

## ANNUAL WORKFORCE INFORMATION GRANT PERFORMANCE REPORT PY 2009

September 30, 2010

Washington state is submitting its summary performance report for PY 2009, as required of Workforce Information grantees by 29 CFR 97.40(b)(1). It summarizes accomplishments and the results of assessments of customer satisfaction with the state's workforce information products and services, and recommendations for improvement to workforce information and services.

As agreed to in the Statement of Work Deliverables, Washington State has produced six deliverables in PY 2009.

### **A. Accomplishment of Deliverables**

#### **I. Populate the Workforce Information Database with State and Local Data**

*States are required to implement and maintain the most current version of the WIDb and populate all tables designated as core tables in accordance with guidelines issued by the Analyst Resource Center (ARC).*

##### **A. Accomplishments**

*States must provide a concise summary of the outcomes achieved and an analysis that explains the cause of any significant variance from the Grant Certification. Describe any actions required to accomplish the required deliverable.*

Throughout the year, Washington State's Labor Market and Economic Analysis (LMEA) branch continued to populate and maintain all database tables designated as core tables in accordance with guidelines issued by the Analyst Resource Center (ARC). In addition to the designated core tables, Washington also updated the tables associated with local employment dynamics.

The data updates included, several monthly updates as well as an increasing number of updates at the substate level, including Workforce Development Areas, counties and metropolitan areas.

##### **Highlights**

- Monthly updates of current industry estimates at the state and county levels
- Monthly updates to current labor force and unemployment rates by county
- Monthly updates to unemployment insurance claimants at the state and county levels



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- Annual updates of occupational wages for metropolitan areas and Workforce Development Areas (WDAs)
- Annual updates of short-term and long-term occupational employment estimates for WDAs
- Annual updates of short-term and long-term industry employment estimates by county
- Semi-annual update of the Employer Database (InfoUSA)
- Quarterly updates of the Census of Employment and Wages for counties
- Update of training programs, providers, and completers
- Annual updates to population estimates

Access to the database was available to users through the Workforce Explorer - our main labor market information delivery system. The backup procedures and hosting safeguards allowed virtually uninterrupted access to this data throughout the year.

This database also provides data for other applications, such as “Career Clusters”, Local Employment Dynamics (LED), Economic and Industry dashboards, Adjudicator Assistant, and advanced analytical tools for Quarterly Census of Employment and Wages (QCEW) and Current Employment Statistics (CES).

### **B. Delivery Schedule**

*States must provide a concise summary of the extent to which the activity has conformed to the deliverables schedule, including an explanation for the cause of any significant variance from the schedule.*

- All milestones were completed as planned.

### **C. Aggregate Expenditures**

*States must provide a concise summary of the actual aggregate expenditures and an explanation for any significant variance from estimated aggregate expenditures.*

- Actual expenditures were consistent with estimated expenditures.

## **II. Produce and Disseminate Industry and Occupational Employment Projections**

### **A. Accomplishments**

*States must provide a concise summary of the outcomes achieved and an analysis that explains the cause of any significant variance from the Grant Certification. Describe any actions required to accomplish the required deliverable.*



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LMEA produced and distributed industry and occupational employment projections for Washington State and 12 local Workforce Development Areas (WDAs) in May 2010. LMEA used a North American Industry Classification System (NAICS) based historical industry employment time series from January 1990 to June 2009 for this project. NAICS-based staffing patterns were constructed using information from the Occupational Employment Statistics (OES) survey.

The standard software tools sponsored by the Projections Workgroup and Projections Managing Partnership have not been very useful for our state and have produced neither reliable industry projections nor occupational projections that satisfied our customer needs. A particular problem with these tools is that they are based on a “black box” approach that does not allow the level of flexibility we need to best serve our customers. Washington state used the same methodology proposed by the Projections Workgroup and Managing Partnership, but implemented the methodology internally using the SAS (statistical software) forecasting system and leading economic indicators from the Global Insights Company, rather than consortium software tools.

Past experience indicates that customers expect both accurate and timely industry and occupational employment projections. In this round of projections, significant attention was paid to the ability of the models to predict the impact of recession and recovery on state and local area employment trends. LMEA also partially incorporated change factors in occupational forecasts, which was based on detailed analyses of the consistency of national change factors with local trends. Only a very limited number of factors was finally selected. LMEA started with aggregated levels of projections and used the Global Insight Model and inputs from forecasting staff from the Washington State Forecast Council and the Washington State Office of Financial Management. The advanced forecasting system from SAS was used to select the best model or combination of the models. The system includes 42 default autoregression models, supplemented with a few customized models with independent variables. Our two main independent variables (regressors) were

1. Industry employment forecasts for the industries in the Global Insight Model
2. Forecast of total nonfarm employment for the state (using the SAS forecasting system and Global Insight Forecast of the national total nonfarm employment)

The selection of the regression model (or few models), to add to the forecasting system for each industry, was based on standard regression statistics for the parameters. The custom-built models were added to the default models in the system.

The goal of fitting in a forecasting system is to build the model that will help predict the future. The main criteria used to select such models are based on different types of prediction errors (SAS Time Series Forecasting System includes 13 criteria to choose from) in and out of the



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sample<sup>1</sup>. LMEA mainly used Mean Absolute Percent Error (MAPE) as its criterion. The final forecast can often be improved by combining a few forecasting models. The SAS forecasting system includes a sophisticated tool for combining such forecasts, which is based on optimization of weights of the selection. The selected models (or combination of the models) are used to produce initial forecasts.

The aggregated projections were used in a step-down approach for industry and sub-state disaggregation. To smooth the result, LMEA used the basic stability controls for dynamic systems. Having flexible software and models permits estimation of the employment impacts of major labor market disruptions such as plant closings or new plant openings. The state uses the projected outcomes and system impacts for policy decisions, program administration and curriculum development.

### B. Delivery Schedule

*States must provide a concise summary of the extent to which the activity has conformed to the deliverables schedule, including an explanation for the cause of any significant variance from the schedule.*

All activities conformed to planned milestones. As indicated in our plan, work on the projections continued throughout the program year. Both the short-term and long-term projections were completed in the 4<sup>th</sup> quarter of PY 2009 and the results became available to the public in electronic form, starting with May 2010. The specific milestones were as follows:

- Refined NAICS-based historical industry employment database - December 2009
- Prepared NAICS-based short-term and long-term industry projections - March 2010
- Prepared screened NAICS-based staffing pattern from OES survey data - April 2010
- Prepared short-, medium- and long-term occupational projections - May 2010
- Populated the Workforce Information (formerly ALMIS) Database and the Workforce Explorer home page with state and area projections – May 2010
- Transmitted required projections to the Projections Workgroup for further public dissemination - June 2010

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<sup>1</sup> The technique, called *ex-post* projections or *hold-out-sample* (in SAS), is used to estimate out-of-sample errors. The idea of this approach is to estimate a model on a sample shorter than the available observations and then make forecasts and calculate errors for observations which are available, but are not included in the sample.



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Washington State law (RCW 50.38) requires five-year employment projections by industry and occupation in addition to the two-year and ten-year projections required by this grant. For this purpose, LMEA received funding from the state through the ESD Claimant Placement Program (CPP) to provide this and other specified labor market information. By leveraging these resources with funding under this grant, LMEA was able to provide Washington's labor market information customers with a higher level of service of enhanced quality than would have been impossible if it did not use these funds in an integrated manner. This approach permitted Washington to be among the national leaders in the development and dissemination of labor market information products.

### C. Aggregate Expenditures

*States must provide a concise summary of the actual aggregate expenditures and an explanation for any significant variance from estimated aggregate expenditures.*

- Actual expenditures for producing the projections were consistent with estimated expenditures

## III. Publish an Annual Economic Analysis Report for the Governor and the state WIB

### A. Accomplishments

*States must provide a concise summary of the outcomes achieved and an analysis that explains the cause of any significant variance from the Grant Certification. Describe any actions required to accomplish the required deliverable.*

LMEA published a detailed annual economic analysis report to provide statewide information for economic policy development, training program planning, and resource allocation by the governor, the state Workforce Investment Board (WIB, which is known as the Workforce Development Council in this state), local WIBs, Workforce Innovation in Regional Economic Development (WIRED) regions, state legislators, as well as other partners including community colleges, economic development organizations, and other talent development stakeholders. The annual report included an overview of the national and state economy, unemployment and its dimensions, demographics of the labor force, employment projections, and wage and income information. Greater detail was focused this year on the seasonal, structural and cyclical aspects of employment. The report titled "2009 Washington State Labor Market and Economic Report" can be accessed at the following website:

[http://www.workforceexplorer.com/admin/uploadedPublications/10112\\_2009\\_Annual\\_Report\\_Web.pdf](http://www.workforceexplorer.com/admin/uploadedPublications/10112_2009_Annual_Report_Web.pdf)

## **B. Delivery Schedule**

*States must provide a concise summary of the extent to which the activity has conformed to the deliverables schedule, including an explanation for the cause of any significant variance from the schedule.*

All planned milestones in the preparation of the annual report were completed successfully on time and the report was published in December 2009. Hard copy publications were distributed to the governor's staff and the legislators prior to the 2010 Legislative session. Additional copies were provided to the WDC staff. The electronic "pdf" version is currently available to everyone who can access the Internet.

## **C. Aggregate Expenditures**

*States must provide a concise summary of the actual aggregate expenditures and an explanation for any significant variance from estimated aggregate expenditures.*

- Actual expenditures were in line with estimated expenditures for this work and involved a number of staff members from several units to develop the data and prepare the narratives for the various chapters.

## **IV. Post Products, Information and Reports on the Internet**

### **A. Accomplishments**

*States must provide a concise summary of the outcomes achieved and an analysis that explains the cause of any significant variance from the Grant Certification. Describe any actions required to accomplish the required deliverable.*

The web-based Workforce Explorer LMI delivery system, in combination with the out-stationed regional labor market economists and the central office economists, continued to provide local area support to Washington State's WorkSource Centers, Workforce Development Councils (WDCs) and other data users. The tool continues to be the portal for key career and economic information used to make important program and life-changing decisions. In addition to the basic labor market information (LMI) such as employment estimates, wages and occupational information, all major studies and special reports were posted on the Workforce Explorer. The Workforce Explorer was also used to announce new data sets, job opportunities in LMEA, and presentations such as the annual Economic Symposia. This program year, LMEA hosted two regional Economic Symposia, one in Spokane and one in Yakima, and its statewide Economic Symposium in Lacey. Record attendance was noted at all the economic forums.

Beyond Workforce Explorer, LMEA also provided information for its Workforce system through its two dashboard products, "Numbers and Trends" and "Industry Trends." These tools contain



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key indicators in a graphical format with the ability to compare and extract data. It has been well received as a tool that simplifies and combines key economic indicators for the local areas.

With an emphasis on job developers, LMEA has purchased and is developing a product to aid in the solicitation of job openings into the workforce job matching system. The target audience is business services members who are charged with attracting job listings for better job matching processes.

Finally, LMEA enhanced access to local employment dynamics information through an internal analysis cube aimed at improving the access of the information to our internal analysts. This dataset is also included in our Industry Trends tool as well.

Along with information through Workforce Explorer, LMEA has maintained a live connection through “web services” to provide our data directly to the state workforce agency. Staff at the workforce agency now have a live feed of data being displayed on their website. As LMEA’s data is updated, their site will pull the updated data. This enhancement reduced their maintenance, and increases the availability of information throughout the workforce system. These improvements were based on input from staff in the workforce system who volunteered to provide input on our tools and their work activities.

### **B. Delivery Schedule**

*States must provide a concise summary of the extent to which the activity has conformed to the deliverables schedule, including an explanation for the cause of any significant variance from the schedule.*

- All planned milestones were completed in various ways. However, the service provided in each Workforce Development Area was not uniform and depended in part on the marketing skills and efforts of the regional economists, and the level of interest in labor market information shown by local customers. During this reporting period, LMEA has made significant progress in building closer working relationships with staff in the WorkSource Centers and Workforce Development Councils. LMEA has been represented in more local planning meetings and has been making an increasing number of presentations to staff both inside and outside ESD.

### **C. Aggregate Expenditures**

*States must provide a concise summary of the actual aggregate expenditures and an explanation for any significant variance from estimated aggregate expenditures.*

- Actual expenditures were in line with estimated expenditures for this work and involved a number of staff members developing the data, reviewing reports, and preparing them for posting on the Internet.

**V. Partner and Consult on a Continuing Basis with Workforce Investment Boards and Key Economic Development Partners and Stakeholders**

**A. Accomplishments**

*States must provide a concise summary of the outcomes achieved and an analysis that explains the cause of any significant variance from the Grant Certification. Describe any actions required to accomplish the required deliverable.*

LMEA continued to provide service to Washington's WIRED recipient, Pacific Mountain Workforce Development Council. As well as helping locally, LMEA has worked with its counterparts in Oregon to establish a report for a WIRED region that crosses state boundaries. LMEA provided key data, necessary to create a "combined" area, instead of a Washington section and an Oregon section.

LMEA has continued to coordinate training on occupational and career information among several providers. Other areas of focus included training on the ONET coding system, using automated coding tools to improve efficiency and identifying ways for various products and systems to interact more effectively. LMEA has also developed a training component in the Agency Training Academy to for new hires.

Regional Labor Economists continue to give periodic economic briefings to WorkSource (WS) and Workforce Development Council (WDC) members to keep them current on changes in local labor market conditions. These economists work with local planners and program administrators to identify their needs and to provide necessary information. Their main responsibility is to know the local labor market and to be able to speak, write and answer questions about it.

Since each area has its own distinct way of achieving its employment and workforce development goals, LMEA does not have a blanket strategy for meeting local LMI needs. What it does is provide the regional out-stationed economists with general guidelines and a list of expectations in their job descriptions for serving local needs. During the past year, the Regional Labor Economists performed their tasks in response to WS and WDC requests, as well as the needs that each of them identified. Their work included preparing special local reports, assisting individuals with information on Workforce Explorer, giving presentations, writing labor area summaries and county profiles, interpreting the employment situation, and providing technical assistance.

As part of the agency's overall accountability strategy, LMEA economists enter their public contacts on an electronic Tracking System and reported the results along with other indicators such as the percent of deadlines met to the Commissioner on regularly scheduled Government, Management, Accountability and Performance (GMAP) reporting sessions.

One of the cooperative efforts of LMEA and the WDCs during this reporting period was updating and maintaining the occupational “Demand and Decline” list. LMEA created that list using factors such as the population of the occupation, the expected growth rate and the occupational unemployment rate. It was then reviewed, adjusted, and approved by the WDCs. As economic conditions changes affected occupational demand, the LMEA economists and WDC staff worked together to update that list to reflect current occupational demand and supply conditions. The WDC staff is responsible for changes to that list, but they are generally reluctant to do so without substantiating data from the regional economists. The “Demand and Decline” list of occupations is used in all WorkSource Service Centers to administer the state’s Training Benefits Program. It is maintained on an LMEA server.

LMEA produced and delivered two additional customer-driven products to the WorkSource Centers and the Workforce Development Councils during this reporting period. One was the “Job Vacancy Survey,” which was completed in July 2010. That survey was then combined with the short-term occupational projections to provide Workforce Investment implementation staff with insight into the occupational employment hiring needs of local employers. The other product was the “Benefits Survey” report. That report was published in April 2010. It provided useful benefits information on jobs for both employers and job seekers.

To assist in rapid reemployment activities, LMEA created a “how-to” guide to help people survive layoffs. “Five Tools for Rapid Reemployment” is a booklet that is intended to help job seekers and WorkSource staff make better use of the WorkforceExplorer.com Web site. It describes five ways to search for potential employers, using Workforce Explorer. The publication’s five tools describe a step-by-step approach using the job-search related tools in Workforce Explorer to assist in reemployment. The five tools are reemployment in: 1) the same industry; 2) an affiliated industry; 3) the same occupation but a different industry; 4) a similar occupation; and 5) using transferable skills. The publication has been well received and is one of the top downloads on LMEA’s website and one of the most requested publications in its paper form.

LMEA provided a one-day training session covering the basic labor market information data items and how to access them. The session was well received by participants who came from a variety of areas in the workforce system.

LMEA provided a webinar on the state of the economy and extended it to a regional level as well. This was LMEA’s first attempt at using this technology to disseminate information. The feedback was very positive.

## **B. Delivery Schedule**

*States must provide a concise summary of the extent to which the activity has conformed to the deliverables schedule, including an explanation for the cause of any significant variance from the schedule.*



- All of the general milestones that could be envisioned at the start of the year were accomplished. Three feedback collection mechanisms were implemented and used throughout the year
  1. Comprehensive user survey
  2. Article rating
  3. Identification of agency liaisons to assist in needs identification

There were about 1,141,700 sessions logged into the site over the year. Enhancements are now being driven, prioritized and validated by customer input and testing along the way.

### **C. Aggregate Expenditures**

*States must provide a concise summary of the actual aggregate expenditures and an explanation for any significant variance from estimated aggregate expenditures.*

- Actual expenditures were consistent with estimated expenditures.

## **VI. Conduct Special Studies and Economic Analyses**

### **A. Accomplishments**

*States must provide a concise summary of the outcomes achieved and an analysis that explains the cause of any significant variance from the Grant Certification. Describe any actions required to accomplish the required deliverable.*

Throughout the year, LMEA staff conducted special studies and economic analyses in addition to the extensive surveys of job vacancies and benefits, in-season agricultural employment surveys, occupational wage report, and various local and statewide studies. A sample of the reports that are available on the Workforce Explorer follows

#### **Special Reports**

- Job Vacancy Survey
- Quarterly Business Employment Dynamics
- Employment Projections and Methodologies
- County Economic Profiles
- Washington State Labor Market and Economic Report
- Around the State Business Activity
- Occupational Employment and Wage Estimates
- Agricultural Workforce Annual Report
- Monthly Seasonal Agriculture Reports

## **B. Delivery Schedule**

*States must provide a concise summary of the extent to which the activity has conformed to the deliverables schedule, including an explanation for the cause of any significant variance from the schedule.*

- All planned milestones were met.

## **C. Aggregate Expenditures**

*States must provide a concise summary of the actual aggregate expenditures and an explanation for any significant variance from estimated aggregate expenditures.*

- Actual expenditures were consistent with estimated expenditures.

## **B. Customer Consultations**

*States must provide a concise summary of the methods used for consulting with customers and customize requirements.*

Throughout the year, LMEA has developed and implemented several systematic methods of collecting feedback from customers regarding their satisfaction, their usage of tools and products, and the timeliness of data and reports. These methods include customer ratings of LMEA analytic articles on Workforce Explorer as well as in-person trainings and presentations that provide a forum to gather feedback from participants and their evaluations. LMEA has also held various information-gathering meetings involving customer groups to help determine usability needs and data gaps. Along with these measures, data is collected and analyzed around usage of products and services including web log analysis, request tracking and a variety of other automated activity capture tools. Many of these automated feedback tracking systems run continuously while others are conducted as specific needs or issues arise.

At the start of her administration, Governor Christine Gregoire initiated a comprehensive accountability system called the Government, Management, Accountability and Performance (GMAP) program. It involves continuous performance tracking and monthly progress reports to senior leadership. The LMEA branch has actively implemented that system by tracking a variety of performance measures and communicating its progress through an electronic dashboard, which is a reporting system linked directly to its project and operational plans.

The main distribution channel for the industry and occupational employment projections, as well as most of LMEA's products, has been Workforce Explorer. It provides a count of visits to the Web site, as well as an opportunity for customers to indicate their level of satisfaction with



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the information provided. The results change daily, and they indicate what information is being accessed most frequently.

LMEA has assigned “agents” for key customer groups. Here, LMEA not only collects input, but uses their networking to validate and create an open dialogue that continues to work very well.

The vast majority of the feedback has been very positive. However, LMEA continues to receive comments from customers indicating that they are having difficulty finding specific information. Then, when they find it, they would like additional help in understanding it. LMEA currently has an in-house effort to improve the usability of its Web site, focusing on the activities associated with the labor exchange process.

*States must provide a concise summary of activities to be undertaken to add customer value to the deliverables, where needs for improvement are identified based on customer feedback.*

LMEA uses customer feedback, as described above, to improve both its deliverables and its delivery system. To assist customers in accessing and understanding labor market information (LMI) products posted on Workforce Explorer, the LMEA branch maintains a “Labor Market Information Center” with a statewide “800” number. A professional economist staffing that center can take a client through the website to the appropriate information and answer questions about that information. In that process, the economist also looks for ways to best present the ever-increasing quantity of information on the Web site. In addition to this central toll free number to assist WorkSource Center staff with LMI, LMEA’s branch trainer conducted over 25 training sessions for about 1,000 individuals over the year.

### **C. Recommendations for Improvement or Changes to the Deliverables**

*States may base their recommendations for improvement or changes to the deliverables based on accomplishments.*

In the state of Washington, LMEA accomplished all six deliverables successfully. The deliverables were well received by the intended customers. The experience gained during the year indicated that LMI training and increased awareness is an integral part of the delivery of information and should be one of the core deliverables. It is good to make LMI available to everyone through the web, and LMEA is committed to helping users better understand and use it.

*States may base their recommendations for improvement or changes to the deliverables based on consultation with customers.*

The strategic plan of the Employment Security Department specifies that one of its primary goals is to integrate labor market information thoroughly into the Workforce Development System. WorkSource Center staff are not required to take any comprehensive LMI training.



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Consequently, many service delivery staff members have difficulty understanding much of the information provided.

Employment databases have been reconfigured to take advantage of computers. New economic models have been created to display employment patterns by occupation, by industry group, by geographic region, and/or over time. This labor market information is accessible to the public via a free, online Web site that is available continuously. However, it must be understood and used to be of value to the Workforce Development system. The challenge is to let the public know that all of the data is “out there” and that all of the data has “real-life” relevancy.

In instance after instance, when the public finds out about Workforce Explorer, their first reaction is “Wow, I didn’t know this information existed!” Their second reaction is “It’s overwhelming - how can I use it?” One answer is TRAINING - training in navigating around the Web site, training in interpreting the data, and training in applying the data to successful employment strategies. LMEA recommends that TRAINING be added to the suite of core products.