

# Strengthening CTE: Putting the Pieces Together

**Using Student Performance Data to Review Your CTE Programs**

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Good morning. I'm Chris Lenske, grant specialist with the CTE team at DPI. Welcome to Putting the Pieces Together, the ongoing webcast series related to the Strengthening CTE for the 21<sup>st</sup> Century Act (or Perkins V). In previous webcasts, we provided an overview of the comprehensive local needs assessment (or CLNA), and the ins and outs of stakeholder engagement.

# CLNA Focus Areas

- Student performance on federal accountability indicators,
- Alignment to labor market needs
- Size, scope, and quality of programs offered
- Progress toward implementing programs and programs of study
- Recruitment, retention, and training of faculty and staff
- Progress toward improving access and equity



The CLNA has six focus areas:

- Student performance on federal accountability indicators;
- alignment to labor market needs;
- size, scope, and quality of programs offered;
- progress toward implementing programs and programs of study;
- recruitment, retention, and training of faculty and staff;
- and progress toward improving access and equity.

These provide the roadmap for our next several webcasts.

# Student Performance

- What data to collect
- Where to find the data
- How to analyze the data
- How to summarize the data



Today, we'll cover the first of these areas: Student performance on federal accountability indicators. We'll look at

- What data to collect
- Where to find the data
- How to analyze the data
- How to summarize the data

The CLNA is intended to ensure that the decisions you make about your CTE program are supported by data. So data on student performance is a key requirement of the CLNA. The law requires you to evaluate this data in the aggregate and the disaggregate. The subpopulations that need to be broken out are defined in Perkins V.

To talk more in-depth about this process, we've invited Mai Choua Thao, data consultant with the CTE team, to join us. Mai Choua?

## Subgroup Disaggregation



The first step of examining data is to collect identify the key data that should be used in the analysis. As Chris mentioned, the data should be disaggregated in order to get a clear picture of students who are participating and succeeding and those who are not.

# Subgroup Disaggregation

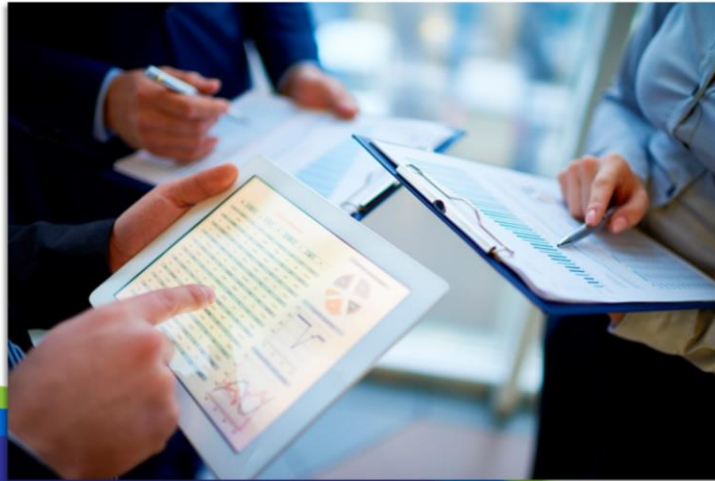


Disaggregating the data refers to breaking out the data and analyzing it according to subgroup populations, such as:

- gender, race and ethnicity, and migrant status;
- individuals with disabilities;
- individuals from economically disadvantaged families, including low-income students;
- individuals preparing for nontraditional occupations;
- single parents;
- English learners;
- homeless individuals; and
- students who are in or who have aged out of the foster care system.

By breaking out the information in this way, and then breaking it out further by program or cluster, you will get a clear understanding of your student performance measures. You'll see who is participating and who isn't; who is succeeding and who isn't; and which programs are thriving and which are not. This will give you an opportunity to then explore the "why" behind the data. In other words, what is contributing to the outcomes both positively and negatively?

# Data Resources



Next, identify the resources that may be helpful to you in the data collection and analysis process.

Start with the obvious: your CTE district profile data. Then examine your CTEERS files in the disaggregate. Compare that data to your district report cards, ESSA and other Roster data that may be relevant. For your analysis, you will need to reach out to your data stewards. They can help format the data in ways that are easy to understand.

# Data Resources

- CTEERS District Profile

Federal Core Indicator	RY 15 State Standard	RY 15 LEA Data	RY 15 Compliance (A)	RY 15 Compliance (B)	Continuous Improvement		
					RY 16 Compliance	RY 17 Compliance	RY 18 Compliance
<b>151 Academic Attainment - Reading</b> Numerator: Number of CTE senior concentrators who took the ACT Plus Writing, English Language Arts Assessment in grade 11 and tested proficient and above. Denominator: Number of CTE senior concentrators who took the ACT Plus Writing, English Language Arts Assessment in grade 11.	80.44%	Numerator: 10 Denominator: 40 Rate: 25.00%	No	Yes	Yes	No	Yes
<b>152 Academic Attainment - Math</b> Numerator: Number of CTE senior concentrators who took the ACT Plus Writing, Math Assessment in grade 11 and tested proficient and above. Denominator: Number of CTE senior concentrators who took the ACT Plus Writing, Math Assessment in grade 11.	46.00%	Numerator: 5 Denominator: 40 Rate: 12.50%	No	No	No	No	No
<b>251 Technical Skill Attainment</b> Numerator: Number of CTE concentrators enrolled in Certificated Work Methodologies who earned a certificate or are continuing in the verification process during reporting year. Denominator: Number of CTE concentrators enrolled in Certificated Work Methodologies.	92.00%	Numerator: 12 Denominator: 12 Rate: 100.00%	Yes	NA	Yes	Yes	Yes
<b>351 Secondary School Completion Student Graduation Rates</b> Numerator: Number of CTE senior concentrators who graduated in reporting year. Denominator: Number of CTE senior concentrators in reporting year.	96.60%	Numerator: 41 Denominator: 41 Rate: 100.00%	Yes	NA	Yes	Yes	Yes

Here are some resources that may be helpful to you in this process: As mentioned, consider using the Perkins CTEERS district profiles. You'll find these on the CTE data webpage. The CTEERS district profile paints a picture of your district's overall performance measures of the federal accountability indicators.



# Data Resources

- CTEERS data

**Composite Enrollment Report Element Chart**

The following chart details the column and corresponding name for each data element as well as the valid codes for each.

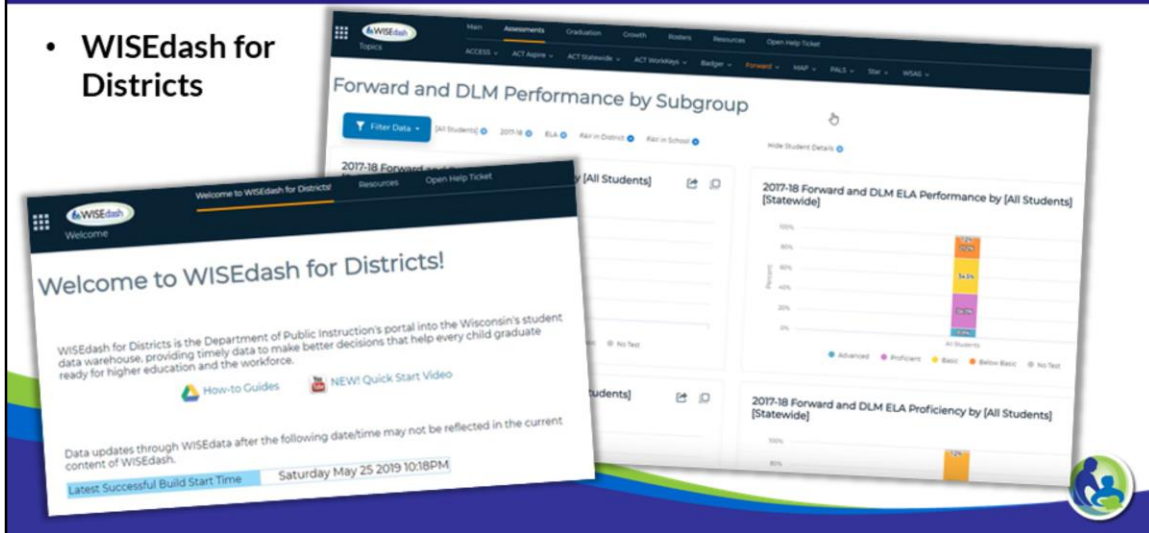
Column	Name	Valid Codes
A	District Number	4 digit
B	School Number	4 digit
C	Student Number of Residence	4 digit
D	Wisconsin Student Number	10 digit
E	Grade Level	11, 12, 13
F	Last Name	Max 20 ch
G	First Name	Max 20 ch
H	Date of Birth	4 digit
I	Sex	M, F, U
J	Race-Ethnicity	A, B, C, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 00
K	Classification	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 00
L	Days Unpaid Present	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 00
M	CTE Participation	Y, N, U
N	Program Area Participation	A, B, F, J, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UU, UV, UW, UX, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ
Q	How CTE-related Learning Objectives	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 00
R	Cardinal Learning Objectives	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 00
S	Cardinal Learning Completion	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 00
T	Completion Status	C, I, O, S, U, W
U	Track Option - Attendance	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 00
V	Advanced Standing Credit - Track Prog. Participation	Y, N, U
W	Advanced Standing Credit - Track Prog. Completion	Y, N, U
X	Disengaged Credit Track Prog. Participation	Y, N, U
Y	Disengaged Credit Track Prog. Completion	Y, N, U
Z	Track Apprenticeship Participation	Y, N, U
AA	Track Apprenticeship Completion	Y, N, U
AB	Disengaged Credit - Characteristic Participation	Y, N, U
AC	Disengaged Credit - Characteristic Completion	Y, N, U

Another data resource to use in your data collection and analysis are your CTEERS files, including the Composite Enrollment Report and the Graduate Follow-up Report submitted over the past several years. Your district already has the raw data that will allow you to aggregate and disaggregate by CTE program, special population groups, and any other variables.



# Data Resources

- **WISEdash for Districts**



You may also use WISEdash for Districts, which is your district's secured site for student data. WISEdash for Districts will allow you to explore various data at a student level. We strongly encourage districts to take advantage of the different types of dashboards, filters, and visualizations that are available in the platform. Users can filter and, therefore, disaggregate data by various subgroups, schools, school years for trend analysis, and other important data variables.

# Data Resources

- [WISEdash Public Portal](#)

**WISEdash** Wisconsin Information System for Education Data Dashboard

Welcome to WISEdash — where you can compare and explore statistics about Wisconsin public schools

**Data announcements**  
The following data is now available in the dashboards:

- 2018-19 Enrollment
- 2017-18 ACT Scores, ACT Statewide, Advanced Placement Exams, Attendance/Dropouts, Discipline, Forward, Graduation and Postgraduation

STUDENTS	STUDENTS - RACE/ETHNICITY (2018-19)	STAFF
School Year: 2018-19	Annual Index: 1.1%	School Year: 2016-17
Student Enrollment: 868,821	Asian: 4.2%	FTE Staff: 100,000
High Schools: 200,480	Black: 21.1%	Administrators: 4,514
Middle Schools: 145,583	Hispanic: 12.3%	Aids, support, and other staff: 37,263
Junior High Schools: 5,558	Pacific Is. 0.1%	Elementary Staff: 87,462
Combined Elementary/Secondary Schools: 38,214	White: 69.2%	Teachers: 68,649
Elementary Schools: 421,781	Two or More: 4.1%	Pupil to teacher ratio: 14.2:1
Demographics	Unknown: 2.2%	Teachers with advanced degrees: 88.2%
Students With Disabilities: 14.0%		Average salary*: \$51,439
English Learners: 6.0%		Average years of experience*: 14.1
Economically Disadvantaged: 40.7%		

ATTENDANCE	SCHOOLS (CURRENT)	SCHOOL FUNDING
School Year: 2017-18	Does not include multi- and non-district charter schools	Source: School Financial Services
Public School Attendance Rate: 93.0%	Total Public Schools: 1,190	Total state aids (2017-18): \$3.43 billion (General aids: \$4.26 billion) Fiscal 2018
Public School age population: 883,618	High Schools: 146	Total 2016-17 Funding (General aids: \$11.93 billion) comes from:
	Junior High Schools: 22	State aids: 46.2%
	Middle Schools: 340	Federal aids: 7.2%
	Elementary Schools: 1,215	Property Taxes: 42.1%
	Combined Elementary/Secondary Schools: 98	Local revenue: 4.3%

**popular searches**

**user help links**

**state and national reports**

**COMPARE**

- DISTRICTS SIDE-BY-SIDE: How can I compare 2 school districts and their schools by state assessments?
- UP TO 5 DISTRICTS: How can I compare both school performance across school districts?
- COMPARE UP TO 5 STATES: I want to quickly compare my

**WISEdash LINKS**

- AL\_Book\_Bid in WISEdash
- Feedback form

**STATE**

- School Report Cards (DPI)
- School Capacity Planning Report (DPI)
- Wisconsin Localized Falls (DPI)
- Wisconsin Youth Risk Behavior Survey (DPI)
- Special Education Needs Profiles (DPI)

Districts can also turn to publicly available data resources such as the WISEdash Public Portal for summary-level data. Unlike the secured WISEdash for Districts site, data from the public portal is redacted and is displayed at an aggregate (or summary) level. Use the public portal when trying to understand overall district-level data and trends over the years. The public portal also makes it easy to generate data visualizations.

## Data Resources

- District and school report cards
- ESSA accountability report
- Data inquiry journal, *WISExplore*
- Local reports in your student information system (SIS)



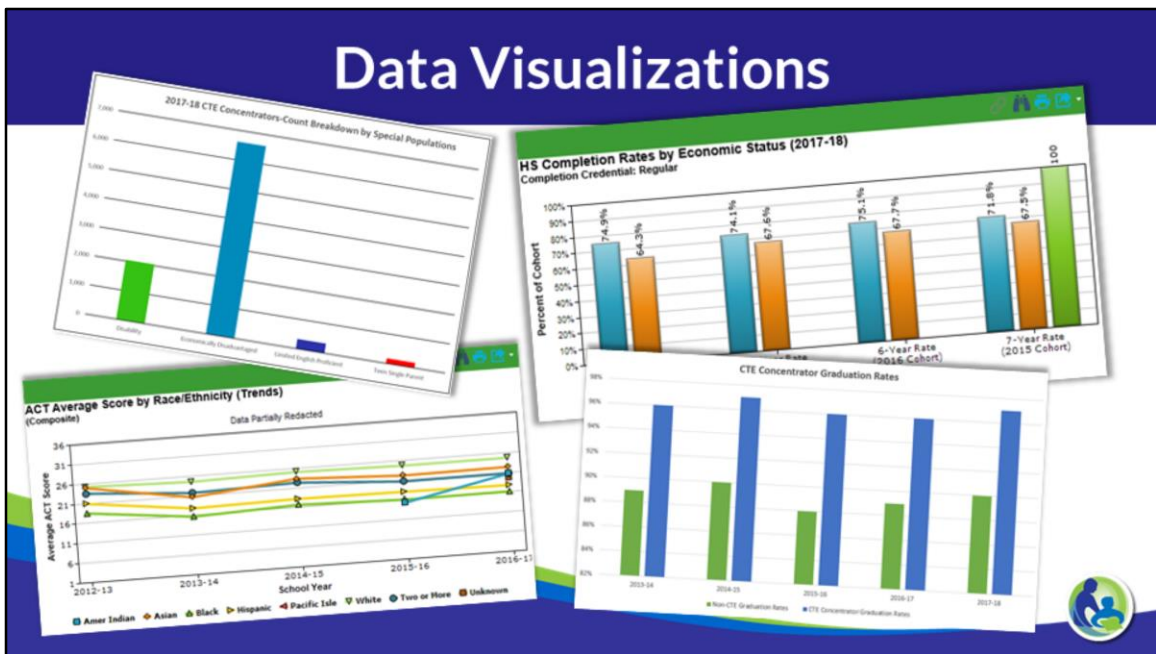
Other helpful resources for pulling data include your district and school report cards; your district's ESSA Accountability Report, which can be used to paint a picture of student performance; the data inquiry journal in *WISExplore*, which provides a tool that a number of districts have been using for their continuous improvement efforts under ESSA; and finally, any other local reports generated and maintained in your district's student information system.

## What's next?



How do you go about analyzing your data? First, work with those responsible for data collection and maintenance of data records for your service area. They can provide longitudinal, disaggregated, program-level, and student-level data. Ask them to provide it in an easy-to-read format so that key trends stand out.

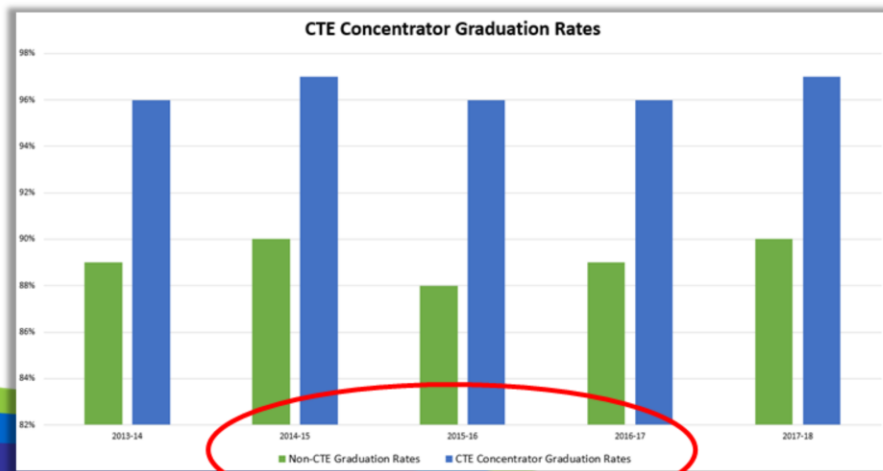
# Data Visualizations



Second, create or generate data visualization tools using tables and graphs that compare each of the subgroup populations to its appropriate comparison group, disaggregated by program or cluster.

Third, examine data to identify significant differences in performance between subpopulations and across programs, noting areas of success and areas of concern, and trends in participation, gaps, and performance. Once data and specific trends are identified, you will be in a better position to determine the underlying meaning, implications, and root causes of success as well as under-performance.

# Data Visualizations



Another approach to evaluating student performance is to compare data for CTE concentrators to a similar group of non-CTE students. For secondary students, it would be most telling to look at differences in graduation rates, academic performance, and placement.

# Data Analysis



Once you've had a chance to digest the data, then supplemental surveys, interviews, and focus groups with different stakeholders can shed additional light on missed opportunities, potential strategies, and resources.

Bring your stakeholders together to discuss the outcomes and discoveries made. Begin those discussions on strategies and corresponding best practices that can combat the poor performance and inequities you identify in your CTE programs.

# Data Analysis

Program-Level Questions	Student-Level Questions
How are the students in my CTE programs performing on federal accountability indicators in comparison to non-CTE students?	How are students from special populations performing in CTE programs in comparison to students without identified special needs?
Which CTE programs have the most positive outcomes, and which are struggling?	How are students from different genders, races, and ethnicities performing in my CTE programs?
Are there CTE programs where special populations are performing above average? Below average?	Which groups of students are struggling the most? In which CTE programs are they struggling?
What are the potential root causes of inequities in my CTE programs?	Where are the biggest gaps in performance between subgroups of students?



You will want to have some questions prepared in advance of these discussions. Here are some questions to consider when analyzing your data:

At the program level, ask:

- How are the students in my CTE programs performing on federal accountability indicators in comparison to non-CTE students?
- Which CTE programs have the most positive outcomes, and which are struggling?
- Are there CTE programs where special populations are performing above average? Below average?
- What are the potential root causes of inequities in my CTE programs?

For student-level questions about your data and analysis, ask:

- How are my students from special populations performing in CTE programs in comparison to students without identified special needs?
- How are my students from different genders, races, and ethnicities performing in my CTE programs?
- Which groups of students are struggling the most? In which CTE programs are they struggling?
- Where are the biggest gaps in performance between subgroups of students?



In summary, your data and analysis together should tell a story about CTE student participation, performance, and programs in your district. Here again, is Chris to offer some final thoughts.

National Alliance for Partnerships in Equity (NAPE)

- *Equity Gap Analysis – Local*
- *Nontraditional Career Preparation: Root Causes and Strategies*



Thank you, Mai Choua

The National Alliance for Partnerships in Equity (or NAPE) has tools that can help guide this process. The document, *Equity Gap Analysis – Local*, provides lots of information on conducting an equity gap analysis.

They also have a resource called *Nontraditional Career Preparation: Root Causes and Strategies*. This tool summarizes the research into root causes of inequality and offers **effective strategies** for addressing root causes related to **nontraditional career pathways**.

In closing, we want to encourage you to use your data in meetings with stakeholder groups. Doing so can help present a clear picture of student and CTE outcomes, and can shed light on concerns and inform discussions. If successful, your data will also form the basis for decisions on strategies, priorities, and goal-setting for the years ahead.

For additional resources, please refer to the Wisconsin Guide for Conducting the Comprehensive Local Needs Assessment, which you can find on DPI's Perkins V webpage.

On July 22<sup>nd</sup>, we will have a similar discussion related to labor market information and how to best to access and use it to inform program development.