

P-20W Research Data System Advisory Committee Report

June 30, 2020

Introduction

The legislature created the P-20W Research Data System Advisory Committee in 2017 through Senate Bill 458 (SB 458) and these provisions were incorporated in the *Nevada Revised Statutes (NRS)* as Chapter 400. The P-20W Advisory Council originally had the duty of overseeing the state longitudinal data system (SLDS), known as NPWR, but that council was abolished through SB 458, which then created the P-20W Research Data System Advisory Committee to assist in the coordination and management of the statewide longitudinal data system administered by the Office of Workforce Innovation (OWINN). The Chancellor of the System, the Superintendent of Public Instruction, and the Director of the Department of Employment, Training, and Rehabilitation (DETR) or their designees serve as ex officio members of the Committee.

The duties assigned to the Committee include supporting and advising the Executive Director of the Office of Workforce Innovation regarding the maintenance and oversight of the statewide longitudinal data system. The Committee is also responsible for developing a plan for collaborative research using data from the statewide longitudinal data system. Finally, the Committee advises and assists the System, the Nevada Department of Education (NDE), the Office of Workforce Innovation, and the Department of Employment, Training, and Rehabilitation in applying for and obtaining grants, budgeting, proposing legislation, and matters relating to any contract for the services necessary for the operation of the statewide longitudinal data system. The Committee is also required to submit periodic reports of its activities and recommendations.

Summary of Activities

The members of the Committee consisted of the Chancellor of the System, the Superintendent of Public Instruction, and the Director of the Department of Employment, Training, and Rehabilitation or their designees. The Chancellor appointed Linda Heiss, Director of Institutional Research and Data Partnership at the System as his designee. The Superintendent of Public Instruction appointed Glenn Meyer, Information Technology Manager at NDE as his designee. The Director of the Department of Employment, Training, and Rehabilitation appointed Mary Harmon, Chief Information Technology Manager at DETR as his designee. Linda Heiss retired and was replaced by Jose Martinez, the new Director of Institutional Research and Data Partnership at the System, who was appointed by the Chancellor. This new membership began during the June 13, 2019 meeting.

Linda Heiss served as chair previous to her retirement, so new Committee leadership was elected at the June 13, 2019 meeting. Glenn Meyer was elected chair of the Committee and Mary Harmon was elected vice-chair. Zachary Heit represented the Office of Workforce Innovation and served as staff to the Committee.

At every meeting, representatives from DBDriven, the vendor contracted to maintain, operate, and service the NPWR Data System, provided a status update on their contract with the state and the activities and projects with the NPWR system. At the meeting on September 14, 2018, DBDriven

reported on the final updates to new data visualizations for previously developed reports. Previous reports on NPWR were developed using SSRS and DBDriven had completed migrating all the reports to Microsoft Power BI designed dashboards. DBDriven provided a general update on metrics such as runtime, patches, bugs, etc. They then updated the committee on the start of a project to update the NPWR data system to NPWR 2.0. The upgrade would improve the functionality and flexibility of the current system to provide new relational data structures to improve match and research capabilities. It would also replace some commercial product software necessary for the old system with custom made coding. Also, during this meeting, the Committee discussed new data partners. Adding new data partners would enhance the system with new data potentially enhancing/improving current data matching while also providing additional data for research purposes. Data partners discussed at the meeting included DMV, RAPIDS apprenticeship data, and CTE data from NDE. The Committee also received updates on NSHE developed reports on financial aid, dual enrollment, advanced placement, and a teacher education dashboard. The success of the teacher education dashboard led to the potential for the development of a nursing education dashboard. NDE provided updates on the Infinite Campus rollout, CTE data, SCED code integration, and their partnership with DHHS in matching data with student records.

At the February 12, 2019 meeting, representatives from DBDriven provided a status update on the contract and ongoing projects with NPWR. This update included information on patches, bugs, architecture changes, and use of the test environment in the NPWR system. The test environment was being used to test significant changes and upgrades planned for the NPWR 3.0 upgrade. A new firewall was put in place for architecture changes. DBDriven also reported on the data refresh ongoing since October. Data was being loaded from DETR and then a new match would be run and processed. DBDriven then provided an update on the NPWR 3.0 upgrade. Through this upgrade, an entirely new data request tool was developed for research purposes. The old data request tool was based of Logi XML and has been completely replaced. The new 3.0 upgrade to the data request tool included reduction of steps and time, guided instructions, printable summary pages, enhanced column selection, and updates to the data adapter, data hub, the data manager, and the CRM. In NPWR 3.0, there is also the ability to add additional demographic logs and match them to other records in other demographic logs. This capability allows for the creation relational databases, so you can associate records from one log to another, such as teacher to student, parent to student, etc. DBDriven then provided examples of their progress with Virginia which had used these new capabilities to develop research on the impact of receipt of SNAP supportive services on standards of learning assessments.

At the June 13, 2019 meeting, the composition of the Committee changed. Linda Heiss, Committee Chair and representative from NSHE, retired. The Chancellor appointed Jose Martinez to replace her on the Committee. The Committee then elected new leadership and Glenn Meyer who was previously Vice Chair was elected as Chair. Mary Harmon from DETR was elected as Vice Chair. Representatives from DBDriven provided the usual status update on the contract with the state and ongoing projects with NPWR. The Committee discussed the date for the data refresh in September. Previous matches had been run at the end of June and the Committee decided to change it to September to include more data and align with reporting needs. DBDriven also provided further input on the NPRR 3.0 upgrade. They reported that the upgrade for Virginia was complete and that Virginia was in the process of updating their data structures. Nevada was informed that data structures might need to be updated in order to have new demographic logs loaded. DBDriven was also in the process of migrating from Microsoft Dynamics 2013 to Microsoft Dynamics 365 which improves administration of the CRM within the data request tool. The Committee then discussed onboarding adult education data and career and technical education data for required federal reporting their offices did. Adding career and technical education

data would allow that data to be matched to post-secondary education data to report on college continuation. Adult education data would be matched to post-secondary data and employment data to report on WIOA requirements.

In September 2019, DBDriven reported on status of projects. DBDriven continued to provide updates on the NPWR 3.0 upgrade and migration to Microsoft Dynamics 365. They also provided an update on the next match event which was getting underway. Glenn Meyer from NDE provided an update on their application for the SLDS grant. The US Department of Education had a new round of grants for state longitudinal data systems and NDE was preparing an application to update their student information management system.

At the January 28, 2020 meeting, DBDriven provided the usual status updates on the NPWR system. They also reported on being close to finishing up the NPWR 3.0 upgrade. DBDriven also demoed the newly developed CTE Concentrators dashboard and report. Career and technical education data was onboarded into NPWR and matched with the other payload data. A dashboard and report were developed using the data to organize reporting requirements for Perkins grants from the US Department of Education, reporting on demographics of CTE students, their programs of study, and academic outcomes. This data is expected to be used for future reports on college continuation, persistence, and graduation at post-secondary education, as well as alignment between CTE program of study and college course/degree major. The Committee also discussed the data validation and data match review process done by each stakeholder. Each stakeholder provides data to the NPWR system and validates that the data and the matched data are accurate. The Committee reviewed this process in an attempt to align the efforts of each data contributor and stakeholder.

Additional details regarding the Committee's meetings and its work can be found in the meeting minutes and materials, located on OWINN's website: http://owinn.nv.gov/OWINN/NPWR_Meetings/.

Nevada P20 to Workforce Research Data System (NPWR) Research Priorities

NPWR Report or Activity	What This Report Entails	Key Performance Indicators	Measures	Filters/Slicer	Data Availability
Adult Education Onboarding and Report	Developing report around required reporting parameters for WIOA Title II	Employment, credential attainment, measureable skills gains indicators	This report would report on measures required for WIOA Title II including participant employment after completion, post-secondary enrollment, wages, etc.	Demographics	Adult Education is available through NDE CRALEO Office
CTE Table Automation	CTE table developed by establishing business rules for identifying CTE concentrators, completers, and certificate earners for future use in CTE report.	% and count of CTE concentrators, completers, certificate earners	This would automate data structures pulled from NDE data within NPWR. This allows for consistent identification of CTE students within the data and determination of concentrator, completer, certificate earner status.	District, Program of Study	CTE data already exists in NPWR. Needs to be structured properly according to business rules set by CRALEO.
CTE-Post-Secondary Alignment Crosswalk and Report	Research and analysis of CTE pathways into Post-Secondary Education and Career.	College continuation, persistence, and graduation % of CTE students continuing on to similar program of study in Post-Secondary institution	This would show continuation of CTE students in post-secondary education and what courses, majors, degrees are taken. Then determine alignment to CTE program completed in HS.	District, Program of Study, Gender	CTE data already exists in NPWR.
Apprenticeship Reports	Status of Apprentices, wages, sponsors	Wage per... Industry Year County Number of Apprentices	This report could show the average wage of an apprentice per county and per industry. It could compare the same district/industry apprentices wages by each year. The report could also show the number of apprentices by county/industry per year to show trends of increase or decreases in apprentices and apprentice programs.	Year Gender Ethnicity County Industry (NAICS)	This data is currently available in the federal RAPIDS database. OWINN will work with a technical assistant from the US Department of Labor to determine the process for uploading that data into NPWR.

Nevada P20 to Workforce Research Data System (NPWR) Research Priorities

<p style="text-align: center;">Career Technical Education Report</p>	<p>The % of students who complete a CTE course while in High School. How many CTE students enter that field after leaving HS and/or continue their education in that field. What is the difference in wages between students who participated in CTE and those that didn't. Wage differences may be evaluated for both NAICS and CIPS.</p>	<p>% of students who take a CTE course in HS. % that are still in trade after HS. % that continues edu. In select trade.</p>	<p>This report could compare the % of students who complete a CTE course while in High School and how many of them enter into that field after leaving HS or continue their education in that field and how their wages are compared to those that do not take a CTE course in HS or venture on to a different trade than their CTE course</p>	<p>Year County CTE Area of Study</p>	<p>NDE will create a flag that identifies a CTE student in their dataset. That data will then be uploaded into NPWR allowing for this report to be developed. In the future, NDE will have more consistent data on courses which will allow for even more robust analysis.</p>
<p style="text-align: center;">General Assembly Members</p>	<p>This report would provide key metrics around each Legislator's district.</p>	<p>Number of General Assembly members Breakdown: By Senate District By Assembly District</p>	<p>This report could show the population, gender, ethnicity, avg. wages, avg. age, avg. household size, etc., HS Graduation Rates, Industries (NAICS) by # of employees, total payroll, etc.</p>	<p>Year District</p>	<p>Most of this data will be pulled from Census Data e.g. Family Size, Income Level. We could add HS Grad Rate, Avg. Wage for the District so that we would have a mash up of NPWR data and open source data.</p>
<p style="text-align: center;">Career Earning Report</p>	<p>Earnings by CIP at 1, 3, 5, 8 and 10 years after graduation.</p>	<p>Wages per year Wages per degree type Wages by CIP</p>	<p>Measures the 10th, 25th, 50th, 75th and 90th percentile of earnings at the 1, 3, 5, 8 and 10 year mark by CIP.</p>	<p>Graduation Year 2 Digit CIP Degree Type</p>	<p>All data is available. Elements of this report already exist in the ROI Report. After review of ROI report, stakeholders could determine that a Career Earning Report could be a stand alone report.</p>

Nevada P20 to Workforce Research Data System (NPWR) Research Priorities

Potential Reports for the Future Consideration

<p align="center">Veterans Report</p>	<p>Wages earned by veterans and non veterans in the same industry</p>	<p>Avg. wage amount for non-veterans by NAIC. Avg. wage amount for veterans by NAIC.</p>	<p>The report could show and compare the difference in the average wage for specific industries that have both veterans and non veterans and how their salaries compare to each other.</p>	<p>Year Gender County Branch of Service</p>	<p>NSHE has veteran data, but if this report is to be valuable, it should consider all veterans, not just those enrolled in NSHE institutions. NPWR does not currently have all veterans identified in its system. Stakeholders should meet with Nevada Dept. of Veterans Affairs to determine their data capacity and interests in this report.</p>
<p align="center">High School Behavioral Report</p>	<p>This report will evaluate HS behavioral activity, e.g. missed days, expulsions, tardy, etc. and look for correlations across continuing to post-secondary and the workforce.</p>	<p>% of students in each behavioral activity Per year Per gender</p>	<p>This report could measure the effect that students who are expelled from school and their ability to get into university and how they perform in college. Whether or not they get remediation and how they score on the ACTs.</p>	<p>Year Gender Ethnicity</p>	<p>This data will be more robust in a year or two. NDE currently collects data on absenteeism, suspension, expulsion, and incidents with weapons and drugs. Future data collection will be more robust and the Committee could revisit this report in the future to determine if it has value for consideration in a longitudinal capacity.</p>