

Regional Occupational Alignment Dashboard (ROAD) User Guide

Introduction

This document includes detailed instructions for the Massachusetts Department of Economic Research (DER)'s Regional Occupation Alignment Dashboard (ROAD) 1.0. This document was last updated on March 27, 2026.

The [Regional Occupation Alignment Dashboard \(ROAD\)](#) is designed to help state and regional leaders in workforce development, education, and policy make data-driven decisions about workforce training and education. The dashboard identifies high-demand, high-wage occupations and highlights how local education and training programs align with projected job openings across Massachusetts and its workforce regions.

ROAD provides a starting point for understanding potential gaps in a region's workforce supply, and workforce leaders should consider additional information and perspectives - including employer input, alternative supply pipelines, and other data - to assess workforce supply and demand.

The first section of this guide, Instructions for using the Dashboard, provides diagrams and step-by-step guidance for each view.

The second section, Possible Scenarios & Additional Questions for Workforce Leaders, includes guidance about combining insights from ROAD with regional context to identify potential strategic interventions.

Contents

Introduction	1
Instructions for using the Dashboard	3
Identify High-Demand, High-Wage Occupations	3
Explore Training Pipelines for Occupations	5
Explore an Occupation in Detail	7
Possible Scenarios & Additional Questions for Workforce Leaders	9
Scenario 1: The True Training Shortage	9
Scenario 2: The External Supply Dependency.....	9
Scenario 3: The Pipeline Leak.....	10
Scenario 4: The Regional Talent Hub.....	10
Glossary of Terms.....	11
Additional Information & Contact	11

Instructions for using the Dashboard

Identify High-Demand, High-Wage Occupations

1. The dashboard defaults to the **Opportunity Landscape view**, to highlight high-demand, high-wage occupations.
2. Throughout the dashboard, additional information can be viewed by hovering the cursor over the note icon in the last column.
3. Filter data to specific regions using the drop-down in the top right corner.
4. Filter data by Opportunity Star ranking, typical entry-level education, and industry sector alignment using the drop-down menus on the left.
 - a. Filter by industry sector to return aligned occupations. An occupation is considered aligned with a sector if it makes up a larger share of that sector's workforce than it does across all industries on average. Filtering occupations by industry alignment will not return *all* occupations in an industry, just the jobs with the highest concentration in that industry. For more information, see [ROAD Methodology](#).
5. Click the "reset" button to clear Opportunity Star, education, and industry sector filters.
6. Use the "sort" drop-down menu to sort occupations by Opportunity Star, openings, growth, or salary.
7. The Opportunity Star column indicates jobs that are high-demand and high-salary.
 - 3-stars indicate the best combination of wages and demand
 - 2-stars indicate a great combination of wages and demand
 - 1-star indicates a good combination of wages and demand
 - For more information on Opportunity Stars, see [ROAD Methodology](#).
8. Click on an occupation title to navigate to the **Occupation-Specific view**. Along with descriptions and datapoints, explore graduate counts by program type, identify top institutions producing graduates, and view regional concentration of graduates.

Identify High-Demand, High-Wage Occupations Diagram

DER Regional Occupation Alignment Concepts

Opportunity Landscape in MA (Statewide)
 The Opportunity Star System identifies high-demand, high-wage occupations, ranked from 0-3. Select an occupation for more details.

Region: MA (Statewide) 3
 Sort: Opportunity Stars 6

View: Stars Pipeline 7

Search: 2
Search by occupation, description, job title, or SOC

Filters: 5

Opportunity Ranking: (All) 4
 Typical entry education: (All)
 Sector: (All)

(702 results)

Occupation	Openings	Growth	Salary	Opportunity
General and Operations Managers	9,832	+6%	\$121K	***
Software Developers	3,809	+10%	\$137K	***
First-Line Supervisors of Office and Administrative ..	3,756	-4%	\$74K	***
Management Analysts	3,047	+5%	\$112K	***
Financial Managers	2,769	+15%	\$170K	***
Sales Representatives of Services, Except Advertisin..	2,553	+4%	\$77K	***
Sales Representatives, Wholesale and Manufacturi..	2,513	0%	\$75K	***
Construction Laborers	2,466	+13%	\$61K	***
Electricians	2,278	+19%	\$81K	***
Medical and Health Services Managers	2,239	+28%	\$131K	***
Computer and Information Systems Managers	2,071	+13%	\$175K	***
Executive Secretaries and Executive Administrative ..	1,992	0%	\$75K	***
First-Line Supervisors of Construction Trades and E..	1,977	+11%	\$98K	***
Carpenters	1,898	+9%	\$66K	***
Plumbers, Pipefitters, and Steamfitters	1,666	+13%	\$91K	***

DER Regional Occupation Analysis (2025); BLS (2023); NCES (2025) MA Department of Economic Research

Explore Training Pipelines for Occupations

1. Select the **Training Pipeline view** to explore the difference between projected annual openings in an occupation and the annual graduates in the related training pipeline. This view can help clarify how many skilled graduates a region’s educational institutions produce and how those numbers compare with projected employer demand in that region’s labor market.
 - a. Note that training pipeline data is not available for all occupations. In some instances, this is due to an undefined training pipeline. Further, pipeline data is only available for Workforce Skills Cabinets (WSC) and state-wide. If a Workforce Development Area (WDA) is selected in the Region filter, users will be prompted to view the data for the WSC that WDA is part of.
2. Throughout the dashboard, additional information can be viewed by hovering the cursor over the note icon in the last column.
3. Filter data to specific regions using the drop-down in the top right corner.
4. Filter data by Opportunity Star ranking, typical entry-level education, and industry sector.
 - a. Filter by industry sector to return aligned occupations. An occupation is considered aligned with a sector if it makes up a larger share of that sector’s workforce than it does across all industries on average. Filtering occupations by industry alignment will not return *all* occupations in an industry, just the jobs with the highest concentration in that industry. For more information, see [ROAD Methodology](#).
5. Click the “reset” button to clear Opportunity Star, education, and sector filters.
6. Use the “sort” drop-down menu to sort occupations by Opportunity Star, openings, growth, or salary.
7. The difference and alignment columns indicate the relationship between the number of annual openings and the number of annual graduates within training pipelines.
 - **Balanced** indicates that the number of annual graduates is within 15% of the annual openings for a selected occupation and geography.
 - **Gap** indicates that the number of annual graduates is less than the number of annual openings for a selected occupation and geography, by at least 15%.
 - **Overflow** indicates that the number of annual graduates is greater than the number of annual openings for a selected occupation and geography, by at least 15%.
 - For more information on training pipeline alignment, see Possible Scenarios & Additional Questions for Workforce Leaders and/or [ROAD Methodology](#).
8. Click on an occupation title to navigate to the **Occupation-Specific view**. Along with descriptions and datapoints, explore graduate counts by program type, identify top institutions producing graduates, and view regional concentration of graduates.

Explore Training Pipelines for Occupations Diagram

Regional Occupation Alignment Concepts

Training Pipelines in MA (Statewide)
 Estimated differences between projected annual openings and annual graduates in the training pipeline. Select an occupation for more details.

Region: MA (Statewide) 3
 Sort: Openings 6

View: Stars Pipeline 1

Search: 8
Search by occupation, description, job title, or SOC

Filters: 5

Opportunity Ranking: (All) 4
 Typical entry education: (All)
 Sector: (All)

Occupation	Openings	Pipeline*	Diff.	Alignment	2
Registered Nurses	5,352	4,323	-1,029	gap	7
Bookkeeping, Accounting, and Auditing Clerks	3,857	42	-3,815	gap	
Software Developers	3,809	4,253	444	balanced	
Accountants and Auditors	3,474	3,474	0	balanced	
Management Analysts	3,047	3,303	256	balanced	
Market Research Analysts and Marketing Specialists	2,629	2,412	-217	balanced	
Human Resources Specialists	2,379	3,545	1,166	overflow	
Elementary School Teachers, Except Special Educati..	2,341	664	-1,677	gap	
Medical and Health Services Managers	2,239	2,409	170	balanced	
Substance Abuse, Behavioral Disorder, and Mental ..	2,001	792	-1,209	gap	
Project Management Specialists	1,943	1,887	-56	balanced	
Secondary School Teachers, Except Special and Care..	1,717	3,159	1,442	overflow	
Business Operations Specialists, All Other	1,671	532	-1,139	gap	
Self-Enrichment Teachers	1,521	1,667	146	balanced	

(263 results) X *Pipeline alignment ratings based on post-secondary completions.

DER Regional Occupation Analysis (2025); BLS (2023); NCES (2025) MA Department of Economic Research

Explore an Occupation in Detail

In addition to employment, growth, and wage data for a selected occupation, the **Occupation-Specific view** offers detailed information to help users understand which programs, institutions, and regional areas are producing graduates into the training pipeline.

Click on any occupation title from the **Training Pipeline** or **Opportunity Landscape** view to see detailed information about that occupation.

1. Filter occupation data to specific regions using the drop-down in the top left corner.
 - a. Note that training pipeline data is not available for all occupations. In some instances, this is due to an undefined training pipeline. Further, pipeline data is only available for Workforce Skills Cabinets (WSC) and state-wide. If a Workforce Development Area (WDA) is selected in the Region filter, users will be prompted to view the data for the WSC that WDA is part of.
2. Hover your cursor over the occupation title at the top of the view to see job descriptions and common job titles associated with that occupation.
3. View employment, growth, openings, and pipeline alignment estimates in the data callout bar. Pipeline alignment indicates the relationship between the number of annual openings and the number of annual graduates within training pipelines.
 - o **Balanced** indicates that the number of annual graduates is within 15% of the annual openings for a selected occupation and geography.
 - o **Gap** indicates that the number of annual graduates is less than the number of annual openings for a selected occupation and geography, by at least 15%.
 - o **Overflow** indicates that the number of annual graduates is greater than the number of annual openings for a selected occupation and geography, by at least 15%.
 - o For more information on training pipeline alignment, see Possible Scenarios & Additional Questions for Workforce Leaders and/or [ROAD Methodology](#).
4. Wage estimates can be found in the data callout box to the right, including Median Salary, Entry Wage (the mean of the lower third of the wage distribution), and Experienced Wage (the mean of the upper two thirds of the wage distribution).
5. Find training pipeline degrees and the institutions in that region that make up the training pipeline in the bottom half of the view.
 - a. Institution data comes from the Integrated Postsecondary Education Data System (IPEDS). For more information, see [ROAD Methodology](#).
6. Click a program to filter the institutions list.
7. The interactive talent pipeline map shows the concentration of graduates in each region.
 - a. Use the drop-down field to switch between “Pipeline” (total number of annual graduates) and “Alignment” (gap, balanced, or overflow) views in the map.
8. Select the “All Jobs” button in the top left corner to return to the **Opportunity Landscape** or **Training Pipeline** views.

Explore an Occupation in Detail Diagram

DER Regional Occupation Alignment Concepts

8 ← All Jobs

2 **Sales managers**
Hover for occupation details, typical education and common job titles

SOC 11-2022

1 **Region:** MA (Statewide)

Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and esta..

★ (2/3) Opportunity Ranking

3 **14,728** Total Employment | **+5%** Projected 10-yr Growth | **1,198** Annual Openings | **1,216** Graduates in Pipeline | **+18** Pipeline **balanced**

4 **\$156K** Median Salary | **\$88K** entry | **\$214K** exp.

5 **Training Pipeline in MA (Statewide)**

This occupation's regional training pipeline is comprised of **Postsecondary Certificate, Associate's and Bachelor's** graduates in these programs:

6 **1,198** Business Administration and Manag..
18 Marketing/Marketing Management,...

Select a program to filter institutions

Top institution(s) for All programs in this pipeline:

- Babson College
- Boston University
- Holyoke Community College
- Hult International Business School
- Massachusetts Bay Community College
- Massasoit Community College
- North Shore Community College
- Springfield Technical Community College
- University of Massachusetts-Amherst

7 **Regional Training Pipelines**

1 673 Pipeline

MA Department of Economic Research

DER Regional Occupation Analysis (2025); BLS (2023); NCES (2025)

Possible Scenarios & Additional Questions for Workforce Leaders

ROAD provides a snapshot of regional training alignment for occupations, but the underlying economic causes require regional context. A “Gap” between the regional training pipeline and projected openings does not necessarily indicate a workforce shortage if employers do not report difficulty filling or retaining positions. Use these scenarios and suggested follow-up questions to move from **identifying a signal** to **formulating a strategic intervention**.

		Supplementary Data & Local Knowledge	
		Employers Report Shortage	No Shortage Reported
ROAD Training Pipeline Alignment	Gap	True Training Shortage	External Supply Dependency
	Overflow	Pipeline Leak	Regional Talent Hub



Scenario 1: The True Training Shortage

The Signal: The dashboard shows a "gap" in the pipeline, and local employers report a persistent shortage of workers.

Analysis: This indicates a true training shortage where the local training infrastructure is not producing enough graduates to meet employer demand, and the region is not successfully attracting enough workers from other regions to compensate.

Follow-up Questions for Workforce Leaders:

- **Expansion Barriers:** Are local training programs at maximum capacity? Are there barriers like faculty shortages or lack of training facilities preventing enrollment growth?
- **Recruitment Appeal:** Is the entry-level wage high enough to attract new students into this specific training pipeline?

Scenario 2: The External Supply Dependency

The Signal: The dashboard shows a "gap" in the pipeline, yet local employers report that vacancies are generally being filled.

Analysis: In this case, the "gap" in local graduates is likely being filled by workers trained elsewhere. While there isn't an immediate hiring crisis, the region is in a position of external supply dependency in meeting its workforce needs. Two possible versions of this scenario are:

- **Reliance on Talent “Importing”:** The region's employers tend to recruit workers from outside the area, perhaps drawing from high concentrations of graduates in nearby training “hubs.”
- **The “Boomerang” Pipeline:** The region’s residents tend to leave the area to attend specialized institutions elsewhere and return home to work.

Follow-up Questions:

- **Sustainability:** How vulnerable is the regional economy to competition from the "hub" labor market that could make it more difficult to attract workers? For example, if employers in the "hub" all raised wages, would that make it more difficult to recruit talent?
- **Resilience:** Should a local baseline training capacity be established to ensure the region is not 100% dependent on external pipelines?
- **Connection:** Are there sufficient efforts to help residents access training opportunities that don't exist locally and support them as they leave the region for training? And are there ways to encourage them to return to the region after completion (employer connections, housing support, etc.)?

Scenario 3: The Pipeline Leak

The Signal: The dashboard indicates "balanced" or "overflow" training pipeline alignment, yet regional employers report chronic difficulty finding qualified candidates.

Analysis: This implies that graduates of local institutions are either leaving the region or experiencing barriers to filling available openings, creating a pipeline leak. Sufficient numbers of graduates are being produced locally but are not successfully transitioning into the local labor market.

Follow-up Questions:

- **Retention Strategies:** If the pipeline is full but vacancies remain, what non-training interventions (e.g., wage adjustments, workplace culture, or sign-on bonuses) are required from employers?
- **Post-Graduation Barriers:** Are there bottlenecks in the licensure process (e.g., for nurses or electricians) or a lack of "bridge" programs to help graduates transition into their first role?

Scenario 4: The Regional Talent Hub

The Signal: The dashboard shows a significant "overflow" where local graduates far exceed the projected annual openings in the region, with no reports from employers of workforce shortages.

Analysis: This is common in regions with a high density of higher education institutions. The region acts as a "net exporter" of talent, fueling the statewide economy even if local demand is fully satisfied, creating a regional talent hub.

Follow-up Questions:

- **Economic Development:** Can this surplus of skilled labor be used to attract employers to this region?
- **Statewide Alignment:** How is regional "overflow" helping to meet pipeline "gaps" identified in other parts of the Commonwealth?

Glossary of Terms

These definitions are specific to the methodology and analytical framework used in the Regional Occupation Alignment Dashboard (ROAD) and its associated research. **These terms are designed to support regional workforce analysis using ROAD and should not be interpreted as universal definitions.**

Annual Openings: A forward-looking estimate of total hiring demand, which is composed of two key parts: New Growth (Openings created by business expansion and economic growth) and Replacement Needs (Openings created when workers retire, change occupations, or leave the labor force for other reasons).

Opportunity Star: A three-star rating system that pinpoints occupations with strong combinations of projected employment growth, annual openings, and high wages in a given geography. For more information, see [ROAD Methodology](#).

Graduates in Pipeline: Estimated number of program graduates from institutions in the region likely to work in that occupation based on their field of study and other local job options. Refers to the degrees and certificates that students earned from postsecondary institutions as recorded by the Integrated Postsecondary Education Data System (IPEDS). The count includes various levels of academic achievement, ranging from postsecondary certificates to associate's, bachelor's, master's, and doctoral degrees. This metric serves as an estimation of the annual supply of qualified individuals entering the workforce by occupation.

Pipeline Alignment: Balanced indicates that the number of annual graduates is within 15% of the annual openings for a selected occupation and geography; **Gap** indicates that the number of annual graduates is less than the number of annual openings for a selected occupation and geography, by at least 15%; **Overflow** indicates that the number of annual graduates is greater than the number of annual openings for a selected occupation and geography, by at least 15%. Estimation of graduates occurs independently for each geographic level, so regional figures may not add up to statewide figures. For more information, see [ROAD Methodology](#).

Additional Information & Contact

See mass.gov for additional information on ROAD, including data sources and technical methodology.

Please contact the Massachusetts Department of Economic Research at economicresearch@mass.gov with questions or to request data in spreadsheet format.