



# Employment Security Department

WASHINGTON STATE

PO Box 9046 Olympia, WA 98507-9046

## ANNUAL PERFORMANCE REPORT

September 30, 2009

As required in Training and Employment Guidance Letter, the following is a summary of Washington State's performance in PY 2008. It summarizes accomplishments, the results of assessments of customer satisfaction with state's workforce information products and services, and recommendations for improvement to workforce information and services.

### **Accomplishments:**

#### **A. Continue to Populate the Workforce Information Database with State and Local Data:**

*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 Branch (LMEA) continued to populate and maintain all database tables designated as core tables in accordance with guidelines issued by the Database Consortium. In addition to the designated core tables, Washington also updated the tables associated with local employment dynamics

Of the data updates, several required monthly updates and an increasing number of geographies. The highlights included:

- Monthly updates of current industry estimates at county level
- Monthly updates to current labor force and unemployment rates by county
- Annual updates of occupational wages for metropolitan and workforce areas
- Annual updates of short-term and long-term occupational employment estimates for Workforce Development Areas (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 our 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.)

***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.

***Actual aggregate expenditures and an explanation for any significant variance from estimated aggregate expenditures:***

Actual expenditures were consistent with estimated expenditures.

## **B. Produce and Disseminate Industry and Occupational Employment Projections:**

***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.***

As planned, LMEA produced and distributed industry and occupational employment projections for Washington State and 12 local Workforce Development Areas (WDAs) in June 2009. A North American Industry Classification System (NAICS) based historical industry employment time series from January 1990 to June 2008 was used 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 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. We also partially incorporated change factors in occupational forecasts, but it was based on detailed analyses of the consistency of

national change factors with local trends. Only a very limited numbers of factors were finally selected. We started with aggregated levels of projections and used the Global Insight Model and inputs from the State Forecast Council and the Office of Financial Management's forecasting staff. The advanced forecasting system from SAS was used to select the best model or combination of the model. The system includes 42 default auto regression models and we supplemented the system with a few customized models with independent variables. Our two main independent variables (regressors) were:

- industry employment forecasts for the industries in the Global Insight Model
- 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 are added to the default models in the system.

The goal of fitting in a forecasting system is to build the model that will help to 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 sample<sup>1</sup>. We mainly used Mean Absolute Percent Error (MAPE) as criteria. 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 desegregation. To smooth the result, we 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 projected outcomes and system impact was the availability of critical information needed in the state for policy decisions, program administration, and curriculum development.

***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

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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. Then, make forecasts and calculate errors for observations which are available, but not included in the sample.

projections were completed in the 4<sup>th</sup> quarter of PY 2008 and the results became available to the public in electronic form, starting with June 2009. The specific milestones were as follows:

- Refined NAICS-based historical industry employment database - December 2008
- Prepared NAICS-based short-term and long-term industry projections - March 2009
- Prepared screened NAICS-based staffing pattern from OES survey data - April 2009
- Prepared short-, medium-, and long-term occupational projections - May 2009
- Populated the Workforce Information (formerly ALMIS) Database and the “Workforce Explorer” home page with state and area projections - June 2009
- Transmitted required projections to the Projections Workgroup for further public dissemination - June 2009

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 be 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.

***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

**C. Publish an Annual Economic Analysis Report for the Governor and the state WIB.**

***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 “2008 Washington State Labor Market and Economic Report” can be accessed at the following website:

[http://www.workforceexplorer.com/admin/uploadedPublications/9416\\_2008\\_annual\\_ReportWEX.pdf](http://www.workforceexplorer.com/admin/uploadedPublications/9416_2008_annual_ReportWEX.pdf)

***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 2008. Hard copy publications were distributed to the governor’s staff and the legislators prior to the 2009 Legislative session. Additional copies were provided to the WDC staff. The electronic “pdf” version is currently available to everyone who can access the internet.

***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.

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

***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 and 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 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 Symposiums.

Beyond Workforce Explorer, LMEA also provide information for our Workforce system through our two dashboard products, “Numbers and Trends” and “Industry Trends”. These tools contain 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 our local areas.

With an emphasis on job developers, we have purchased and are 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, we enhanced access to local employment dynamics information through an award-winning tool designed to view, map and compare key workforce indicators by areas, time, industry, age, and gender. This dataset is also included in our Industry Trends tool as well.

Along with information through our site, we have maintained a live connection through “web services” to provide our data directly to the state workforce agency. They now have a live feed of data being displayed on their website. As our 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.

***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 local economists, and the level of LMI interest shown by local clients. 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. In November 2008, LMEA put on its 14<sup>th</sup> Annual Economic Symposium in the Olympia area. In May 2008, it conducted its fifth Economic Symposium in Spokane to reach clients in eastern Washington.

***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.

## **E. Partner and Consult on a Continuing Basis with Workforce Investment Boards and Key Talent Development Partners and Stakeholders.**

*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. LMEA provided key data to its consultant to create the initial "State of the Region" report, as well as generated a presentation for their kickoff meeting.

Along with helping locally, we have worked with our counterparts in Oregon to establish a report for a WIRED region that crosses state boundaries. We provided key data, necessary to create a "combined" area, instead of a Washington section and an Oregon section.

Coordinated training on occupational and career information among several providers also continued. 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. We have also developed a training component in the Agency Training Academy to for new hires.

Area economists gave 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 worked with local planners and program administrators to identify their needs and to provide the necessary information. Their main responsibility was 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 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 the Workforce Explorer, giving presentations, writing county profiles, interpreting the employment situation, and providing technical assistance.

As part of the agency's overall accountability strategy, LMEA economists entered 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 a

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. Then it was 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 and it is maintained on an LMEA server.

LMEA produced and delivered, to the WorkSource Centers and the Workforce Development Councils, two additional customer-driven products during this reporting period. One was the “Job Vacancy Survey,” which was completed in April 2009. That survey produced information, which combined with the short-term occupational projections, provided 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 March 2009. It provided useful “benefits” information on jobs for both employers as well as job seekers.

To assist in rapid reemployment activities, LMEA also created a hand-out that has five ways of searching for potential employers. They include combinations of same and similar occupations, and same and similar industries. The publication has been well received and is one of the top downloads on LMEA’s website.

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.

***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 (comprehensive user survey, article rating, identify agency liaisons to assist in needs identification) were utilized throughout the year. 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.

***Actual aggregate expenditures and an explanation for any significant variance from estimated aggregate expenditures:***

Actual expenditures were consistent with estimated expenditures.

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

***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
- Washington State Green Economy Jobs
- Around the State business Activity
- Occupational Employment and Wage Estimates
- Agricultural Workforce Annual Report
- Monthly Seasonal Ag Reports

LMEA also finished the first “Green Jobs Survey” and published it in January, 2009. We are in the process of a follow-up study as well.

***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.

***Actual aggregate expenditures and an explanation for any significant variance from estimated aggregate expenditures:***

Actual expenditures were consistent with estimated expenditures.

### **Customer Satisfaction Assessment:**

- **The methods used for consulting with customers and significant customer feedback.**

Throughout the year, LMEA has utilized several systematic methods of collecting information about report timeliness, customer satisfaction, and usage. These include training and presentation participant evaluations, ratings of analysis articles on our website, and 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 various other automated activity capture tools. Many of these are done continually, and others are done 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 is actively implementing that system by tracking a variety of performance measures and communicating its progress through a “dashboard” 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 products, has been the Workforce Explorer. It provided a count of “visits” and an opportunity for clients to indicate their level of satisfaction with the information provided. The results, which are not scientific, change daily. But they indicate what information is being accessed the most.

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 clients 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 improve the usability of its website focused on the activities associated with the labor exchange process.

- **Activities to be undertaken to add customer value to the deliverables, where needs for improvement are identified through customer feedback.**

To assist clients in accessing and understanding LMI products posted on the 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 website. In addition, to assist WorkSource Center staff with LMI, the branch trainer conducted 27 training sessions for about 1,415 individuals.

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

- **Recommendations based on accomplishments.**

In Washington State, the LMEA branch accomplished all six deliverables successfully, which were well received by the intended clients. 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.

- **Recommendations based on consultation with customers.**

The strategic plan of the LMEA branch specifies that one of its primary goals is to integrate labor market information thoroughly into the Workforce Development System.

Unfortunately, WorkSource Center staff has never been required to take any comprehensive LMI training. Consequently, many service delivery staff members cannot understand much of the information that is 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. And this labor market information is accessible to the public via free, on-line websites that are available continuously. However, it must be understood and used to be of significant 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 the Workforce Explorer website, their first reaction is “Wow, I didn’t know this information existed!” and their second reaction is “It’s overwhelming - how can I use it?” One answer is TRAINING - training in navigating around the website, 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.