

## P-20W Research Data System Advisory Committee Report

### 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 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 Nevada System of Higher Education (NSHE), the Nevada Department of Education (NDE), the Office of Workforce Innovation (OWINN), and the Department of Employment, Training, and Rehabilitation (DETR) 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, Senior 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. The Committee met in February 2018 and May 2018. Meetings were properly noticed according to the Open Meeting Law.

Linda Heiss was elected chair of the Committee and Glenn Meyer was elected vice-chair. Zachary Heit represented the Office of Workforce Innovation and served as staff to the Committee. Together, Mr. Heit and Ms. Heiss developed meeting agendas.

At the February 12, 2018 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 projects to update NPWR reports with new data visualization software. These projects to update reports with new data visualizations are designed to enhance user experience, improve report aesthetics, and allow all levels of users to understand data better. Previous reports were developed

using SQL Server Reporting Services (SSRS) and generated tabular reports of columns and rows of numbers, which could be difficult for novice users to operate and understand. The new reports are upgraded, interactive dashboards that present data in visually pleasing and easy to understand ways. DBDriven provided a budget and timeline for the visualization updates, which were to be completed by the end of the fiscal year. They also provided updates on system uptime, planned and unplanned outages, system maintenance, patches and software updates, and the resolution of bugs and issues.

Also during this meeting, Mr. Heit provided an update on a grant from the National Governors Association (NGA) to explore and expand work-based learning programs in the state. Mr. Heit asked committee members to provide any knowledge or feedback on work-based learning data from their respective agencies, and to consider it for use in the state longitudinal data system. Including work-based learning data in the NPWR data system would allow users to analyze trends in work-based learning as well as correlate education and workforce outcomes to determine if those programs were prevalent, accessible, and effective.

At the May 22, 2018 meeting, representatives from DBDriven again provided a status update on the NPWR Data System. They provided an update on the maintenance and operations contract, as well as the contract amendment that authorized data visualization updates to current NPWR reports. DBDriven reported that eight reports had been updated using Microsoft Power BI software with three more reports in progress and on time for completion by the end of the fiscal year. Those reports, as well as others developed by partner agencies, are currently live and published on the NPWR website found at <http://npwr.nv.gov/reports> and at <https://www.nevada.edu/ir/dashboard.php>.

Also in May, the Committee considered, amended, and approved a research agenda for the NPWR Data System. A list of potential reports were developed and presented to Committee members for consideration. Committee members discussed and amended the list into four sections: High Priority Reports, Reports for Future Consideration, Reports Already Completed or to Be Completed Outside of NPWR, and Reports Removed from the Agenda. This research agenda provides a roadmap for future report development and allows stakeholders to develop a budget, a timeline, and business rules for each while also determining if data collection processes need to be adjusted. The proposed reports continue longitudinal research efforts to help guide and inform education and workforce policy through data-driven decision-making. The amended research agenda was approved unanimously. The research agenda approved by the Committee can be found in Attachment A.

Finally, Zachary Heit provided an update on data partner planning and efforts to include new data sources into the NPWR Data System, including data from the Department of Motor Vehicles (DMV), the Eligible Training Provider List, and Adult Education within the Nevada Department of Education. Efforts are mainly focused on including DMV data within NPWR to help improve the match rate between all three datasets already included in the data system. Currently, matching data between NDE and DETR databases must go through NSHE, which yields a match rate around 9%. Including DMV data could push the match rate to 90% or more. Other states, such as Minnesota, have used DMV data for the same purpose of improving match rates across datasets and provided materials to Nevada for reference in pursuit of similar goals. Improving the match rate between NDE and DETR datasets will expand research capabilities of the NPWR data system to allow stakeholders to better understand the trends of students who graduate from K-12 education, bypass post-secondary education, and directly enter the workforce. It will also allow the system to capture students who graduate K-12 education in Nevada, attend post-secondary outside of NSHE, and return to Nevada and join the workforce. This is important because such

a large population of students make these decisions and we do not have enough reliable data to understand why and what decisions they are making when entering the workforce.

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://gov.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   |
|-----------------------------------|---|---|---|---|---|
| <b>High Priority Reports</b>      |   |   |   |   |   |
| Apprenticeship Reports            | Status of Apprentices, wages, sponsors  | Wage per...<br>Industry<br>Year<br>County<br>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<br>Gender<br>Ethnicity<br>County<br>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.   |
| Career Technical Education Report | 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. | % of students who take a CTE course in HS.<br><br>% that are still in trade after HS.<br><br>% that continues edu. In select trade. | 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 | Year<br>County<br>CTE Area of Study                       | 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. |

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|------------------------------|--|--|---|---|--|
| <b>High Priority Reports</b> |  |  |   |   |  |
| General Assembly Members     | This report would provide key metrics around each Legislator's district. | Number of General Assembly members<br>Breakdown:<br>By Senate District<br>By Assembly District | 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. | Year<br>District                              | 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. |
| Career Earning Report        | Earnings by CIP at 1, 3, 5, 8 and 10 years after graduation.             | Wages per year<br>Wages per degree type<br>Wages by CIP  | Measures the 10th, 25th, 50th, 75th and 90th percentile of earnings at the 1, 3, 5, 8 and 10 year mark by CIP.  | Graduation Year<br>2 Digit CIP<br>Degree Type | 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.       |

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| NPWR Report or Activity                               | What This Report Entails   | Key Performance Indicators  | Measures  | Filters/Slicer   | Data Availability   |
|---|--|---|---|--|---|
| <b>Potential Reports for the Future Consideration</b> |  |   |   |  |   |
| Veterans Report                                       | Wages earned by veterans and non veterans in the same industry   | <p>Avg. wage amount for non-veterans by NAIC.</p> <p>Avg. wage amount for veterans by NAIC.</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>Year</p> <p>Gender</p> <p>County</p> <p>Branch of Service</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. |
| High School Behavioral Report                         | 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>% of students in each behavioral activity</p> <p>Per year</p> <p>Per gender</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>Year</p> <p>Gender</p> <p>Ethnicity</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.      |

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| NPWR Report or Activity                                  | What This Report Entails   | Key Performance Indicators   | Measures   | Filters/Slicer  | Data Availability  |
|--|--|--|--|---|--|
| <b>Reports Completed to Be Completed Outside of NPWR</b> |  |  |  |   |  |
| Financial Aid Breakdown                                  | Types of financial aid received by students  | Breakdown of aid:<br>Scholarships<br>Institutional Aid<br>Loans<br>Pell Grants<br>Lottery<br>Other | This report could show the breakdown of financial aid received by Nevada students that continue on to NSHE. We could show the average cost of education in Nevada along with the average financial aid received is received per student and break that down into types of financial aid. The report could also show how much financial aid per school is given out along with the average wage of that schools graduate broken down by degree and by industry. |   | This is a report that NSHE will have to do and they can do it internally. The Federal government currently has a mandate on financial aid data, so connecting it to NPWR could be difficult, even through its de-identification process. Completing this report internally within NSHE eliminates that need. NSHE will complete this report. |
| AP and Dual Enrollment                                   | This report will evaluate correlations between students who have and have not taken AP and/or Dual Credit and or both AP and Dual Enrollment | On Time Total<br>On Time %<br>ACT Composite<br>State GPA   | This report could show students that have not taken AP/Dual Credit courses and if they move on to college and if so, how they perform in college. Whether they graduate on time. Compare ACT scores between students that do not take AP/DC courses in high school and those that do.  | Year<br>Gender<br>Ethnicity<br>District<br>High School (??) | NSHE already has a dual enrollment report, but NSHE will replicate their Dual Enrollment Report with an AP version.  |

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| NPWR Report or Activity                                  | What This Report Entails   | Key Performance Indicators  | Measures | Filters/Slicer                   | Data Availability                        |
|--|--|---|----------|----------------------------------|--|
| <b>Reports Completed to Be Completed Outside of NPWR</b> |  |   |          |                                  |  |
| K-12 Diploma Type Report                                 | This report evaluates the post high school outcomes of students who graduated from Public, Private, Charter and Home School. | Post HS Outcomes (Continuation, Remediation, Graduation from Post Secondary.<br>Wages if we could get the DMV data. |          | Diploma Type<br>Year<br>District | The report is already completed by NSHE. |

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| NPWR Report or Activity                     | What This Report Entails   | Key Performance Indicators   | Measures   | Filters/Slicer           | Data Availability                                     |
|---|--|--|--|--------------------------|---|
| <b>Reports Removed From Research Agenda</b> |  |  |  |                          |   |
| Disabilities Report                         | Compare outcomes (Education, Wages and maybe Social Services data between workers with and without disabilities. | Avg. Wage data for workers who are disabled.<br><br>Avg. Wage data for workers who are not disabled. | This report could compare the difference in the wages for specific industries that have both disabled and non disabled workers, and how their salaries differ. | Year<br>Gender<br>County | This data is not accessible due to HIPPA regulations. |