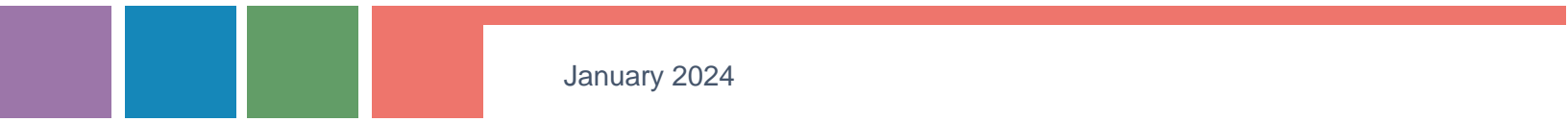# ERDC Research Agenda

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Education Research and Data Center
Forecasting and Research
Office of Financial Management

Authors

The Education Data and Research Center

Special thanks to the ERDC Research Agenda Working Group Members for their contributions and edits to this document.

About the ERDC

ERDC works with partner agencies to conduct powerful analyses of learning that can help inform the decision-making of Washington legislators, parents, and education providers. ERDC's data system is a statewide longitudinal data system that includes de-identified data about people's preschool, educational and workforce experiences.

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Introduction

The Education Research and Data Center is Washington's pioneering longitudinal data system (P20W data warehouse) that links data from early learning, K-12, higher education, and the workforce. Data from ERDC is a resource shared by data contributors, other state agencies, student and family organizations, and researchers. ERDC is committed to providing this valuable education and employment data and analysis to answer pressing education questions, improve student and family experiences and outcomes, and aid in decision-making all while protecting student privacy. ERDC's vision, mission, priorities, and commitment to equity inform the work we do and the way we do it.

ERDC recently embarked on a process to develop critical questions topic areas in education in Washington state and to develop a five-year research agenda. This process involved identifying five critical question topic areas, in consultation with data contributors and legislative staff and committees. These questions provide an overarching framework to guide ERDC's research projects that examine systemwide practices and outcomes. Next, using the critical questions as a guiding framework, ERDC convened a workgroup consisting of more than 30 agencies, community-based organizations, and researchers to determine research topics and questions of vital importance to Washington's students, families, and education systems. The workgroup represented the diverse perspectives that ERDC serves. Through a series of meetings, the workgroup identified numerous topic areas and research questions whose answers would

About ERDC

Vision

To promote a seamless, coordinated preschool-to-career (P20W) experience for all learners by providing objective analysis and information.

Mission

To develop longitudinal information spanning the P20W system to facilitate analyses, provide meaningful reports, collaborate on education research, and share data.

Priorities

1. Coordinate, facilitate, build upon, and enhance the education data collection and analysis already being done by multiple agencies and institutions.

2. Adhere strictly to both the letter and spirit of privacy laws affecting individual student record data and be sensitive to other privacy concerns.

3. Achieve consensus wherever possible among participating agencies and institutions in determining the best data and research available to help guide the implementation of P20W goals.

4. Conduct all business, data development, and research in an open and transparent fashion (to the extent allowed by privacy laws), with the full inclusion of education agencies, organizations, and institutions as well as legislative participants.

have a meaningful impact on understanding and improving equity in student access, experiences, and outcomes. These topics and questions were grouped based on ERDC's critical question areas and prioritized according to numerous factors.

Intended outcomes and goals

ERDC's primary goal is to utilize administrative data to improve the experiences and outcomes of students in Washington state's education system. The critical question topic areas serve as the guiding framework for identifying research projects and their intended outcomes. Each research project that ERDC undertakes should fall within one of these critical areas.

Critical questions and their intended goals

Critical Question (CQ)	Goal
1. *Education systems and transitions: Are resources and access to educational opportunities distributed equitably across the Washington education system?*	Build an understanding of resources available to students as they journey through their educational pathways, whether those resources are equitably available, and inform what types of policies might support students at key transitions
2. *Student outcomes and milestones: How well is the Washington education system producing equitable educational outcomes, particularly for historically marginalized or underserved student groups?*	Describe disparities across student groups to highlight the need for intentional policies aimed at reversing historic inequities, identify promising practices, or evaluate the success of existing policies to alleviate inequities
3. *Education workforce: How well does the Washington education system attract, prepare, and retain a diverse education workforce that can meet current and future student needs?*	Examine educator workforce supply including composition and distribution, student access to educators and other school personnel, and identify how to attract, prepare, and retain the next generation of educators
4. *Education and Social Conditions: How do state systems and social conditions in Washington impact student opportunities and outcomes?*	Provide a better understanding of how data from other fields, such as health or housing, can inform the educational system to increase equity and improve outcomes for students
5. *Data availability and usability: What is the availability and utility of data to answer current and emerging education research questions in Washington?*	Evaluate the quality, reliability, and validity of education data and explore data from education and non-education agencies to enrich the education research infrastructure

Intended outcomes of the Research Agenda

Highlight cross-sectional, longitudinal research that requires linking of administrative data from two or more partners

A defining feature of the P20W data system, and ERDC's mission, is the ability to link primarily administrative data across agencies to provide insights across education and non-education systems that can improve student experiences and outcomes. Research projects in ERDC's research agenda seek to leverage this multi-sector administrative data system and infrastructure in the state to provide new and otherwise undiscoverable insights as well as highlight the contributions and collaboration across multiple agencies.[1]

Address knowledge gaps identified as highest priority to the education community and legislature

Washington state has a network of agencies, organizations, and researchers contributing research to improve the state's education policy and services. ERDC's research agenda intends to add to this body of work by focusing on areas that require additional examination. Furthermore, work completed under this research agenda will review quality of the P20W data system and identify additional data sources that can expand opportunities to address knowledge gaps.

Center students furthest from opportunity in the education system

Research projects under ERDC's research agenda are intended to promote equity and increase access and opportunity for underserved students and communities. This research agenda will support students who experience discrimination, bias, or limited access to opportunity by assessing whether and how policies, programs, and practices encourage or inhibit a more equitable education system. Whenever possible, research products will examine differences across student demographic groups (primarily race, ethnicity, gender, income) and student program participation (e.g., multilingual program participation, special education service receipt, etc.) to illuminate and assess educational equity. ERDC will also seek feedback from agencies, schools, and organizations that work with underserved students as well as students and families themselves to interpret and disseminate findings whenever possible.

Produce meaningful research of importance to student learning and attainment

ERDC's Research Agenda is intended to improve overall progress by focusing on projects that can advance student learning and educational attainment, which are vital to social and

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[1] In addition to cross-sector, longitudinal research questions, ERDC may prioritize questions related to data that ERDC collects directly, specifically data on public four-year institutions and on educator preparation programs.

economic prosperity. This work will provide base knowledge that is necessary to understanding current challenges in equitable student experiences and outcomes and inform resource needs.

Provide actionable information for policymakers and agencies
Central to this Research Agenda is the development of research projects that can provide actionable insights for policymakers, agencies, schools, and organizations. ERDC is committed to timely and relevant research that assists decision-makers in identifying areas of need, evaluating existing policies, or aiding in the creation or adoption of effective policies, programs, and practices.

Leverage ERDC resources in an efficient and effective manner
ERDC staff have considerable expertise in using administrative data to answer questions about various education topics. Projects on this Research Agenda are intended to leverage this expertise and capacity in a way that answers the greatest number of research questions within current resources and in a timely manner to inform decision-makers.[2] ERDC will also seek partnerships and collaborate with other agencies, organizations, and researchers to answer high priority research questions.

Expand portfolio of work related to legislatively-mandated reporting
Legislation requires ERDC to provide information on certain programs and student populations. Projects under this Research Agenda will support this work by continuing to provide required information and expanding knowledge and information around these specific programs and populations.

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[2] ERDC may also seek external resources to expand our capacity to address some research needs when appropriate.

Research agenda questions

The workgroup identified more than 200 questions or topic areas. ERDC evaluated the extent to which the research questions satisfied the intended outcomes in order to prioritize the questions for this Research Agenda based. We first limited the potential questions to those with a multi-sector focus. We then had multiple rounds of review within ERDC to determine which research projects would achieve the intended outcomes.

Research questions are categorized by priority topic areas, which arose during the development of the research agenda. This section highlights ERDC's planned research topics and questions; however, **ERDC is committed to answering questions as needed when they emerge.**

Some research questions arose which cannot be answered with currently available administrative data. The Research Agenda Working Group provided numerous recommendations for data that can be used to expand opportunities for knowledge development and research that is vital for student success.[3] ERDC will continue to explore options to obtain additional data and expand the information available, including survey and qualitative data, for answering pressing research questions.

ERDC will use this Research Agenda to review and guide our work and develop workplans for the coming years. ERDC will also develop a plan for informing audiences when we complete pieces of

Research Agenda Products

Report: Comprehensive research product presenting findings for a set of research questions that are legislatively mandated or ERDC driven. Reports include original data analysis and research.

Landscape analysis: Overview that describes the state of knowledge on a particular topic. Unlikely to include original data analysis.

Research brief: Shorter research products typically focused on a single research question. Briefs include original analysis and research.

Data digest: Concise products that provides an in-depth description of ERDC data.

Data dashboard: Interactive, visual representation of data, typically used by ERDC to report on student outcomes or institutional characteristics.

Partnership project: Products conducted in collaboration with, or on behalf of, ERDC where ERDC is not the lead. May result in any of the above products.

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[3] For more on these recommendations, see Critical Questions & Research Agenda Development Fall 2023.

this agenda. Finally, ERDC plans to develop a space for continued engagement with members from the research agenda working group.

Commitment to Equity in ERDC's Research Agenda

Central to the critical question framework and Research Agenda is identifying where inequities exist and what resources could make the system more equitable. ERDC will use the following guidelines to lead with an equity lens when answering research questions while also protecting student privacy:

- Avoid centering dominant cultures and groups as the norm,
- Disaggregate data and findings to the greatest extent possible,
- Acknowledge that data are not neutral and minimize potential biases in analysis and interpretation,
- Represent intersectional identities in the data,
- Identify systemic root causes of any observed disparities,
- Incorporate the perspectives of traditionally marginalized communities throughout the research process, and
- Provide research products and findings in various ways to make them accessible for a diverse set of audiences.[4]

Collaboration

The workgroup identified a set of potential research questions for ERDC to address alone or in partnership with others. This Research Agenda outlines areas of interest, but ERDC does not have resources committed to answering each research question. ERDC will seek partnerships with, and welcome proposals from, qualified researchers interested in addressing these questions and topic areas. ERDC also engages in projects conducted "on behalf of" the agency for the purposes of "developing, validating, or administering predictive tests; administering student aid programs; or improving instruction." For more, see ERDC's Data Privacy Practices.

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[4] These guidelines are adapted from the National Center for Education Research's Best Practices and Challenges for Embedding Equity in Education Research, Child Trends' How to Embed a Racial and Ethnic Equity Perspective in Research, Mathematica's Education-to-Workforce Indicator Framework Data Equity Principles, and Castillo & Gillborn, 2023.

Research Questions

This section categorizes potential research questions by topic area. Critical questions (CQ) and potential product type associated with each research question are also provided.

Priority Topic: Dual enrollment and dual credit

ERDC is legislatively required to provide information on dual credit and dual enrollment programs. In addition to the required elements, research questions under this topic area will expand knowledge about access and outcomes related to dual credit and enrollment.

Potential Research Questions:	CQ	Product type
1. How does access to dual enrollment programs and dual credit courses vary within and across districts?	1	Report
2. How does access to dual credit relate to dual credit participation and outcomes?	1, 2	Report
3. What proportion of dual enrollment students end up going on to postsecondary education and where do they go (2-year/4-year, public/private, in-state/out-of-state)?	2	Data digest Data dashboard
4. Does the relationship between dual credit and postsecondary enrollment differ by dual credit type and dual credit institution (2-year/4-year, in-state/out-of-state)?	2	Data digest Data dashboard
5. What are the postsecondary enrollment trends over time for dual enrollment students?	2	Data digest Data dashboard
6. Do course or program costs explain participation in dual enrollment programs and what is the impact of reducing or eliminating these costs?	1	Report

Priority Topic: Child welfare system

ERDC is legislatively required to provide information on students in foster care and students experiencing homelessness. In addition to the required elements, research questions under this topic area will expand knowledge about these students as well evaluate resources available to these students and how available resources impact outcomes.

Potential Research Questions:	CQ	Product type
1. What are the educational experiences and the educational and employment outcomes for students in foster care and students experiencing homelessness?	2	Report
2. What school characteristics and supports predict and/or improve student outcomes for those with child welfare system involvement?	1, 2, 4	Report
3. What specific policies or programmatic changes (e.g., graduation pathways, graduation waivers, foster care liaisons, or wraparound services) may have impacted trends in academic outcomes among foster care youth?	1, 4	Landscape analysis
4. What are the effects of one or more policies or programmatic changes (e.g., graduation pathways, graduation waivers, Foster Care Liaisons, or wraparound services) on trends in outcomes for foster care youth?	1, 2	Report

Priority Topic: Institutional education, juvenile justice, and school discipline

ERDC is legislatively required to provide information on students who participate in institutional education. In addition to the required elements, research questions under this topic area will examine factors that might relate to student interaction with the criminal legal system.

Potential Research Questions:	CQ	Product type
1. What are educational experiences and outcomes for students in institutional education?	2	Report
2. What are the educational and non-educational outcomes for youth who are involved in both foster care and juvenile justice systems?	1, 4	Report
3. What education factors might predict entry into the juvenile justice system?	1, 2, 4	Report
4. What are the best ways to link data on students in juvenile rehabilitation facilities from the Department of Children Youth, and Families with data on students receiving institutional education services from the Office of the Superintendent of Public Instruction?	4,5	TBD

Priority Topic: School education personnel, characteristics, and resources

This topic area examines how school and personnel factors drive student experiences and outcomes.

Potential Research Questions:	CQ	Product type
1. What characteristics predict completion of a teacher certification program?	3	Report
2. How do the demographic characteristics of schools compare to the demographic characteristics of the surrounding neighborhood or region?	1, 4	Report
3. Are students more successful in schools where the racial characteristics of staff reflect the racial characteristics of schools or their own characteristics?	1,3	Report
4. How does access to STEM courses and teachers with STEM endorsements vary by school and student characteristics?	1,3	Report
5. What is the composition of school support staff across and within districts and how does this relate to postsecondary outcomes?	1,3	Report

Priority Topic: Family, Household, and Neighborhood Characteristics

This topic area situates student outcomes within social, economic, and community context and examines how this broader context contributes to student outcomes.

Potential Research Questions:	CQ	Product type
1. How do inequities experienced by parents impact child educational outcomes?	2,4	Report
2. Do parenting classes improve child educational outcomes?	1,2,4	Report
3. What are the educational outcomes for students who have an incarcerated parent?	2,4	Report
4. What community and neighborhood factors can predict or impact student access and outcomes?	5	Landscape analysis

Priority Topic: COVID-19

This topic area explores some of the potential consequences of the Covid-19 pandemic and policy responses to the pandemic on outcomes across sectors.

Potential Research Questions:	CQ	Product type
1. What are the college enrollment and workforce participation outcomes immediately after high school for students who received the emergency graduation waiver?	2,4	Research brief
2. What are the expected long-term outcomes of Covid missed learning on inequities in educational achievement and attainment as well as employment outcomes?	1,2,4	Research brief

Priority topic: High school transitions

This section expands on ERDC's high school outcomes dashboard and previous reports on factors related to transitions from high school to postsecondary and workforce.

Potential Research Questions:	CQ	Product type
1. How do disparities in college readiness relate to disparities in college enrollment and completion?	1	Report
2. Do career and technical education programs and courses improve student outcomes in postsecondary or the workforce?	1, 2	Report
3. What are the characteristics and outcomes for young adults, aged 18-24, who are not pursuing college degrees?	2	Research brief
4. What is the relationship between high school and beyond plans, high school graduation pathways, and postsecondary enrollment and workforce outcomes?	2	Research brief
5. Does rigorous STEM course-taking impact college attendance, completion, or workforce outcomes and does this differ by student characteristics?	2	Report
6. Are there clusters of pathways that students take that predict better education and employment outcomes and do these pathways differ by student background?	1,2	Partnership project

Priority topic: Workforce and postsecondary systems

This priority topic area focuses on workforce and postsecondary populations to examine ways to improve human capital development and economic opportunity.

Potential Research Questions:	CQ	Product type
1. What are the student, faculty, and financial characteristics of the six public four-year institutions?	1	Data dashboard
2. What is the relationship between age and term limits for state and federal grant use and postsecondary attainment?	2	Research brief
3. What do the credential pathways and workforce experiences of CTC students in high-demand programs look like, especially for students with dependents versus students without dependents?	1,2	Report
4. What are the characteristics and outcomes of student parents at postsecondary institutions?	2	Partnership project
5. What alternative workforce measures beyond employment and earnings have been used in research and what measures can be obtained in Washington state?	5	Landscape analysis

Priority Topic: Data and Measures

The goal of research under this topic area is to improve the underlying data and methods used to answer program and policy questions.

Potential Research Questions:	CQ	Product type
1. What measures of access have been used in early learning, K-12, and postsecondary research, and are data available in Washington state to support these measures?	5	Landscape analysis
2. What asset-based equity indicators can we use in Washington state with available data?	5	Landscape analysis
3. What are the implications and trade-offs of different methods for reporting students in multiple racial and ethnic categories?	5	Research brief
4. How do changes in race and ethnicity data collection impact student race and ethnicity identification?	5	Report
5. To what extent does student racial and ethnic identification change over time and across data sources?		Data digest
6. What other data and approaches can be used to measure student poverty in Washington state and how do they compare to the free- and reduced-price meal measure?	5	Report
7. What are the benefits and challenges of creating synthetic datasets for external research?	5	Landscape analysis