

the LB 1160 REPORT



Nebraska Statewide Workforce & Educational Reporting System



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FOREWORD FROM THE EXECUTIVE DIRECTOR

Since the fall of 2020, the Nebraska Statewide Workforce & Educational Reporting System (NSWERS) has been building a state-of-the-art P-20W longitudinal data system to promote strong economic development policies, good jobs, growing business, and thriving communities. We began this journey from a unique starting point – with a mission to inform decision making. That is, this effort is not about traditional education-to-workforce reporting, but instead is designed to realize our vision of a data informed decision culture to support learning and earning in Nebraska.

NSWERS is focused on the development of products and services that best support decision making and decision makers. We aim to measurably reduce uncertainly surrounding the bold and salient questions facing our education and workforce systems today. In this way, NSWERS is leveraging digital information as a strategic asset for the competitive advantage of Nebraska.

This report outlines the work and strategic approach of NSWERS to achieve our mission. As requested by the Nebraska Legislature in LB 1160 (2020), we make recommendations for the planning and development of the NSWERS organization, including the identification of additional data and stakeholder needs as well as future funding requirements.

Matthew J. Hastings, Ph.D. Founding Executive Director, NSWERS

VIEW THE NSWERS PROOF OF CONCEPT AT: dataviz.nswers.org!

INTRODUCTION & HISTORY

NSWERS has its roots in Legislative Bill 1071 enacted by the One Hundred First Legislature, Second Session, signed into law by Governor Heineman on April 14, 2010. This bill directed the Board of Regents of the University of Nebraska, the Nebraska State Board of Education, the Board of Trustees of the Nebraska State Colleges, and the Board of Governors for each community college area to adopt a policy to share student data. The resulting Memorandum of Understanding established an agreement "to share student data for the purposes of evaluation of and research related to public prekindergarten, elementary, secondary, and postsecondary education to improve education in Nebraska." In the fall of 2019, these partners advanced this cooperation and completed the legal formation of the NSWERS as a joint public entity under the Nebraska Interlocal Cooperation Act for mutual advantage regarding data initiatives.

Additionally, the Nebraska Unicameral recently passed Legislative Bill 1160. Signed into law by Governor Ricketts on August 10, 2020, this bill – known as the Nebraska Statewide Workforce and Education Reporting System Act (2020) – supports the continued planning and development of NSWERS, envisioned as a comprehensive, sustainable, and robust lifelong learning and workforce longitudinal data system serving the needs of the people of Nebraska. Further, the bill directs the Nebraska Department of Labor to execute a memorandum of understanding with NSWERS to ensure the exchange of available data from the Nebraska Department of Labor.

The NSWERS Executive Council is led by the Council President, Ted Carter, President of the University of Nebraska, Additional members of the current Executive Council for NSWERS include: Dr. Matthew Blomstedt. Commissioner of Education, Dr. Paul Turman, Chancellor of the Nebraska State Colleges System, and Dr. Paul Illich, President of Southeast Community College, representing all six Nebraska community college areas. While NSWERS has been in development for some time, the NSWERS Executive Council met regularly throughout 2020 to formally operationalize **NSWERS** administrative as an entity.

On September 1, 2020, Dr. Matt Hastings was hired as founding Executive Director for NSWERS. He has begun efforts to establish core operational capacities, build a team of dedicated NSWERS staff, and create the procedural and technical structures necessary for the creation and maintenance of an NSWERS data system. Dr. Hastings works closely with the NSWERS Management Committee - the operational board of NSWERS - which includes representatives from the NSWERS partner entities, including Cheri Polenske of the University of Nebraska. Dr. Kristin Yates of the Nebraska Department of Education, Dr. Jodi Kupper of the Nebraska State College System, and Dr. Leah Barrett of Northeast Community College, representing all six Nebraska community colleges.

START RENDER VS BOUNCE RATE



Governor Pete Ricketts signed Legislative Bill 1160 into law on August 10, 2020.

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MISSION, VISION, GOALS, & SCOPE

MISSION

We exist to...

Integrate and organize Nebraska's education and workforce data to inform decision making.

VISION

We aspire to...

Create a data-informed decision culture that supports successful pathways of learning and earning for the people of Nebraska.

GOALS

We are successful if we...



Establish the NSWERS data system for sustainable insights.



Evaluate the efficacy of Nebraska's education and workforce training systems.



ORGANIZATIONAL SCOPE



AS A DATA SYSTEM:

organize all elements and functions necessary for a comprehensive, sustainable, and robust lifelong learning and workforce longitudinal data system.



AS AN ADMINISTRATIVE ENTITY:

manage all matters related to the creation, communication, operation, security, maintenance, expansion, and use of the NSWERS data system.

LEGISLATIVE DIRECTION

The Nebraska Statewide Workforce and Education[al] Reporting System is envisioned as a comprehensive, sustainable, and robust lifelong learning and workforce longitudinal data system to allow for the targeting of resources, and focus data analysis on assessing workforce development and employment success in order to enable the training of tomorrow's workforce.

> Legislative Bill 1160 (section 2, subsection 3)

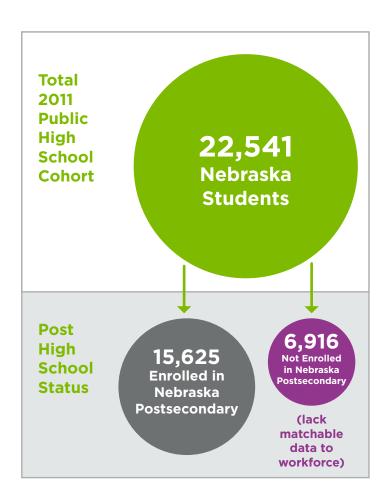


RECOMMENDATIONS FOR NEW DATA COLLECTION AND SHARING OF EXISTING DATA

The Nebraska Legislature directed NSWERS to identify and recommend, among other things, additional data needs (see LB 1160, section 4, subsection 2). Accordingly, NSWERS recently completed a proof-of-concept data project designed to test data collection processes from Nebraska's public education and workforce agencies, and to identify the feasibility, challenges, and system modifications necessary to support cross-agency data matching.

This proof-of-concept data project revealed that – using currently available data from the Nebraska Department of Education, each of Nebraska's public postsecondary institutions, and the Nebraska Department of Labor – **approximately 31 percent of students from each public high school cohort cannot be traced into the Nebraska workforce.** This is not necessarily that these persons are not working (or are not working in Nebraska), but rather there are not enough commonlycollected data elements between the partners and affiliates to perform a robust data matching process.

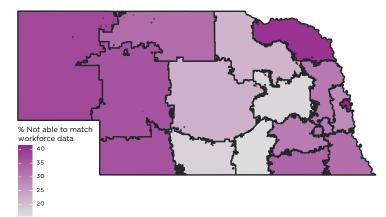
In other words, if a K-12 student does not attend a public postsecondary institution in Nebraska, we lack the data attributes necessary to make links into Nebraska's workforce data systems. As a result, 30.7 percent of public K-12 students will be systematically excluded from any subsequent analyses related to workforce outcomes unless we resolve this data matching challenge. A preliminary analysis of this was completed for a one-year cohort of Nebraska public school students. Specifically, 22,541 students from the 2011 cohort (defined as those students entering the ninth grade for the first time in the fall of 2007). Of these students, 15,625 enrolled in a Nebraska postsecondary institution at some point and thus, can be matched into Nebraska's workforce data systems. However, for the 6,916 remaining students that did not enroll in a Nebraska postsecondary institution, we lack the necessary data elements for matching into the workforce data systems. These students are disproportionately Black, Hispanic, male, and economically disadvantaged.



Specifically:

- Black (non-Hispanic) and Hispanic students of any race are 2 times and 1.8 times (respectively) more likely than white students to lack matchable data to workforce records.
- Male students are 1.4 times more likely to lack matchable data to workforce records.
- Students eligible for free or reducedprice lunch are 2.1 times more likely to lack matchable data to workforce records than those who are not eligible for free or reduced-price lunch.

Additionally, students from certain geographic areas of the state are more (or less) likely to lack matchable data to the workforce and be excluded from further analyses.



Therefore, NSWERS and her partner institutions, organizations, and agencies recommend the Nebraska Legislature direct the following state entities to implement new data collections and the sharing of existing data elements to resolve data matching processes.

RECOMMENDED NEW COLLECTION: NEBRASKA DEPARTMENT OF LABOR

Unemployment Insurance Data

Element	Purpose
*First Name	Record Matching
*Middle Name	Record Matching
*Last Name	Record Matching
**Date of Birth	Record Matching
Job Title	Research
Pay Rate	Research
Start Date	Research
End Date	Research
Job Location	Research

*Name is already collected but not in a standardized format. We recommend requiring separate first name, middle name, and last name fields in standardized form to make the data more usable.

**Currently this is an optional data element. We recommend making it required.

EXISTING COLLECTION SHARED BY:

NEBRASKA DEPARTMENT OF HEALTH AND HUMAN SERVICES

New Hire Reporting Act (48-2301) Data

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Element	Purpose
Employee Name	Record Matching
Employee Address	Record Matching
Employee SSN	Record Matching
Employee Date of Birth	Record Matching
Hire Date	Research
State of Hire	Research
Employer Name	Research
Employer Address	Research
Employer ID Number	Record Matching
Employer Name Employer Address	Research Research

NEBRASKA DEPARTMENT OF MOTOR VEHICLES

Element	Purpose
First Name	Record Matching
Middle Name	Record Matching
Last Name	Record Matching
Date of Birth	Record Matching
Gender	Record Matching
SSN	Record Matching
Address	Record Matching

NEBRASKA DEPARTMENT OF REVENUE

Element	Purpose
Federal Adjusted	Research
Gross Income	
Employer ID Number	Record Matching
Employer Name	Research
Resident Status	Research

NSWERS STAGES OF ANALYSIS



EXPLORE

Examine what is known and the feasibility of additional research. Illustrate the characteristics of a population, situation, or phenomenon.

DESCRIBE

Detail the reasons for a phenomenon occurring.

EXPLAIN



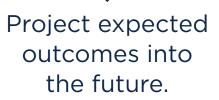


PREDICT

Identify expected outcomes, consequences, costs, or effects.







Model real-world situations to show the effect of changing conditions.

SIMULATE

		Education				Workforce			
	OUTCOMES	High School Graduation	College Going	Postsecondary Persistence	Postse condary Graduation	Time to Employment	Employment Gap	Industry Placement	Industry Location
	EXPLORE	What is already known about the outcome? How is it best measured? Is the data already collected and accessible? If applicable, what proxy variables might be utilized or estimated?							
		What are the summary characteristics of the outcome?							
	EXPLAIN	How is the outcome influenced by or related to other factors? How does that influence differ when accounting for additional variables?							
-		What is the probability of the outcome occurring? What is the most/least likely outcome? How does this probability differ when accounting for additional variables?							
Ð	FORECAST	What is the probability of the outcome projected over the next 3-5 years?							
	SIMULATE	How do simulated changes affect the probability of the outcome? What set of conditions optimize the probability of the outcome?							

FUNDING RECOMMENDATIONS

The Nebraska Legislature directed NSWERS to identify and recommend future funding requirements. In order to faithfully pursue our legislative direction as provided in LB 1160 (2020), and to achieve the organizational vision, mission, goals, and objectives presented herein, NSWERS and her partner institutions, organizations, and agencies recommend and request an annual appropriation of approximately \$2 million.

We recommend that a state appropriation be directed to any of the nine NSWERS partner organizations (Nebraska Department of Education, Nebraska State Colleges System, the University of Nebraska, Nebraska's Community Colleges), but that these funds be earmarked to support the NSWERS entity.

Thanks to generous financial support from Nebraska's leading philanthropies - as well as from the NSWERS' partner organizations themselves - financial commitments have been secured for the first four years of NSWERS operations. Beyond this early phase, we recommend and request a state appropriation.

FISCAL NOTE SUMMARY

FISCAL YEAR 2022

Expenses	Cost
TOTAL WAGES	\$636,325.00
TOTAL BENEFITS	\$335,874.02
TOTAL PERSONAL SERVICES	\$972,199.02
TOTAL OPERATING EXPENSES	\$51,635.00
TOTAL TRAVEL	\$26,675.00
TOTAL EQUIPMENT	\$30,000.00
TOTAL SOFTWARE	\$82,500.00
TOTAL CONTRACTUAL SERVICES	\$749,500.00
TOTAL	\$1,912,509.02

FISCAL YEAR 2023

Expenses	Cost
TOTAL WAGES	\$841,256.00
TOTAL BENEFITS	\$384,731.23
TOTAL PERSONAL SERVICES	\$1,225,987.23
TOTAL OPERATING EXPENSES	\$50,560.55
TOTAL TRAVEL	\$29,947.25
TOTAL EQUIPMENT	
TOTAL SOFTWARE	\$85,400.00
TOTAL CONTRACTUAL SERVICES	\$626,900.00
TOTAL	\$2,018,795.03

STRATEGIC PLAN

	Goal	1	Establish Data System	Establish NSWERS data system for sustainable insights.
÷	Objective	1.1	Develop & Implement Foundational Elements	Develop the human capacity, technical infrastructures, policies and procedures necessary for operational success
Strategy 1.1.1		1.1.1	Define Organizational Strategies	Define core approach to accomplishing organizational goals via codified strategies and plans
	Tactic 1.1.1.1 Strategic Approach		Strategic Approach	Develop Strategic Approach (Vision, Mission, Principles, and Goals)
	Tactic	1.1.1.2	Strategic Plan	Develop Strategic Plan (+ Objectives, Strategies, Tactics)
	Tactic	1.1.1.3	Strategic Direction	Develop Strategic Direction (+ Concept Model, Roadmap, Resource Plan)
	Tactic	1.1.1.4	Legislative Report (LB 1160)	Develop LB 1160 Report
	Tactic	1.1.1.5	NSWERS Budget	Create FY 2022 & FY 2023 Budgets
	Tactic	1.1.1.6	Communications Plan	Create Communications Strategy
	Tactic	1.1.1.7	Philanthropic Engagement	Review funding agreements and provide deliverables and reports as required
	Tactic	1.1.1.8	Sustainable Funding Plan	Develop sustainable funding plan in collaboration with external relations personnel from NSWERS Partners
	Strategy	1.1.2	Establish Organizational Structures	Establish structures to situate and coordinate work for efficient and effective operations
	Tactic	1.1.2.1	Executive Council Business Operations and Meeting Schedule	Establish regular meeting processes and schedule for NSWERS Executive Council
	Tactic	1.1.2.2	NSWERS Advisory Committee	Establish and empanel NSWERS Advisory Committee
	Tactic	1.1.2.3	NSWERS Management Council	Establish and empanel NSWERS Management Council
	Tactic	1.1.2.4	Data & Technology Committee	Establish and empanel NSWERS Data & Technology Committee
	Tactic	1.1.2.5	Research Review Committee	Establish and empanel NSWERS Research Review Committee
	Tactic	1.1.2.6	Legal Counsel	Establish NSWERS legal counsel
	Tactic	1.1.2.7	Audit Services	Establish NSWERS audit services
	Tactic	1.1.2.8	Interlocal Phase Progression	Achieve full implementation of NSWERS interlocal upon completion of key 1.1 objectives
	Strategy	1.1.3	Create and Implement Organizational System	Create and implement systems and processes that add value to the organization
	Tactic	1.1.3.1	Define Responsibilities Across Organization	Create and adopt organizational responsibility matrix

	Tactic	1.1.3.2	Board Policies	Create and adopt core operational policies of the NSWERS Executive Council
	Tactic	1.1.3.3	Standard Operating Procedures	Create and adopt standard operating procedures for the NSWERS entity
	Tactic	1.1.3.4	Information Agenda	Create and adopt a codified NSWERS information agenda to drive analytic activities and data system specifications
	Tactic	1.1.3.5	Data Warehouse	Create and populate version 1.0 of the NSWERS data warehouse to power analytic activities
	Tactic	1.1.3.6	Data Sharing Agreements	Create and complete data sharing agreements with NSWERS Partners and Affiliates
	Tactic	1.1.3.7	Secure Insurance	Assess organizational risk profile and secure related insurance commensurate with needs
	Tactic	1.1.3.8	Data Storage & Security	Identify and secure industry-grade data storage and security solution for POC and NSWERS Data Warehouse
	Strategy	1.1.4	Acquire & Maintain Organizational Skills	Acquire the capabilities and skills required for organizational success
	Tactic	1.1.4.1	Multi-Tier Staffing Approach	Create and execute a multi-tier staffing plan to identify and onboard talent as demands evolve
	Tactic	1.1.4.2	Professional Development and Training	Identify and complete annual professional development/training to ensure industry-standard approaches
	Tactic	1.1.4.3	Specialty Contract Support	Employ supplemental contracts to acquire specialty skills and supports
	Tactic	1.1.4.4	Targeted Partnerships	Establish targeted partnerships focused on the subject-matter expertise required to complete research priorities
÷	Objective	1.2	Define NSWERS Data Collection	Define NSWERS data collection to support research objectives and organizational goals
	Strategy	1.2.1	Ensure the Interoperability of NSWERS Data	Ensure NSWERS systems and services to create, exchange and consume data via a common set of exchange formats
	Tactic	1.2.1.1	Data Standard	Identify and implement an NSWERS Data Standard
	Tactic	1.2.1.2	Data Architecture	Architect NSWERS Data Warehouse and related data stores consistent with the NSWERS Data Standard
	Strategy	1.2.2	Leverage Nebraska Person ID System	Leverage the Nebraska Person ID System for Cross-Partner matching efforts.
	Tactic	1.2.2.1	Unique ID	Adopt as the NSWERS unique identifier, and develop technical integrations with the Nebraska Department of Education's Person ID System
	Strategy	1.2.3	Pursue Value-Add Partner Support Activities	Pursue value-add data collection opportunities for partner support.
	Tactic	1.2.3.1	Partner and Affiliate Planning	Provide data and analytic solutions to support cross-system NSWERS Partner planning needs

	Tactic	1.2.3.2	Accreditation and Regulatory Requirements	Provide data and analytic solutions to support system-wide accreditation and regulatory needs
	Strategy	1.2.4	Leverage Public Domain Data Repositories	Leverage data from the public domain to supplement NSWERS Administrative Data
	Tactic	1.2.4.1	United States Census Bureau	Utilize data from, among others sources, the United States Census Bureau's American Community Survey
	Tactic	1.2.4.2	United States Department of Labor	Utilize data from, among others sources, the United States Department of Labor's Bureau of Labor Statistics
	Strategy	1.2.5	Explore Methodologies for Auxiliary Data Collection	Explore methodologies to supplement NSWERS administrative data with auxiliary data necessary to execute on information agenda
	Tactic	1.2.5.1	Auxiliary Data Collection	Supplement the NSWERS administrative data system with auxiliary data necessary to answer research questions
ł	Objective	1.3	Design and Execute Data Acquisition	Create the technical and procedural processes necessary for acquiring quality data from NSWERS Partners and Affiliates
	Strategy	1.3.1	Develop and Implement a Secure, Web-Based Portal	Develop a one-stop, web-based portal for NSWERS Partners, Affiliates and authorized users to communicate key tasks and needs.
	Tactic	1.3.1.1	Web Portal	Create and implement a secure, online web portal to facilitate NSWERS Partner/Affiliate data submissions and sharing
	Strategy	1.3.2	Leverage Industry- Standard Data Exchange Technologies	Leverage industry-standard data exchanged technologies to facilitate secure data transfer to and from NSWERS
	Tactic	1.3.2.1	API(s)	Create and make available an NSWERS API(s) to facilitate public and secure data transfer
	Strategy	1.3.3	Develop and Implement Quality Control Processes	Develop and implement quality control processes to ensure NSWERS data fitness of use
	Tactic	1.3.3.1	Verification, Validation and Certification	Create and implement point source data quality processes, including verification, validation and certification of data
	Strategy	1.3.4	Establish Annual Calendar	Establish dates and timelines necessary for the submission of data to NSWERS
	Tactic	1.3.4.1	Data Submissions Calendar	Create and publish a calendar of key dates for data submission, quality audit, and certification
ł	Objective	1.4	Optimize Data Processing and Protect Digital Assets	Ensure informational protection, privacy safeguards and cybersecurity
	Strategy	1.4.1	Establish and Maintain a Robust Data Security Program	Protect the technical aspects of how NSWERS data are collected, stored, and transferred through the information technology infrastructure
	Tactic	1.4.1.1	Physical Security	Make computing resources physically unavailable to unauthorized users

Tactic	1.4.1.2	Network Security	Map network and its connections to show the dependencies between applications, data and network layers to highlight potential vulnerabilities
Tactic	1.4.1.3	Secure Configurations	Security test and configure all software/hardware before adding them to the network
Tactic	1.4.1.4	Patch Management	Apply patches as part of comprehensive plan for system testing
Tactic	1.4.1.5	Two-factor Authentication	Implement two-factor authenticator process
Tactic	1.4.1.6	Access Control	Implement role-based security solutions, limits on length of data access, access to sensitive data and administrative privileges
Tactic	1.4.1.7	Encryption of Data	Encrypt sensitive data at rest and in transit
Tactic	1.4.1.8	Staff Security Training	Train staff regularly on industry-standard protocols for data security
Strategy 1.4.2	Implement a Comprehensive Program of Data Governance	Implement comprehensive program of data governance to ensure the overall availability, usability, integrity, quality, privacy and security of NSWERS data	
	1.4.2.1	Decision-making Authority	Assign appropriate levels of authority to data stewards and proactively define the scope and limitation of that authority as a prerequisite to successful data management
Tactic	1.4.2.2	Standard Policies and Procedures	Adopt and enforce clear policies and procedures in a written data management plan
Tactic 1.4.2.	1.4.2.3	Data Inventories	Conduct an inventory of all data that require protection, maintain an up-to-date inventory of sensitive records and data systems, and classify data by sensitivity
Tactic	1.4.2.4	Data Content Management	Manage data content by identifying the purposes for which data are collected, optimize data management processes, and ensure compliance with federal, state and local regulations
Tactic	1.4.2.5	Data Records Management	Specify appropriate managerial and user activities related to handling data
Tactic	1.4.2.6	Data Quality	Ensure that data are accurate, relevant, timely, and complete for intended purposes
Tactic	1.4.2.7	Data Access	Define and assign differentiated levels of data access to individuals based on their role and responsibility

Goal	2	Evaluate Efficacy	Evaluate the efficacy of Nebraska's education and workforce training systems
Objective	2.1	Create NSWERS Information Agenda	Create and publish an information agenda to prioritize and codify high-value research/decision topics and questions of interest
Strategy	2.1.1	Adopt Solutions for Timeliness, Relevance and Accuracy	Adopt solutions that anticipate questions for a timely response, support decision making with decision-relevant information, and motivates accuracy
Tactic	2.1.1.1	Secure Research Consultant	Contract with a research consulting firm to provide support, expertise and personnel to supplement NSWERS staff in the development an NSWERS Information Agenda
Tactic 2.1.1.2 Literature Revie Tactic 2.1.1.3 Information Age Framework	Research Scan and Literature Review	Perform scan of research/decision agendas from NSWERS-like entities across the nation	
	Information Agenda Framework	Define an initial framework and slate of research/ decision questions/topics for use in the NSWERS Information Agenda	
	Information Agenda Feedback	Facilitate and collect feedback from NSWERS Partners, members of the NSWERS Advisory Committee, and others for initial research/ decision questions/topics	
Tactic	2.1.1.5	Refine Research/ Decision Questions	Capture, and where appropriate, integrate additional research/decision questions/ topics gathered from feedback activities into the framework and slate of research/decision questions/topics
Tactic	2.1.1.6	Draft Information Agenda	Prioritize and codify research/decision questions/ topics completed previously into a draft NSWERS Information Agenda
Tactic	Tactic 2.1.1.7 Final Information Agenda	Create a final NSWERS Information Agenda for adoption and publication	
Information Adenda	Design and develop an approach for the ongoing maintenance and management of the NSWERS Information Agenda		
Tactic	2.1.1.9	Operationalize Information Agenda	Identify the specific data elements necessary to operationalize research/decision and evaluation activities for each question/topic included in the final NSWERS Information Agenda
Objective	2.2	Establish Data Analysis and Prediction Operations	Establish NSWERS data analysis and prediction operations for the study of Nebraska's education and workforce training systems
Strategy	2.2.1	Implement a Modern, Flexible and Scalable Analytics Unit	Implement a modern, flexible, and scalable analytics environment designed to leverage the latest analytic tools and research methodologies for rapid-response and in-depth services
Tactic	2.2.1.1	Exploratory Research	Conduct exploratory research in support of the NSWERS Information Agenda development
Tactic	2.2.1.2	Descriptive Research	Conduct descriptive research in response to NSWERS research/decision questions
	Objective Cobjective C	Objective 2.1 Strategy 2.1.1 Tactic 2.1.1.1 Tactic 2.1.1.2 Tactic 2.1.1.3 Tactic 2.1.1.4 Tactic 2.1.1.4 Tactic 2.1.1.5 Tactic 2.1.1.6 Tactic 2.1.1.6 Tactic 2.1.1.7 Tactic 2.1.1.8 Tactic 2.1.1.9	Objective2.1Create NSWERS Information AgendaStrategy2.1.1Adopt Solutions for Timeliness, Relevance and AccuracyTactic2.1.1Secure Research ConsultantTactic2.1.1Research Scan and Literature ReviewTactic2.1.1.2Information Agenda FrameworkTactic2.1.1.3Information Agenda FrameworkTactic2.1.1.4Information Agenda FeedbackTactic2.1.1.5Refine Research/ Decision QuestionsTactic2.1.1.6Draft Information AgendaTactic2.1.1.7Final Information AgendaTactic2.1.1.8Information Agenda FeedbackTactic2.1.1.9Operationalize Information Agenda ManagementObjective2.2Establish Data Analysis and Prediction OperationsStrategy2.2.1Implement a Modern, Flexible and Scalable Analytics Unit

Tactic	2.2.1.3	Explanatory Research	Conduct explanatory research in response to NSWERS research/decision questions
Tactic	2.2.1.4	Predictive Analytics	Utilize predictive analytics in response to NSWERS information agenda questions and to inform decision making
Tactic	2.2.1.5	Forecasting Models	Utilize forecasting models and methodologies in response to NSWERS information agenda questions and to inform decision making
Tactic	2.2.1.6	Simulation Modeling	Utilize simulation modeling and methodologies in response to NSWERS information agenda questions and to inform decision making
Strategy	2.2.2	Establish Collaboration Opportunities and Cultivate Funding	Establish collaboration opportunities and cultivate funding streams that enable education-workforce program evaluation and project scale-up review
Tactic	2.2.2.1	System-Involved Youth	Create collaborations with organizations supporting Nebraska's systems-involved youth
Tactic	2.2.2.2	Priority Program Evaluation	Provide support for the evaluation of priority program outcomes, such as the Nebraska Math Partnership program
Strategy	2.2.3	Leverage the Capacity of NSWERS Partners and Affiliates	Leverage the capacity of NSWERS partners and affiliates to engage faculty and staff, students and parents, communities and regions across Nebraska
Tactic	2.2.3.1	Subject-matter Experts	Establish liaison and maintain counsel and collaboration with subject-matter experts aligned with the NSWERS Information Agenda
Tactic	2.2.3.2	Internships/ Assistantships	Promote a vibrant internship/assistantship program and opportunities to advance the NSWERS Strategic Plan
Tactic	2.2.3.3	Partnerships for Community and Regional Vitality	Establish partnerships to leverage the NSWERS Data System to appraise community and regional needs/opportunities for education and workforce development supports
Objective	2.3	Report on Longitudinal Outcomes	Assess Nebraska's education and workforce training systems against an outcome framework informed by nationwide standards
Strategy	2.3.1	Operationalize and Measure Education Outcomes	Track education outcomes by school and institution based on job placement - location (in- state/out-of-state), region (rural/urban), field of study/field of position, skills required, etc.
Tactic	2.3.1.1	On-Time High School Graduation Rates	Publish on-time high school graduation rates - the percentage of high school students that graduate within four years
Tactic	2.3.1.2	College-Going Rates	Publish college-going rates - the percentage of high school students who attend a two-year or four-year postsecondary institution
Tactic	2.3.1.3	Postsecondary Persistence Statistics	Publish postsecondary persistence - the percentage or number of postsecondary students who returned to a postsecondary institution after their first year, second year, etc.

	Tactic	2.3.1.4	Postsecondary Graduation Statistics	Publish postsecondary graduation - the percentage of students who earn a postsecondary credential
	Strategy	2.3.2	Operationalize and Measure Workforce Outcomes	Track workforce outcomes by school and institution based on job placement - location (in- state/out-of-state), region (rural/urban), field of study/field of position, skills required, etc.
	Tactic	2.3.2.1	Time to Employment Statistics	Publish time to employment - the amount of time it takes for high school students and postsecondary graduates to obtain full-time employment
	Tactic	2.3.2.2	Employment Location Information	Publish employment location - the location where students are obtaining employment (in Nebraska and surrounding states)
	Tactic	2.3.2.3	Industry Placement Statistics	Publish industry placement - the industries in which employees obtain positions
	Tactic	2.3.2.4	Employment Gap Statistics	Publish employment gaps - the percentage of program completers (supply) compared to the percentage of job openings (demand)
+	Objective	2.4	Release Data and Disseminate Research & Evaluation Findings	Provide machine-readable data and disseminate research and evaluation findings to inform decision making
	Strategy	2.4.1	Establish and Maintain a data Clearinghouse to facilitate Data as a Product (DaaP) Enterprise	Establish and maintain an education-workforce information repository to disseminate NSWERS information, data, and metadata to partners, affiliates, and beyond
	Tactic	2.4.1.1	Data to PK-12 Education	Provide data to PK-12 education to inform sound policy and practice, and to support reporting requirements
	Tactic	2.4.1.2	Data to Postsecondary Education	Provide data to postsecondary education to inform sound policy and practice, and to support reporting requirements
-	Tactic	2.4.1.3	Data to Workforce Development Service Providers	Provide data to workforce development providers to inform sound policy and practice, and to support reporting requirements
	Tactic	2.4.1.4	Data to Policymakers	Provide data to policymakers to inform sound policy and resource considerations
	Tactic	2.4.1.5	Data to Researchers	Provide data to researchers to promote analytic activity in support of the NSWERS Information Agenda
- - -	Tactic	2.4.1.6	Data to Students, Parents, and Counselors	Provide data to students, parents and counselors to inform pathways for earning and learning in Nebraska
	Strategy	2.4.2	Establish and Maintain Data as a Service (DaaS) Enterprise	Establish and maintain education-workforce information services to enhance data value with NSWERS partners, affiliates, and beyond.

Tactic	2.4.2.1	Credit Transfer & Articulation	Establish technical service to support the automation of credit articulation and transfer processes
Tactic	2.4.2.2	Industry Certification Review	Establish technical service to support the automation of industry certification credentials
Tactic	2.4.2.3	Career Exploration and Demand	Establish technical service to identify characteristics of successful entry/exit for Nebraska's in-demand careers and related predictive details
Strategy	2.4.3	Create or Acquire Communications Methods and Platforms	Create or acquire methods and platforms to communicate and deliver data through both public and secure channels
Tactic	2.4.3.1	Data Visualization Tools	Create a suite of web-based tools for data access and visualization available to the public and securely to NSWERS Partners
Strategy	2.4.4	Strengthen Awareness, Facilitate Collaborations and Drive System Improvements	Utilize NSWERS data and information to highlight and motivate decisions to spur education and workforce system improvements
Tactic	2.4.4.1	Data Use Culture	Establish a vibrant campaign to promote the use of NSWERS data, including a robust web presence, data discussions and policy briefs
Tactic	2.4.4.2	Decision Support	Leverage original data-use-by-design approach to build capacity for, and promote use of, NSWERS data for continuous improvement
Tactic	2.4.4.3	Track Tangible Changes	Quantify the impact of changes made using NSWERS data and related decision support mechanisms using, for example, ROI analyses

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