Projections Managing Partnership

Projections Managing Partnership Summit
February 22 – 25, 2011
New Orleans, LA
Summit Overview

Introduction

The Projections Managing Partnership (PMP) hosted a Summit for projections analysts and state labor market information (LMI) directors February 22-25, 2011 in New Orleans, Louisiana. The four day Summit provided a unique opportunity to gather key stakeholders in the projections development process in order to orient newer analysts to the history and process of developing state employment projections, discuss common challenges in producing employment projections, learn about improvements to the Projections Suite software and its associated training, and plan for the future strategic direction of the PMP.

This document provides an overview of topics covered during the course of the Summit, including planned responses to the challenges raised by analysts; an update on the execution of the Projections Consortium's LMI Improvement Grant for projections modernization (awarded by the Employment and Training Administration); and a strategic plan guiding the PMP's future work.

Projections Analyst Orientation Session

The Orientation Session provided an overview of the state and sub-state employment projections program and the state analyst's role in its implementation. Additionally, the session reviewed key issues and challenges for the projections development process for newer analysts less familiar with the national projections infrastructure.

History and Context:

Projections Consortium, Projections Managing Partnership, and the National Projections Infrastructure

PMP Chair Alexandra Hall provided the rationale for the development of state employment projections, an overview of the relationship between states and the Federal government in developing projections, and a history of the Projections Consortium and Projections Managing Partnership. Hall explained the importance of projections in driving investments in training and retraining as they guide career and workforce investment decisions. Today, oversight of the LMI projections program is the joint responsibility of states, the Employment and Training Administration (ETA), and the Bureau of Labor Statistics (BLS). Due to inconsistent funding in recent history, the PMP has focused mainly on maintenance of the existing infrastructure supporting the projections program. However, in 2009, the Projections Consortium was awarded a $3.73 million LMI Improvement Grant by ETA through the American Recovery and Reinvestment Act (ARRA). This investment allowed the Consortium to execute long-anticipated projections infrastructure modernization, including the redevelopment and rewrite of

the Projections Suite software on a more modern information technology platform and a redesign of the projections analyst training program to incorporate e-learning curriculum delivery.

The projections program includes three major components: Long-Term Industry Projections, Short-Term Industry Projections, and Occupational Projections. The long-term projections seek to eliminate the effects of the business cycle by estimating industry employment levels for state and sub-state areas targeted to an economy in a state of full employment, while the short-term industry projections seek to estimate how current employment levels are likely to change given the status of the business cycle. Occupational projections seek to estimate the mix of jobs based on the projected long- and short-term industry mix, using an understanding of individual industry staffing patterns.

Long-Term Industry Projections

Larry Less provided the history and context for the Long-Term Industry Projections (LTIP) program. Less explained that early long-term projections were developed through a partnership between BLS and state agencies, with the goal of developing an industry and occupational matrix. Originally, BLS provided several week-long training sessions on techniques for developing long-term projections for industries and occupations and developed a Regression Analysis Primer to help analysts understand the underlying statistical techniques. BLS oversight ended when funding was eliminated for the program in the early 1980s, but the National Occupation Information Coordinating Committee (NOICC) continued to sponsor training in conjunction with the MicroMatrix Users Group.

In 1988, an off-the-shelf software package, Regression Analysis of Time Series (RATS), was modified by the University of Dayton with technical guidance from Harvey Goldstein to create the Ohio RATS menu-driven application for LTIP. This system became the prototype for the current LTIP system. Utah eventually incorporated the analysis structure used in RATS into the FoxPro-based Projections Suite. ETA involvement began in the 2000s through the continued development of the Projections Suite. Less also explained the technical context for LTIP, including the model's reliance on the concept of export versus local-serving industries in choosing the appropriate regression model; pre-defined industry regression models based on the specific industry; and the dummy variable feature, which was incorporated to handle the conversion from the Standard Industry Classification (SIC) to North American Industry Classification System (NAICS) in 2004.

Short-Term Industry Projections

George Putnam provided the history and context of the Short-Term Industry Projections (STIP) program. In the 1990s, ETA was motivated by the perceived need of workers requiring skill "re-tooling." To maximize its investments in training, ETA wanted to know what labor demand would be within a two-year period rather than the ten-year horizon provided by the LTIP program. To make the STIP comparable to the LTIP, a common methodology was needed. Consequently, STIP uses national indicators and a state leading index in the development of projections and creates an industry and occupation linkage to provide inputs into the Occupational Projections program. As a result, career and demand information can be examined simultaneously.

Occupational Projections

Dorothy Gattis and Anthony Hayden provided the context for Occupational Projections (OP) program. The state and area occupational projections process is modeled after the process used by the BLS national Employment Projections program (EP), which estimates the future number of openings by occupations based on occupational replacement rates, estimates of wage and salary workers, self-employed, and unpaid family workers, and change factors, which are forecasts of changes in occupational staffing by industry. Other important inputs are staffing patterns from the Occupational Employment Statistics survey (OES), industry employment from the Current Employment Statistic s survey (CES), and industry employment from the Quarterly Census of Employment and Wages (QCEW). Industry employment projections, estimates of agricultural-related employment, and private household workers, are also critical components to the production of occupational projections. Finally, because the development of occupational projections is heavily dependent on the estimates of other programs, the analyst's knowledge of the coverage of those estimates, the timing of data collection, and estimates completion dates are important for developing occupational projections.

Facilitated Discussion

Technical leads engaged the audience in a discussion about projections use and dissemination, projections process review, a summary of projections methodologies and approaches, and available training. In discussing projections use and dissemination, attendees shared some of the methods used by their agencies for disseminating projections. The most common approaches included:

- speaking engagements surrounding projections information;
- using publications to drive traffic to the state's website for projections;
- using web 2.0 technologies to allow users to embed content in their website;
- developing connections to education user groups that rely on projections for career counseling and decision making;
- developing lists of hot/top jobs for local areas;
- developing press releases with highlights from recently completed projections; and
- enabling users to develop their own tables on state projections websites.

In the discussion of the projections review process, technical leaders emphasized the importance of the review process, especially in terms of specifying particular questions for feedback. George Putnam reiterated the extent to which projections drive funding decisions and emphasized the importance of projections accuracy. The conversation turned to the methods and approaches used by different states in developing their projections. Although guidelines exist, states and analysts frequently take different approaches in their methods and outputs. Examples include:

- issuing projections for individual workforce development areas instead of metropolitan statistical areas,
- basing projections on CES data rather than QCEW data, and
- using Census data to assess difficult to project occupations, such as clergy.

During the discussion, emphasis was placed on ensuring local area projections add to state totals and documenting the methodology used in detail.

Finally, a brief discussion of the e-learning training development took place. Participants learned that the Estimates Delivery System will not be included in the training due to limitations in the timeframe for completing the LMI Improvement Grant. The training plan for the projections program will include webinars on special projections topics and opportunities for cross-training in LTIP, STIP, OP, and other related ETA and BLS program activities.

Current PMP Infrastructure

Overview

The Projections Managing Partnership Summit brought together analysts and LMI directors from across the country to talk about current condition of state employment projections. Summit attendees participated in presentations on the challenges faced in the most recent projections rounds and learned about the progress that has been made in addressing these challenges through the LMI Improvement Grant for projections modernization. The following is a summary of the key challenges identified during the discussion.

Challenges

George Putnam presented on the current state of the STIP program and challenges facing this system. He identified three key challenges and opportunities for STIP:

- creating analytic tools to incorporate informed judgment into the development process for STIP;
- appropriately dealing with the 2008-2009 employment downturn and how STIP will serve as a context for LTIP; and
- building a user community to expand the perspective that informs the execution of the projections process.

Stephen Birch presented on the current state of the LTIP program and the challenges facing this system. Using Florida as a case study, he identified several challenges facing the development of LTIP, including items related to the Great Recession. These include:

- identifying the timing and severity of the recession at the state level;
- ensuring that projected levels called for reasonable growth rates from the bottom of the recession;
- understanding that structural changes in the economy redefine a “new normal” for key employment statistics; and
- ensuring that short- and long-term projections tell the same story.

Dorothy Gattis and Anthony Hayden presented on the current state of the OP program and the challenges facing this system. They identified a variety of challenges, with the overarching challenge of the timeliness of occupational projections and the production schedule. Specific issues included:

- the timing for input data releases not necessarily aligning with states' schedules or the ETA program year;
- the impact of confidentiality makes the data not as complete as might be desired;
- the limitations of developing projections with only publicly released, BLS-provided change factors;
- the need for improved communication mechanisms for OP analysts;
- the lack of funding for training, including training on the EDS;
- outdated base year estimates; and
- the delivery methods for OP estimates.

Responses

The resources provided through the LMI Improvement Grant helped to focus attention on addressing some of the most pressing of these challenges. Specifically, the discussion focused on how the PMP is improving the technical aspects of the current state-level projections infrastructure through software and training enhancements.

Software

An improved Projections Suite is one of the main responses to the issues currently affecting the projections development infrastructure. Subject Matter Experts demonstrated new features of Projections Suite for the STIP, LTIP, and OP programs in a preliminary version of the software. In addition, the demonstrations included a review of the capabilities of the new Report Manager system (the newest component of the Projections Suite, to be released with this re-write). The Report Manager system is designed to meet user and analyst needs for on-demand projections data tailored to their specific information request, thereby facilitating easier and more timely access to projections information. Report Manager developers demonstrated some of the dynamic report output possibilities in this system.

Training

One of the clearest and most consistently stated shortfalls in the current state projections system is the timeliness of training for projections analysts. In response to this need, the PMP is working with the LMI Training Institute and Envisiontel to develop an e-learning curriculum designed to train new analysts on how to use the updated Projections Suite software. The Institute is also developing a training plan which will guide future training development and incorporate the most relevant aspects of in-person training through web technologies and the inclusion of projections topics in events such as the LMI Forum. Envisiontel demonstrated the look and feel of the projections e-learning environment and how Subject Matter Expert-provided curriculum is being translated into an on-demand, modulated system. The LMI Training Institute also discussed the projections training plan moving forward, explaining that webinars would be used to supplement modules requiring interactive delivery, and in-person training events will focus on advanced and special topics. The development of training in e-learning should free up Subject Matter Expert time to provide additional training and professional development opportunities that add even greater value to state labor market information agencies and their analysts.

Federal Support

Michael Wolf provided an overview of BLS efforts related to the state projections infrastructure. In its technical role, the BLS prepares and delivers the national long-term projections files to states; reviews and delivers part of the existing LTIP and OP training; provides technical assistance as needed; and reviews state projections. For the 2010-2020 employment projections round, BLS currently plans to release data to states in December 2011, at which time it will also release its Occupational Outlook Handbook for 2012-2013. These dates may change given recent budget uncertainties and hiring freezes. For the 2010-2020 round, BLS will use a new education and training classification system and move toward the 2010 SOC as reflected in the OES estimates for May 2010. Finally, BLS will continue the efforts of its green jobs initiative throughout 2011 through the implementation of its Green Goods and Services Survey, Green Technologies and Practice Survey, and the dissemination of additional green jobs career information.

Sam Wright provided an update on ETA's approach to projections in the current federal funding environment. He emphasized the need for the PMP to raise its visibility in order to secure funding and other support; the need for improved projections information due to structural changes in the national economy; the need for improved linkages among state agencies; and concerns about the timeliness of the projections that states produce.

Summit Feedback

In order to assess the importance and utility of the Summit to projections analysts, the LMI Training Institute surveyed participating analysts about their opinions of the overall quality of the meeting.

Assessing the Quality of the Summit

In response to questions about the logistics of the Summit:

- 23 of 24 respondents agreed or strongly agreed that the Summit was well organized.
- 21 of 24 respondents agreed or strongly agreed that communication surrounding the Summit was adequate.
- 23 of 24 respondents agreed or strongly agreed that the Summit speakers were well prepared.
- 22 of 24 respondents agreed or strongly agreed that attending the Summit will benefit their future work.
- 19 of 24 respondents agreed or strongly agreed that, as a result of attending the Summit, they have a better understanding of the projections process. Five respondents were neutral.
- 21 of 24 respondents agreed or strongly agreed that they look forward to trying out the new Projections Suite software.

In response to questions about the value of the sessions they attended:

- The vast majority of attendees found each Summit session to be somewhat useful or very useful.
- One "Neutral" response was received for each of the following sessions: Projections Analyst Orientation Session, Long-Term Industry Projections Feedback, Occupational Projections Feedback, Training Plan Overview and E-Learning Demos, and Federal Efforts Related to Projections.
- One "Not Useful" response was received for each of the following sessions: Occupational Projections Feedback, PMP Leadership/LMI Improvement Grant Team Meeting, and PMP Leadership Meeting – continued.

Suggestions for Improvement

Participating analysts had few suggestions for improvement to the Summit. Ideas submitted include:

- Allow additional time for sessions and analyst networking
- Hold the Summit more frequently
- Conduct Projections Suite training in conjunction with the Summit
- Conduct sessions that demonstrate best practices from states
- Include additional detail about the projections development process and a step-by-step demonstration of completing a projections cycle
- Conduct workshops on common, challenging projections issues
- Incorporate a data preparation discussion
- Conduct a session on best practices for projections publishing
- Conduct a session on data sources and methods of inference

Projections Infrastructure Improvements

Participating analysts were asked to indicate what demonstrated aspects of the projections modernization most excited them. Analysts responded:

- The updated capabilities of the Projections Suite software, including:
    - Green jobs projection development
    - Report Manager
- The user-friendliness of the Projections Suite software
- E-learning projections training
- BLS changes to the Education and Training code system

Planning for the Future

In an effort to look beyond the current LMI Improvement Grant and to the future of the state and sub-state projections program, the Projections Managing Partnership conducted a strategic planning session designed to identify key priorities for the next five years. The plan is designed to address many of the critical issues discussed during the Summit, especially those yet to be addressed by the redesign of the software and training curriculum. During this planning session, the Partners aligned top priority issues with expert working groups to move the strategic initiatives of the Partnership forward.

Who we are:

- A network of state employment projections agencies and their analysts
- Federal partners

Mission:

- The Projections Managing Partnership will provide leadership and guidance for an integrated system of national, state, and local projections.
- This system will be driven by our customers' needs to make informed decisions based on the most reliable and relevant occupational and industry outlook information.
- The Partnership will support state LMI agencies in producing state and sub-state employment projections in a credible and consistent way by:
    - Providing a forum for sharing experiences, methods, and talent.
    - Creating and maintaining shared tools and techniques that help analysts achieve goals more easily and efficiently.

Values

- The Consortium members produce tools and techniques to support the development of impartial state and sub-state projections
- The projections use methods developed by BLS for national projections and by the States for state and area projections adapted to customers' needs.
- The quality, credibility, and timeliness of our projections remain our most important priorities
- The Consortium responds to customer demands where they do not compromise data quality or projections credibility
- The Consortium collaborates not only to learn from one another but also to leverage limited resources

Summary of Key Projections Issues Affecting the PMP

Members of the Projections Consortium identified a series of management, communications, training, product/process innovation, and projections information technology management issues that are critical to the success of the Consortium. Ad hoc committees were created to address each of these topics with a series of priority issues and responses.

PMP Management Priorities

The PMP identified several key issues that were classified as challenges for managing the Partnership and the broader Projections Consortium. The PMP created an ad hoc Management Committee to focus on issues related to governing the PMP and ensuring its long-term sustainability by developing a detailed action plan for moving forward on these issues. These issues relate to PMP leadership, the selection of strategic priorities for the Consortium, more proactive efforts related to resource planning and budgeting for priority initiatives, and monitoring implementation of the strategic planning process.

Issue: A foundational assumption in the state and sub-state projections program is that the products delivered and the methods used should be tied to BLS methods and products. This linkage creates limitations for states seeking to meet demands of state projections users. Specific issues discussed include the time horizon of the LTIP and updating the base year.

Potential responses:

- Obtain additional user input about projections product needs
- Assess whether customer needs can be met through methodological improvements without breaking the linkages between state and national projections
- Develop a process for conducting ongoing evaluations of the state and national projections linkages to look for points of improvement
- Explore ways to expand the evaluation of projections and build consensus with LMI directors and the user community about the best evaluation methods

Issue: Funding for the Consortium is inconsistent.

Potential responses:

- Work with ETA to develop more clearly articulated links between projections and workforce development program priorities
- Elevate awareness about the importance of the PMP and the projections program by working with the Department of Labor to draft a letter to state agency directors explaining the importance of the PMP, clearly articulating benefits for each state
- Expand outreach to the LMI network in order to build technical and managerial leadership capacity
- Explore other funding streams in light of constraints from Federal and state budgets

Issue: The Consortium requires a more stable fiscal agency arrangement.

Potential responses:

- Develop criteria for what the PMP deems a “stable fiscal agency” arrangement
- Explore alternative fiscal agent options, including use of a non-state entity as the PMP fiscal agent or multiple state fiscal agents for different functions

Issue: Analysts' capacity for developing meaningful analysis about the industry and employment projections they create needs to be improved in order to meet customer needs.

Potential responses:

- Develop model position descriptions and criteria for the projections analyst hiring process, including a survey of current analyst responsibilities and salary ranges
- Create a system for sharing best practices and products among analysts in order to accelerate the transfer of knowledge and expand the capacity to access knowledge and related resources
- Develop electronic tools that facilitate the projections storytelling process that could be used by analysts and intermediate projections users

Other potential management responses considered include:

- Improve involvement of the LMI leadership in the projections program
- Develop an explicit plan for identifying future leaders for the PMP network as current leaders retire or leave the system.

Management Team Leads: Alexandra Hall and George Putnam

PMP Communications Priorities

PMP members identified numerous communications issues that are critical to the success of the Consortium. The PMP created an ad hoc Communications Committee to develop a detailed action plan to analyze and respond to stakeholder needs, develop key messages, and identify key data delivery mechanisms. The Committee will focus its efforts on the following issues and potential responses:

Issue: Sustaining and enhancing the credibility of state-developed projections involves continuing to identify innovative ways to balance the inherent tradeoffs between meeting increasing customer demands for efficient and timely projections and the quality and accuracy of projections outputs.

Potential responses:

- Engage users and communications experts in focus groups to assess the best means of sharing projections methodology with customers
- Improve technical and non-technical communications to enhance transparency among the Projections Consortium members and the broader user community

Other potential communications responses considered include:

- Develop integrated data visualization tools to build greater understanding of the projections among both projections analysts and users
- Create a sustainable feedback loop between projections users and analysts to ensure that projections products meet users' needs
- Work with the PMP to develop and publish a projections production schedule with key release dates
- Create an internal communication platform to replace the current underutilized listserv model with an online forum to help new analysts engage with the wider Projections Consortium community.

Communications Team Leads: Anthony Hayden and Jackie Keener

PMP Training Priorities

The Projections Consortium identified several training-related issues deemed critical to the success of the Consortium. The ad hoc Training Committee will review how to best achieve needed skill upgrades, identify new skill requirements, develop the content for curriculum, and explore alternative curriculum delivery strategies.

Issue: Users want more information about how projections are produced.
Potential responses:

- Create a projections user group to assess user training needs
- Expand training for users on the kinds of questions that projections and staffing pattern data can answer

Issue: Analysts want access to more timely training on non-technical topics, such as analyzing and reporting the results of their projections, in addition to training on technical topics.
Potential responses:

- Develop new analytic and reporting training modules to be incorporated into the training
- Enhance the development of existing "smart review" tools and develop data visualization tools designed to reduce time in producing estimates and improving capacity to analyze and report results

Training Team Leads: Dee Funkhouser, Dorothy Gattis, and Larry Less

PMP Product & Process Innovation Priorities

The Projections Consortium identified several issues aimed at improving the quality of the projections product as well as increasing the efficiency with which the projections are produced. The ad hoc Product and Process Innovations Committee was tasked with overseeing process efficiency improvements as well as developing new products. The key issues of focus (and potential responses) for this group include:

Issue: Maintaining appropriate industry and occupational *input* confidentiality makes it difficult to meet user needs.
Potential responses:

- Provide pre-release industry projections data to the LTIP technical lead and Utah-based programmers
- Explore alternative strategies for addressing suppressed cells
- Explore possibilities for setting up controlled access to suppressed data through BLS
- Develop, collect, and share with the Consortium the various state-specific approaches to addressing confidentiality and suppression under CIPSEA guidelines developed by BLS

Issue: Maintaining appropriate industry and occupational *output* confidentiality makes it difficult to meet user needs.
Potential responses:

- Explore the potential for developing fuzzing procedures appropriate for the projections program and the OES program
- Closely examine the suppression of cells on employment and wage files to identify possible areas of "over-suppression," including the evaluation of cells that can be unchecked for release by comparing the publishable OES and industry data for the state or area with state projections
- Examine alternative approaches that would produce projections that appear more "current" by aging the projections base year

Issue: Conducting historical data refinement and redevelopment is time-consuming for analysts.
Potential responses:

- Develop, collect, and disseminate state-specific approaches to the historical review and refinement process
- Enhance historical data review and refinement tools based on analyst experiences

Other product and process innovation responses considered include:

- Conduct research into the potential opportunities that real-time LMI data (generated from web-based spidering of job vacancies) could play in the projections development process
- Enhance self-employed and agricultural data for use in the projections process
- Improve the process for making sub-state adjustments by comparing methods and identifying options for using technology to increase accuracy and efficiency
- Increase awareness of the impact of input item changes as they occur
- Analyze sources of competition for state projections (e.g. private vendors) to identify potential ways to improve state projections or to better differentiate state projections products

Product and Process Innovation Team Leads: Dorothy Gattis, Paul LaForge, George Putnam, and BLS representation (Michael Wolf)

PMP Information Technology Management

The PMP identified several issues related to continued development and maintenance of the information technology infrastructure used by the Consortium. The ad hoc Projections Information Technology Management Committee was assigned responsibility for on-going software maintenance, internal web communications management, creating a web hosting and web training hosting strategy, and developing a projections product web presence. Key issues and potential responses include:

Issue: The newly developed Projections Suite software must be continually enhanced to meet the needs of projections analysts.
Potential responses:

- Develop a plan for maintenance activities surrounding the redeveloped Projections Suite software
- Enhance smart review tools in response to analyst feedback
- Examine ways to effectively and efficiently integrate analyst judgment into Projections Suite

Issue: The Projections Central website must be continually enhanced to meet the needs of projections users.

Potential responses:

- Enhance the web presence (including the visibility) of state employment projections, including web optimization and Web 2.0 options for improving access to projections
- Explore technical options to facilitate more timely responses to user demand
- Develop data driven tools to enhance analyst storytelling capacity, for example data visualization

Information Technology Management Team Leads: Alexandra Hall and Stacey Joos