Ms. Stephanie Holt, Federal Project Officer   September 28, 2023
US Department of Labor
Employment and Training Administration
61 Forsyth Street SW
Room 6M12
Atlanta, GA 30303

Dear Ms. Holt:

Enclosed please find the Annual Performance Report for the Tennessee Department of Labor and Workforce Development for Workforce Information Grants to States PY 2022 in accordance with TEGL 1-22 WIG. Should you have any questions, please contact Kshitiz Rastogi, WIR²ED Assistant Administrator (615) 253-2205, or Martha Wettemann, Statistical Analyst Supervisor, at (615) 253-6884.

Sincerely,

Deniece Thomas / DS

Deniece Thomas,
Commissioner

Enclosure

Tennessee Department of Labor and Workforce Development

Annual Performance Report to the Employment and Training Administration

July 1, 2022–September 30, 2023

The following items will be addressed in this report:

- Workforce Information Database
- Industry and occupational employment projections
- LMI training for service delivery
- Annual economic analysis and other reports

Within these descriptions, customer consultations, partnerships, and collaborations will be identified that are assisting our customers in the use of labor market information. Recommendations for improvements in WID products and activities will be addressed.

Due Date	Deliverable	Progress to Date
March 07, 2023	Statewide short-term projections, 2022-2024	Completed on schedule and uploaded to the Projections Central and jobs4tn.gov websites.
July 7, 2023	Substate long-term industry and occupational projections, 2020-2030	Completed industry and occupational projections on schedule; posted the occupational projections on Projections Central. The industry and occupational projections are posted on the jobs4tn.gov website.
October 1, 2023	(WIGS) 2022-2023 Statewide Economic Analysis Report	The Tennessee's Economy 2022-23 report will be completed and will be posted on TDLWD department website. The report link will be: https://www.tn.gov/workforce/general-resources/major-publications0/major-publications-redirect/public-reports-redirect/tennessees-economy.html: Select 2022-2023.
October 1, 2023	(WIGS) 2021-22 Annual Performance Report and signed cover letter	Will be completed.
October 1, 2023	WMLI Training for the Workforce System-State and local WDB and AJC staff,	See # 3.

	promoting ETA's LMI goals and objectives.	
Other Data	Licensing Information	Update completed by June 30, 2023. Our occupational licensing handbook was updated to aid in more efficient processing of the data in future years.
	Other Ongoing	• LMI newsletter is available monthly. https://www.tn.gov/workforce/general-resources/major-publications0/major-publications-redirect/public-reports-redirect/labor-market-reports.html • Job Seeker WIOA Collaboration
Other Published Reports and Products		Improving the Pipeline for Tennessee's Workforce 2023 https://www.tn.gov/content/tn/thec/research/supply-and-demand.html; Tennessee Program Providers for In-Demand Occupations dashboard; LMI Podcast.

1. Populating, Maintaining, and Updating the Workforce Information Database with State and Local Data

i. Description: The Tennessee WID is now on Version 2.8. There are nine LWDA areas. Most data series now include data by the LWDA areas; numerous databases and displays are now available at the regional level.

Regular updates of the Workforce Information Database (WID) were done for these files, most of which contain state and local data, and which display on the jobs4tn.gov website:

Core Data Tables populated and updated regularly	Other Data Tables populated and updated regularly
CES EMPDB INDUSTRY LABFORCE IOWAGE IOMATRIX (for ST and LT projections)	BLDING PROGCOMP PROGRAMS SCHOOLS SUPPLY INCOME POPULATN

Core Data Tables: CES and Labor Force data are updated monthly and annually. **EMPDB is** updated every six months by Geographic Solutions, which hosts jobs4tn.gov. I**NDUSTRY** is now updated through the first quarter of 2023 and with annual average data for 2022. New programs have been written in Oracle to make updating faster and more efficient. The **IOMATRIX** files now display updated state long term 2020-2030

and LWDA 2020-2030 projections, as well as the short term 2022-2024 projections. The wage files have been updated with the latest May 2022 OEWS data.

Non-Core Tables: License Data: The license file update this year consisted of updating the license history file with the active licensed individuals in 2023, as well as adding any new licensed occupations, and deleting some no longer licensed. The license crosswalk file was updated to the 2018 SOC codes. Updated systems in the Health Department made data acquisition more efficient.   Since data is being collected annually, the data providers are more familiar with our requests. Contact individuals in agencies as well as our license data collection handbook are updated annually.

Non-Core Tables: The process for updating **BLDING** permits has been documented and is updated to July 2023. The **POPULATN** table for the state is updated to 2020.

In addition, Tennessee updates education supply data annually (progcomp, programs, schools, and supply files). The data for these files come from IPEDS, the Tennessee Department of Education (TDOE) career and technical education concentrators, and apprenticeship completer and sponsorship data from Tennessee's apprenticeship database (RAPIDS system). The apprenticeship data are used in our updated supply and demand report *"Improving the Pipeline for Tennessee's Workforce 2023"* and in *Tennessee's Economy 2022-2023* (the annual economic analysis report). The education data from the WID files, and the apprenticeship data, are displayed in our Program Providers for Demand Occupations dashboard. https://data.tn.gov/t/Public/views/TennesseeProvidersforDemandOccupations/TennesseeProvidersforDemandOccupations?%3AshowAppBanner=false&%3Adisplay_count=n&%3AshowVizHome=n&%3Aorigin=viz_share_link&%3Atoolbar=yes&%3Aembed=yes

ii. **Customer Consultation:** Customer consultation continues to be been active in 2022-2023 as the Tennessee Higher Education Commission (THEC), the Tennessee Department of Economic and Community Development (TECD), the Tennessee Department of Education (TDOE), and the Department of Labor and Workforce Development (TDLWD) have a collaboration and met regularly to focus on producing a supply and demand report   annually with common criteria for defining demand occupations at the state and LWDA level, and relating that data to training program

supply reports. Public Chapter 183 regarding higher education reports was passed; the law took effect on July 1, 2021. TCA 49-7-112 was amended by substituting a new section known as the "Skills for Jobs Act." This section requires a partnership between the THEC, TDLWD, TECD, TDOE and other entities as needed to produce an "annual report on the state's workforce needs projections and credential production" as well as identifying needs that are not being met. TDLWD "shall align degree production to employer demand to assess gaps and oversupply." The deadline for the report is March 1 each year. The following WID files, which can now be downloaded from the WID, are used by ECD in developing the demand occupation lists for the state and the LWDAs: OEWS data (iowage), long term projections (iomatrix), and job openings, to which are added data on occupational hires. A Program Providers for Demand Occupations dashboard accompanies the Pipeline report.

After the March 1 publication is complete, the departments continue their collaboration and now are meeting more regularly to consider improvements to the report suggested by users. In response, the definition of employment and median wage was changed for the 2023 report to include education program completers who remain in the workforce for two quarters, six months after graduation, rather than one quarter.   This project has launched two other new dashboards/visualizations: one with more extensive education and wage information for programs over 1, 3, and 5 years using P20 data, and plans by THEC to submit student data to LEHD for the multistate visualizations of Post Secondary Education outcomes. SOC and CIP crosswalks have been updated and review of selected supply/demand clusters in manufacturing and other units of analysis are planned with THEC and some of the educational institutions with programs.

A shared directory of files to be used in the report has been developed which does not contain confidential data. This report and accompanying dashboards are planned to improve the efficiency of data preparation, create more accessible data for the public, and allow for more comprehensive analysis of the workforce needs of the state, informing public policy.

iii. **Customer Needs**: As part of the alignment project, ECD has been able to make better use of a variety of the updated data available on jobs4tn.gov, including 2022 OEWS

data for the state and LWDAs, occupational projections data for the state and LWDAs, and annual job openings data, which are a component of jobs4tn.gov provided by our contractor by O*Net code. The *Tennessee's Economy* report includes regional and LWDA industry and occupational data, lists of demand occupations by region, and labor force and barriers to employment by region and LWDA. These are tailored for the regions and LWDAs to use in their planning processes. The QCEW, CES, LAUS, and OEWS, and projections data are used extensively in the *Tennessee's Economy* report. To aid ease of access to LMI data in jobs4tn.gov, WIR²ED and the TDLWD Communications Office produced a set of videos to describe how to access commonly requested data on jobs4tn.gov.

iv. Support of Collaborations See the Customer Consultation section above for the new law requiring interdepartmental collaboration**.** Updating of the licensing data required our collaboration with the Departments of Health and Finance and Administration to develop new, more efficient methods of locating and processing of licensing data, which resulted in the development of a Licensing Handbook which was updated this year. QCEW and LAUS files in the WID are used in developing the Statistical Adjustment Models (SAM) currently being used to negotiate performance targets with the LWDA workforce boards.

We continue participation in the P20 longitudinal education and employment database project, especially to obtain follow-up data (employment and earnings data by CIP code) for students in CTE and postsecondary courses. P20 is a data warehouse for educational and workforce longitudinal study being carried out as a collaborative project between TDLWD, TDOE, THEC, the Tennessee Department of Children's Services, and the Tennessee Department of Intellectual and Developmental Disabilities. Formerly housed at the Boyd Center at the University of Knoxville, it is now within the state Office of Evidence and Innovation and managed by state technical services (STS). Confidentiality and other agreements have been signed and will continue to be reviewed as the project moves along. The WID databases are regularly submitted to P20.

A collaboration with the Tennessee Board of Regents is being developed with TDLWD. Both entities have listed research goals they hope to achieve, as student data and

employment are wage data are shared between agencies. Goals relating to workforce development include research on equity issues related to student enrollment and retention in demand occupation areas, as well as identifying critical labor shortage areas and actions that can be taken to fill the gaps. A truck driver program is now being started by TBR in response to shortages. Also, a K-12 teacher apprenticeship program was started last year in response to reported shortages. An important concern of the governor is raising the labor force participation rate, with a special focus on distressed and at-risk counties.

2. Industry and Occupational Employment Projections

i. Description: The Tennessee short-term industry and occupational projections 2022-2024 were completed on schedule in February 2023 and uploaded to the Projections Central website as well as jobs4tn.gov. The long-term industry and occupational projections for the LWDAs for 2020 to 2030 were completed by June 30, 2023, loaded in the comparison module in the Projections Suite, and uploaded to jobs4tn.gov. Due to some changes in economic trends, some statewide industry projections were also updated this year. Analysis of the 2020-2030 statewide long-term projections is included in the annual Tennessee's Economy report.

ii. Customer Consultation: The WIG unit works with other units in WIR^{2}ED to ensure the most accurate data are used in developing the short-term and long-term projections. WIG consults with QCEW staff in reviewing non-economic recodes which often affect data series and obtains files from CES containing information on non-covered employment at the state level. The WIR^{2}ED division receives requests for information on occupations in demand from educational institutions and workforce boards starting or continuing training programs and/or applying for grant funding.

iii. Customer Needs: A variety of requests for LWDA projections, especially, were received in 2022-2023**.** These requests are tracked in our Zendesk system and by our WIG staff. Staff in Blue Oval (Ford Manufacturing) contacted us regarding usual manufacturing job titles in auto manufacturing in general and the job requirements (we used O*net, as well as information on the number of applicants in the West Region who might qualify for these jobs. The Tennessee Department of Education passed a new law

(T.C.A. 49-3-105 c) allocating funds to local education agencies based on the number of students enrolled in career and technical education. They plan to score programs by aligned SOC codes for wage potential by analyzing "high-wage, high-demand, high-skill data points", and will be using our projections and wage data for this.

iv. Support of Collaborations: As reported above**,** the projections supported TDLWD in collaboration with THEC, ECD, and TDOE in the development of the *Improving the Pipeline for Tennessee's Workforce 2023* report, with its lists of unmet needs by clusters. The *Tennessee's Economy Report 2022-2023* has information on industry and occupational projections for 3 regions and 9 LWDAs for use in workforce planning. TECD has a dashboard for the occupational demand information (projections and wages) on their web site which accompanies the *Pipeline Report*. Occupational projections and wage data will be utilized by the Department of Education as criteria in the allocation of funds to LEAs in the state for Career and Technical Education programs.

3. LMI Training for Service Delivery

The following LMI Training Sessions were presented in 2022-2023:

Date	Training	Presenter	Conference/Meeting	# of Participants
April 12, 2023	Labor Market Programs and Supply-Demand Data and Report	Kshitiz Rastogi, Assistant Administrator, and Dr. Martha Wettemann	U.S. Iraq Higher Education Partnership Program	15
July 11, 2023	CTE's Vital Role in Erasing Labor Market Shortages	Amanda Klafehn and Dr. Martha Wettemann	Career and Technical Education Institute	40
Ongoing from Nov. 2022	Onboarding and continuous training for a new projections staff person at TDLWD, who was previously a veteran's representative at the agency.			

October 5, 2022	Super Priority: Labor Force Participation Rate Strategies	Steve Playl, Asst. Commissioner, and Kshitiz Rastogi, Asst. Administrator	Regional Workforce Convening – West	25
November 8, 2022	Super Priority: Labor Force Participation Rate Strategies	Steve Playl, Asst. Commissioner, and Kshitiz Rastogi, Asst. Administrator	Regional Workforce Convening – East	28
January 18 and 26, 2023	Labor Force Participation Rate Stakeholder Meeting	Teresa Smith, AE Asst. Administrator, and Kshitiz Rastogi, Asst. Administrator	County Stakeholder Meeting	18
February 23, 2023	TN Leisure & Hospitality Industry	Kshitiz Rastogi, Asst. Administrator, and Josh Gibson, Research Director	State Workforce Development Board Meeting	25

i. Description: The *Improving the Pipeline for Tennessee's Workforce 2023 Report* and related data sets were   the subject of two training sessions. Kshitiz Rastogi, Assistant Administrator, and Dr. Martha Wettemann, statistical analyst supervisor, were invited to present to a delegation of Iraqi college and workforce officials for the U.S. Iraq Higher Education Partnership Program. They are working on setting up education and employment data collection systems to inform workforce policy, so all the BLS LMI programs were discussed, as well as Tennessee's work on supply and demand data collection and analysis. The second presentation on the report was at the Career and Technical Education Summit in Chattanooga. After a presentation on the format and findings of the data by 14 career clusters, the teachers and other staff were divided into 14 groups and discussed whether report results might warrant program start-ups in their program areas. The October and November training included workforce personnel in each of the two regions including American Job Center staff, regional directors, LMI staff, and local workforce board participants, discussing the

Governor's labor force participation goal and strategies to achieve it. The February meeting involved a discussion of trends in the leisure and hospitality industry.

ii. Customer Consultation: Evaluations from the CTE presentation found some very enthusiastic consumers of the data and others who needed more localized information, visualization, and data analysis. These needs will be taken into consideration as future reports are developed. WIR²ED is actively focused on creating new dashboards for management and workforce staff.

iii. Customer Needs With the improving labor market, turnover has increased in workforce services, both internally and in the local workforce development areas. As new labor market tools are developed, more training will need to be developed to assist staff in making better use of these tools, both virtually and in-person.

iv. Support of Collaboration: Training has resulted in more understanding of the labor market information that is currently available and has strengthened ties with Workforce Services and regional planning staff. In addition to the training provided at the CTE conference, a 15- minute podcast was developed by the Communications Division at TDLWD featuring Amanda Klafehn and Martha Wettemann discussing process and findings in the *Pipeline Report.*

4. Annual Economic Analysis

i. Description: The annual economic analysis report ***Tennessee's Economy* 2022-2023** (will be posted to: [https://www.tn.gov/workforce/general-resources/major-publications0/major-publications-redirect/public-reports-redirect/tennessees-economy.html)](https://www.tn.gov/workforce/general-resources/major-publications0/major-publications-redirect/public-reports-redirect/tennessees-economy.html)

As labor shortages become more apparent, an item in the annual report uses a real time LMI dataset developed from jobs4tn of all the job openings for 2022 compared to the active resumes in the system for 2022. Tables were developed showing the largest gap between job openings and resumes for occupations requiring some postsecondary education but not bachelor's degrees; high wage jobs requiring only high school; and for bachelor's degree completers. This section also highlighted the problem of quantifying the shortage of teachers with current data systems and recommended better data

collection for these occupations. More up-to-date QCEW data was included for industry analysis, and tables were added that were requested previously for LWDA and regional planning purposes. Key trends in the regional labor force and updated tables on significant barriers to employment are displayed. State level data from CES, LAUS, QCEW, and OEWS and industry and occupational projections to 2030 are included. It also has:

- A graphic page of key economic indicators and their performance over the year for the state and each region (East, Middle, West).
- Regional and LWDA labor force demographics, educational attainment by race/ethnicity, disability status, youth unemployment, area unemployment, occupational employment and wages, and data on significant barriers to employment including the new data on disadvantaged youth and adults from ETA
- Sections on high- performing industries and occupations for each region.
- Demand occupations and apprenticeship data by region.
- Emerging industries.

ii. Customer Consultation: While WIR²ED was providing labor market information for the regional and LWDA planning process previously there were questions that LWDAs had to answer that were new to our analysis. Updated tables and graphs that were provided for planning purposes last year were included in the regional sections of this report.

iii. Customer Needs: As mentioned above, the publication has included current information for 2022 to aid workforce services in providing assistance to customers currently. It also has spurred WIR²ED to use and make available more real-time data which can be released more frequently. More visualizations have been developed.

iv: Support of Collaborations: As mentioned above, we strive to include information in the report that is regional and at the LWDA level to assist the LWDAs in planning and carrying out their workforce programs. Demand occupation data developed for the *Pipeline* report and the Program Provider dashboard have been included in the appendix. The TDLWD, THEC, TECD, and TDOE collaboration has discussed the lack of data on teacher shortages and hopefully we will work together to formulate a solution. We

carefully collect data from several state agencies to update the substantial barriers to employment data annually.

Other Collaborations: The Job Seeker WIOA Workgroup was formed this program year to inventory the department and divisions that provide services to Job Seekers and what services they provide. The Workgroup was formed with a charter to complete work in 2023 with recommendations to the Operations Committee of the State Workforce Board. A more integrated system that is more effective, has less duplication of services, and more successfully serves the variety of job seekers the state works with is the purpose. The departments and agencies currently involved include, besides TDLWD, the Tennessee Department of Human Services (Vocational Rehabilitation, SNAP, and Community Service Block Grant programs), TDOE, THEC and the Tennessee Board of Regents, the Tennessee Department of Correction, the Tennessee Mental Health and Substance Abuse Department, and the community partner of the University of Tennessee-Extension Service. TDLWD created a Program Inventory Dashboard listing the location of a variety of workforce services to assist job seekers across the state. All agencies provided recorded presentations on their services as well as developing job seeker trajectories for their clients. TDLWD assisted in designing a questionnaire sent to job seekers online and on paper to identify if current tools available in the American Job Centers were useful or needed improvement. A renewed charter for this group has been developed for 2023-24; one objective is to develop communications about the workforce tools and services currently available and to develop training to increase their use.

Recommendations to ETA for changes and improvements to the WIG requirements

Requirements and funding to allow attendance at annual training sessions related to the Workforce Information Database (WID) are needed. ETA, through Workforce GPS, has been producing frequent and timely webinars on topics related to workforce development which are excellent. These webinars are essential tools for staff training and need to continue. As COVID is contained, support for an annual state workforce conference for education, labor, and economic development to identify and discuss workforce needs and agencies' roles in meeting those needs could be pivotal. Support is needed for the development of an LMI analyst apprenticeship program, being developed in some states

with the assistance of the LMI Institute. The Aligned Case Management training and state collaborative model with individual state consultation sounds excellent; the Job Seeker partners were interested in participating in a new session of that if it is available.