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Objectives

- Define Career Technical Education
- Identify key legislation shaping the landscape of Career Technical Education in the United States
- Analyze trends in legislation with investments in the future nursing workforce in the K-12 pipeline, and particularly for students of color



Definitions

- Career Technical Education: courses (at the high school level) and programs (at the postsecondary level) that focus on the skills and knowledge required for specific jobs or fields of work.
- CTE Concentrator: a student, served by an eligible recipient, who has completed at least 2 courses in a single career and technical education program or program
- CTE Participant: an individual who completes not less than one course in a career and technical education program or program of study of an eligible recipient



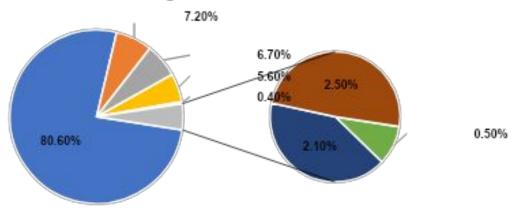
The Problem



- A dearth of literature exists on the investments in the future nursing workforce targeting the K-12 pipeline.
- Historically, significant investments in the nursing workforce have been made at the post-secondary levels.
- America's educational system must redesign its approach to nursing education to grow a more diverse workforce (NAS, 2021)



U.S. Nursing Workforce (2020)

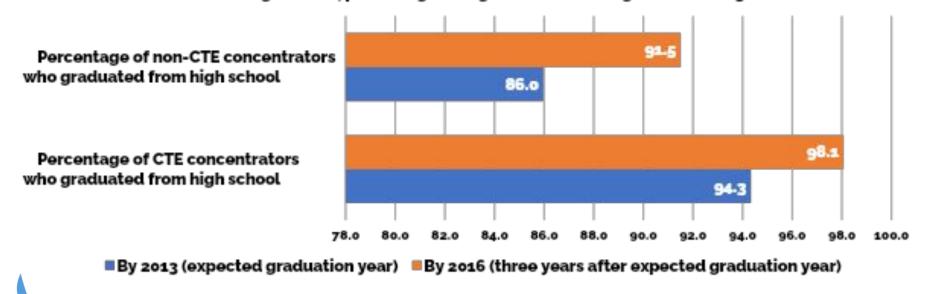




The Opportunity

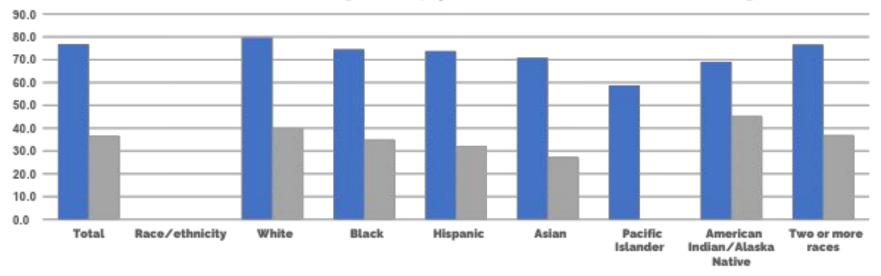


Among 9th-grade public school students in 2009 who were CTE concentrators and non-CTE concentrators in high school, percentage who graduated from high school: 2013 and 2016





Among 9th-grade public school students in 2009, percentage who were CTE participants and CTE concentrators in high school, by selected student characteristics: 2013



■Percentage who were CTE participants ■ Percentage who were CTE concentrators

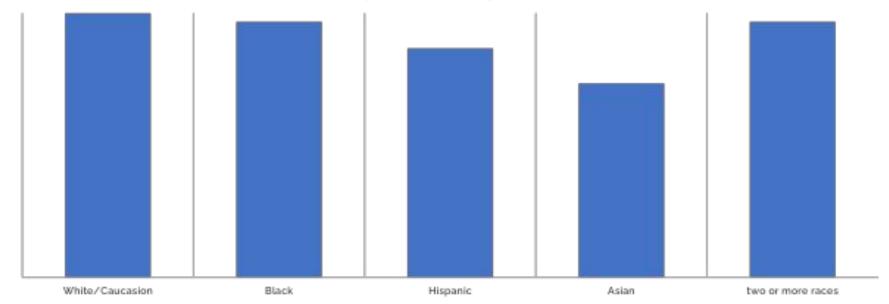


Percentage distribution of the gender and race/ethnicity of ELS cohort CTE participants, by career cluster

Student	Gender E			Ethnicity			
Characteristics	Female	Male	Asian	Black	Hispanic	White	Other
Total	50.9	49.1	4.1	14.0	15.9	60.9	5.2
Career cluster							
Agriculture	37.1	62.9	1.2	8.1	12.7	72.5	5.6
Architecture	15.4	84.6	3.3	10.6	13.3	66.9	5.9
Arts	57.2	42.8	3.4	13.6	13.3	64.4	5.4
Business	53.9	46.1	2.9	16.9	13.2	62.6	4.4
Education	65.6	34.4	5.7	9.5	26.2	55.6	3.0
Finance	56.3	43.7	3.9	11.6	8.9	72.1	3.5
Health	74.1	25.9	3.3	22.2	14.2	<u>55.5</u>	4.8
Hospitality	59.4	40.6	4.1	15.3	18.7	56.4	X
Human services	88.2	11.8	1.4	16.5	19.8	59.3	×
IT	45.8	54.2	4.2	17.6	16.7	56.9	4.6
Law	47.7	52.3	0.7	16.9	16.3	59.6	X
Manufacturing	12.4	87.6	2.0	11.5	12.1	68.9	X
Marketing	55.0	45.0	3.5	16.3	12.0	60.1	8.1
STEM	22.8	77.2	2.3	11.2	15.2	62.6	X
Transportation	9.8	90.2	2.6	7.4	18.3	65.1	6.7

2022 Hybrid Annual Conference October 21-23, 2022, Baltimore, MD

Average high school credits earned by students in career and technical education (CTE), by race/ethnicity: 2013





Methods





- Summative analysis of historical CTE landscape
- Content analysis of workforce development legislation



SEARCH ENGINES

- Google Scholar
- ERIC
- Government websites



- Nursing workforce AND K-12 pipelines, AND legislation
- Nursing, CTE, AND legislation
- Career Education AND nursing pipelines



 Legislation that did not include the terms regarding nursing, healthcare, or pipelines



Historical Context



The Awakening

The country began free public formal education that replaced the apprenticeship system of education that had previously served as the means of acquiring skills

The Vocational Education Age

Various sectors of the economy started to thrive as a result trade schools and programs and the legislation that supported the establishment of CTE programs

1826-1876

1926-1976

1776-1826

1876-1926

Independent Action

The basic framework for the CTE programs was born with a focus on ensuring that graduates had specialized training areas of the workforce

Coming-of-Age Period

Marked by significant growth and contributions. CTE programs were expanded to include adult education as well as upskilling and reskilling



1936 George-Deen Act •Fnabled the first The 1917 federal aid to the **Smith-Hughes Act** states for •Established the vocational training federal board of vocational training **DNPs of Color** Changing the Game, Forging New Paths 2022 Hybrid Annual Conference October 21-23, 2022, Baltimore, MD

1958 National Defense Education Act

 Provided funding to all US schools to improve STEM courses and foreign language courses

1963 Vocation Education Act

•Provided grants to states to develop and expand vocational-techni cal education programs

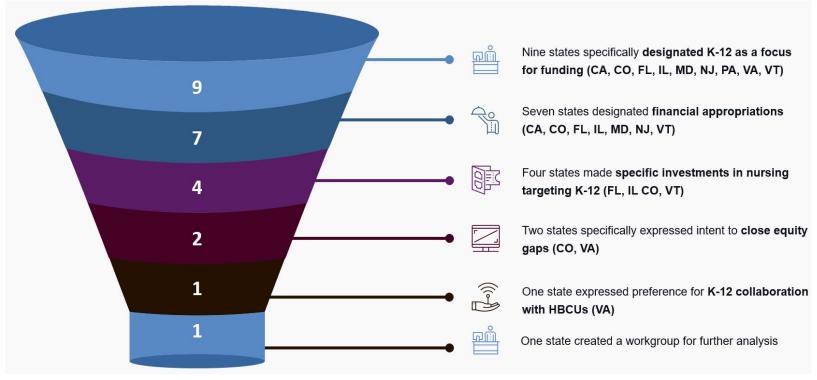
1984 Carl D. Perkins Vocational Education Act (VEA)

•Authorized federal funds to support vocational education programs to include underserved populations 2018
Strengthening
Career and
Technical
Education for the
21st Century Act
(Perkins V)

•Expands funding focusing on industry certifications and college credit; shifts accountability to states

Findings







Legislative Analysis: Investments in the Nursing Pipeline				
State	Legislation	Title	Summary	
California	AB-128	Budget Act of 2021	Appropriates 108.6 M to Regional K-16 Education Collaboratives Grant Program	
Colorado	HB 22-1366	Improving Students' Postsecondary Options Colorado Emergency Education Relief Fund	Designates appropriations to increase access to postsecondary workforce readiness with financial aid information \$32.7 million was designated to the Response, Innovation, and Student Equity Education (RISE) fund to help PreK-12 and public organizations of advanced education to elevate sustainable innovations to further develop student learning, improve functional efficiencies, and close equity gaps.	
Florida	HB 5001	General Appropriations Act 2022-2023	Designates over \$125M for nursing education and to expand the infrastructure of which \$5M towards Career Technical Education	
Illinois	SB 2800	Omnibus Appropriations Bill 2022	Designates \$850K to allow Bradley University to install a new High-Fidelity Multi-Patient Nursing Simulation Lab and implement a workforce development program for local Peoria Public High School students.	



Legislative Analysis: Investments in the Nursing Pipeline			
State	Legislation	Title	Summary
Maryland	HB 0821	Career Pathways for Healthcare Workers Program, 2022	This legislation requires the Governor to incorporate an appropriation of more than \$1,000,000 within the yearly budget bill for the Program.
	SB 376	P-Tech Act of 2017	Makes clear pathways to college and profession from secondary school for youngsters from every single academic background. The students graduate with a high school diploma in under six years followed by an associate degree in two years at no cost.
New Jersey	PL 2018, Chapter 19	The Securing Our Children's Future Bond Act (SOCFBA), 2018	Appropriated a sum of \$500,000,000 in state bonds for the enhancement of K-12 security, expansion of county college and vocational school CTE programs, and support of improvement of water infrastructure within New Jersey schools
Pennsylvania	HB 265	Act 76 of 2019	Upgrades labor force improvement and job training. Fosters training and employment pathways through programs to include School-to-Work



Legislative Analysis: Investments in the Nursing Pipeline				
State	Legislation	Title	Summary	
Vermont	H.703	An act relating to promoting workforce development – As recommended by the House Committee on Ways and Means, Draft 3.1	Establishes and appropriates funds to several workforce development programs to include grants investing in the nursing pipeline and apprenticeship programs.	
Virginia	SB 598	College partnership laboratory schools, application, and establishment	Permits partnerships between K-12 schools and public and private universities, and private companies. Schools would have specific careers focus and will create learning environments that engage students in hands-on learning. Preference would be given to historically black colleges and universities to establish a college partnership in an underserved area.	
West Virginia	SB 707	Nursing Career Pathway Workgroup, 2020	Partnership between The WV Department of Education, the WV Community and Technical College System, and the WV Higher Education Policy Commission to establish a suitable career pathway for meeting the unmet need for various health care professionals such as registered nurses, LPNs, nursing assistants, and nurses leading to a nursing degree as per the legislation.	



Policy Implications



- •Recent legislation at the federal and state levels are indicators of America's investment in Nursing's pipeline development by engaging the K-12 population
- Targeted strategies are still needed to increase diversity within the nursing pipeline
- Early exposure to career pathways can facilitate linkages to Nursing
- •Analysis of the trends in legislative investments can assist policymakers in determining how to deploy future federal funding to support strategies in building Nursing's pipeline.



Action Steps (grassroots)

- Consider cross-sector partnerships at the state and local levels
- Create career clubs with intentional programming that center diversity in nursing
- Partner with healthcare organizations to create internships and apprenticeships for diverse early talent (high school juniors and seniors)
- Create opportunities for dual enrollment between high school and higher ed for pre-nursing courses
- Engage your legislator on the need to create pipeline opportunities for K-12





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