

Strategy 2

Table of Contents

Introduction and Strategy 2 Learning Objectives	3
Strategy 2 Action Plan	5
Key TPM Terms and Definitions	6
<hr/>	
Unit 2.1	9
The Role of Demand Planning in TPM	
<hr/>	
Unit 2.2	11
State Occupation Projections and Real-Time LMI	
<hr/>	
Unit 2.3	14
Using State and Real-Time LMI Data in Selecting Critical Jobs for Demand Planning	
Exercise 1	
Labor Market Information Exercise	
<hr/>	
Unit 2.4	20
The TPM Demand Planning Process	
<hr/>	
Unit 2.5	26
Reporting Demand Planning Results	
Exercise 2	
Demand Planning Report Exercise	
<hr/>	
Ready for Next Steps?	30
<hr/>	



Introduction

We have previously discussed how states and communities around the country are implementing demand-driven workforce initiatives that focus on jobs with large and growing numbers of openings. Many of these initiatives start by identifying a targeted list of high-demand jobs. The most common approach for arriving at this list is engaging employers and other partners in a planning process that relies heavily on existing government **projections** of job openings within a state or region.

More recently, these projections have been enhanced by including information captured from job board postings and company websites, otherwise known as **real-time labor market information (LMI)**. In this planning process, employers as well as business and industry associations are routinely asked to assist in identifying targeted jobs by providing feedback on this information.

This approach to identifying workforce needs is a useful start, but when developing practical solutions, it has shown real limitations. That's why Talent Pipeline Management® (TPM) goes further by engaging employers in developing their own projections of future openings for **critical jobs** they have targeted.

The purpose of Strategy 2 is to prepare you to engage your employer collaborative members in **demand planning**—a process to project future openings for your collaborative's most critical jobs, regardless of whether they are filled by upskilling current employees or hiring new employees. In TPM®, the first task of an employer collaborative is to ensure the group has actionable data that will allow it to create value for members through talent supply chain solutions.

This process has the added benefit of generating projections that might be useful to other community stakeholders interested in improving labor market projections by comparing demand planning results with data from government occupational projections and real-time LMI.



Strategy 2 Learning Objectives

- 1** Define the role of demand planning in managing the talent pipeline.
- 2** Compare the strengths and weaknesses of different approaches for projecting demand.
- 3** Conduct a demand planning process for critical jobs.
- 4** Communicate demand planning projections.



Strategy 2 Action Plan

	2.3 Using State and Real-Time LMI in Selecting Critical Jobs for Demand Planning	2.4 The TPM Demand Planning Process	2.5 Reporting Demand Planning Results	TPM Web Tool
ACTIVITIES Actions taken to achieve desired outcomes	<ul style="list-style-type: none"> Analyze occupational projections using state and real-time LMI data 	<ul style="list-style-type: none"> Select critical jobs Determine time period for analysis Agree on business assumptions underlying workforce estimates Select survey template and schedule survey delivery Prepare collaborative members to participate in survey 	<ul style="list-style-type: none"> Organize survey data and identify best template for reporting results Identify action items and key decision points for collaborative members when reviewing results Determine which stakeholders (beyond collaborative) will see results and when Organize report review meeting 	<ul style="list-style-type: none"> Select survey template and schedule survey delivery Organize survey data and identify best template for reporting results
MILESTONES Progress points marking significant development		<ul style="list-style-type: none"> List of critical jobs included in demand planning survey with time period, assumptions for estimates, job levels, and other details Design and approval of survey instrument(s) Completion of survey delivery Survey responses collected 	<ul style="list-style-type: none"> Demand planning reports developed and presented Constructive feedback provided Focus of collaborative refined 	<ul style="list-style-type: none"> Design survey Completion of survey delivery Demand planning reports developed and presented
OUTPUTS Achievements resulting from actions		<ul style="list-style-type: none"> Number and percentage of collaborative members completing demand planning survey(s) 	Number and percentage of: <ul style="list-style-type: none"> Collaborative members validating survey results Collaborative members agreeing to participate in Strategy 3 hiring requirements survey Collaborative members participating in the process that would consider demand planning again in a year 	<ul style="list-style-type: none"> Number and percentage of collaborative members completing the demand planning survey(s)

*Unit 2.1: The Role of Demand Planning in TPM and Unit 2.2: State Occupational Projections and Real-Time LMI cover educational information and therefore are not included in the Strategy 2 Action Plan. However, this resource is meant to serve as a guide and not an exhaustive list of all the activities, milestones, and outputs your collaborative can achieve.

Key TPM Terms and Definitions

Here are the concepts that are most critical for understanding and executing Strategy 2. These terms appear in the order in which they are listed below and are highlighted in red throughout the chapter.

Projections

In the context of TPM, projections are quantitative estimates of future employment by industry and occupation. Projections can be short- or long-term, which are defined differently depending on the originating source making the projections.

Labor Market Information

Quantitative or qualitative data related to employment and workforce trends in national, state, regional, and local labor markets.

Real-Time Labor Market Information

Aggregated job openings and skills data generated by using web technologies to capture and analyze job postings from job boards and websites. Real-time LMI also includes supply-side analysis using resumes and job board worker profiles.

Critical Job

A job that has been selected by the employer or employer collaborative to focus its attention on, whether an entry-level job or an advanced job for internal talent sourcing.

Demand Planning

The process of developing annual or short-term projections of job openings based on a set of assumptions and a time period chosen by an employer collaborative.

State Occupational Projections

State government projections of short-term (e.g., two-year) and long-term (e.g., 10-year) job openings resulting from new jobs and replacement of existing jobs. State occupational projections are based on government-defined occupational classifications and are produced at the state and sub-state levels.

Survey

Employer collaboratives conduct two types of surveys:

- 1 The Needs Assessment Survey** addresses employer projections of job openings through demand planning (as presented here in Strategy 2) and competency, credential, and other hiring requirements (Strategy 3).
- 2 The Talent Flow Analysis Survey** identifies the actual specific sources of talent from providers (also called back mapping) and supplies the basis for linkages with other data for more comprehensive talent flow analysis to analyze the capacity of providers to supply needed talent (outlined in Strategy 4). For example, this survey might show that a company's welders consistently come from a particular community college program, or that most of its recent engineering hires graduated from a university in a neighboring state.

Backfilling

To fill a position or job that has recently or will become open due to an existing worker having changed roles in the company/industry or advanced in their career.

Feeder Job

A job—usually entry-level—that is being sourced internally to fill an opening for a critical job.



Unit 2.1

The Role of Demand Planning in TPM

One of the most important functions of employer collaboratives as end-customers in the talent supply chain is to clearly communicate the projected number of job openings in critical jobs. The TPM approach to demand planning builds on the lessons learned from supply chain management.

In supply chain management, end-customers constantly communicate four key pieces of information:

- 1 Quantity:** How much of a product or service do I need?
- 2 Location:** Where do I need it?
- 3 Time:** When do I need it?
- 4 Quality:** What requirements make these products or services fit for their intended use?

Suppliers always want to know this information as far in advance as possible, so they can have time to plan and allocate resources to meet their customers' demands. However, in a constantly changing business environment, this is not always possible. One major lesson from supply chain management is that long-term **projections** are usually not feasible and might even be misleading. Instead, end-customers should focus on dynamic, short-term projections that are updated constantly, while working closely with suppliers to shorten their lead times—the time it takes to make and deliver a product or service.

Another major lesson is that end-customers must make some assumptions about the future business environment, even in producing short-term projections. It is important for the end-customer to be clear on these assumptions and to specify which projections fit which scenario based on which assumptions. This same process can be applied to managing demand for talent.

Employer collaboratives play a critical end-customer role in constantly communicating to their key partners their projected demand—and the assumptions underlying that demand—for talent for their most critical jobs.

Similar to supply chain management, employer collaboratives must communicate the following:

- 1 Quantity:** How many job openings must we fill?
- 2 Location:** Where will these job openings be available?
- 3 Time:** When do we need these job openings to be filled?
- 4 Quality:** What are the hiring requirements for filling these jobs?

Employers need to be fully engaged so they take ownership in developing projections that can be used for working internally as well as with external suppliers in addressing critical needs. *Building this ownership and trust is critical.* In supply chain management, end-customer projections are considered proprietary and are communicated with partners only under strict guidelines to make sure they are not shared with competitors.

The demand planning process addresses these concerns. Employer collaboratives gather information from their members through their own demand planning process. In so doing, they provide all the proper assurances that individual employer responses will not be shared with other employers and that any information shared with outside partners or stakeholders will be in the aggregate in order to protect information deemed to be proprietary.

Unit 2.2

State Occupational Projections and Real-Time LMI

The TPM approach to demand planning is an alternative and complementary source of projected job openings data. It is best developed and used in the context of other data sources, especially **state occupational projections** and real-time LMI.

State Occupational Projections

The Employment and Training Administration, U.S. Department of Labor, in collaboration with the Bureau of Labor Statistics (BLS), provides grants to states to produce short-term (two-year) and long-term (10-year) industry and occupational projections.

Occupational projections address major occupations based on the Standard Occupational Classification (SOC) system. Employers use a variety of job titles that can be crosswalked to one or more of these occupations. These projections are based on guidelines and assumptions established through BLS and its state partners. Occupational projections are usually presented to the public in standard reports that convey current employment levels for each occupation and projected job openings related to growth—new positions added—and replacement openings related to refilling existing positions (see Table 2.1: State Occupational Projections Example).¹

State occupational projections are free to the public and normally made available on the websites of state workforce agencies. They are also widely referenced in state and regional plans, studies, and reports, including those used in Strategy 1 to explore potential focus areas.

Table 2.1: State Occupational Projections Example

Standard Occupational Classification (SOC)		Emp. 2008	Employment Change 2008–2018		Average Annual Job Openings Due To		
Code	Title		Number	Percent	Growth	Replacements	Total
Technology and Information Services							
15-1031	Computer Software Engineers, Applications	17,421	4,271	24.52	427	147	574
15-1099	Computer Specialists, All Other	17,182	1,053	6.13	105	370	475
15-1021	Computer Programmers	23,914	-2,018	-8.44	0	450	450
15-1061	Database Administrators	4,906	665	13.55	67	82	149
17-2072	Electronics Engineers	4,146	283	6.83	28	95	123
17-2071	Electrical Engineers	5,033	38	0.76	4	116	120

Source: Illinois Pathways SOC projections for IT occupations.

¹ For more information, see “State Employment Projections Program” by the LMI Institute through the Center for Regional Economic Competitiveness.

Real-Time LMI

Real-time LMI emerged in recent years thanks to the increased availability of online job postings and the increased sophistication of web protocols and search algorithms to capture and compile these data. Real-time LMI data providers scan thousands of job boards and websites daily to gather the most recent job posting data available. However, these data are limited to those job openings that are posted on job boards and websites.

Real-time LMI data providers usually produce reports that combine similar jobs and provide number counts of job openings by occupation in ways that can be crosswalked to government occupational classification systems (see Table 2.2: Real-Time LMI Report Example).

These reports are not free and are usually purchased from the provider and made available by government agencies, universities and colleges, and state and regional planning initiatives.

Real-time LMI providers include Burning Glass, Economic Modeling Specialists International (EMSI)/Career Builder, Geographic Solutions, Monster, and WANTED Analytics. Many of these providers, such as EMSI, combine government, real-time LMI, and other data sources to produce their own projections for public and private customers.²

² For more information, see “Real-Time Labor Market Information” by the LMI Institute through the Center for Regional Economic Competitiveness.

Table 2.2: Real-Time LMI Report Example (Mean Postings in Number of Days)

	Occupation	Count, Employers	Count, Overall	Mean Posting Duration, Employers	Mean Posting Duration, Overall
1	Software Developer/Engineer	2,763	50,003	45	34
2	Cyber/Information Security Engineer Analyst	1,181	13,606	45	36
3	IT Project Manager	757	13,684	39	31
4	Systems Analyst	716	11,492	42	33
5	Network/Systems Administrator	685	13,803	42	31
6	Computer Systems Engineer/Architect	630	11,179	43	35
7	Network Engineer/Architect	577	9,242	40	31
8	Database Administrator	471	9,230	45	34
9	Computer Support Specialist	469	7,605	40	29
10	Data Mining Analyst	354	3,892	46	38
11	Business Intelligence Analyst	319	4,612	38	32
12	Network/Systems Support Specialist	312	5,153	40	34
13	Business Intelligence Architect/ Developer	305	6,315	43	31
14	Software QA Engineer/Tester	269	5,143	41	32
15	Web Developer	261	4,912	45	31
16	Geographer/GIS Specialist	188	1,187	40	30
17	Data Warehousing Specialist	184	2,237	39	39

Source: Adapted from Elevate Virginia Burning Glass Presentation for IT employer collaborative.

Unit 2.3

Using State and Real-Time LMI Data in Selecting Critical Jobs for Demand Planning

State and real-time LMI data play important roles in the TPM process. They are best used to help determine the focus area of a collaborative as secondary labor market information resources, as described in Strategy 1, and to finalize the critical jobs that will be included in the TPM demand planning process.

State occupational projections provide a useful government perspective on occupational trends and call attention to occupations likely to have significant job openings. Real-time LMI is useful in validating these projections and providing more recent information on job postings. However, employers participating in a collaborative should make final decisions on the critical jobs that will be included in their demand planning process.

Employers should also use the job or occupational titles that are widely used in their own job descriptions and postings and not strictly rely on job taxonomies that have been developed by government or other outside organizations.

Two important questions should be addressed before collaboratives engage in demand planning:

- 1 Why is demand planning necessary when data are readily available on projected job openings?
- 2 Why will there be differences between demand planning projections and data from other sources?

Why Is Demand Planning Needed?

It is important to recognize that state occupational projections and real-time LMI can provide useful information for finalizing the selection of critical jobs for demand planning. Employers in the collaborative, however, must decide which jobs are most critical to their economic competitiveness and growth and are also most difficult to fill. Often, jobs with the highest number of openings will not be the most important jobs for employers to address.

In reality, state occupational projections and real-time LMI do not provide the customized and granular information needed for specific groups of employers to develop and manage their talent pipelines. Getting this type of information requires an employer-led demand planning process.

Why Will Job Opening Information Be Different?

To understand why there can be significant differences between demand planning projections and other sources of job forecasting data, we must unpack key characteristics of state occupational projections and real-time LMI (see Table 2.3: Comparing LMI with Demand Planning for a summary).

Limitations of State Occupational Projections

- **Job Definitions May Not Match**

Employer collaboratives may be addressing critical jobs that do not match closely with government-defined occupations. Sometimes employer-defined jobs involve one or more government occupations that have to be combined to make comparisons.
- **Employer Staffing Patterns Are Generalized**

Government occupational projections are based on assumptions about the average job mix (called staffing patterns) within a business establishment sharing the same North American Industry Classification System (commonly referred to as NAICS) code. For example, government surveys might estimate that, on average, 50% of all jobs within a hospital are registered nurses, but a specific hospital in the collaborative might use a coordinated care model that involves a higher percentage of nurses.
- **Definitions of Replacement Needs and Turnover Rates**

Government projections define replacement needs only when a worker leaves the labor market altogether, whether because of retirement or other factors. Employers define replacement needs based on their estimated turnover rates, which could vary by employer and might result in higher estimates of job openings related to replacement needs.
- **Employer Growth Rates Are Generalized**

Government projections assume an average growth rate for employers within a specific industry. However, employers may serve different markets and be more competitive when compared with other employers and have growth rates that are significantly lower or higher than the average.
- **Economic Assumptions Ignore Regional or Industry-Specific Factors**

Government projections make basic assumptions about overall economic growth and the growth of different industries that might not reflect the changing economic environment of a state, region, or members of an employer collaborative.
- **Forecasting Time Periods Are Not Useful for Short-Term Needs**

Employer collaboratives focus on annual short-term projections for periods of two years or less, which may be different from the time periods addressed in government projections.

Real-Time LMI

- **Employer Projections Differ from Actual Openings and Jobs Filled**
Employer projections of job openings are different from actual job openings, including the possibility that a job posting has been filled and is not yet removed from a job board.
- **Data Do Not Cover All Industries or Types of Jobs**
While real-time LMI can reflect major trends in employer hiring on any given day, it does not accurately represent some industries and types of jobs, particularly those at the sub-baccalaureate level.³
- **Employers Use Job Ads Inconsistently**
Companies also vary in how and when they use job ads. For example, many employers first seek internal candidates, leverage referral networks, and recruit at job fairs. Others are required to post job ads to job boards as a condition of doing business with the government. Some employers use one job ad to fill multiple openings. Still others post job ads with the anticipation of future openings contingent upon a certain scenario playing out, such as securing a new contract.
- **LMI Reports Combine Occupation Titles**
Employers may use different job titles and job groupings than those reported by real-time LMI providers. This is because real-time LMI reports scrape a large number of job boards and use data analytics to aggregate similar occupation titles and requirements in order to create summary reports.

Table 2.3 summarizes the differences between state projections, real-time LMI, and demand planning.

³ Georgetown University Center on Education and the Workforce, Understanding Online Job Ads Data: A Technical Report (Washington, D.C.: Georgetown CEW, April 2014).

Table 2.3: Summary Comparing State Projections and Real-Time LMI Data with Demand Planning

Feature	State Occupational Projections	Real-Time LMI	Demand Planning
Objective	To determine which occupations are growing—or declining—in the short term and long term and whether growth or decline is a result of employment demand, technological changes, or occupational separation	To assist workforce planning by providing information on current projected demand based on actual job postings by companies	To determine a more precise level of demand across employer collaborative members to assist in building a talent supply chain
Data Source	Federally administered state employer surveys for current occupation employment; U.S. BLS for technological change and occupation separations; state industry employment projections (2-year and 10-year) based on historic industry trend data	Job postings scraped from job boards or company websites	Direct from employer collaborative members based on agreed-on key assumptions
Time Period Covered	2- or 10-year projections based on recent trends	Current, based on active online job postings	Short term, determined by the business collaborative members based on business cycles and talent development lead times
Targeted Jobs	More than 800 detailed occupations defined by SOC	Jobs aggregated from open job board websites and online job ads posted by companies; coverage uneven across occupations and industries	Jobs selected by employer collaborative members; coverage uneven across occupations and industries
Key Assumptions	Average projected growth of occupations is a result of occupation separations, technological change, and historic industry trends	Online job postings represent employer demand based on current worker recruiting strategies	Employers are capable of accurately producing, sharing, and making adjustments to their projections for new and replacement positions

Exercise 1



Labor Market Information Exercise

The purpose of this exercise is to enhance your ability to work with LMI and state occupational projections to focus your employer collaborative on jobs most relevant to the group's critical business functions.

An employer collaborative in the information technology sector has decided to focus on the business function of software development. As the collaborative gets ready to undertake demand planning as its first major task, it wants to understand what the current LMI says about its focus area in the region initially chosen by the collaborative. Primarily, it wants to verify that it chose correctly and that it is choosing the job titles that are the most relevant to this business function.

The host organization pulls together publicly available state occupational projections and runs a report using an existing contract with a real-time LMI vendor. The results are shown in Tables A and B.

After reviewing the exercise, discuss the following:

- 1** In reviewing the state occupational projections, identify the occupations with the highest and lowest growth rates.
- 2** After reviewing the real-time LMI report, what new information do you have about the demand for jobs related to software development? How is this information similar to or different from state occupational data?
- 3** Using what you learned from Unit 2.3, what conclusions can you, as the host organization managing the information technology collaborative, draw about the focus of the collaborative? What are the limitations of both approaches? What questions remain?
- 4** Identify two or more ways that the demand planning process may answer some of your questions and provide different or complementary data.

Table A: State Occupational Projections for Software Development

Standard Occupation Code (SOC)	Employment 2016	Employment Change 2016–2026	Employment Change %	Growth (New Positions)	Replacement Positions	Total
15-1132 Software Developers, Applications	55,000	7,500	13%	750	200	950
15-1133 Software Developers, Systems Software	32,000	550	1%	6	340	346
15-1199.01 Software Quality Assurance Engineers and Testers	3,900	1,000	25%	100	110	210
15-1131 Computer Programmers	14,000	-975	-6%	0	230	230
15-1134 Web Developers	17,000	1,200	7%	120	150	270

Table B: Real-Time LMI Report for Software Development

Occupation	Job Postings by Selected Employers*	Overall Postings	Mean Posting Duration for Target Employers (In Number of Days)	Mean Posting Duration Overall (In Number of Days)
Software Developer/Engineer	2,476	13,500	55	35
Software QA Engineer/Tester	1,200	1,900	60	50
IT Project Manager	750	8,500	33	30
Systems Analyst	687	6,900	40	32
Computer Systems Engineer/Architect	550	7,680	30	33
Network/Systems Administrator	250	11,000	25	25
Computer Support Analyst	875	13,000	45	30

*Based on the contract with the real-time LMI vendor, select companies—denoted here as selected employers—were included in scraping job profiles and therefore not all available job postings were included in the report.

Unit 2.4

The TPM Demand Planning Process

Government projections and real-time LMI provide a baseline of information to help employers get started—namely by helping employers determine their focus. But employer collaboratives can improve the information available to their members by generating more customized and granular projections of demand for the jobs on which they are focused. If your employer members are going to realize a measurable return on investment, this requires that they produce information specific to their needs, including more authentic and reliable demand projections.

As described in Strategy 1, your first collaborative meeting should determine the focus of the collaborative, including the most critical jobs that require a talent pipeline solution. Once a focus has been agreed on, you will introduce the **needs assessment survey** process as a first critical step in organizing your supply chain approach. The needs assessment survey encompasses both demand planning, as described here, and hiring requirements, which will be reviewed in detail in Strategy 3. These can be pursued separately or together, and the pros and cons of both approaches will be addressed in Strategy 3. In conducting your second meeting on the demand planning component of the survey process, the collaborative should follow an agenda that addresses at least five major steps.

1. Select critical jobs.
2. Determine the time period of projected talent needs.
3. Agree on business assumptions underlying workforce estimates.
4. Commit to a survey template and schedule.
5. Prepare collaborative members to participate in the survey.

1. Select Critical Jobs

In designing a data collection process for demand planning, leaders of the collaborative need to make three important decisions about where they will focus the survey.

1. Do we include all or some of the critical jobs on which the collaborative is focused in the demand planning survey?

Some considerations include the following:

- The need to get to a more focused and practical list from which to work
- The relative importance of jobs compared with each other
- Lead times and which jobs take more time to prepare qualified workers
- Current problems in filling critical jobs and lack of supply
- Rapid changes in competency and credential requirements

2. Do we combine some jobs into larger occupations that share many of the same work responsibilities and hiring requirements to address them in the first survey?

Look for chances to combine and merge jobs that share a common set of work activities, such as different types of software developers. This is an opportunity to consolidate and simplify the number of business functions, jobs, and occupations to be addressed in the survey.

Host organizations can request that their employer collaborative members submit their job descriptions, profiles, and job postings for review. This step can greatly simplify the survey process and promote a more common language in communicating demand along with competency and credential requirements. The TPM web tool enables this feature.

3. Do employer members want to establish levels for the critical jobs included in the survey?

Employer members should be encouraged to do this if there are large numbers of job openings at different levels and these levels have different competencies, credentials, and other hiring requirements, including work experience. They also should consider doing this if entry-level jobs are entry points for career advancement to higher-level jobs; if this is the case, those jobs will need to be **backfilled**.

Employer collaboratives are encouraged to focus initially on their most critical jobs but also consider feeder jobs in future demand planning when they begin to explore potential upskilling strategies for their existing workers in Strategy 5. A **feeder job** is a job—usually entry-level—that is being sourced internally to fill an opening for a higher-level or more advanced job or position. Employers should be encouraged to do this if critical positions are often filled by existing employees in related lower-level jobs such as retail managers coming from the ranks of retail sales associates or software developers coming from the ranks of software help desk positions. They should also be encouraged to do this if they are implementing new career pathway initiatives that will increase the number of existing employees being promoted to targeted critical jobs. Feeder jobs will be identified for future consideration in Strategy 4.

In the process of refining which jobs will be included in the first demand planning survey, it is always essential to remind employers that the TPM survey process does not collect salary information. This protects employers from any legal risks in working together to address common talent needs.

2. Determine the Time Period of Projected Talent Needs

Government projections are usually for a period of 10 years or more, but *employer collaborative demand planning surveys should be conducted annually, if possible, and with projections for much shorter periods of time* (e.g., a two-year period). Employer collaboratives may choose periods between one and five years for a variety of reasons:

- Projections within this range can be tied to a business planning cycle.
- Business assumptions and strategic drivers can be identified for these periods.
- These time periods fit within talent development lead times.

Your collaborative should select a time period that gives providers as much lead time as necessary in developing qualified candidates without having to project too far into the future, which is difficult to do with accuracy. We recommend proposing two years as a starting point.

3. Agree on Business Assumptions Underlying Workforce Estimates

Collaboratives must decide on the assumptions that are agreed on by employers providing their projections of job openings. Sample assumptions an employer collaborative might consider include the following:

- Expected changes in national, state, or regional economic growth
- Whether customer demand will remain at projected levels
- Anticipated changes in policy and the regulatory environment
- Impacts of technology changes

Another consideration is the assumptions made about specific types of job openings. Employer collaboratives must decide whether job openings should be only full-time jobs, part time jobs, or full-time job equivalents. They also should decide whether job openings represent only full-year jobs, seasonal jobs, or both. They must decide whether to include temporary or contract work in these numbers. Collaboratives also have the option to include openings for work-based learning opportunities, such as internships and apprenticeships.

Negotiating assumptions about the business outlook and specific job types to study is not a simple task for those facilitating the collaborative's decision-making process. Employers are likely to overlook many of the necessary assumptions underlying their workforce estimates. The group's facilitators must be prepared to guide members through a consensus-building process to make sure there is shared agreement about the assumptions underlying the final demand planning data.

One place to start is to emphasize the need for all members to use the same assumptions in developing their projections, such as anticipated growth. It is also helpful to discuss what factors matter most in developing their projections; for each factor, host organizations can encourage employers to agree on relevant assumptions. If there is no clear agreement on changes in these factors, one option is to encourage employers to assume no major changes from current conditions.

4. Commit to a Survey Template and Schedule

The next step in implementing a demand planning process is deciding on the template to be used to administer the survey. This requires decisions on whether to ask for job-opening projections only for new positions, or also for openings when replacements are needed due to expected turnover (i.e., when people leave for new jobs, or when they leave the labor force due to retirement). In most cases, employers will want to include both because each is important and may require different strategies.

Decisions must also be made on whether to anticipate openings for a critical job at different levels. If job experience is important to your collaborative, you can ask for projected job openings for each job at the (1) entry level, (2) mid-level, and (3) senior level. This decision is very important because entry-level and mid- to senior-level jobs involve different work responsibilities and different competency requirements. They also usually have different hiring requirements, such as the number of years of work experience. Failure to specify different levels could result in the undersupply or oversupply of entry-level versus senior-level applicants. It is important for those collaboratives that decide to differentiate level of critical jobs to discuss as a collaborative what characterizes each level so that each collaborative member is accurately reporting their needs.

When employer collaboratives focus on upskilling strategies, another decision in future demand planning is whether to include feeder jobs in your survey. Collaboratives pursuing upskilling initiatives may want to backfill those jobs where workers are originating from. For example, if a collaborative was focusing on CNC machinists, they may decide to fill most or all of these jobs internally. The internal feeder job for entry-level CNC machinists could be machine operators, which would need to be backfilled as workers are upskilled into targeted critical jobs.

In addition, employer collaboratives can decide to ask other questions that help them manage talent pipelines. For example, they can ask employer members to project work-based learning opportunities such as internship openings. They can also ask for baseline data by requesting actual job openings over a baseline period that matches your projection period (e.g., two years). This will help a collaborative later determine whether its forecasting is accurate or in need of adjustments.

One Survey or Two?

One other decision that shapes survey content is whether to combine the two surveys that are part of the TPM process—the demand planning and hiring requirements (outlined in Strategy 3) surveys, which together are called the needs assessment survey. The alternative is to conduct separate surveys.

In general, employer collaboratives should conduct separate surveys in the following circumstances:

- **Multiple Focus Areas and Targeted Jobs:** The employer collaborative has more than one focus area or business function with many different jobs and levels, and wants to use demand planning to help narrow its focus.
- **Employer Commitment and Experience:** The collaborative does not have sufficient commitment from some employers to complete a longer and more complex survey, and needs first to do something quick and simple to build experience and trust among employers.

In contrast, employer collaboratives can conduct combined surveys when they are focused on one or two clearly defined business functions and have sufficient employer commitment to conduct a longer and more complex needs assessment survey. They can also conduct combined surveys in subsequent years when updating their job projections and hiring requirements.

Setting the Schedule

Finally, employer collaboratives also need to determine the schedule that will be followed, including when the demand planning survey will be sent out and when it will be completed. A date should also be set to review the aggregate results. Once employers see that the survey clearly adds value for them, a schedule can be set to make the data collection an annual process.

5. Prepare Collaborative Members to Participate in the Survey

For employers to respond effectively to a demand planning survey, they may need a primer on how best to organize their expected job needs in the appropriate time frame. One important lesson learned from supply chain management is that it is a team sport—that is, key stakeholders must collaborate across boundaries to improve the workings of a supply chain.

This applies within the company, as well as across a network of suppliers and customers. For a firm to organize the demand planning information needed for the survey, it may take several internal conversations and some consensus building.

Logically, you might think that job forecasting information should be supplied through the company's human resources department. However, the best results will often come from a conversation among human resources, hiring managers, and other critical functions in the company (e.g., finance).

Thus, collaborative leaders should review the need for employers to engage their internal hiring managers and other key decision makers in developing and validating projections for each selected business function and related jobs covered in the survey.

In most cases, the final estimates should rest with the hiring manager—the person who has been authorized to fill positions and who has the final say on hiring requirements—because he or she has the best understanding of actual hiring needs. This comprehensive approach to company survey responses has the added benefit of educating more stakeholders within the company about the mission of the employer collaborative, which helps ensure their buy-in and support.

Here are four additional ways to fully engage collaborative members in completing the survey:

- Review the TPM web tool (or whichever medium the host organization will use) and show examples of how the survey can be completed and submitted.
- Show examples of how the TPM web tool will aggregate and report results to protect the confidentiality of employers. Also, emphasize why the TPM process should not be used to collect salary information to protect members from any legal risks of working together to address their common talent needs.
- Show examples of what could be shared with outside stakeholders, including education and training providers, and emphasize that the collaborative will choose how the results will be shared. Collaboratives can retain this information until they have completed subsequent strategies or make this information immediately available to outside stakeholders and education providers as it becomes available.
- Summarize the decisions made by the collaborative about the design of the demand planning survey and confirm the date of the next meeting to review the results.

Unit 2.5

Reporting Demand Planning Results

After your collaborative members have successfully responded to a customized demand planning survey to project their level of need for new and replacement positions for critical jobs, the next step is creating and organizing reports and sharing the findings.

Organizing Demand Planning Reports

Creating and organizing reports is an important responsibility of the host organization. Given the private nature of the data employers are sharing, this information is best revealed only in its aggregate form, in which no specific employer data are shared. Collaborative members will decide when and how results will be communicated to external partners.

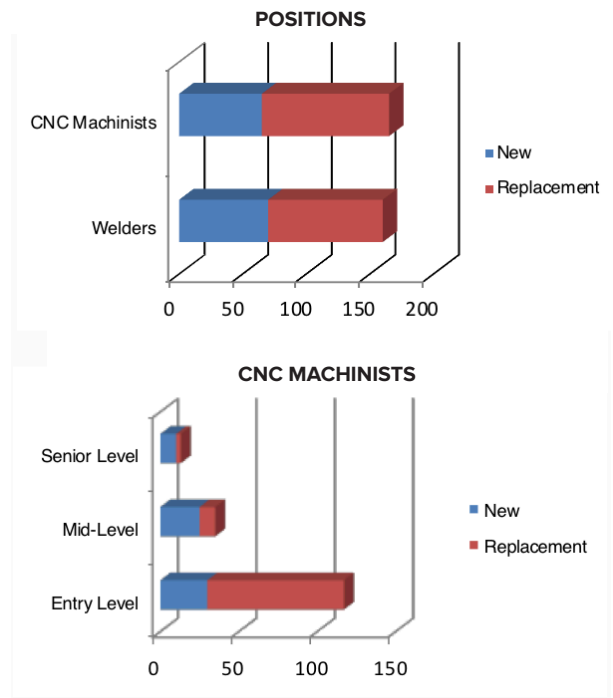
The simplest way to organize this information is by business function and job, with total numbers for new and replacement positions. If you have designed your demand planning survey to capture projections by level (e.g., entry level), you can provide more detailed information that can help in building your internal and external talent supply chain. Looking ahead, decisions made in Strategy 5 around the pursuit of upskilling strategies to meet your talent pipeline needs may require you to do additional demand planning. Specifically this would target related entry-level jobs that are feeder jobs to these critical jobs that may also grow and require backfilling. Examples of how to display new and replacement positions and by level are shown below.

Table A: Example by Total New and Replacement Positions

Job	New	Replacement	Total
CNC Machinists	65	100	165
Welders	70	90	160

Table B: Example of New and Replacement Positions by Level

Job	New	Replacement	Total
CNC Machinists	65	100	165
Entry Level	30	87	117
Mid-Level	25	10	35
Senior Level	10	3	13
Welders	70	90	160
Entry Level	50	65	115
Mid-Level	20	25	45
Senior Level	0	0	0



Sharing Aggregate Findings

After creating demand planning reports with the results of the survey, employer collaboratives must decide how they will use the data and with whom they will share the reports. When sharing with collaborative member companies, the data should be used to (1) verify that the focus of the collaborative is the right one; (2) if possible, further narrow the collaborative's focus using the new data; (3) share results with your own employees; and (4) inform providers and other stakeholders in the community or select key education and workforce partners. In Strategy 3, we will expand on the topic of sharing report findings with different stakeholders.

As noted earlier, sharing aggregate findings should build on the agreement that was made, or the understanding that was established with employer members, in terms of who should see the data and when.

Exercise 2



Demand Planning Report Exercise

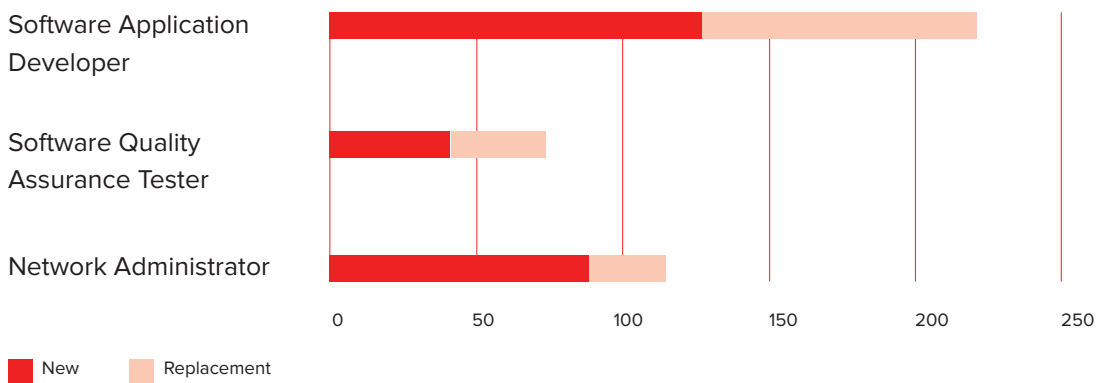
This exercise demonstrates how employer collaborative members can walk through the five-step demand planning process to make a final determination on where to focus their attention.

We return to the information technology employer collaborative that is focusing on software development as a shared pain point. After kicking off the collaborative, the host organization reviewed existing state occupational projections and real-time LMI. Satisfied with what the data revealed in terms of where it should focus its efforts, the collaborative decided to move forward with the following jobs: (1) software application developers; (2) software quality assurance testers; and (3) network administrators.

Next, the collaborative decided to forecast the level of demand for these jobs across its companies within a two-year period. It also decided to make the following assumptions: (1) above-average business growth based on steady growth to date; (2) new contracts would be secured; and (3) limited changes in the regulatory environment. The collaborative decided to start by reporting total new and replacement full-time equivalent jobs including temporary and contract hires, and to revisit its approach in a year to see if it should make changes to the key jobs on which it is focused.

The collaborative plans to use the initial demand planning results to clarify its focus and to share findings with a local college and workforce board that has been actively seeking better employer data. After the host organization administered the survey, it reported back the following results:

Job	New	Replacement	Total
Software Application Developer	125	95	220
Software Quality Assurance Tester	45	25	70
Network Administrator	85	30	115



After reviewing the exercise, discuss the following:

- 1** Based on the results, would you make any changes to the collaborative's focus?
- 2** Identify two or more ways in which the survey results could change based on the assumptions that were included in the demand planning survey design process.
- 3** Over time, what are some ways that the employer collaborative can expand on or improve the data it collects?

Ready for Next Steps?

Before you move to the next strategy, make sure you have achieved the learning objectives necessary to move forward. When you go back to your community, ensure you will be able to execute the following activities:

- Explain the role of demand planning in TPM.
- Understand the key differences between state occupational projections, real-time LMI, and demand planning.
- Identify which jobs—and at what level—to start with in your collaborative.
- Select the schedule and key assumptions that will be factored into your projections.
- Use the Strategy 2 Action Plan at the beginning of the chapter to determine your next steps and track your progress.
- For those using the TPM web tool, design and distribute an employer demand planning survey to determine projected openings for critical jobs, and use the tool to report results to your employer collaborative.

NOTES

