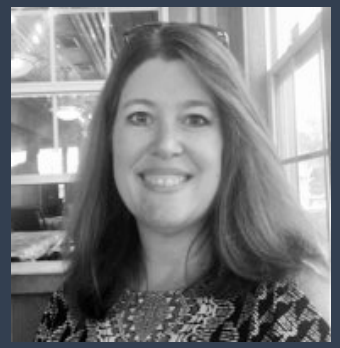
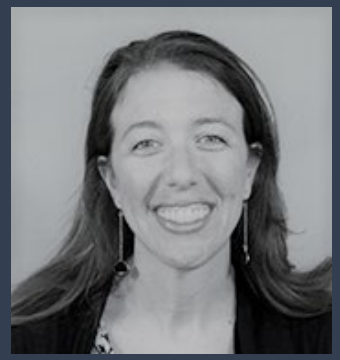
Common Education Data Standards: How States Use This Common Vocabulary for Policy and Research

April 10, 2021

Presenters

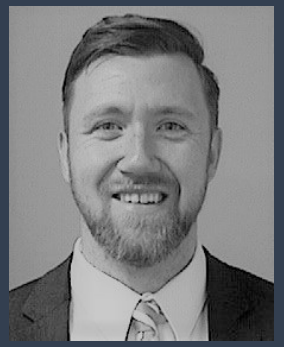


Nancy Copa
AEM
CEDS Project Director

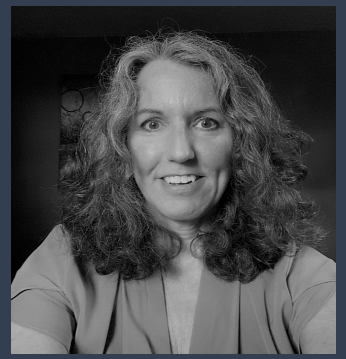


Julia Bloom-Weltman
AEM
Associate Director of Research & Evaluation

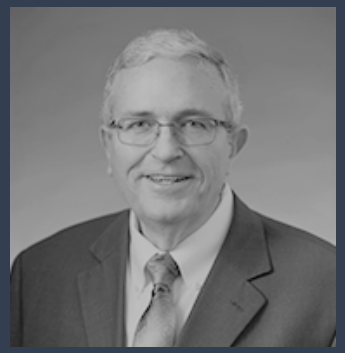
Nancy Sharkey
NCES
CEDS/SLDS Program Lead



Jonathon Attridge
Tennessee Dept of Finance & Administration
Enterprise Data Scientist



Franki Jenkins
KY STATS
System Consultant



Matthew Henry
Child Care Aware
Chief Information Officer

Marc Brodersen
Marzano Research/REL Central
Managing Senior Researcher

Introduction to CEDS

https://ceds.ed.gov/

https://ceds.ed.gov/Researchers.aspx

Common Education Data Standards
SLDS
Privacy Technical Assistance Center
DaSy The Center for IDEA Early Childhood Data Systems
REL REGIONAL EDUCATIONAL LABORATORY PROGRAM
EDFacts
NCEO National Center on Educational Outcomes
CIID CENTER for the INTEGRATION of IDEA DATA

Quiz

WSU15

KELPA

ELP

SLEP1

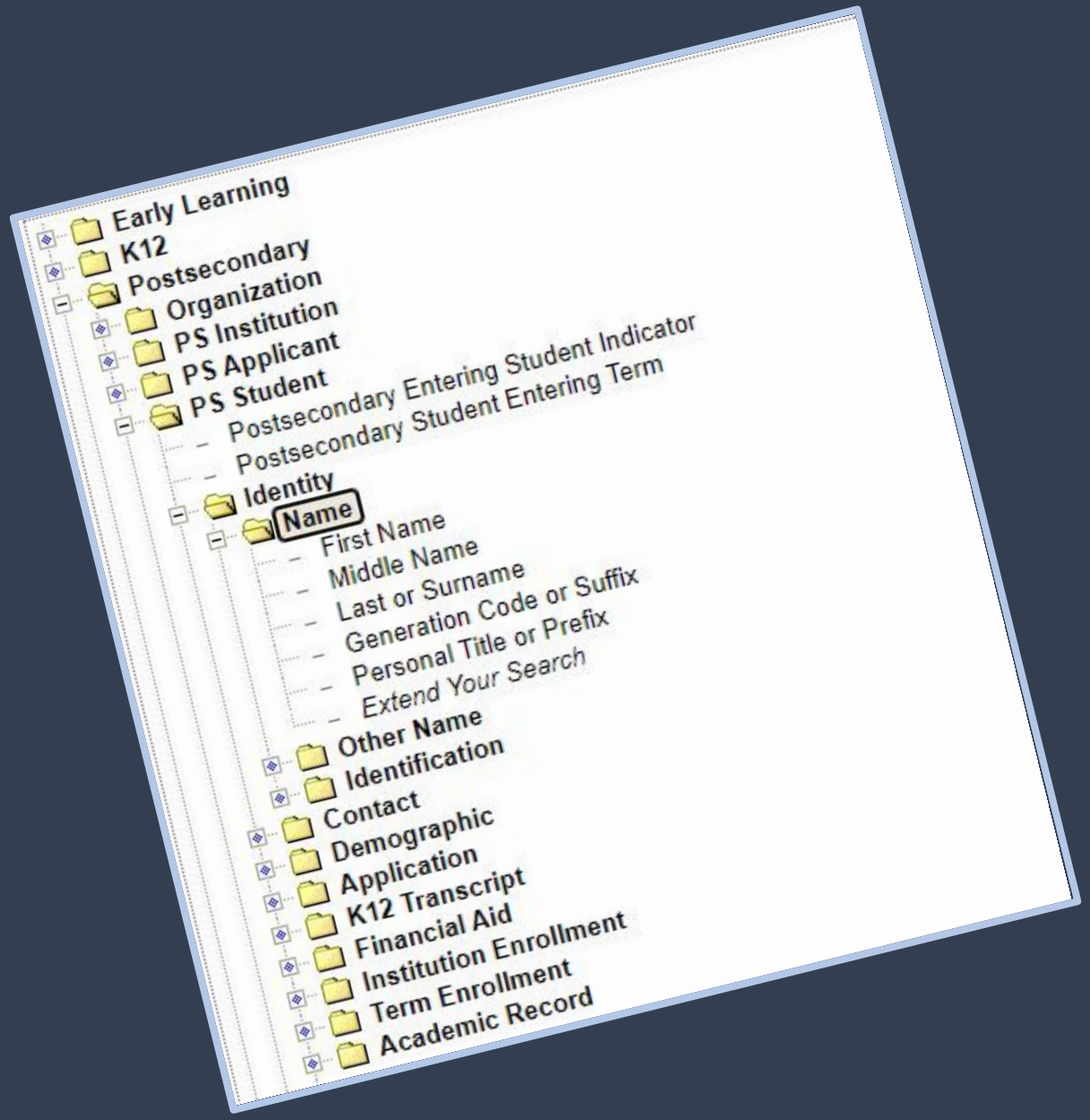
ESL

ELL

LEP

LEPIND

- **CEDS Elements**
- CEDS Align Tool
- CEDS Connect Tool
- CEDS Integrated Data Store
- CEDS Data Warehouse
- Generate Tool



- CEDS Elements
- **CEDS Align Tool**
- CEDS Connect Tool
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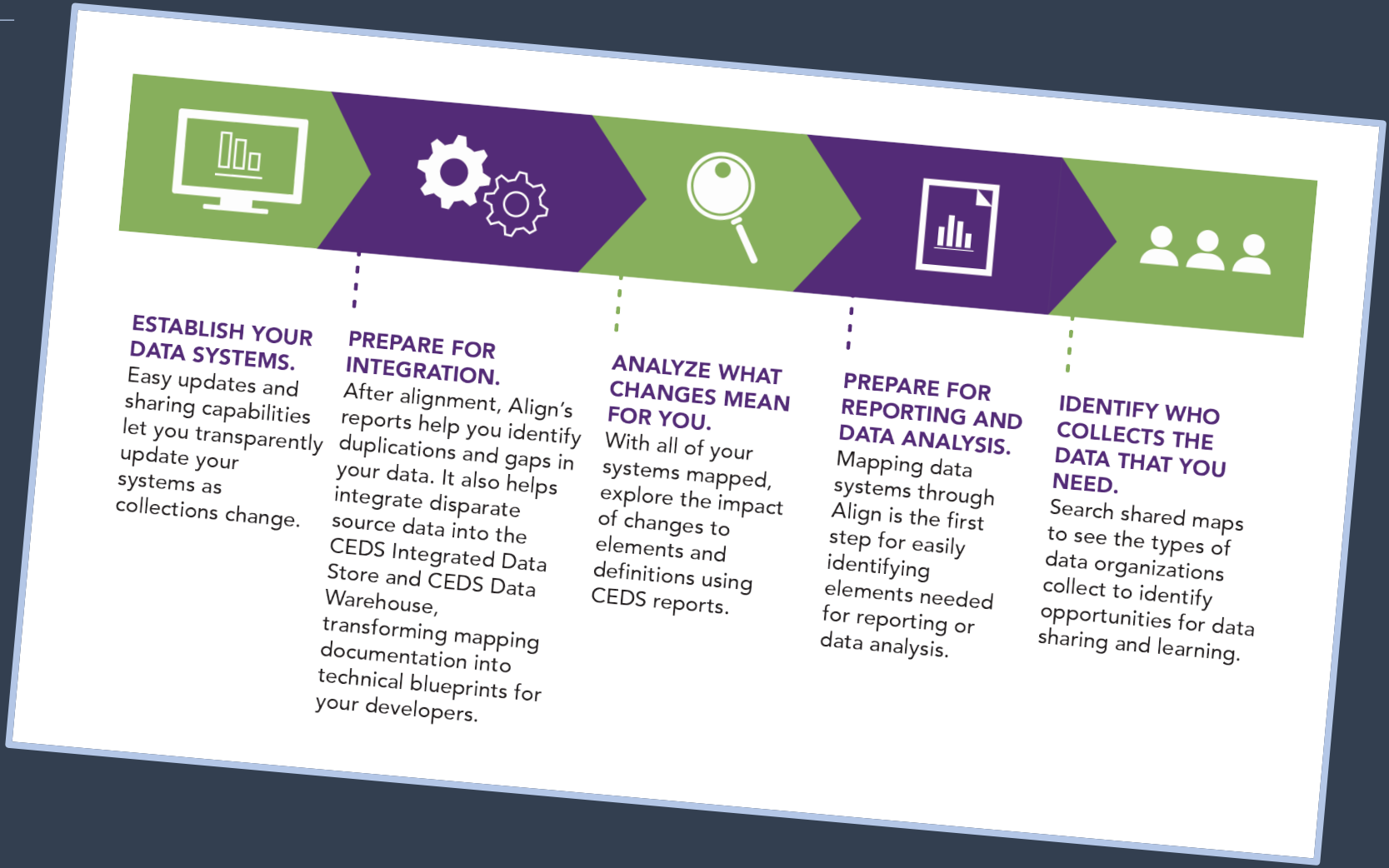

Aligning to CEDS

Example 1	**CEDS Element**
WSU15	= English Learner Status
KELPA	≈ English Learner Status
ELP	= English Learner Status
SLEP1	≈ English Learner Status
ESL	= English Learner Status
ELL	= English Learner Status
LEP	= English Learner Status
LEPIND	= English Learner Status

- CEDS Elements
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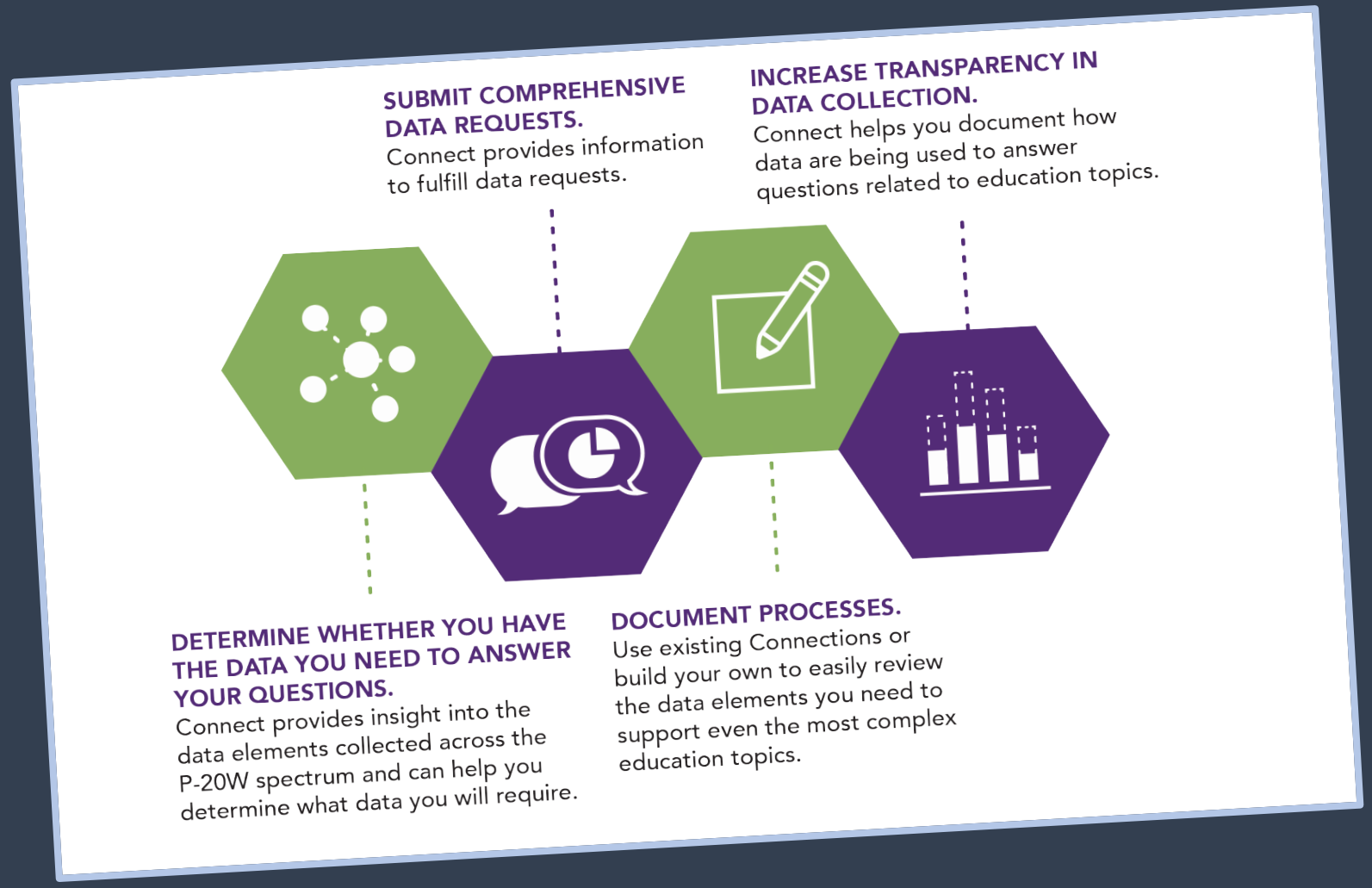
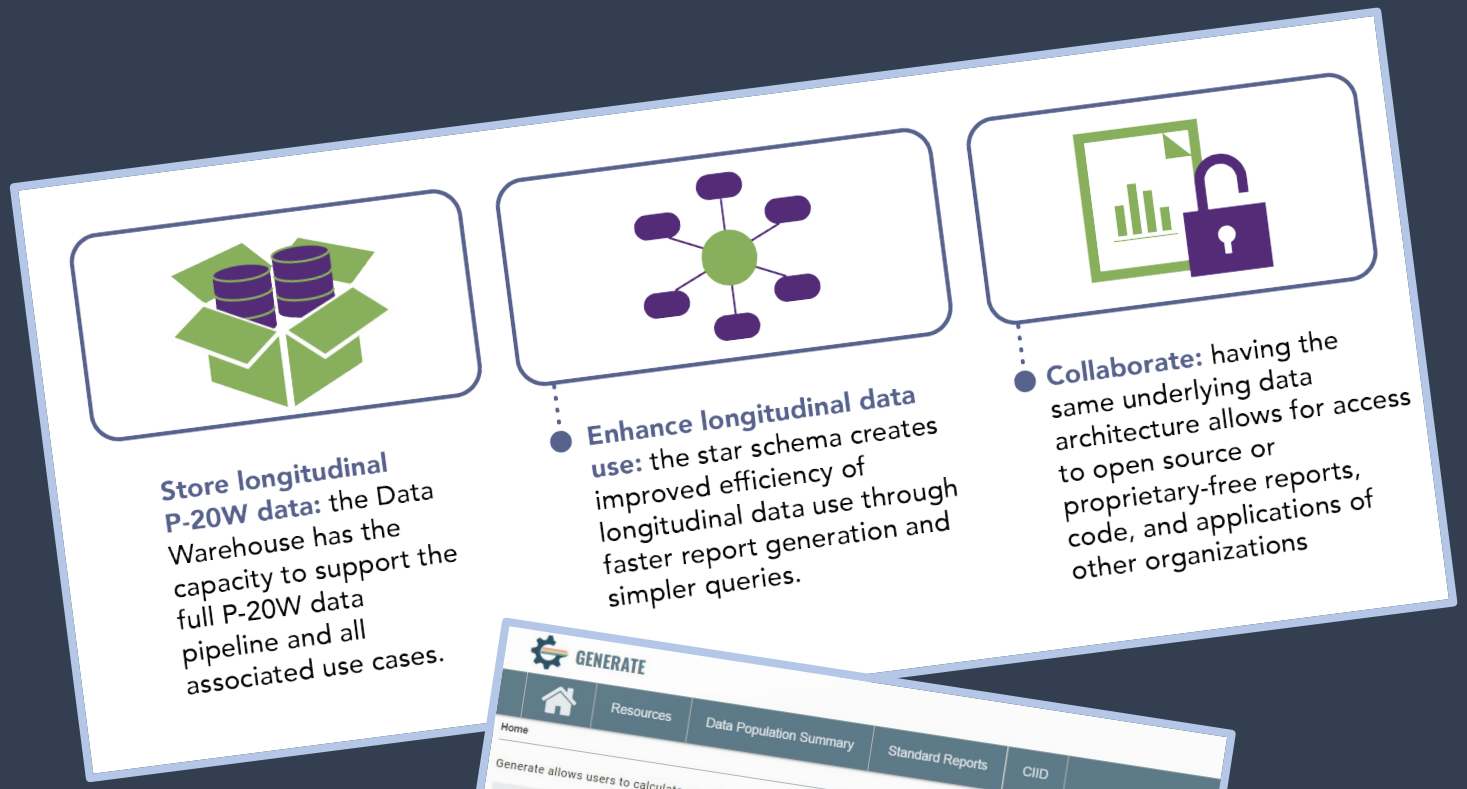


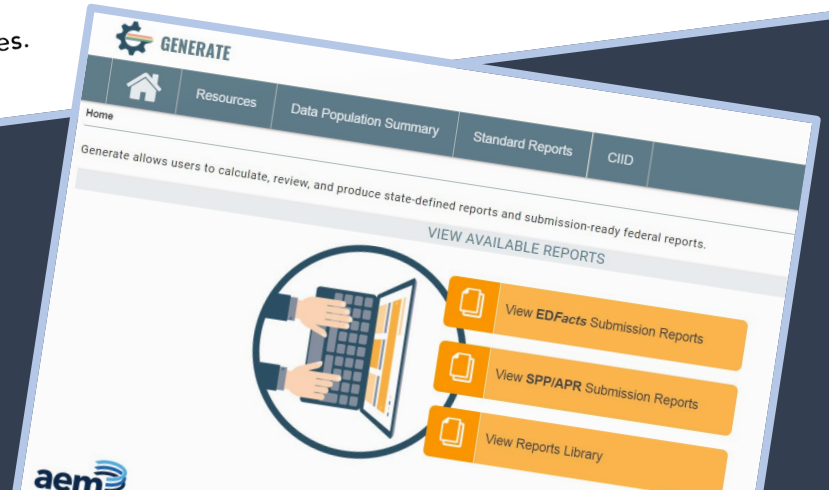
Using / Adopting CEDS as a Vocabulary

How many students with an ***English Learner Status*** = ***Yes*** have an ***Eligibility Status for School Food Service Programs*** of ***Free*** or ***Reduced Price?***

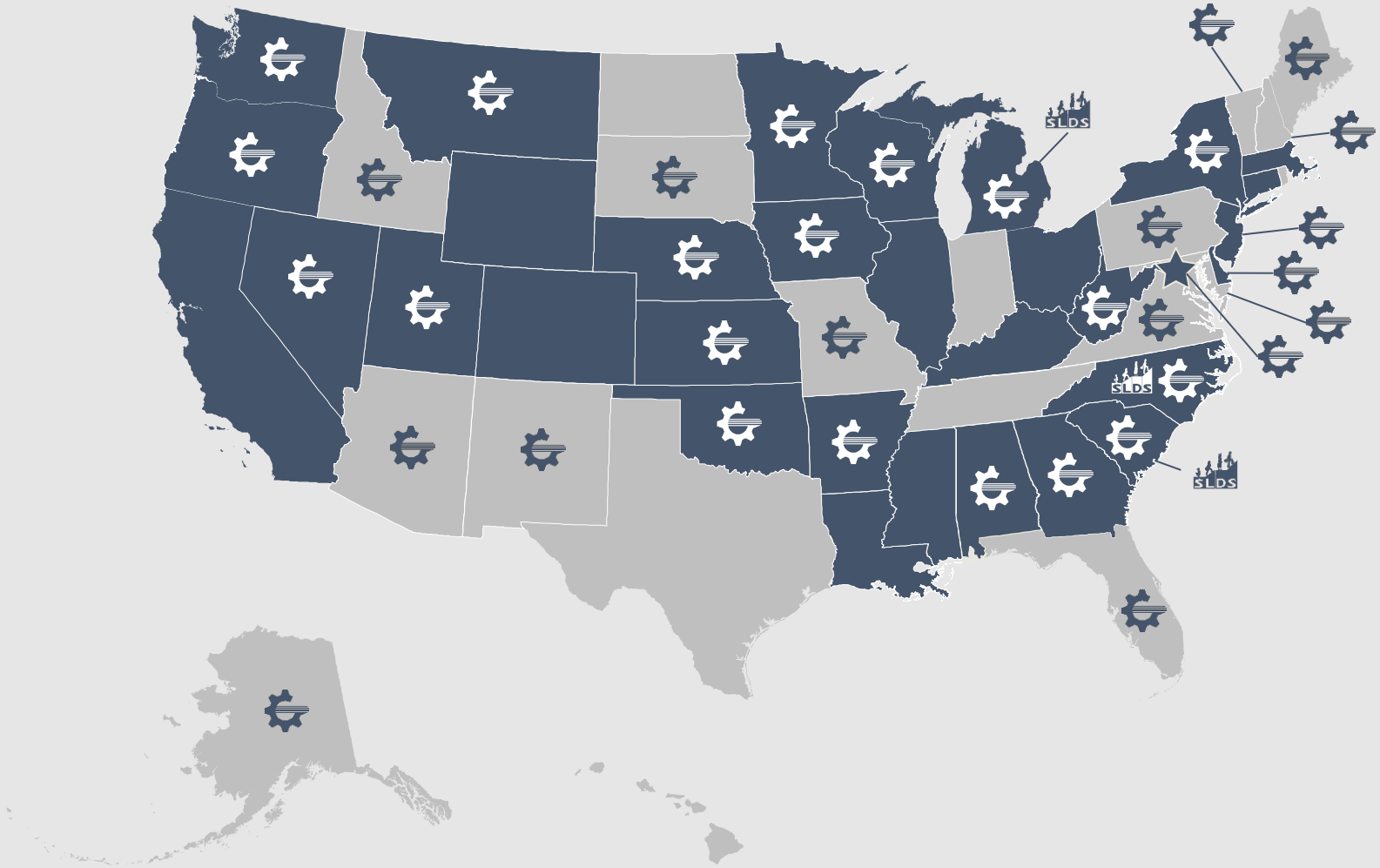
Using / Adopting CEDS as a Vocabulary

- CEDS Elements
- CEDS Align Tool
- CEDS Connect Tool
- **CEDS Integrated Data Store**
- **CEDS Data Warehouse**
- **Generate Tool**





CEDS and Generate State Footprint



States with shared CEDS Align map

States interested in or implementing Generate

States building an SLDS using the CEDS physical data model

State Experiences Using CEDS

TN Department of Finance & Administration

Office of Evidence and Impact

LEVERAGING CEDS FOR RESEARCH

BEST FOR ALL

We will set all students on a path to success.

ACADEMICS

ALL TENNESSEE STUDENTS WILL HAVE ACCESS TO A HIGH-QUALITY EDUCATION, NO MATTER WHERE THEY LIVE

WHOLE CHILD

TENNESSEE PUBLIC SCHOOLS WILL BE EQUIPPED TO SERVE THE ACADEMIC AND NON-ACADEMIC NEEDS OF ALL STUDENTS

EDUCATORS

TENNESSEE WILL SET A NEW PATH FOR THE EDUCATION PROFESSION AND BE THE TOP STATE TO BECOME AND REMAIN A TEACHER AND LEADER

TN Department of Education

Vision

We will set all students on a path to success.

IF WE ARE SUCCESSFUL, THEN TENNESSEE WILL SEE A SUBSTANTIAL INCREASE IN THE NUMBER OF STUDENTS MEETING ATTAINMENT GOALS TWO YEARS AFTER GRADUATION

- Two-year college persistence
- TCAT certificate
- Military enlistment
- Or similar paths

A Brief History of Tennessee, Research, and Data Infrastructure

- Tennessee's STAR Experiment
- Tennessee Value Added Assessment System (TVAAS) (Sanders 1994)
- Statewide Longitudinal Data Systems Grant Program FY 2006
- Race to the Top (First to the Top)
  - Created a P20 system
  - Multi-measure teacher evaluation system
- Drive to 55 and Setting Students Up for Success (SLDS FY 2015)
- Modernizing Data Systems from Cradle to Career (SLDS FY 2019)
- Office of Evidence and Impact (2019)

TN

Office of Evidence and Impact

Investing in What Works to Promote Positive Outcomes

Inventory the Base Budget:

Determine what programs we fund, how much funding there is for each, and their level of evidence.

Include Evidence in Cost Increase Plans:

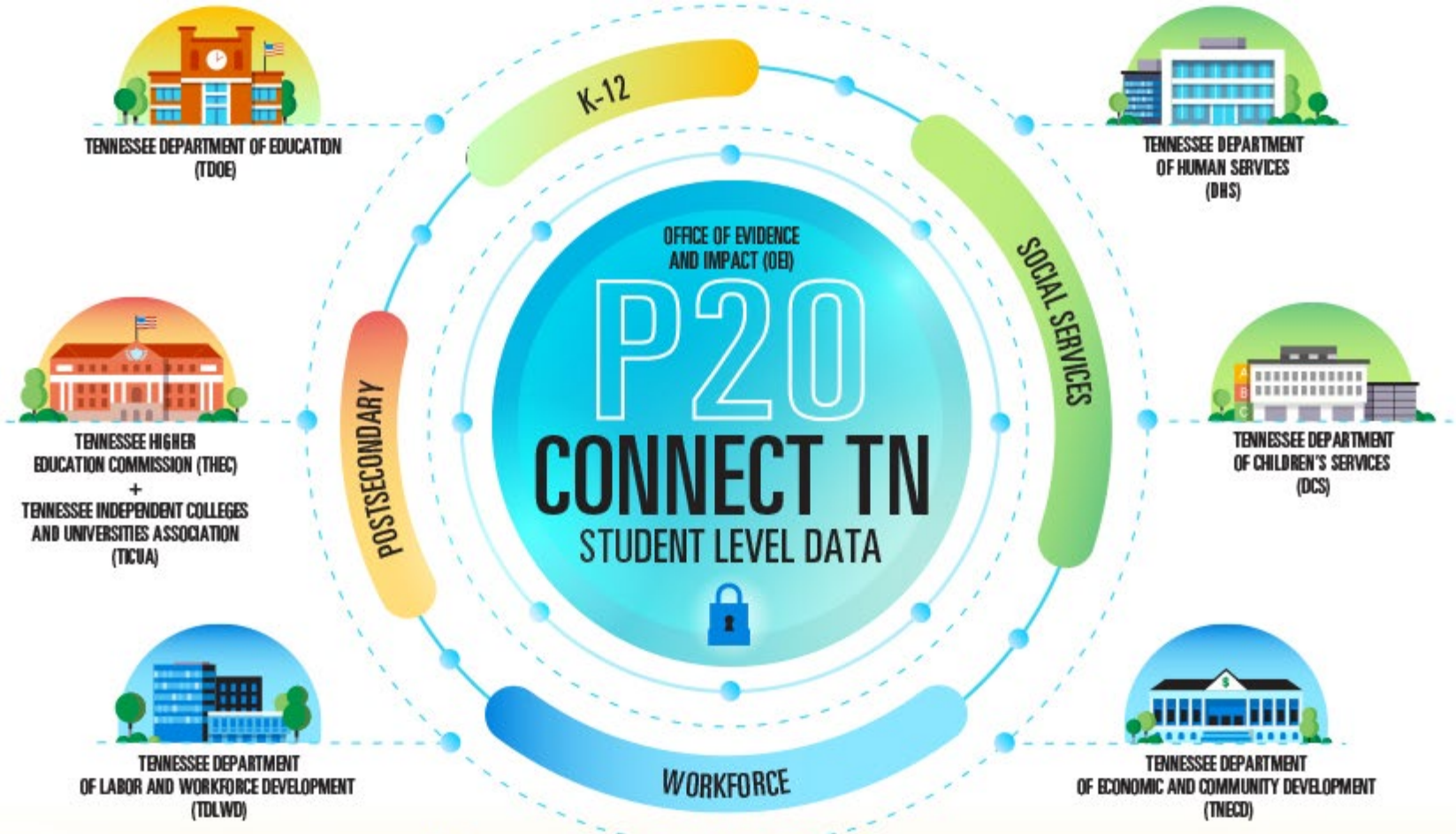
Provide a tool for departments to use that explains the level and type of evidence tied to cost increases.

Streamline Data Management to Improve Data Usage:

Improve the ability for agency data sets to speak to one another in order to answer meaningful questions about program impact.

TN

P20 Connect TN



P20 Connect TN has had a significant focus on research

- **CTEx Lab**
  - Co-PI with Celeste Carruthers (UTK) to study effective practices and policies around Career and Technical Education in a multi-state consortium led by Georgia State University
- **Dual Credit and the Road to College**
  - Steve Hemelt (University of North Carolina) and Sue Dynarski (University of Michigan) evaluated the randomized roll-out of the statewide dual credit Advanced Algebra and Trigonometry
- **Setting Students Up for Success** (IES Statewide Longitudinal Data Systems FY 2015)
  - Matt Ronfeldt (University of Michigan) – Effect of mentor teachers on novice teachers
  - Chris Avery (Harvard University) – School Counseling and effective high school programs and policies
- **Analyzing and Understanding the Educational and Economic Impact of Regional Career Pathways (**Using Longitudinal Data to Support State Education Policymaking)
  - Attridge, Bonilla, Carruthers, Mosley, Dyer, et al. evaluate a key initiative to recognize a certification process for recognizing career pathways programs.

TN

Current State of P20 Connect

- Significant focus on external research without strong knowledge maintenance systems
- No readily accessible key metrics
- Governance structures need better documentation and transparency
- A single and complex method of data access (SQL server)
- Irregular update schedule; no real-time data
- A “Frankenstein system” that has been built with little documentation for over a decade

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In March 2020, Tennessee was awarded the FY2019 SLDS Grant

- Improve the governance, metadata, documentation, and training of all data in P20 Connect TN
- Develop a common API and automate ingestion of data into common API
- Integrate and analyze new sources of data
- Develop a full-scale predictive analytics model that informs the Tennessee Department of Education's 2019 strategic plan, *Best for All*
- Develop a tool for sharing predictive analytics with local stakeholders, with ample support and training opportunities.

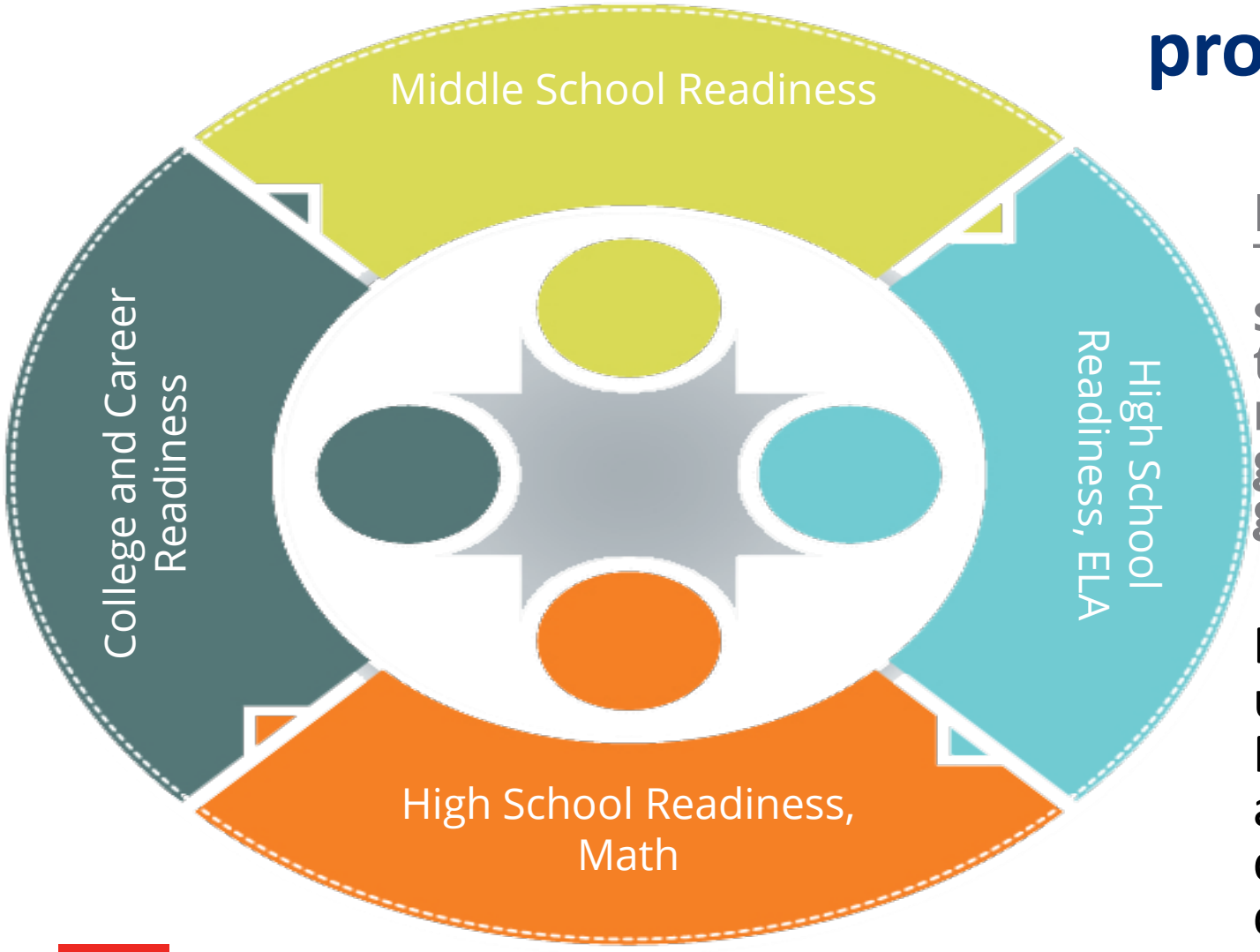
TN

Why Common Education Data Standards?

- Improved data sharing, timeliness, and quality
- Interoperability
  - Transition between systems!!
  - Leverage CEDS to EdFi crosswalks
- Leverage national programs and technology
  - Benefit of not being first!
- Focus on meeting our office's goals
  - If another state is evaluating similar programs, does our data allow us to evaluate and compare.
- Data Requests
  - Handled externally in the past, but we need to be able to improve our data quality internally;
- Scalability

TN

CEDS transition will be program-focused:



If we are successful, then Tennessee will see **a substantial increase in the number of students meeting attainment goals two years after graduation.**

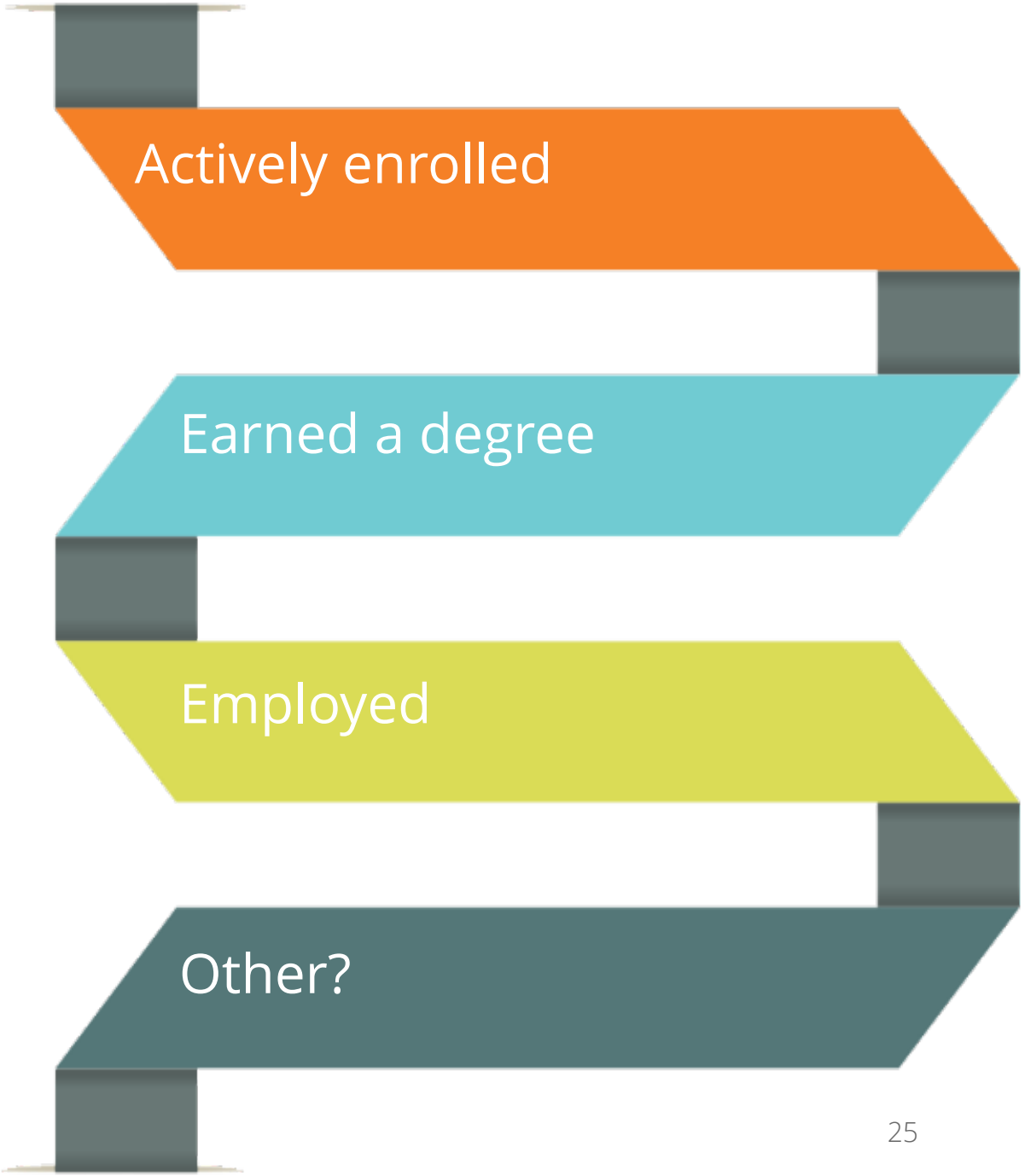
Do our data systems allow us to capture this data? More importantly, can we access and leverage the data to improve the quality of our services?

TN

Calculating the attainment goal

If a student falls into ANY one of these pathways, then he or she is included in the numerator

$$\frac{\text{Success in Any Pathway}}{\text{Ninth Grade Cohort}} = \text{Attainment Goal}$$



Leveraging CEDS will lead to:

TRUST	OWNERSHIP	USE

Mission Statement

P20 Connect TN is Tennessee's longitudinal education-to-workforce data system that connects data across sectors to tell a more complete story of Tennesseans and serves as a catalyst for improvement. Tennessee is committed to transparency and accountability as we work to reach our state goals.

TN

TN Department of Finance & Administration | Office of Evidence and Impact

THANK YOU

JONATHON.M.ATTRIDGE@TN.GOV

Kentucky Center for Statistics

KYSTATS

Uniting our data

Informing our Commonwealth

We

connect data

from

different state agencies

to

better inform

our Commonwealth.

KYSTATS

Kentucky Longitudinal Data System (KLDS)

Powered by KYSTATS

Kentucky Department of Education
- K12 Students
- K12 Teachers
- K12 Staff
- Career/Technical Education
- Teacher/Education Certification
- Governor's Scholar Program
- Adult Education

Council on Postsecondary Education
- Public & Independent Postsecondary

Commission on Proprietary Education
- Proprietary Colleges

Bureau of Labor Statistics
- Labor Market Information

Department of Workforce Investment
- Unemployment Insurance (UI) Claims & Wages
- Workforce Training
- Office for the Blind & Vocational Rehab
- Job Seekers
- Focus

Finance Cabinet - Kentucky Higher Education Assistance Authority
- Financial Aid

Cabinet for Health and Family Services
- Early Learning - Child Care
- Supplemental Nutrition Assistance Program (SNAP)
- Temporary Assistance For Needy Families (TANF)
- SNAP Employment & Training Program (SNAP E&T)
- Medicaid Eligibility and Claims
- Vital Statistics

Kentucky Board of Nursing Medical Licensure Board
- Nursing Licenses

Justice and Public Safety Cabinet
- Corrections

Industry Certification
- National Institute for Automotive Service Excellence (ASE)
- Computing Technology Industry Association (CompTIA)

Other Data Sources
- Kentucky Chamber of Commerce - Talent Pipeline Management
- Governor's Office Of Early Childhood - Head Start

Kentucky Transportation Cabinet
- Driver Licensing

In-Progress Relationships
- Department of Workforce Investment - Apprenticeships
- Justice and Public Safety Cabinet - Department of Juvenile Justice
- Finance & Administration Cabinet - Revenue Data
- Coleridge Initiative - Out of State Education and Employment and Wage Data

KYSTATS GOVERNING BOARD

Education & Workforce Development Cabinet Secretary (CHAIR)

Kentucky Department of Education (KDE) **Commissioner**

Council on Postsecondary Education (CPE) **President**

Kentucky Higher Education Assistance Authority (KHEAA) **Executive Director**

Cabinet for Health and Family Services **Secretary**

KYSTATS

Dictionary/DataDictionary/DatadictionaryIndex | Documentation Management ... | Kentucky Center for Statistics -... | KCEWS Tools

STATS | workbook COT-Charges | P20-Tool!!! | KYHEALTH Project - Dash... | Free Internet Radio Acc... | Convert Coordinates | Convert VB.NET to C# - A ... | HelpDesk | http--www.amazon (2)

Data Elements (These are the data elements for the input flat files.)

Element Name
KPEDS_FirstTimeStudent

Friendly Name
First Time Student Indicator

CEDS Element Name
First Time Postsecondary Student

CEDS Element Data Model ID
37751

Data Type
varchar(1)

File Type
KPEDS_Enrollments

Start Year
2006

End Year

Max Length
1

Order Number

- [x] Active
- [x] Needed in File
- [ ] Required
- [x] Data Dictionary
- [ ] Primary Key
- [ ] Personal Identification
- [x] Population Check
- [x] CEDS Mapping

CEDS Description
A person who has no prior postsecondary experience attending any institution for the first time at the undergraduate level since completing high school

Short Description
Indicates a first time college student. This column is the KLDS source for the first time indicator of a person and is used for reporting purposes.

Long Description
Possible values:
Y = Student is enrolling in postsecondary education for the first time at this particular degree level after graduating from high school
N = Not a first time student

Source Business Rules
This element was previously in the Cohort file but CPE and KCEWS agreed not to send that file as of 2013.

KCEWS Validation

Transformation

Allowable Values (CSV with NO spaces around comma and if value has a single quote i.e. Director's Credential use two single quotes i.e. Director''s Credential)
Y,N,S

CEDS

Notes

History | ←Prev | Next → | Update & Close | Update | Close

KCEWS Tools

Not secure | kcewstools.ky.gov/DataDictionary/DataDictionary/DatadictionaryIndex

Apps | Commonwealth of... | Home | Kentucky Center for... | EKOS - Kentucky Ca... | WageWorks | Campus Communit... | Twitter | KHRIS | Workforce3one.org... | WDQI Community

KCEWS Validation

Transformation

CEDS

Notes

Element: IC_EndStatus

Version: 7.1

	KLDS Value	CEDS Value	Delete
=	Close of Year	Exited	☐
=	Completed GED Program/(	Completed school with oth	☐
=	Dropout - above minimum	Discontinued schooling	☐
=	Dropout - age 16 or older	Discontinued schooling	☐
=	Early Grad/IEP Completer	Other	☐
=	Graduated in five (5) year	Graduated with regular, ac	☐
=	Graduated in four (4) year	Graduated with regular, ac	☐
=	Graduated in less than fou	Graduated with regular, ac	☐
=	Graduated in six (6) or mo	Graduated with regular, ac	☐

nma and if value
o single quotes i.e.

History | ←Prev | Next→ | Update & Close | Update | Close

IC_Exclude | Exclude | varchar(1) | IC_PersonEnrollments

SQLQuery1.sql - EDU1VD-SQKA003,1961.P20 (EDU\FJENKINS (64))* - Microsoft SQL Server Management Studio

File Edit View Query Project Debug Tools Window Help

New Query | Generic Debugger | P20 | Execute | Debug

Object Explorer

Connect

- dbo.EPSB_StudentTeaching
- dbo.ETPL_bldKPEDS2
- dbo.ETPL_bldWages
- dbo.FOCUS_Employer
- dbo.FOCUS_Job
- dbo.FOCUS_Office_Employer
- dbo.FOCUS_Office_Job
- dbo.GSP_Data
- dbo.HANDS_Enrollments
- dbo.HANDS_FamiliesServed
- dbo.HeadStart_Attendance
- dbo.HeadStart_Demo
- dbo.HeadStart_Disability
- dbo.HeadStart_Health
- dbo.HeadStart_Personnel
- dbo.IC_AnnualPerson
- dbo.IC_Assessment_Scores
- dbo.IC_Behavior
- dbo.IC_Courses
- dbo.IC_FRYSC
- dbo.IC_Gifted
- dbo.IC_Health
- dbo.IC_LEP
- dbo.IC_PersonEnrollments
- dbo.IC_Preschool
- dbo.IC_Schools
- dbo.Ic_Schools_Bkp
- dbo.IC_Schools_P20DevBackup_10222(
- dbo.IC_Schools_P20DevBackup_11052(

SQLQuery1.sql - ED...EDU\FJENKINS (64))*

```
46        ,[IC_FinalGPA]
47        ,[IC_ReportedGraduated]
48        ,[IC_FreeReducedLunch]
49        ,[IC_SpecialEducation]
50        ,[IC_Grade_ceds]
51        ,[IC_HomeLanguage_ceds]
52        ,[IC_Status_Code_ceds]
53        ,[IC_End_Status_Code_ceds]
54        ,[IC_FreeReducedLunch_ceds]
55    FROM [P20].[dbo].[IC_PersonEnrollments]
56    where IC_End_Status_Code_ceds is not null
```

100 %

Results | Messages

	ducation	IC_Grade_ceds	IC_HomeLanguage_ceds	IC_Status_Code_ceds	IC_End_Status_Code_ceds	IC_FreeReducedLunch_ceds
1		Second grade	English	Re-entry from the same school with no interrupti...	Student is in a different public school in the same ...	Full Price
2		Kindergarten	English	Re-entry from the same school with no interrupti...	Other	Full Price
3		Kindergarten	English	Re-entry from the same school with no interrupti...	Student is in a different public school in the same ...	Full Price
4		Twelfth grade	English	Re-entry from the same school with no interrupti...	Graduated with regular, advanced, International ...	Full Price
5		Ninth grade	English	Re-entry from the same school with no interrupti...	Transferred to home schooling	Full Price
6		Twelfth grade	English	Transfer from a public school in a different local ...	Student is in a different public school in the same ...	Full Price
7		Tenth grade	English	Re-entry from the same school with no interrupti...	Student is in a different public school in the same ...	Full Price
8		Fifth grade	English	Transfer from a public school in a different local ...	Other	Full Price
9		Seventh grade	English	Transfer from a public school in the same local e...	Student is in a different public school in the same ...	Full Price
10		Twelfth grade	English	Re-entry from the same school with no interrupti...	Graduated with regular, advanced, International ...	Full Price

Query executed successfully. | EDU1VD-SQKA003,1961 (14.0 RTM) | EDU\FJENKINS (64) | P20 | 00:00:00 | 1000 rows

Ready | Ln 49 | Col 29 | Ch 29 | INS

KENTUCKY CENTER FOR STATISTICS

Uniting our data. Informing our Commonwealth.

About KYSTATS | Reports | Labor Market Information | Request Data | Career Explorer | Family Resource Simulator

KYSTATS Request for De-identified Data

Thank you for your interest in Kentucky data. If the specific data you are requesting are not available through our standard reports or de-identified public use data files, please fill out the form below. Additional information may be required to fulfill approved requests and a Data and Information Sharing Agreement is required for any individual level, de-identified data request to ensure data security and privacy in accordance with state and federal laws. **Workforce data are not available at the individual level.**

Individual Level Data Request Form	Aggregate Level Data Request Form
A Data and Information Sharing Agreement is required for any individual level, de-identified data request to ensure data security and privacy in accordance with state and federal laws. *Data & Information Sharing Agreement and Exhibits Template* *Data request and agreement could take up to 4 months to complete.* *KYSTATS operates under a cost recovery model and has developed a reasonable fee schedule for services provided (KRS 151B.133).* *See the FAQ document below for examples of individual level data.*	*No data sharing agreement needed.* *Data request could take up to 3 weeks to complete.* *KYSTATS operates under a cost recovery model and has developed a reasonable fee schedule for services provided (KRS 151B.133).* *See the FAQ document below for examples of aggregate level data.*

- Data Dictionary
- Policy Documents
  - KYSTATS Data Access and Use Policy
  - KDE Policy Documents
  - CPE Policy Documents
  - EPSB Policy Documents
- PTAC Documents
  - PTAC's Data Security Checklist
  - PTAC's Best Practices for Data Destruction
- Public Access Data Files
- FERPA
  - *Please refer to The U.S. Department of Education, Family Policy Compliance Office's Guidance for Reasonable Methods and Written Agreements for additional information on requirements for data sharing under the Family Educational Rights and Privacy Act (FERPA).*
- Contact Us
- FAQs

Kentucky Center for Statistics: Mayo-Underwood Building - 500 Mero Street 5th Floor - Frankfort KY 40601 Office 502-564-4194

Home | About KYSTATS | Reports | Request Data | Labor Market Information | [Provider Log In]

Policies Security Disclaimer Accessibility

KYSTATS Data Dictionary (3) - Excel

A127 | IC_AnnualPerson

	FileTy	Content A	ElementName	FriendlyName	DataTyp	MaxLen	ShortDesc	LongDesc	earAvai	arAva	CEDS_Element_Name
544	IC_Person	PK-12	IC_AbsentDays	Absent Days	decimal(18,3)	9	Number of days the student was absent from school over the time of enrollment		2015		Number of Days Absent
545	IC_Person	PK-12	AcadYr	Academic Year	smallint	2	Academic year of the student - 4 digit year associated with the ending year of the academic calendar (IE 2008-2009 school year = AcadYr 2009)		2009		School Year
546	IC_Person	PK-12	IC_Extra_Year_Primary	Additional Year Prima	varchar(1)	1	If it is determined that a primary student is not prepared for entrance into the fourth grade, an additional year may be offered to the student as a fifth year in the primary program.	1= Y, 0 = N and nulls allowed (Assume No)	2009		
547	IC_Person	PK-12	IC_Diploma_Date	Diploma Date	date	3	The month and year on which the diploma/credential is awarded to a student in recognition of his/her completion of the curricular requirements		2015		Diploma or Credential Award Date
548	IC_Person	PK-12	IC_Diploma_Type	Diploma Type	varchar(50)	50	The type of diploma/credential that is awarded to a person in recognition of his/her completion of the curricular requirements.	Can include the following options: Standard Diploma KY Scholars Honors Diploma Accelerated Diploma Kenton Co Basic Diploma Comprehensive/Vocational College Prep Diploma Career Prep Diploma Secondary GED Alternate Diploma Scholastic Regular Diploma Basic Diploma International Baccalaureate Certificate of Attainment Commonwealth KY Minimum Requirement Diploma Career/Technical Diploma Alternative High School Diploma Gold Seal Diploma District/Stat Approved Diploma Pre college Comprehensive Diploma Distinguished Diploma Academic Honors Diploma Advanced Diploma	2015		High School Diploma Type
								Can include the following options:			

MergedElements

Ready 48 of 1104 records found

Create Connection

ceds.ed.gov/connectCreate.aspx?UseCaseId=5367

Apps | Commonwealth of... | Home | Kentucky Center for... | EKOS - Kentucky Ca... | WageWorks | Campus Communit... | Twitter | KHRIS | Workforce3one.org... | WDQI Community

Common Education Data Standards

Welcome Franki Jenkins (profile) Log Out

19:04 until session times out. Unsaved changes will be lost.

Home | About | Elements | Data Model | Tools | Resources | Contact Us

Connect
My Connections ▶ Manage Connection

Edit Connection

Connect Main Menu | Cancel | Save Changes | Save and Close

* required

Connection Title/Question: * Wage comparison of credential earners leaving the state

Author: * Franki Jenkins

Location: * Kentucky

Source: * KYStats

Description of Connection: * What is the wage comparison for those students moving out-of-state following secondary or postsecondary education in the state compared to those students who remain in the state workforce?

Test/Demo Connection: ☐

Categorization

Currently selected Categories:

- Educational Levels, Degrees, and Organizations->Academic Degrees
- Labor and Employment->Careers
- Educational Levels, Degrees, and Organizations->Credentials
- Labor and Employment->Employment
- Labor and Employment->Employment Patterns
- Human Geography->Geographic Location
- Educational Process: School Perspectives->Majors (Students)
- Occupations->Occupations
- Human Geography->Place of Residence
- Educational Levels, Degrees, and Organizations->Postsecondary Education

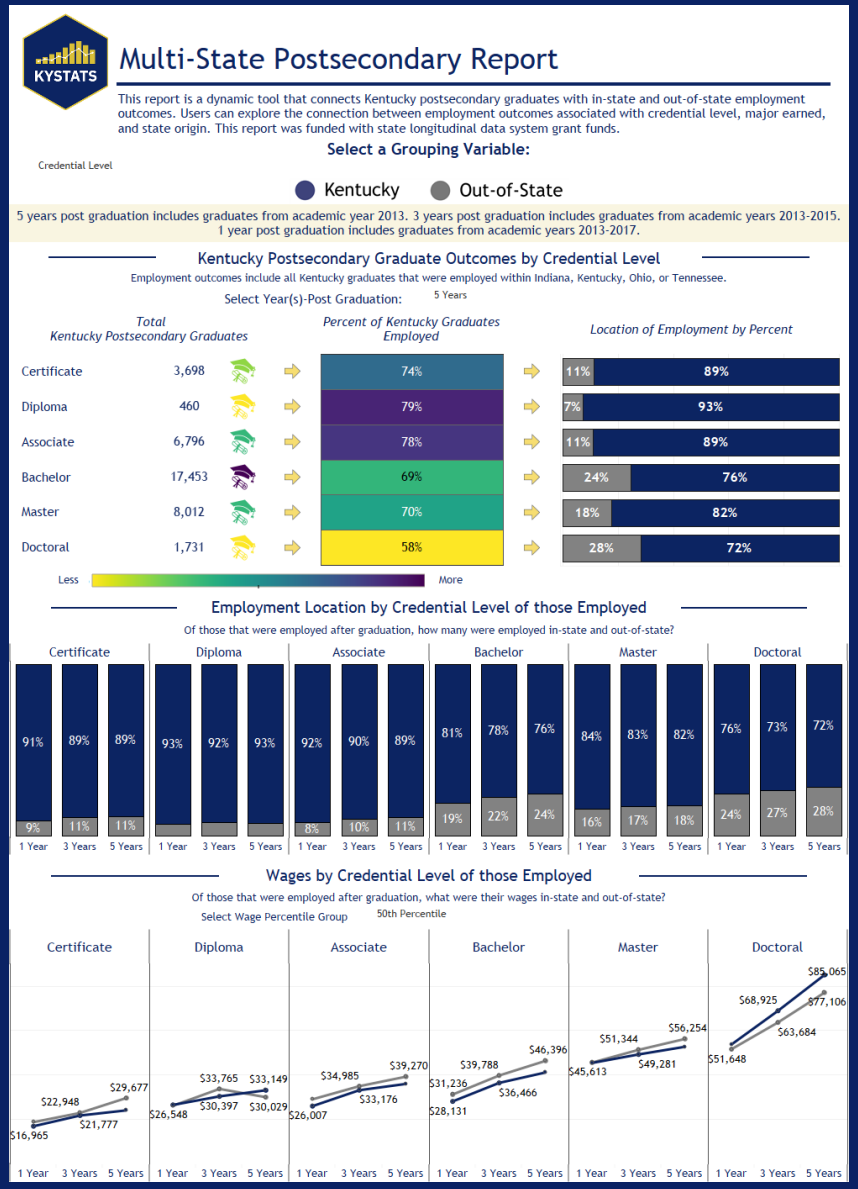
Suggest a New Descriptor

Need Help?

Add Descriptors *

Data Elements

Multi-State Postsecondary Partnership



kystats.ky.gov
@kystats

Franki Jenkins
System Consultant IT

Franki.jenkins@ky.gov

Researcher Experiences Using CEDS

Replicability

Scalability

Transparency

Research Benefits

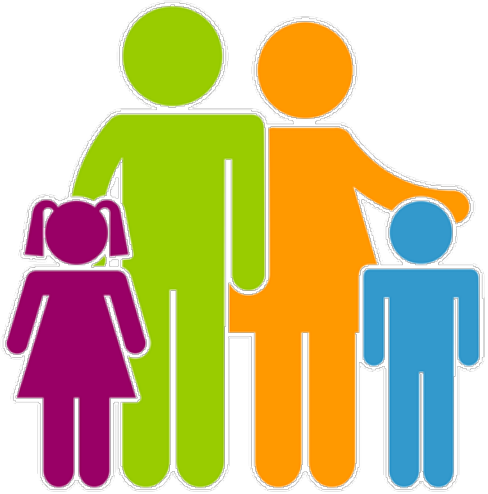
Validity

Reduction of data request iterations

CEDS To Advance the Child Care Field & Enrich Family Access to Services

What CCAoA is Working To Solve

How might we close the gap between parents, child care providers, the community, and policymakers so that every family in the United States has access to a high-quality, affordable child-care system allowing each and every child an equitable opportunity to thrive?



Research Led by CCAoA

Picking Up the Pieces: Building a Better Child Care System Post COVID-19

CCAoA's most recent comprehensive report highlighting child care supply and affordability in every state, with additional data and stories about the impact of COVID-19.

Research Led by CCAoA

Annual reporting of child care landscape in each state

Topics/stats include:

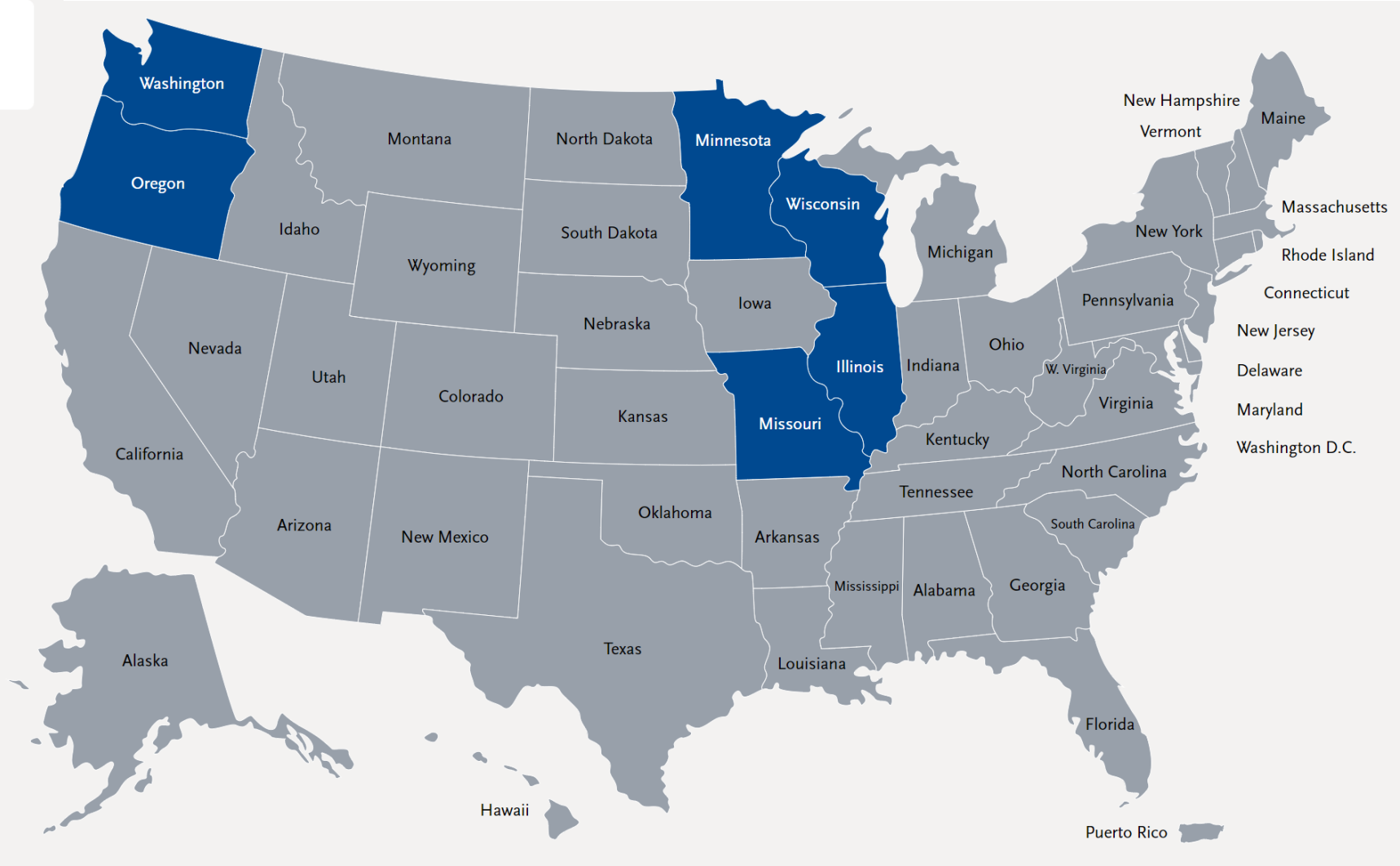
- Total/Licensed capacity by child care setting and age group
- QRIS status, QRIS participation, participation at highest (QRIS) level and number and capacity of accredited programs
- CCR&R training and TA, referrals received by setting and referral mode

Child Care Data Center

Click a state to learn more about the affordability, accessibility, and quality of child care in your state.

- Explore interactive stories as part of the Child Care Data Center.
- Download a State Fact Sheet.

Click here to download all 52 State Fact Sheets.



ChildCare Aware OF AMERICA

Oregon

AFFORDABILITY 2019 | ACCESS 2019 | LEAD EXPOSURE 2019 | COVID-19

! Want To Take Action?

In Oregon, can families afford child care?

Affordability
the average price of child care vs. median household income.

= Price of care as a percentage of median household income = Price of full time child care / Median household income for families with children under 6

Every U.S. family should have access to affordable, quality child care. Individual affordability is affected by different factors, such as regional cost of living and household size, shape what makes child care affordable, or unaffordable, for a family. Many families, especially those with low incomes, pay much more than 10%.

Price varies by the setting type (center- or home-based) and age of child. We look at affordability for dual-income families & single-parent families. Use the graphics below to explore child care affordability in Oregon.

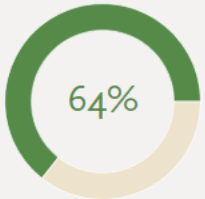
Please note that not all child care providers in the state supplied price data.

Filter By: Family Type All | Setting Type All | Child Age All

In **Oregon**, the average monthly price of full-time child care is **$805** per **child** in **child care**. That's **16%** of the median household income for a **family** with children under 6.

In **Oregon**, a **family** with at least one child under 6 and earning **25%** of median household income pays **64%** of their income on **child care** for every **child** enrolled.

25 % OF MEDIAN INCOME

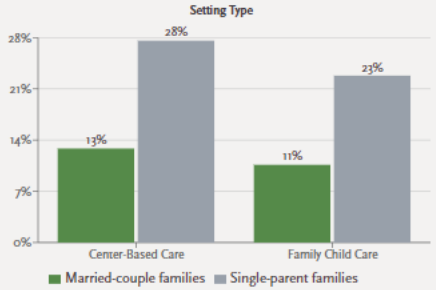


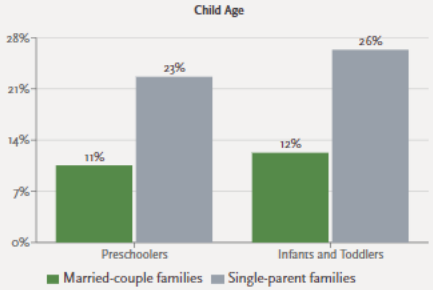
Affordability Of Care By Family Type

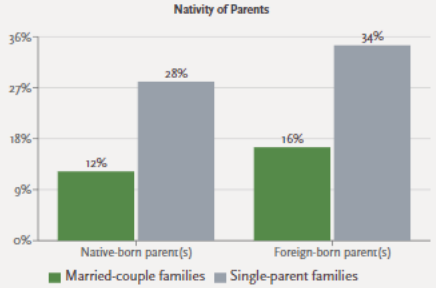
In **Oregon**, married-couple families pay, on average, **13%** of their income for child care.

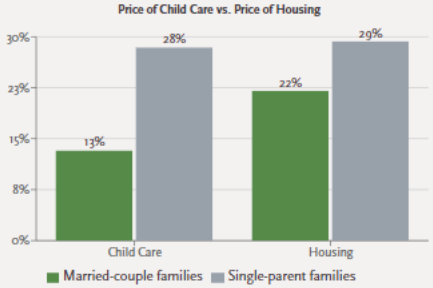
Single-parent families pay, on average, **28%** of their income for child care.

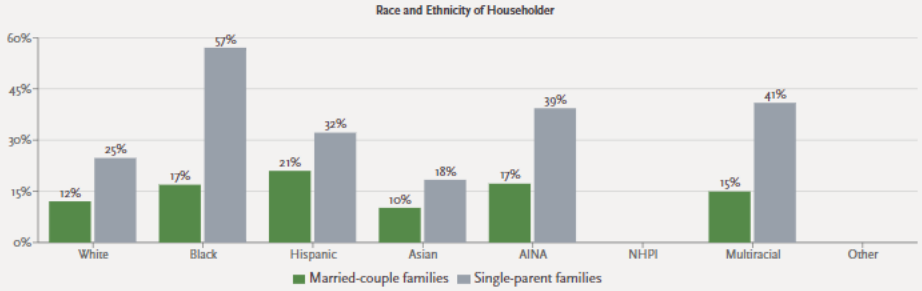
Affordability varies by setting, child age, race and ethnicity, and nativity.



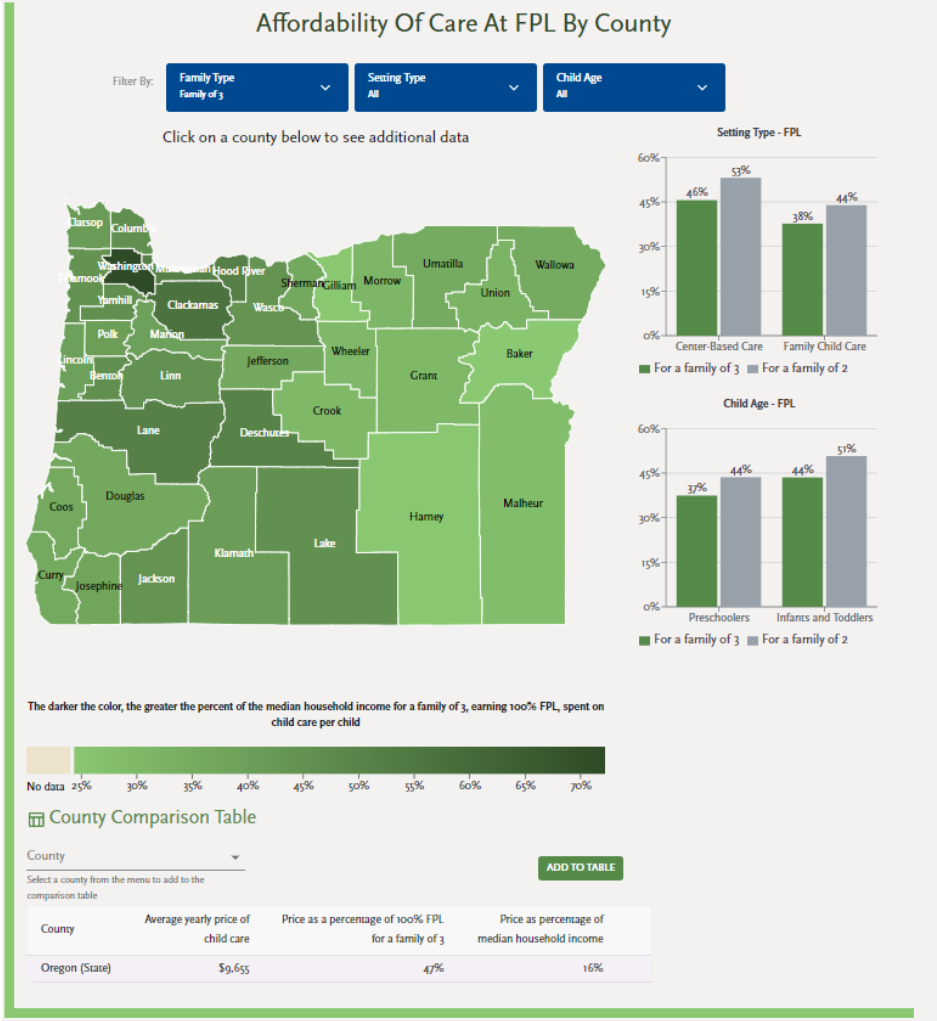








Can families at Federal Poverty Level (FPL) afford care?



2020 State Fact Sheet

MONTANA

Children in Montana

Children under six: 74,876

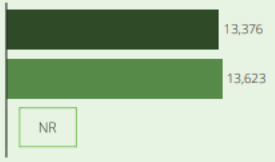
Children with all parents in the workforce: 45,589

Children at or near poverty level: 32,621

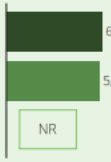
Child Care Spaces

2018 | 2019 | As of July 2020

Child Care Center Spaces



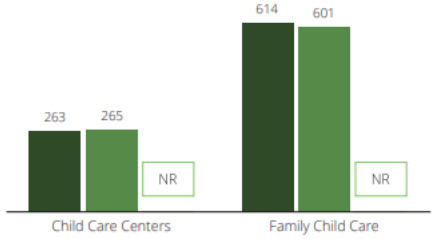
Family Child Care Spaces



childcareaware.org

Child Care Programs

2018 | 2019 | As of July 2020



Child Care Affordability

			% of Median Income - Married Couple	% of Median Income - Single Parent
Infant	Child Care Center	NR	NR	NR
	Family Child Care	NR	NR	NR
Toddler	Child Care Center	NR	NR	NR
	Family Child Care	NR	NR	NR
4-year-old	Child Care Center	NR	NR	NR
	Family Child Care	NR	NR	NR
Before/After School	Child Care Center	NR	NR	NR
	Family Child Care	NR	NR	NR

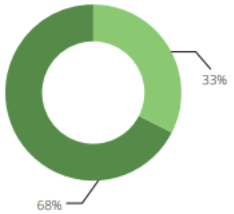
Child Care Affordability Cont'd

			% of Median Income - Married Couple	% of Median Income - Single Parent
Full-Time Summer	Child Care Center	NR	NR	NR
	Family Child Care	NR	NR	NR
Two Children	Child Care Center	NR	NR	NR
	Family Child Care	NR	NR	NR

CCR&R Services

54,938
referrals received

Requests for Center-based Care | Requests for Family Child Care | Not Specified



2,947
non-standard hours requests

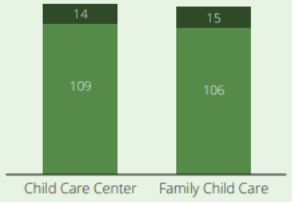
Child Care Quality

% of Nationally Accredited Programs

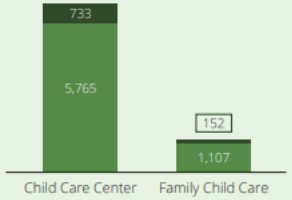
NR

Quality Rating and Improvement System

Programs in QRIS not at Top Level | Programs in QRIS at Top Level



Capacity of Programs in QRIS not at Top Level | Capacity of Programs in QRIS at Top Level



Contacts

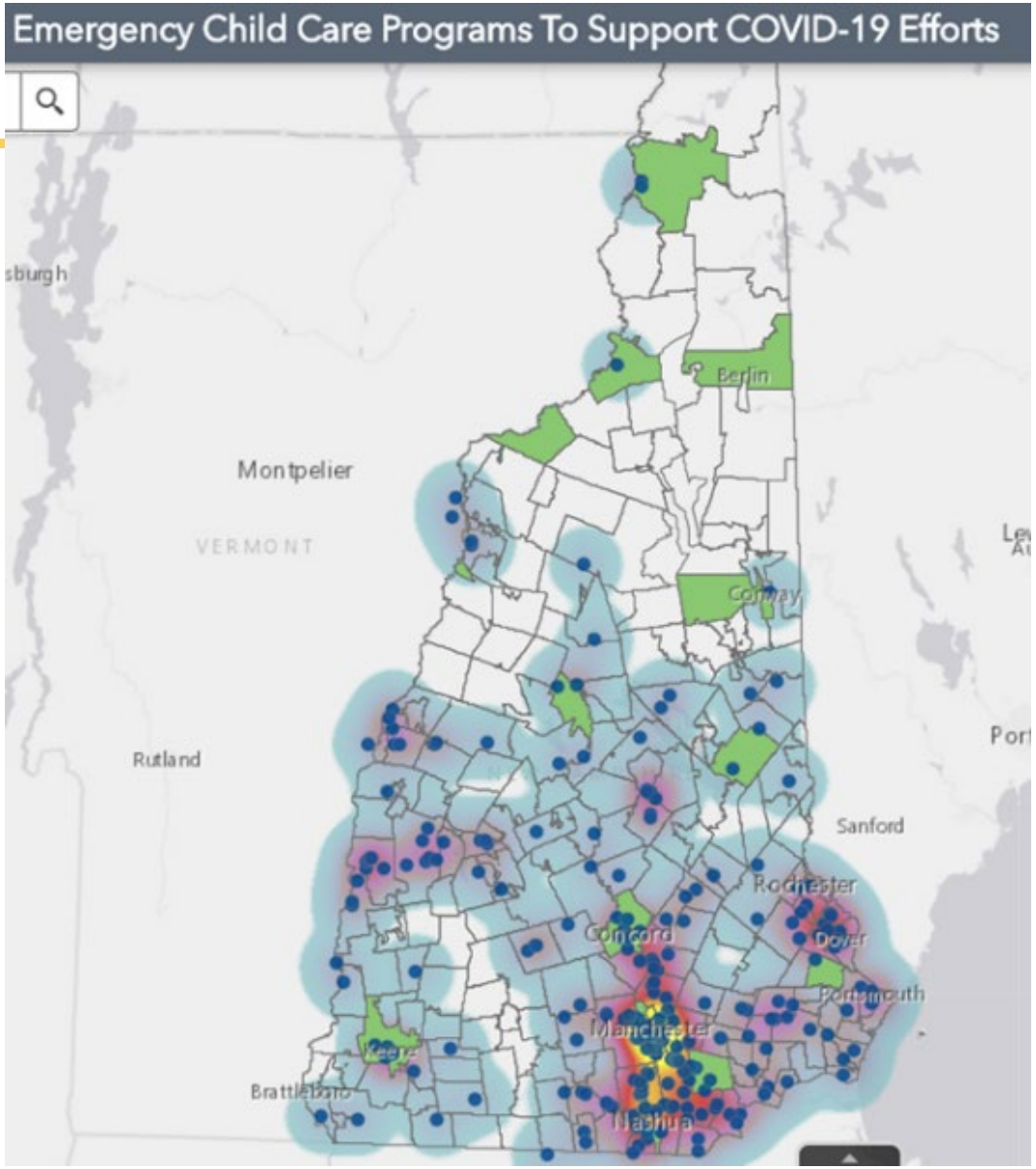
MONTANA DPHHS
www.dphhs.mt.gov/hcsd/ChildCare

ChildCare Aware OF AMERICA
childcareaware.org

Research Led by CCAoA

Mapping the Gap™

- Supply and demand of quality child care in targeted mapping projects with intensive work with a state's CCR&R/CCR&R network

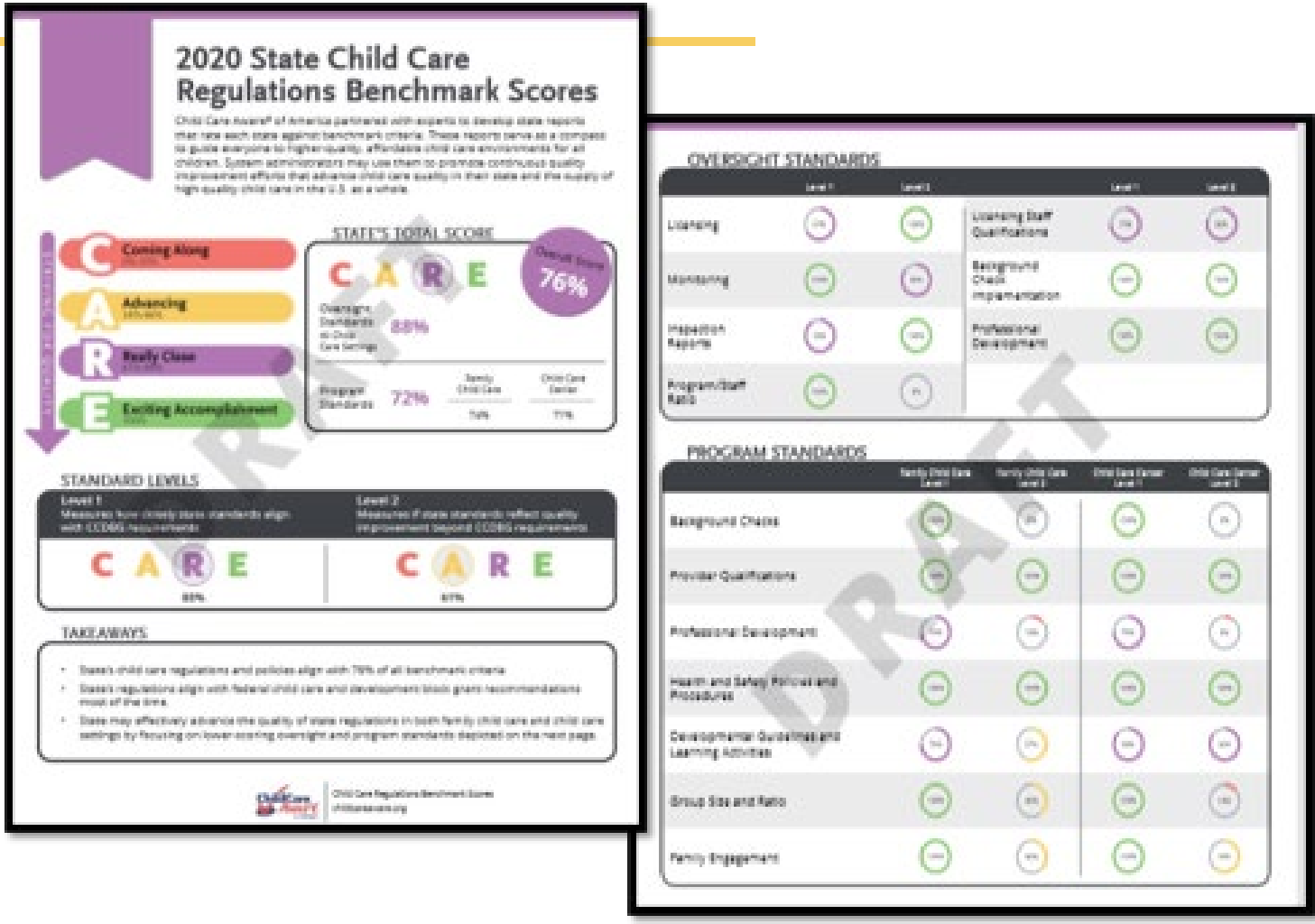


ChildCare Aware OF AMERICA

Research Led by CCAoA

Child Care Benchmarking Licensing Project

- Documenting and analyzing state child care licensing regulations



ChildCare Aware® OF AMERICA

WELCOME

to the

Child Care Data Center

powered by

NORC | DATA ENCLAVE mtna

LOG IN

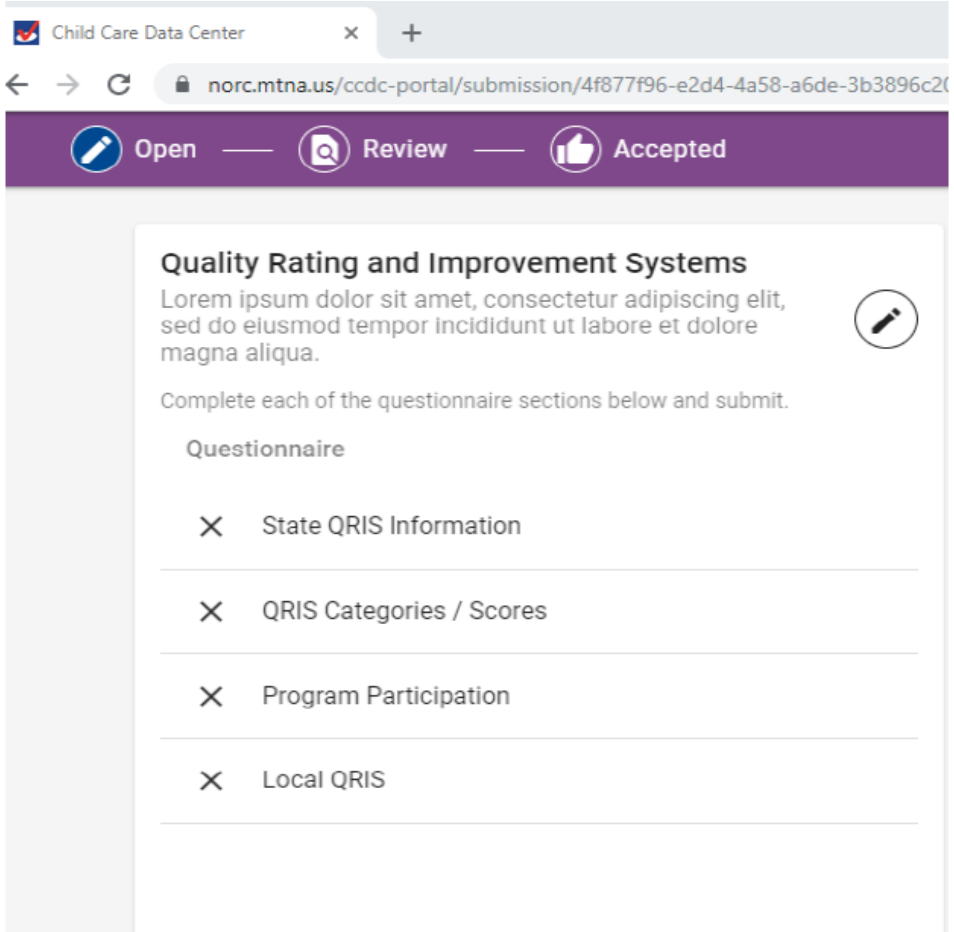
Email *

Password *

LOG IN

Forgot your password?

CCDC Data Portal



X This section is not complete. Click continue to work on this section of your submission or go to your tasks to see what steps are required to complete this section.

✓ This section is complete. No further action is required for this specific section.

CCDC Data Portal: Data Review and Cleansing

Open — Review — Complete

Data Files

Data Review and Cleansing
Optional

Quality Assurance

Review

Data Review and Cleansing

Review and omit records from your datafiles.

(Optional)

Review all the records from your data files. If there are any duplicates, be sure to omit the records. You may also omit any other records you do not want in the final submission. At anytime you can run quality assurance tests to check the validity of the data and review aggregate values with the applied omissions. To inspect a variable and apply filters, open the inspector by clicking on the variable name in the column headers below.

All | Duplicates | Omitted

Review and check any records you wish to omit.

Variables per page 15 1 - 15 of 17

Omit	Submission State	Reference Period	Provider ID	Provider ID CCAoA	Provider ID State	Provider ID CCR&R	Care Type CCAoA
☐	MD		1	1	1	1	(CCC) Head Sta
☐	MD		1	1	1	1	(CCC) Head Sta
☐	MD		2	2	2	2	School Age Pro
☐	MD		2	2	2	2	School Age Pro
☐	MD		3	3	3	3	School Age Pro
☐	MD		3	3	3	3	(CCC) Summer
☐	MD		4	4	4	4	School Age Pro

Rows per page 20 1 - 6 of 6

Submission State

DETAILS | Filter

Data Type
TEXT

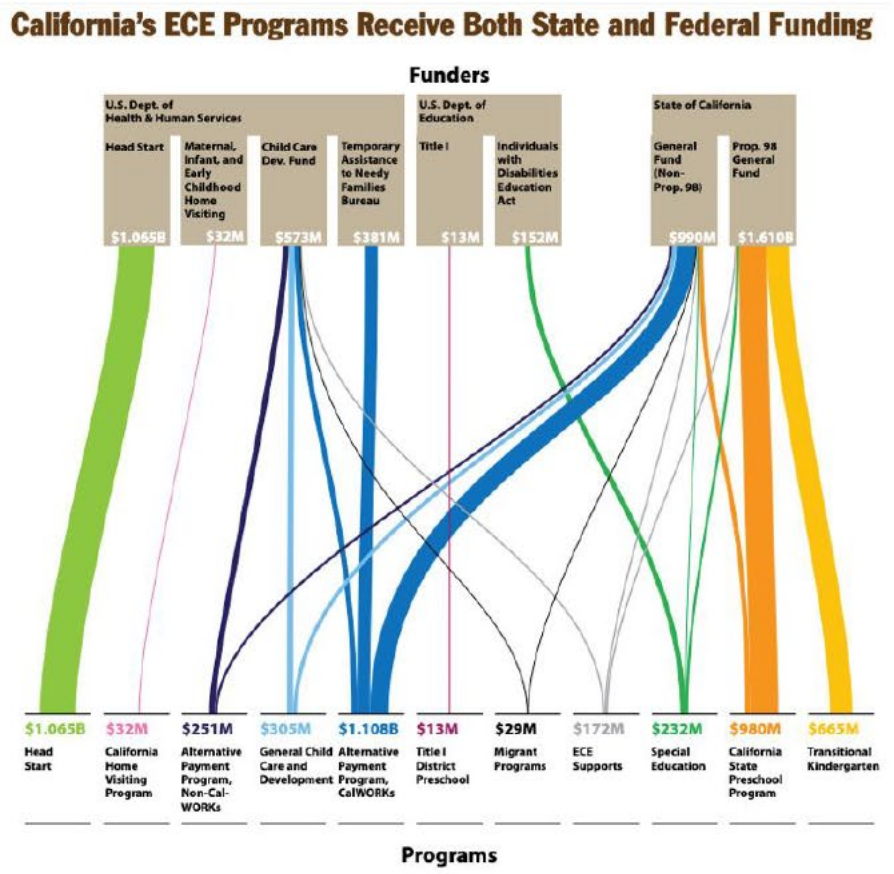
Fixed Storage Width
2

Data Types & Sources Used by CCAoA

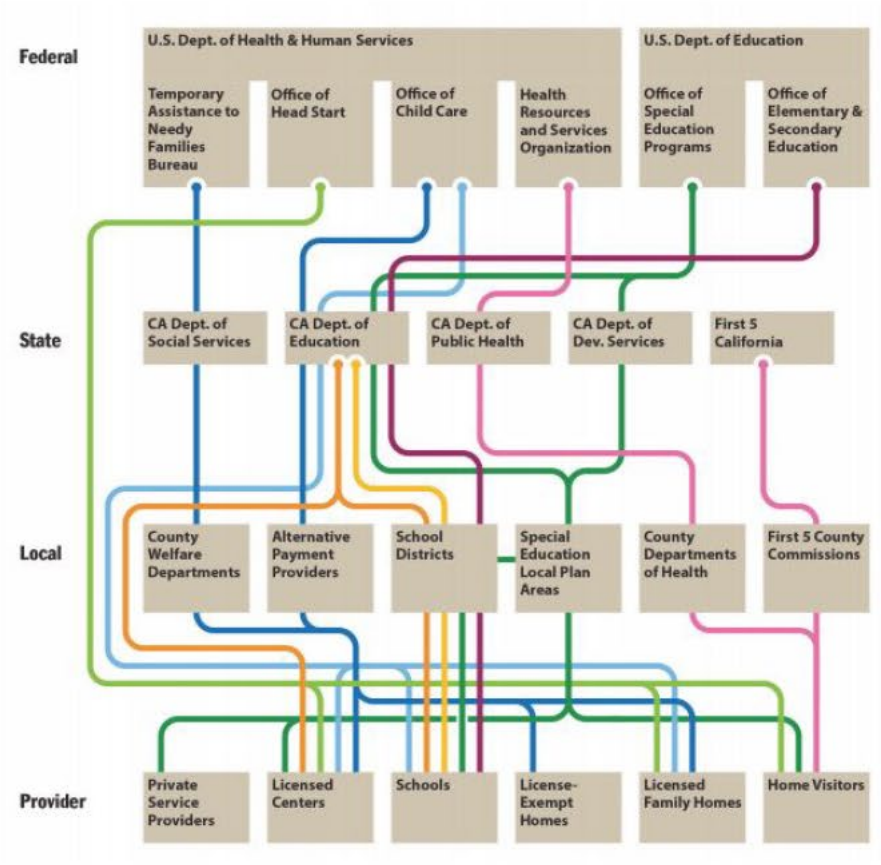
- Supply
  - Provider Dataset (78 elements)
- Demand
  - Family Referral
- State Systems
  - Subsidies
  - Licensing

id	name	label	presence	default
provider_id	provider_id	Provider ID	required	
provider_id_ccaoa	provider_id_ccaoa	CCAoA Provider ID	n/a	
provider_id_state	provider_id_state	State Provider ID	recommended	
provider_id_ccrr	provider_id_ccrr	CCR&R Provider ID	recommended	
business_name	business_name	Business Name	required	
address1	address1	Address line 1	required	null
address2	address2	Address line 2	optional	null
city	city	City	required	null
state	state	State	required	null
zip	zip	Zip	required	null
latitude	latitude	Latitude	optional	null
longitude	longitude	Longitude	optional	null
county	county	County	optional	null
county_geocode	county_geocode	County GeoCoded	n/a	null
contact	contact	Contact name	optional	null
phone	phone	Phone number(s)	optional	null
fax	fax	Fax number	optional	null
website	website	Web site / URL	optional	null
state_toc_code	state_toc_code	Type of Care (Code)	optional	
state_toc_name	state_toc_name	Type of Care	required	
setting_type	setting_type	Setting Type	required	
is_registered	is_registered	Is Registered/Certified	required	
license_type	license_type	License Type	required	
is_head_start	is_head_start	Is Head Start	recommended	no
is_school_age_only	is_school_age_only	Is School Age Only	recommended	no
is_faith_based	is_faith_based	Faith Based	recommended	no
is_subsidies_eligible	is_subsidies_eligible	Subsidies Eligible	required	
is_subsidized	is_subsidized	Is Subsidized	recommended	
subsidized_total_slots	subsidized_total_slots	Number of subsidized slots available	recommended	
subsidized_infant_slots	subsidized_infant_slots	Number of subsidized infant slots available	recommended	
subsidized_toddler_slots	subsidized_toddler_slots	Number of subsidized toddler slots available	recommended	
subsidized_preschool_slots	subsidized_preschool_slots	Number of subsidized pre-school slots available	recommended	
subsidized_school_slots	subsidized_school_slots	Number of subsidized school slots available	recommended	
subsidized_total_slots_used	subsidized_total_slots_used	Number of subsidized slots used	recommended	
subsidized_infant_slots_used	subsidized_infant_slots_used	Number of subsidized infant slots used	recommended	
subsidized_toddler_slots_used	subsidized_toddler_slots_used	Number of subsidized toddler slots used	recommended	
subsidized_preschool_slots_used	subsidized_preschool_slots_used	Number of subsidized pre-school slots used	recommended	
subsidized_school_slots_used	subsidized_school_slots_used	Number of subsidized school slots used	recommended	
accredited	accredited	Accredited	recommended	
qris_participation	qris_participation	Participates in QRIS	recommended	
qris_rating	qris_rating	QRIS rating	recommended	
qris_participation_local	qris_participation_local	Participates in local QRIS	optional	
operation_hours	operation_hours	Hours of operation	recommended	
operation_days	operation_days	Days of operation	recommended	
accepts_parts_b_c	accepts_parts_b_c	Accepts children receiving Part B or C	optional	
age_min	age_min	Minimum age	optional	
age_max	age_max	Maximum age	optional	
languages	languages	Spoken Languages	optional	
rate_fee	rate_fee	Rate / Fee	required	

ECE Systems are Extremely Complex



For Parents



For Providers

CCAoA's Impact Achieved with Data, Analysis and Research

- **Provide decision makers with data and trusted research** they need to inform their choices.
- **Shape public discussions and advocacy efforts** around the cost, quality and access to child care.
- **Inform improvements in health and safety regulations** that will protect young children's lives.
- **Influence policy** at federal-, state-, and community-level.

ECE System Gaps

Early Learning (EL)

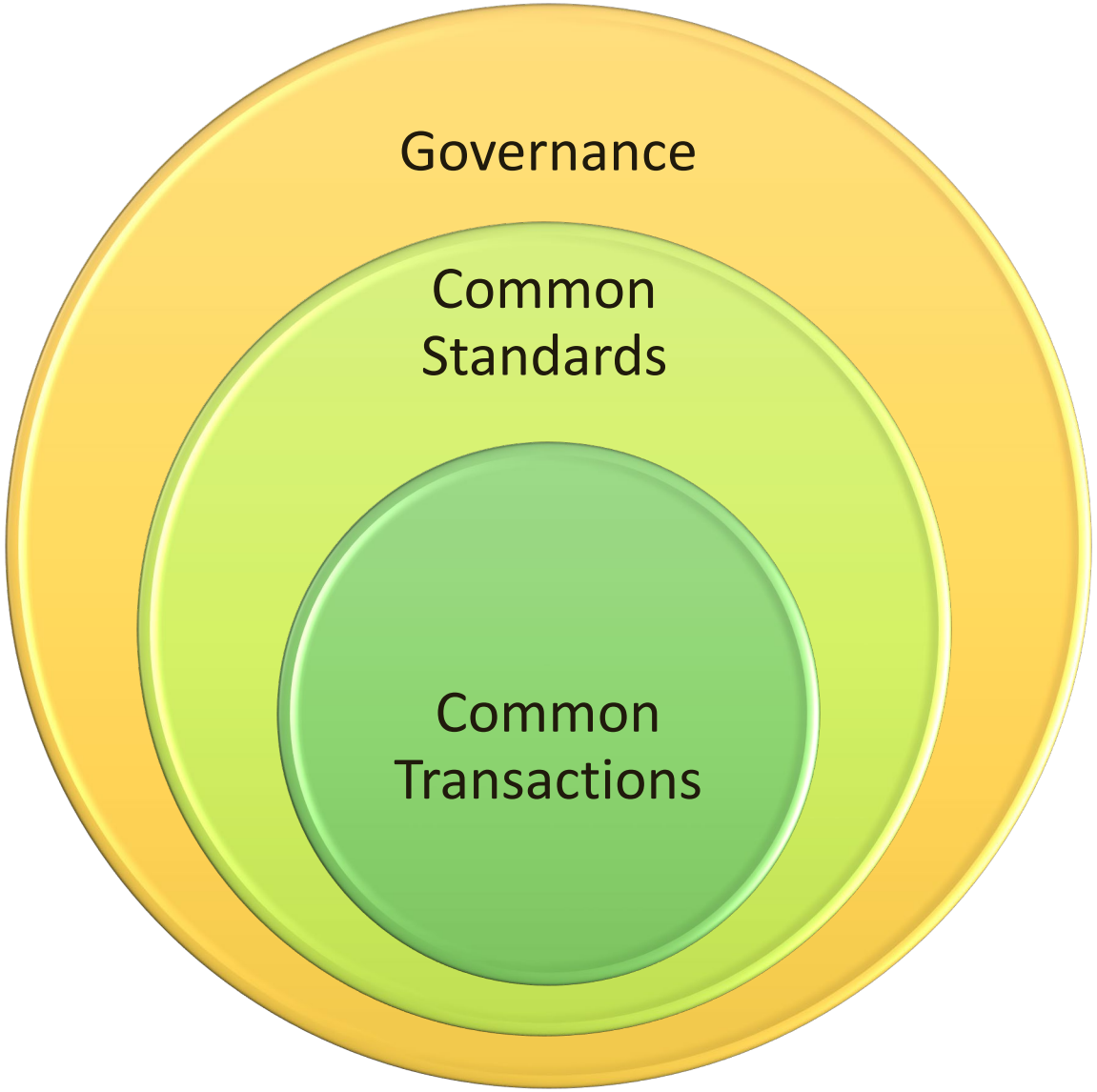
Early Learning (EL) is the CEDS domain on the stage in human development from birth through the early school years (often defined as birth to age 8), during which significant social, emotional, cognitive, language, psychological, and physical development occurs.

Entity	Description
EL Organization	An institution that provides early learning services. This can be a grantee with delegates at various locations, possibly in one or more buildings; it has an assigned administrator(s).
EL Child	A person for whom instruction, services, and/or care are provided in an early childhood program under the jurisdiction of a school, education agency, or other institution or program.
Parent/Guardian	A person having parental or legal guardianship responsibility for a learner.
EL Family	All persons (i) living in the same household who are (a) supported by the income of the parent(s) or guardian(s) of the child enrolling or participating in the program, or (b) related to the child by blood, marriage, or adoption; or (ii) related to the child enrolling or participating in the program as parents or siblings by blood, marriage, or adoption.
EL Staff	A person who performs specified activities for a public or private education institution, agency, or household that provides instructional and/or support services to students or staff at the early childhood level.
EL Class/Group	A cohort of children receiving services together, or in some cases individually, usually for a predetermined amount of time, with at least one assigned primary teacher.
Early Learning Program	An entity with information about a system of services, opportunities, or projects, designed to meet academic or non-academic needs. (A Program entity may be related to an organization as the service provider and to people as program staff, participants, and recipients of program services. CEDS broadly defines Program for information about program types such as work-study programs or athletic programs that are not specifically defined. CEDS also has more specific program entities such as PS Institution Program and CTE Program.)

Use of Common Standards to Expand & Enrich Child Care System Efforts

- Linked Vocabulary
- Other common standards joining across health and human services

Aspirations for ECE Interoperability



REL Central – Who We Are

The Regional Educational Laboratory (REL) Central at Marzano Research serves the applied education research needs of Colorado, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming.

REL Central – College and Career Readiness Research Alliance

An alliance united by goals ensuring that all students graduate from high school prepared to enter the workforce or enroll in postsecondary degree or certification programs.

Areas of Focus

Postsecondary Success Assessment

Algebra I Readiness Support

Review of Career and Technical Education in Two States

CTE Study Background and Data Needs

Examining CTE Pathway Outcomes: Project Goals

- State workforce development priorities.
- Inventory CTE data in two states' current data systems.
  - Nebraska
  - South Dakota
- Develop research plan to examine the relationships between CTE course-taking and both secondary and postsecondary outcomes.

Project Phases

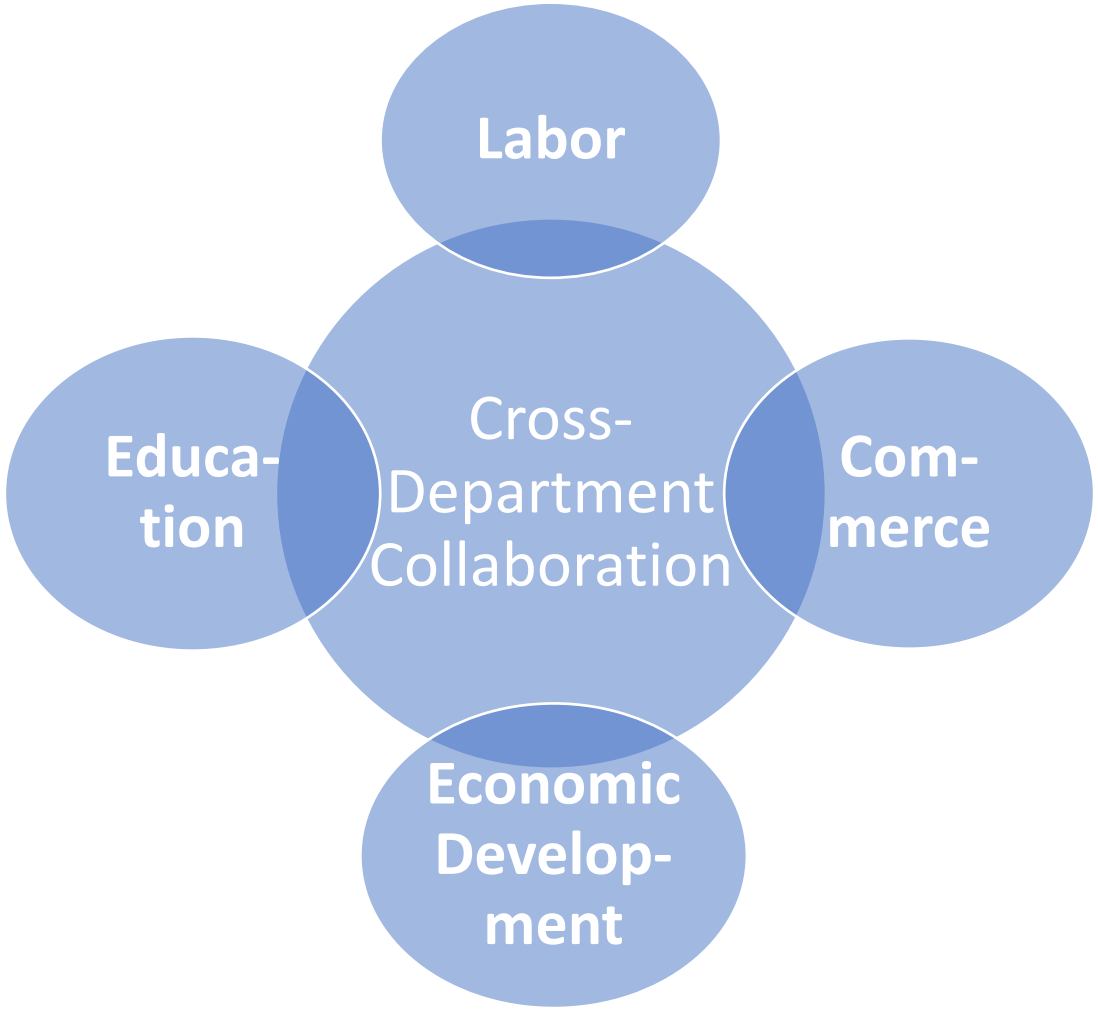
Phase 1
- Reviewing current CTE literature.

Phase 2
- Cataloging existing data.

Phase 3
- Identifying data alignments and gaps.

Phase 4
- Developing a research plan.

Phase II: Cataloging Existing Data



Phase II: Cataloging Existing Data

1. Developed inventory of data relevant to CTE.
2. Gathered existing data dictionaries.
3. Crosswalked dictionaries to identify current data availability.

Data Identification and Linking Process and Tools

Common Education Data Standards: Align

Options

Map Name: ***Nebraska Generate EDFacts IDEA***

Data Dictionary CEDS Info

	Map Element	CEDS Element	Definition Alignment	Option Set Alignment
Show Details	Generate -> Generate -> OrganizationPersonRole -> Enrollment Entry Date	K12 -> K12 Student -> Enrollment -> Enrollment Entry Date	Identical in wording	Not Applicable (Element does not contain an option set)
Show Details	Generate -> Generate -> OrganizationPersonRole -> Enrollment Exit Date	K12 -> K12 Student -> Enrollment -> Enrollment Exit Date	Identical in wording	Not Applicable (Element does not contain an option set)
Show Details	Generate -> Generate -> OrganizationPersonRole -> Program Participation Exit Date	K12 -> K12 Student -> Program -> Program Participation Exit Date	Identical in wording	Not Applicable (Element does not contain an option set)
Show Details	Generate -> Generate -> OrganizationPersonRole -> Program Participation Start Date	K12 -> K12 Student -> Program -> Program Participation Start Date	Identical in wording	Not Applicable (Element does not contain an option set)
Show Details	Generate -> Generate -> OrganizationPersonRole -> Responsible District Identifier	K12 -> K12 Student -> Enrollment -> Responsible District Identifier	Identical in wording	Not Applicable (Element does not contain an option set)

Common Education Data Standards: My Connect

CEDS Elements:	Mapped Elements:
Data Elements for FS157	
Assessments -> Assessment -> Assessment Academic Subject	Generate -> Generate -> Assessment -> Assessment Academic Subject
Assessments -> Assessment Item -> Assessment Item Response -> Proficiency Status	No Corresponding Element Available in this Map.
Assessments -> Assessment Registration -> Assessment Registration Participation Indicator	Generate -> Generate -> AssessmentRegistration -> Assessment Registration Participation Indicator
K12 -> Calendar -> Session -> Session Begin Date	No Corresponding Element Available in this Map.
K12 -> Calendar -> Session -> Session End Date	No Corresponding Element Available in this Map.
K12 -> K12 Student -> CTE -> Career and Technical Education Completer	No Corresponding Element Available in this Map.
K12 -> K12 Student -> CTE -> Career and Technical Education Concentrator	No Corresponding Element Available in this Map.
K12 -> K12 Student -> CTE -> Career and Technical Education Participant	ProgramParticipationCte -> Career and Technical Education Participant
K12 -> K12 Student -> CTE -> Career Technical Education Nontraditional Gender Status	No Corresponding Element Available in this Map.

Project Phases

Phase 1
- Reviewing current CTE literature.

Phase 2
- Cataloging existing data.

Phase 3
- Identifying data alignments and gaps.

Phase 4
- Developing a research plan.

South Dakota CTE Variable Crosswalk

Data Element	K-12	Postsecondary	Labor/ Workforce	Can the Data Be Linked
CTE (Enrollment, Concentration, Completer, Pathway)	x	x		
Student Demographics/Student Identifiers	x	x		
Student Behavior (Absences, Suspension, Mobility)	x			
Student Credits (AP, STEM, Dual Enrollment)	x	x	x	
Student Achievement	x			
Graduation Status (HSD, GED, HSE)	x	x	x	
Industry Certification (Teacher, Student)	x	x	x	
School characteristics	x	x		
School Type (CTE School, Traditional Public school, Hybrid)				
Post-Secondary Major or Concentration				
Post-Secondary Enrollment		x		
Post-Secondary Completion		x		
Required Remedial Coursework				

Cross-Department Data Sharing: Common Challenges

- Data sharing and confidentiality agreements
- Building of common meaning.
- Limited human capacity

Identifying Data Alignments and Gaps

1. Facilitated discussion about cross-agency data links.
2. Used information to develop research questions.
3. Collaborated on data requests

Questions?

Resources

Explore CEDS at https://ceds.ed.gov

Contact the CEDS team to speak one-on-one about your grant and using CEDS

Follow CEDS on Twitter (@CEDStandards)

Join the CEDS Community (https://ceds.grads360.org/#program)