislation](#) aligning CTE and apprenticeship programs
- Workforce Determinants of Student Success initiative (WDSS) – institution designations of [Career Connected Campuses](#)



IN - [HOPE](#) (Hoosier Opportunities & Possibilities through Education) Agenda

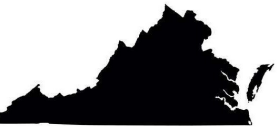
- Increase higher ed access and create better prepared workforce; recommends embedding WBL and paid internships in all IN degree programs



KY - Kentucky Education Excellence Scholarship (KEES), academic achievement financial aid program and permits students to use scholarships for apprenticeship/workforce training programs



NY - State University of NY (SUNY) campuses investing \$10mil in state funds to provide 3,000 students internships and experiential learning opportunities



VA - 2023 established legislative goal that every postsecondary student seeking an internship can complete one

# Key Points

- Regional overlap/similarities with top internship: providers, occupations, and desired skills.
- Work-based learning is recognized as an important factor in New England's workforce strategy.
- Financial incentives for WBL are valued by New England.
  - WBL policies in the region lean toward utilizing this type of approach.
- Promising WBL initiatives and programs in various sectors are in action.
- There is opportunity to expand the regional WBL scope of work in further directions.

# Next Steps

- Beginning point of assessing the landscape

*How can you help?*

- Let us know what's going on in your state - [policy@nebhe.org](mailto:policy@nebhe.org)

# Thank you!

Questions?