

Assembling and Sharing Complex Data Sets

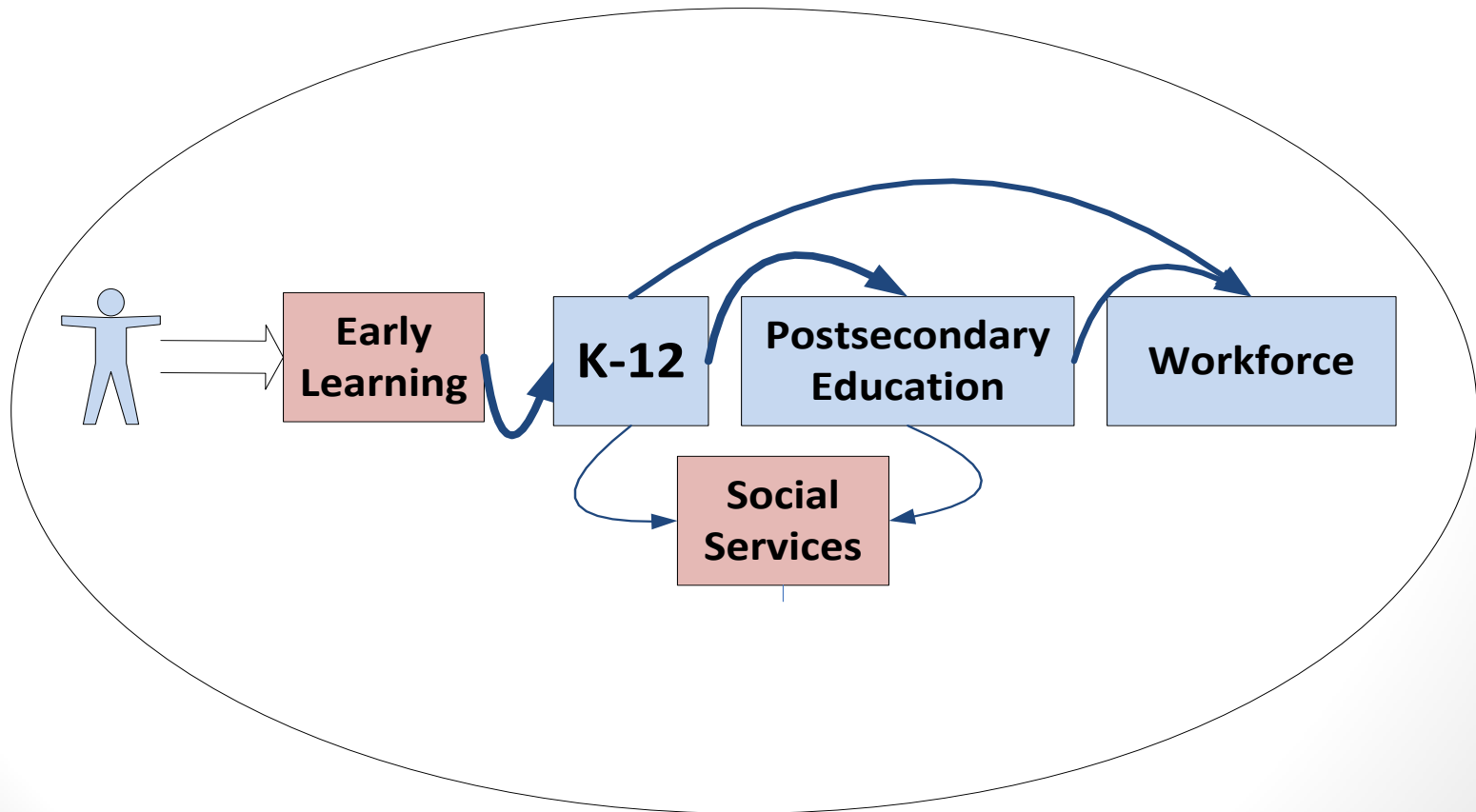
Melissa Beard, Education Research and Data Center
Pacific Northwest Intergovernmental Audit Forum
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Education Research and Data Center (ERDC)

- Established in 2007 in the Office of Financial Management by RCW 43.41.400.
- Collaborates with state agencies and institutions to produce cross-sector, longitudinal reports and analyses including early learning, K12, higher education and workforce.
- Received an ARRA federal grant in 2010 which accelerated work on:
 - Data Governance
 - Research & Reporting
 - P-20W Data Warehouse

ERDC Mission

To develop longitudinal information spanning the P-20W system in order to facilitate analyses, provide meaningful reports, collaborate on education research, and share data.



Washington P-20W Concepts

- Longitudinal
- Focus on transitions
 - Early learning, k12, post secondary, workforce
- Each person is associated with one P-20 ID
 - Result of **identity-matching** of data both within an organization and across organizations and sectors
 - Relate data for each individual across sectors
 - Linkages done once-much more efficient

P-20W = LONGITUDINAL, CROSS-SECTOR

Year-to-year change in 4th grade assessment scores

Longitudinal *Cross-sector* *Trend* *P-20*

High school assessment scores of 2009 graduates taking pre-college mathematics in Fall 2009

Longitudinal *Cross-sector* *Trend* *P-20*

Median wage and industry of K-12 and postsecondary completers

Longitudinal *Cross-sector* *Trend* *P-20*

Washington State's Current P-20 Data Components*

	Department of Early Learning	OSPI (K-12)	OSPI (Staff)	POST-SECONDARY (Baccalaureate, SBCTC, National Student Clearinghouse, HECB)	Employment Security Department	Other	
Characteristics	Program participation:	Program participation:		Program participation:			
	ECEAP	English Language Learner		institution		Labor & Industries apprenticeship program participation	
	home-visiting programs	Highly capable		major			
	ESIT	Career Technical Education		basic skills			
	licensed child care	Running Start, AP, IB, College in HS Learning Assistance Program		pre-college courses			
	Characteristics:	Characteristics:	Characteristics:	Characteristics:	Characteristics:		
	age (student)	age, sex, race/ethnicity	age, sex, race/ethnicity	age, sex, race/ethnicity	earnings		
	sex (student)	grade level	years of experience	geographic origin	hours worked		
	language (student)	district / school	highest degree obtained	financial aid status	industry (sector) of employment		
	race / ethnicity (student)	disability status	grade, program and activity assignment	transfer	employer characteristics		
	homeless status (student)	Free or Reduced Price Lunch eligibility	building, district, and county of assignment	course enrollment (level, subject, location)	unemployment benefits		
	adult:child ratio (program)	GPA	salary	credit hours attempted/earned			
	total hours per week	course-taking (schedule and grades)	National Board Certified Teacher	persistence, retention			
language support (program)	credits attempted and earned	endorsement type					
	high mobility	certificate type					
	special education	course-schedule					
Timeframe:	Timeframe:	Timeframe:	Timeframe:	Timeframe:			
enrollment dates	enrollment dates	certificate issue date	enrollment dates / terms	quarterly			
	school year	certificate end date	year of graduation				
	date of graduation or exit	school year					
Outcomes	early childhood assessments (DECA)	graduation		college enrollment	earnings	Department of Corrections	
	kindergarten readiness (not yet available)	MSP, HSPE, WASL: math, reading, writing, science assessment scores		degrees and certificates awarded (major, minor, award type)	hours worked	Incarceration	
		ACT, SAT			industry (sector) of employment	Dept of Retirement Systems teacher retirement status	
	Fiscal information						

*Note that this represents most but not all components

Washington State's Current P-20 Data Components*

	Department of Early Learning	OSPI (K-12)	OSPI (Staff)	POST-SECONDARY (Baccalaureate, SBCTC, National Student Clearinghouse, HECB)	Employment Security Department	Other
Characteristics	Program participation:	Program participation:		Program participation:		Labor & Industries apprenticeship program participation
	ECEAP	English Language Learner		institution		
	home-visiting programs	Highly capable		major		
	ESIT	Career Technical Education		basic skills		
	licensed child care	Running Start, AP, I College in HS		college courses		
	Learning Assistance Pro					
	Characteristics:	Characteristics:		Characteristics:	Characteristics:	
	age (student)	age, sex, race/ethnicity		sex, race/ethnicity	earnings	
	sex (student)	grade level		graphic origin	hours worked	
	language (student)	district / school		ncial aid status	industry (sector) of employment	
	race / ethnicity (student)	disability status		transfer	employer characteristics	
	homeless status (student)	Free or Reduced Price eligibility		enrollment (level, object, location)	unemployment benefits	
	adult:child ratio (program)	GPA		credit hours completed/earned		
total hours per week	course-taking (schedule and grade)					
language support (program)	credits attempted and earned	endorsement type	persistence, retention			
	high mobility special education	certificate type course-schedule				
Timeframe:	Timeframe:	Timeframe:	Timeframe:	Timeframe:		
enrollment dates	enrollment dates school year date of graduation or exit	certificate issue date certificate end date school year	enrollment dates / terms year of graduation	quarterly		
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		ACT, SAT				teacher retirement status
	Fiscal information					

To answer research or policy questions, one could go from any box / group on the table and connect to information from another box.

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	home-visiting programs	Highly capable		m			
	ESIT	Career-Technical Education		bas			
	licensed child care	Running Start, AP, IB, College in HS		pre-colle			
	Characteristics: age (student)	Characteristics: age, sex, race/ethnicity	Characteristics: age, sex, race/ethnicity	Charac	age, sex, ra	hours worked	
	sex (student)	grade level	years of experience	geographic origin	financial aid status	industry (sector) of employment	
	language (student)	district / school	highest degree obtained	transfer		employer characteristics	
	race / ethnicity (student)	disability status	grade, program and activity assignment	course enrollment (level, subject, location)		unemployment benefits	
	homeless status (student)	Free or Reduced Price Lunch eligibility	building, district, and county of assignment	credit hours attempted/earned			
	adult:child ratio (program)	GPA	salary	persistence, retention			
	total hours per week	course-taking (schedule and grades)	National Board Certified Teacher				
	language support (program)	credits attempted and earned	endorsement type				
	Timeframe: enrollment dates	Timeframe: enrollment dates school year	Timeframe: certificate issue date certificate end date school year	Timeframe: enrollment dates / terms year of graduation	Timeframe: quarterly		
Outcomes	early childhood assessments (DECA)	graduation		college enrollment	earnings	Department of Corrections	
	kindergarten readiness (not yet available)	MSP, HSPE, WASL: math, reading, writing, science assessment scores		degrees and certificates awarded (major, minor, award type)	hours worked	Incarceration	
		ACT, SAT			industry (sector) of employment	Dept of Retirement Systems	
						teacher retirement status	
	Fiscal information						

What are the K-12 (and beyond) outcomes for ECEAP participants? Are ECEAP participants reading at third grade level at the end of third grade?

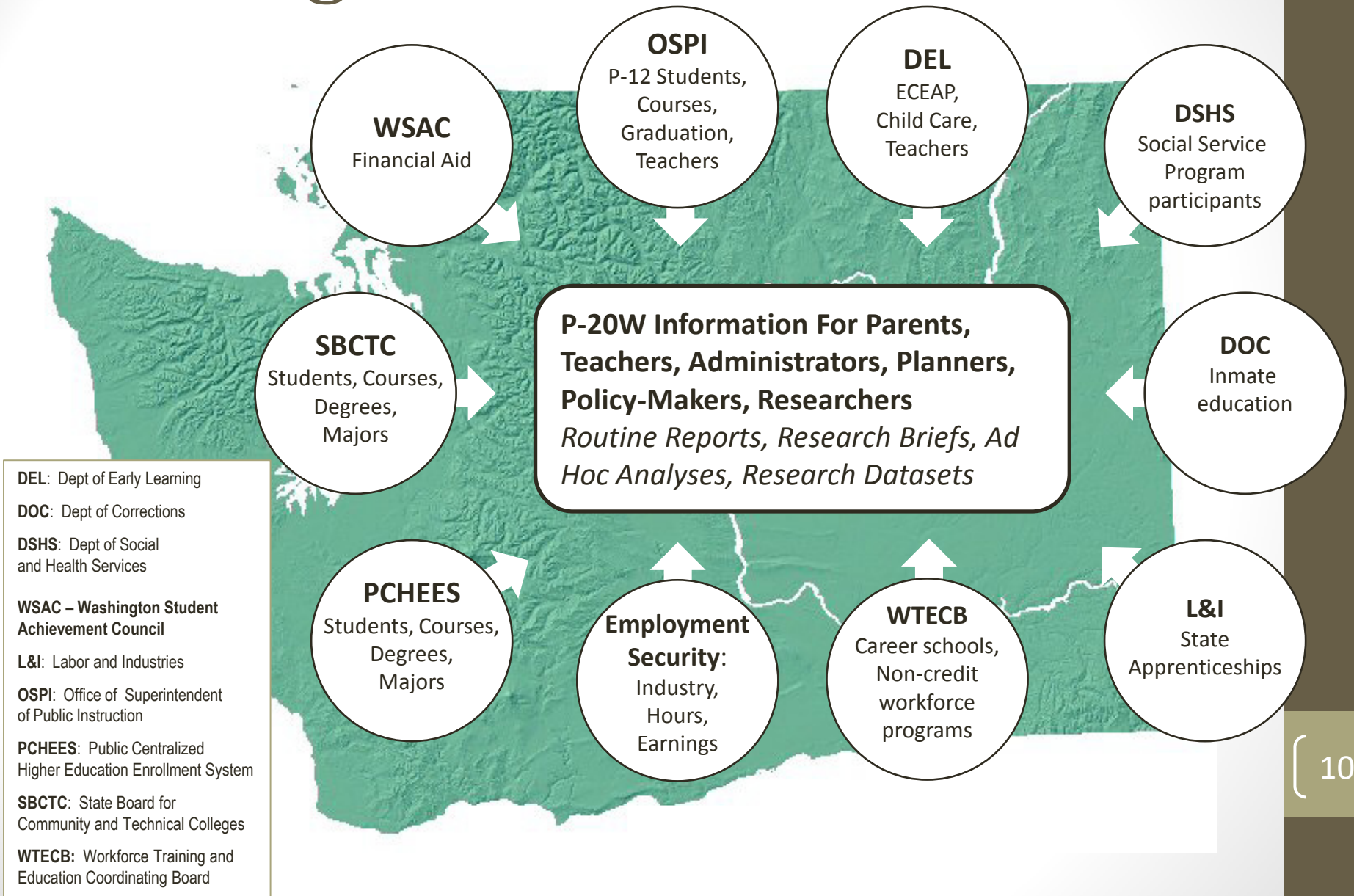
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language support (program)	credits attempted and earned	endorsement type	persistence, retention			
	high mobility	certificate type				
	special education	course-schedule				
Timeframe:	Timeframe:	Timeframe:	Timeframe:	Timeframe:	Timeframe:	
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						teacher retirement status
	Fiscal information					

How is persistence in college related to students' high school courses, grades and test scores, and other characteristics?

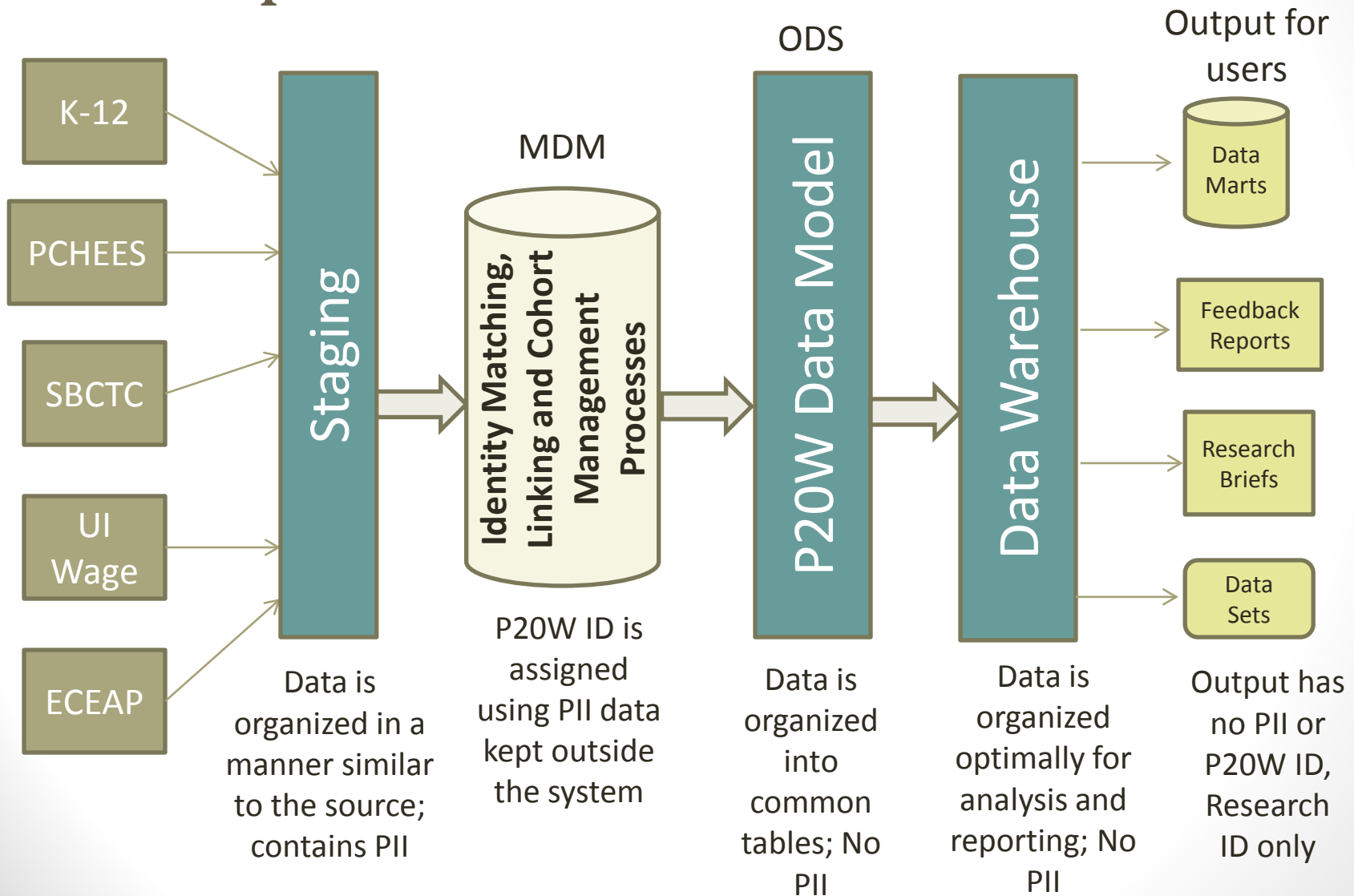
Washington P-20W Data



- DEL:** Dept of Early Learning
- DOC:** Dept of Corrections
- DSHS:** Dept of Social and Health Services
- WSAC – Washington Student Achievement Council**
- L&I:** Labor and Industries
- OSPI:** Office of Superintendent of Public Instruction
- PCHEES:** Public Centralized Higher Education Enrollment System
- SBCTC:** State Board for Community and Technical Colleges
- WTECB:** Workforce Training and Education Coordinating Board

P20W Data Warehouse Project

Conceptual Data Flow



Example of ERDC products

Feedback Reports

P20 for K12 reports - <http://erdccdata.wa.gov>

Research Briefs

Postsec. enrollment patterns - <http://www.erdcc.wa.gov/briefs/pdf/201201.pdf>

See our website for additional publications - <http://www.erdcc.wa.gov/briefs/>

Data Sets

Baccalaureate follow-up

GEAR Up

New Futures

Recently-Asked Questions

<http://www.erdcc.wa.gov/faq/default.asp#text5>

Request process

www.erdcc.wa.gov/data

Coming soon

- Research brief following a cohort of 8th graders and looking at their outcomes
- P20W reports for community and technical colleges
- P20W reports for baccalaureate institutions
- Additional studies by DSHS that utilize the P-20W data

Different Levels of Data

- Level 1 – Highly restricted-use data includes information about the identity of individuals and employers (formal review to ensure request meets 5 FERPA criteria & data share agreement with data contributors required).
- Level 2 – Restricted-use data is at the unit-record level but does not contain individually identifiable information (data share agreement with ERDC required).
- Level 3 – Public-display of data which contains no unit-record data and can be shared without a data share agreement.

State Need Grant Study

- Purpose: Determine to what extent this program has increased access and degree attainment for low-income students...
- Starting cohort: State need grant recipients
- Numerous sources of data
 - Financial aid agency (not in the warehouse)
 - Public post-secondary (in the warehouse)
 - Private post-secondary (not in the warehouse)
- Data from the warehouse and outside the warehouse
- Linking saves researcher time
- Individual-level redacted data to protect privacy

DSHS data set

- Purpose: Study educational outcomes of participants in social services programs
- Starting cohort: Social Services program participants
- HIPAA vs FERPA
 - How can data be linked but privacy is protected?
- Resulting studies (more to come)
 - [HS Outcomes for DSHS-Served Youth](#)
 - [Educational Disabilities Among At-Risk Students](#)
 - [Postsecondary enrollment patterns among recent graduates who received social and health services during high school](#)

Questions?

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