From Kids to Careers

LMI in K-12 Public Education

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Goals for the Session

- Introduce Perkins V, the federal legislation that requires state government and local school divisions to incorporate LMI into their planning
- Discuss ways in which schools go beyond Perkins V to incorporate LMI into program evaluation, curriculum, advising, and stakeholder relations

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What is CTE?

- Career and technical education
- Prepares youth and adults for a wide range of high-wage, high-skill, high-demand careers.
- 16 CTE Clusters
- In 2016-17, "8.3 million high school students—nearly half the U.S. high school population—were enrolled in one or more CTE courses."

The Strengthening Career and Technical Education for the 21st Century Act of 2018 (Perkins V)

- Reauthorizes previous federal omnibus CTE act

- $1.3 billion annually

- Increased emphasis on underserved groups and special populations

- Middle school grades can now receive Perkins V funding

The Comprehensive Local Needs Assessment (CLNA)

- Under Perkins V, local school divisions must complete a CLNA that details how uses of Perkins funds
  - Increase performance on federal measures of educational outcomes
  - Provide adequate opportunities to all students
  - Recruit, retain, and train qualified faculty
  - **Are aligned to local labor market conditions**

Perkins V Section 134(c)(2)(B)(ii)

- "aligned to State, regional, Tribal, or ***local in-demand industry sectors or occupations*** identified by the State workforce development board described in section 101 of the Workforce Innovation and Opportunity Act [WIOA] or the local workforce development board, including career pathways, where appropriate; ***or designed to meet local education or economic needs not identified by [either].***"

What type of LMI does Perkins require?

- Schools need LMI, ideally to the local level.
    - Previously, most school divisions used state-level labor data.
    - Local level labor conditions can be much different from the state.
    - Most students will eventually work within 25 miles of home (Bui & Cain Miller 2015).
- Schools need to document how Perkins-funded programs, positions, curriculum, etc. align to this information.
- **How will programs prepare students for the jobs that will be available in the future?**

LMI for Perkins V (cont.)

- Must be forward looking.
    - States are required to submit a four-year plan to ED.
    - Local actors must undertake a Comprehensive Local Needs Assessment (CLNA) every two years.
    - Schools should know what the job prospects for your graduates will be 2, 3, and 4 years into the future.
- Should provide information at various NAICS and SOC code levels

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What LMI questions should schools consider as part of their CLNA?

- What industries/occupations are projected to grow the most in my local area?
- Do my programs expose students to all in-demand sectors?
- Do enrollments match the projected job openings?
- Do my programs prepare students for high-wage careers?
- Are my students gaining the skills they need for in-demand sectors?

What industries/occupations are projected to grow the most in my local area?

CTE Clusters in Richmond, VA MSA, 2019q3[1]

| | | SOC | Occupation | CURRENT | | | | | | 5-YEAR HISTORY | | 4-YEAR FORECAST | |
				Empl	Avg Ann Wages[2]	LQ	Unempl	Unempl Rate	Online Job Ads[3]	Empl Change	Ann %	Total Demand	Exits
☐		41-2011	Cashiers	18,781	$21,400	1.20	1,077	5.8%	298	539	0.6%	13,391	6,926
☐		35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	15,379	$19,200	0.96	849	5.5%	1,367	2,422	3.5%	12,857	5,834
☐		41-2031	Retail Salespersons	17,861	$27,100	0.93	699	4.0%	2,567	-6	0.0%	9,919	4,459
☐		35-3031	Waiters and Waitresses	11,241	$23,700	1.00	504	4.5%	351	1,028	1.9%	8,893	3,413
☐		43-4051	Customer Service Representatives	14,735	$35,800	1.17	471	3.4%	801	2,068	3.1%	7,398	2,998
☐		53-7062	Laborers and Freight, Stock, and Material Movers, Hand	12,646	$28,500	0.98	728	6.0%	376	2,959	5.5%	7,326	2,589
☐		39-9021	Personal Care Aides	9,280	$19,900	0.89	373	4.2%	152	2,271	5.8%	7,083	3,382
☐		43-9061	Office Clerks, General	14,075	$36,200	1.05	374	2.8%	168	886	1.3%	6,216	3,266
☐		37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	11,061	$23,700	1.08	445	4.1%	685	573	1.1%	6,106	2,954
☐		43-5081	Stock Clerks and Order Fillers	9,303	$27,100	1.05	416	4.6%	788	768	1.7%	4,778	2,059
☐		53-3032	Heavy and Tractor-Trailer Truck Drivers	9,748	$41,400	1.14	238	2.7%	431	1,972	4.6%	4,397	1,675
☐		35-2014	Cooks, Restaurant	5,458	$24,600	0.93	278	5.2%	452	1,183	5.0%	3,759	1,408
☐		31-1014	Nursing Assistants	7,144	$27,900	1.10	224	3.3%	382	197	0.6%	3,600	1,814
☐		29-1141	Registered Nurses	13,502	$71,200	1.02	103	0.8%	1,840	1,691	2.7%	3,455	1,637
☐		43-3031	Bookkeeping, Accounting, and Auditing Clerks	7,986	$42,200	1.10	119	1.6%	268	-432	-1.0%	3,335	1,947
☐		11-1021	General and Operations Managers	8,991	$137,700	0.88	115	1.3%	189	1,442	3.6%	3,235	776
☐		43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	8,119	$38,600	0.81	176	2.3%	637	728	1.9%	3,005	1,683
☐		43-4171	Receptionists and Information Clerks	5,457	$30,200	1.14	203	3.8%	252	177	0.7%	2,975	1,383
☐		37-3011	Landscaping and Groundskeeping Workers	5,400	$31,300	1.05	309	6.0%	148	673	2.7%	2,849	1,056

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Do my programs expose students to all in-demand sectors?

	NAICS	Industry	CURRENT			5-YEAR HISTORY		4-YEAR FORECAST		
			Empl	Avg Ann Wages	LQ	Empl Change	Trend	Ann %	Total Demand	Exits
☐	62	Health Care and Social Assistance	98,490	$52,470	1.00	8,477		1.8%	43,990	18,722
☐	72	Accommodation and Food Services	55,038	$18,768	0.89	6,754		2.7%	38,106	15,996
☐	44	Retail Trade	68,977	$30,312	0.98	-3,901		-1.1%	36,118	16,206
☐	61	Educational Services	58,339	$43,845	1.05	2,236		0.8%	22,928	10,465
☐	56	Administrative and Support and Waste Management and Remediation Services	47,181	$38,888	1.08	8,065		3.8%	22,864	9,280
☐	23	Construction	43,753	$54,654	1.12	5,719		2.8%	19,249	6,264
☐	54	Professional, Scientific, and Technical Services	45,102	$82,822	0.98	4,421		2.1%	17,348	5,819
☐	81	Other Services (except Public Administration)	35,379	$31,806	1.16	1,633		0.9%	16,292	7,358
☐	52	Finance and Insurance	39,995	$101,987	1.49	1,228		0.6%	16,275	5,721
☐	92	Public Administration	39,536	$61,378	1.24	421		0.2%	14,286	6,123
☐	48	Transportation and Warehousing	30,684	$45,723	1.00	9,420		7.6%	13,785	5,599

Occupation Data and Maps

Occupation Concentration by Place of Work for Computer User Support Specialists
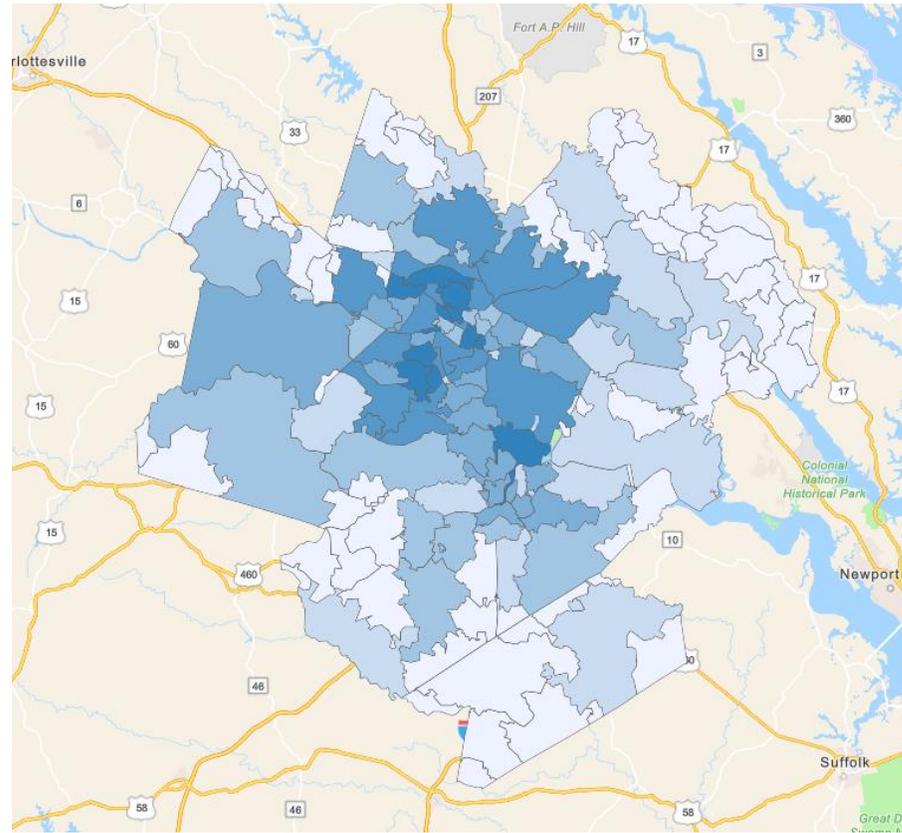
Do enrollments match the projected job openings?

- Size of a school division's individual CTE program may be determined by factors other than labor market demand.
  - A medium-sized school division may employ 3 tenured cosmetology teachers unable to teach other subjects.
- Within these confines, occupation and industry growth data can inform program expansion and contraction decisions.

Do my programs prepare students for careers that pay a living wage?

Occupation Wages, Average Annual in Richmond, VA MSA, 2018

	SOC	Occupation	Mean	Entry Level	Experienced	PERCENTILES					MEAN	
						10%	25%	50% (Median)	75%	90%	Virginia	USA
	39-5012	Hairdressers, Hairstylists, and Cosmetologists	$37,000	$18,000	$46,500	$17,100	$19,300	$28,400	$48,600	$71,800	$34,300	$30,200
		Total - All Occupations	$51,100	$28,400	$62,500	$26,600	$32,700	$41,600	$53,400	$67,300	$54,800	$51,700

Source: JobsEQ®
Wage data are as of 2018 and represent the average for all Covered Employment

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LMI, Perkins, and stakeholder engagement

- Perkins requires schools to engage a whole set of stakeholders in the design of your plan.
  - Secondary and post secondary administrators
  - Career guidance and advisement professionals
  - Business and community partners
  - Local workforce/economic development boards
  - Representatives of subgroup populations
- **An opportunity for everyone here to become involved with K-12 and postsecondary education.**

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Beyond the dog and pony show

- Perkins V does not specify that engagement with stakeholders should be a one-time thing.
- The local business community wants meaningful engagement with schools.
- **LMI gives schools and business a shared language to build collaborative programs.**
  - "We need to prepare more IT professionals. What internships can local business provide? At which events can they speak?"

Going beyond Perkins V

- Using LMI to improve educational outcomes is an emerging practice.
- Chmura helps clients understand the different ways in which LMI can more closely align education to the workforce without major disruptions to classrooms.

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Are students gaining the skills they need for in-demand sectors?

- Chmura answers this question with unstructured job posting data.
- We comb over 40,000 job posting sites per night to present, among other things, the skills most demand in the broader work force and in specific occupations.

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Hard Skills

Hard Skills

Total Job Posts
18,443

👷 Occupations
501

🏢 Employers
4k

🎖 Certifications
342

🔧 Hard Skills
1.4k

💬 Soft Skills
106

👤 Job Titles
11.3k

	Skill Name	Total Ads	
☐	Microsoft Office	2,500	
☐	Microsoft Excel	2,453	
☐	Microsoft PowerPoint	1,113	
☐	Sales	1,033	
☐	Structured Query Language (SQL)	970	
☐	Retail Sales	929	
☐	Agile	907	
☐	Microsoft Outlook	895	
☐	Microsoft Word	865	
☐	Finance	779	

Source: JobsEQ®
Data reflect online job postings for the 30 day period ending 11/20/2019
Note: Data are subject to revision. Please do not use the volume of data for historical comparisons until such time that an adjusted historical series of these data are provided.

Max Rows: 10 ▾

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Soft Skills

Soft Skills

	Skill Name	Total Ads	
☐	Communication (Verbal and written skills)	11,368	
☐	Cooperative/Team Player	6,762	
☐	Customer Service	5,448	
☐	Self-Motivated/Ability to Work Independently/Self Leadership	4,062	
☐	Organization	3,424	
☐	Problem Solving	2,994	
☐	Accountable/Responsible/Reliable/Dependable/Trustworthy	2,964	
☐	Adaptability/Flexibility/Tolerance of Change and Uncertainty	2,881	
☐	Supervision/Management	2,879	
☐	Detail Oriented/Meticulous	2,799	

How can schools use skills data to teach skills?

- Education has embraced G Suite in place of Microsoft Office
  - The transition is easy, but educators need to be intentional to ensure students can put Office expertise on their resume.
- Teachers can work some hard skills into lessons, project work, etc.
  - Example: Agile project management
- The most popular soft skills are widely accepted in education and can be incorporated into classroom observations.

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LMI, Programming, and Advising

- Program alignment: look at projected occupation growth data and awards gap data.
  - What new programs are needed?
  - What programs need to expand?
  - Should some programs be eliminated or deemphasized?
- Advising: look at occupation growth and real-time job listings.
  - Students should understand what their future career prospects are when they choose a course of study.

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Summary: what labor data is most relevant to K-12?

- Industry and occupation data
  - What jobs will be available to students when they graduate?
  - Do a school's programs align to them?
- Wage data
  - Are we preparing students for jobs that pay a living wage?
- Job posting data
  - What jobs are available right now?
  - What certifications and skills will students need to be competitive in the job market?

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Selected Works Cited

- ACTE, *Maximizing Perkins V's Comprehensive Local Needs Assessment…*
- Bui, Quoctrung and Claire Cain Miller. "The Typical American Lives Only 18 Miles From Mom." *The New York Times,* December 23, 2015.

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