Fastest growing occupations

Table 1.3 Fastest growing occupations, 2012 and projected 2022
(Numbers in thousands)

2012 National Employment Matrix title and code		Employment		Change, 2012—22		Median annual wage, 2012 (1)
		2012	2022	Number	Percent	
Total, All Occupations	00-0000	145,355.8	160,983.7	15,628.0	10.8	$34,750
Industrial-organizational psychologists	19-3032	1.6	2.5	0.9	53.4	$83,580
Personal care aides	39-9021	1,190.6	1,771.4	580.8	48.8	$19,910
Home health aides	31-1011	875.1	1,299.3	424.2	48.5	$20,820
Insulation workers, mechanical	47-2132	28.9	42.4	13.5	46.7	$39,170
Interpreters and translators	27-3091	63.6	92.9	29.3	46.1	$45,430
Diagnostic medical sonographers	29-2032	58.8	85.9	27.0	46.0	$65,860
Helpers--brickmasons, blockmasons, stonemasons, and tile and marble setters	47-3011	24.4	34.9	10.5	43.0	$28,220
Occupational therapy assistants	31-2011	30.3	43.2	12.9	42.6	$53,240
Genetic counselors	29-9092	2.1	3.0	0.9	41.2	$56,800
Physical therapist assistants	31-2021	71.4	100.7	29.3	41.0	$52,160
Physical therapist aides	31-2022	50.0	70.1	20.1	40.1	$23,880

Skincare specialists	39-5094	44.4	62.0	17.7	39.8	$28,640
Physician assistants	29-1071	86.7	120.0	33.3	38.4	$90,930
Segmental pavers	47-4091	1.8	2.4	0.7	38.1	$33,720
Helpers--electricians	47-3013	60.8	83.3	22.4	36.9	$27,670
Information security analysts	15-1122	75.1	102.5	27.4	36.5	$86,170
Occupational therapy aides	31-2012	8.4	11.4	3.0	36.2	$26,850
Health specialties teachers, postsecondary	25-1071	190.0	258.6	68.6	36.1	$81,140
Medical secretaries	43-6013	525.6	714.9	189.2	36.0	$31,350
Physical therapists	29-1123	204.2	277.7	73.5	36.0	$79,860
Orthotists and prosthetists	29-2091	8.5	11.5	3.0	35.5	$62,670
Brickmasons and blockmasons	47-2021	71.0	96.2	25.2	35.5	$46,440
Nursing instructors and teachers, postsecondary	25-1072	67.8	91.8	24.0	35.4	$64,850
Nurse practitioners	29-1171	110.2	147.3	37.1	33.7	$89,960
Audiologists	29-1181	13.0	17.3	4.3	33.6	$69,720
Dental hygienists	29-2021	192.8	256.9	64.2	33.3	$70,210
Meeting, convention, and event planners	13-1121	94.2	125.4	31.3	33.2	$45,810
Therapists, all other	29-1129	28.8	37.9	9.1	31.7	$53,210
Market research	13-1161	415.7	547.2	131.5	31.6	$60,300

analysts and marketing specialists						
Substance abuse and behavioral disorder counselors	21-1011	89.6	117.7	28.2	31.4	$38,520

Footnotes:
1 Data are from the Occupational Employment Statistics program, U.S. Department of Labor, U.S. Bureau of Labor Statistics.

Source: Employment Projections program, U.S. Department of Labor, U.S. Bureau of Labor Statistics

LEAN Tech Academy
Appendix 2
Section 1.1

Business/Corp.	Education/Curriculum	Community/Family	Consultants/Other
Nemours Health and Prevention Services (NHPS) *Webinars, workshops, projects,* *5-2-1-Almost None Formula* **Dave Nichols** Manager Capacity and Knowledge Development Phone: (302) 444-9066 Fax: (302) 444-9197 **david.nichols@nemours.org**	**Delaware Department of Education** **Career and Technical Education** *Curriculum Guidance* **Dr. Karen Hutchison** Interim Director, Career & Technical Education Phone: (302) 857-3320 Karen.hutchison@doe.k12.de.us **Peggy Enslen, RN, Ed.D.** **Delaware Department of Ed.** Education Associate, Health Sciences Phone: (302) 857-3339 Peggy.enslen@doe.k12.de.us **Michael Fitzgerald** **Delaware Department of Ed.** *Curriculum Guidance* Education Associate, Technology Education **Engineering by Design** Phone: (302) 857-3334 Mike.fitzgerald@doe.k12.de.us **Lisa Stoner-Torbert** **Delaware Department of Ed.** *Curriculum Guidance* Education Associate, Business and Marketing Phone: (302) 857-3322 Lisa.stoner@doe.k12.de.us **Melvin D'Souza, Ph.D.** **Delaware Department of Ed.** Education Associate, Data Analysis Phone: (302) 857-3324 Melvin.dsouza@doe.k12.de.us **Allan R. Coletta, Director** Engineering and Facilities **Siemens** allan.r.coletta@siemens.com	**Wilmington Police and Athletic League** *Building Location, Founding Board Meeting Location, Community Athletics and Education Center* **Wilbert "Bunny" Miller** Executive Director Phone: (302) 764-6170 wbunman@aol.com **Michael Ramone** **State Representative (R)** *Community Liaison for Founding Board and Meeting* Phone: (302) 744-4108 Fax: (302) 739-2773 Michael.Ramone@state.de.us or miker@freestyles.com **News-Journal Paper** **Matthew Albright** *Paper Editor for Town Hall, School Fund raiser Activities, and Parent Meetings* Phone: (302) 324-2500 mallbright@wilmingt.gannett.com **Newark Post** **Josh Shannon** *Paper Editor for Town Hall, School Fund raiser Activities, and Parent Meetings* Phone: (302) 737-0724 Fax: (302) 737-9019 news@newarkpostonline.com **Hockessin Community Newspaper** **Ben Mace** *Paper Editor for Town Hall, School Fund raiser Activities, and Parent Meetings* Phone: (302) 378-9531 ben.mace@doverpost.com **Delaware Black.com, LLC** The Pulse of Urban Delaware *Publicity and Marketing* **Joseph Young** President Phone: 302-250-4425 info@delawareblack.com	**E. Wayne Harris Ed.D., LLC** School startup, Strategic Planning and Leadership Support **Robert Anderson, Sr.** Bridge to Achievement, LLC PBL Professional Development, Effective Classroom Organization, Promoting Leadership and Vision Phone: (302) 562-3421 andersonandyr@yahoo.com **Elijah Wilson** A&E Business Solutions Financial and Operational Management Services Phone: (302) 399-6546 ewilson_mta@yahoo.com **Timothy Elmer** Technology Education Teacher Caesar Rodney High School Timothy.elmer@cr.k12.de.us

		Channel 28 **Maurice Pritchett** **Pritchett Associates** Phone: (302) 275-1746 pritchettm@gmail.com http://pritchettmassociates.com/ **Seeds of Greatness** **Rev. Jerome L. Lewis** Phone: (302) 324-8050 Fax: (302) 324-8073 contact@seedsofgreatness.org www.sogm.org **Canaan Baptist Church** **Rev. Dr. Christopher A. Bullock** Phone: (302) 654-8818 Fax: (302) 654-8819 www.canaanbc@canaanbc.org **Bible Fellowship Church** Pastor Bill Schlonecker Phone: (302) 324-5400 Schlonwg@aol.com **Victory Christian Fellowship Church** Pastor Gregory Jones, Associate Phone: 324-5400 Info@victoryexperience.com	
Christiana Health Care Systems -- Center for Community Health *Summer Internships* **Christopher Moore** Program Manager Adolescent Health Phone: (302) 428-6589	**Wilmington University** *Early College* **Michael S. Czarkowski, Ed.D** Director, EdD & Program Chair, Education Leadership College of Education-Doctoral *michael.s.czarkowski@wilmu.edu* Phone: (302) 295-1124	**Boys & Girls Clubs of DE** *Internships and Projects* **Martha Carper** Chairman of the Board and **Anthony O. Boswell** Executive Vice President & COO Boys & Girls Clubs of Delaware, Inc. Phone: (302) 661-6464 aboswell@bgclubs.org	**Charles A. Harris, Jr.** Social Services Administrator/ **AmeriCorps Program Director** Serve Delaware Governor's Commission on Community and Volunteer Service Phone Office: (302) 255-9881 Fax: (302) 255-4462 Fax Charles.A.Harris@state.de.us
AstraZeneca Corporation IM40 Young Health Program **Tyrone Jones, Director** www.im40.org	**Namaste Charter School in Chicago** *Health and Wellness Model Curriculum* **Allison Slade** Principal and Co-Founder 3737 S. Paulina St., Chicago, IL 60609 Phone: (773) 715-9558 |	**Shiloh Baptist Church** *Parent Resource Center Resource* **Rev. Dr. Clifford I. Johnson Pastor** Shiloh Baptist Church 215 West 23rd Street Wilmington, DE 19802 Phone: (302) 655-5315 Fax: (302) 655-9704	**Jim Sheehan** **Studica Inc.** Fischertechnik-STEM-Lab-Program Grant Funding Opportunity – Robotics Uniting Technology with Education Phone: 888.561.7521 Ext. 208 Fax: 877.754.2807 jims@studica.com

	info@namastecharterschool.org www.namastecharterschool.org		
United Way of DE **Rev. John Moore, Sr., Vice** President Resource Development jmoore@uwde.org	Project Lead the Way **PLTW** *National provider of (STEM) programs* *Engineering and Biomedical Science Curriculum* Toll Free: (877) 335-PLTW (7589) Local: (317) 669-0200 Fax: (317) 663-8296 schoolrelations2@pltw.org www.pltw.org	**Theodore Gregory, President** Wilmington City Council Municipal Guidance **Subria Ibrahim** **City of Wilmington** **First Neighborhood Planning** Council President 1st district Phone: (302) 762- 0314 Subria.npc@gmail.com (planning council email)	
Black Achievers' Program **Clare Carey, Director** **Walnut Street YMCA/Resource Center** Address: 1000 North Walnut Street Wilmington, DE 19801 Phone: 302-472-9622 Fax: 302-571-6949	**The California Center for College and Career** **ConnectED** *Health Sciences Curriculum* Phone: (510) 849-4945 Fax: (510) 841-1076 Info@ConnectEdCalifornia.org http://connectedcalifornia.org/	**Thomas Edison Charter School and Family Foundations Academy** All K-8 schools in NCC will be presented with the same opportunities LTA School Proposal; Parent Surveys	
	Cleveland Metropolitan School District's MC² STEM High School **STEM Model** Jeffrey D. McClellan Principal Phone: (216) 838-8500 Fax: (216) 592-6879 http://www.clevelandmetroschools.org	**Mt. Zion UAME Church** Rev. William A. Sims, Jr., Pastor 100 New London Road Newark, DE 19711 (302) 737-9827	**Action for Healthy Kids** Health Literature/Research www.actionforhealthykids.org
	University of Delaware Mathematics & Science Education Resource Center Phone: (302) 831-4447 uofdmserc@udel.edu http://www.mserc.udel.edu/	**St. Johns Church** Rev. Blaine Hackett, Pastor 77 New London Road Newark, DE 19711 (302) 454-7269	**Let's Move> Active Schools** BOKS Training (Reebok World) grants and resources "An Active School incorporates physical activity before, during, and after school for 60 minutes each day" http://www.letsmoveschools.org/
	University of Delaware Jenni Buckley, PhD Assistant Professor Dept. Mechanical Engineering **PLTW State of DE Coordinator**	**Simpson United Methodist Church** Rev. Lester Justice, Pastor 907 Centerville Road Wilmington DE (302) 998-4222	**Forum to Advance Minorities in Engineering** Summer Enrichment; Science Projects www.famedelaware.org

	Phone: (302) 831-3460 (office) jbuckley@udel.edu		
	University of Delaware Michael L. Vaughn, PhD Associate Dean College of Engineering Phone: (302) 831-3460 vaughan@udel.edu		JET Summer 2-week Entrepreneurship Day Camp; JET After School Entrepreneurship Training Developing a Business Plan Delaware State University – Business Enterprise Program Entrepreneurship Training http://www.desu.edu/youth-entrepreneurs-training-jet program
	Wilmington University **Stephanie Lobiondo** **Chair, School Counseling Graduate Program** Assistant Professor College of Education Phone: (302)342-8634 Fax: (302)734-1331 stephanie.l.lobiondo@wilmu.edu		**National Alliance of Public Charter Schools** Leadership, Annual Conferences, Staff Development www.publiccharters.org
	Association of Supervision and Curriculum Development (ASCD) and Centers for Disease and Control (CDC) **Klea Scharberg** Whole School, Whole Child, Whole Community (WSCC) a framework for health and learning. Phone: (703) 575-5616 kscharbe@ascd.org www.ascd.org/programs/learning-and-health.aspx		Achievers Academy Mentoring Program **Pastor David Pope, Coordinator** Character and Leadership Development and College Tours Phone: (267) 992-1424 newlifepastor@comcast.net
			Delaware Charter School Network **Kendall Massett** Executive Director Charter School Guidance **Phone:** (302) 778-5999 **kendallm@decharternetwork.org** **Email:** info@decharternetwork.org www.decharternetwork.org
	Delaware STEM Council **Daniel Suchenski MBA, LEED AP, cSBA, GAC** Owner and Founder of KCX Consulting Management & Sustainability Consultancy www.linkedin.com/in/dansuchenski http://kcxconsulting.com/ dan.suchenski@gmail.com		

	Delaware Technical and Community College Curriculum for Post-Secondary Programs **WorkForce Program** **Paul T. Morris, Jr.** Director of Corporate & Community Programs Stanton/Wilmington Campus Delaware Technical Community College 302-571-5301 (Wilmington) 302-453-3096 (Stanton)		
	Connecting Generations Creative Mentoring **Brian Gaerity, Executive Director** Phone: (302) 302-656-2122 www.connecting-generations.org/hone:		
	Connecting Generations http://www.connecting-generations.org/02.656. 302.656.2122 2122		
	American Society for Engineering Education (ASEE) Phone: (202) 331-3500 http://www.asee.org/		

Centers for Disease Control and Prevention
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Adolescent and School Health

Obese Youth Over Time

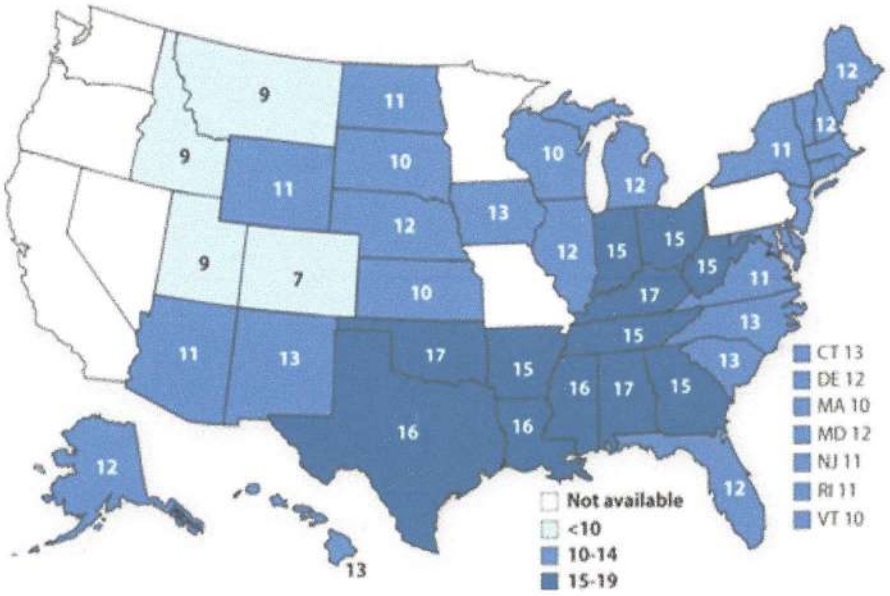
2011, 2009, 2007, 2005, and 2003

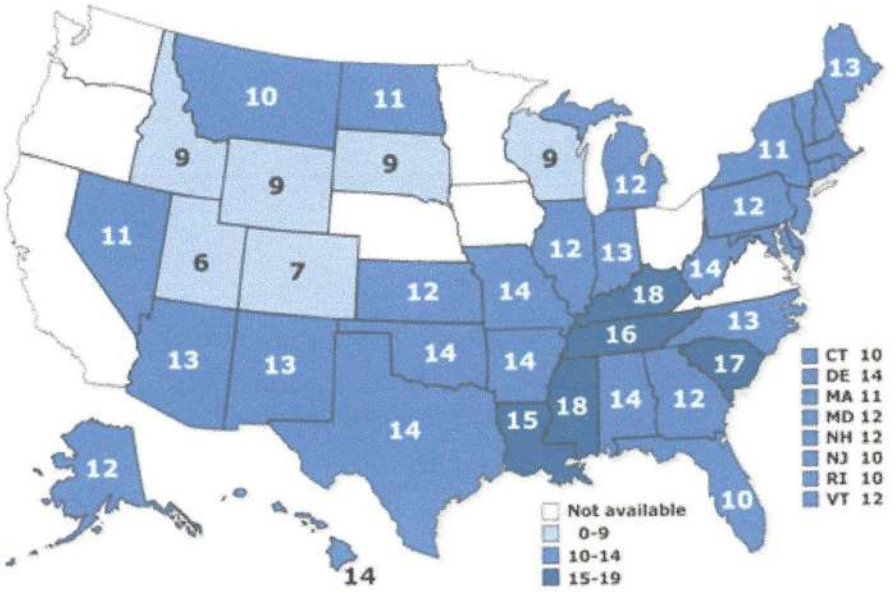
Percentage of high school students who were obese* — selected U.S. states, Youth Risk Behavior Survey, 2011

A text version of this map is available.

Percentage of high school students who were obese* — selected U.S. states, Youth Risk Behavior Survey, 2009

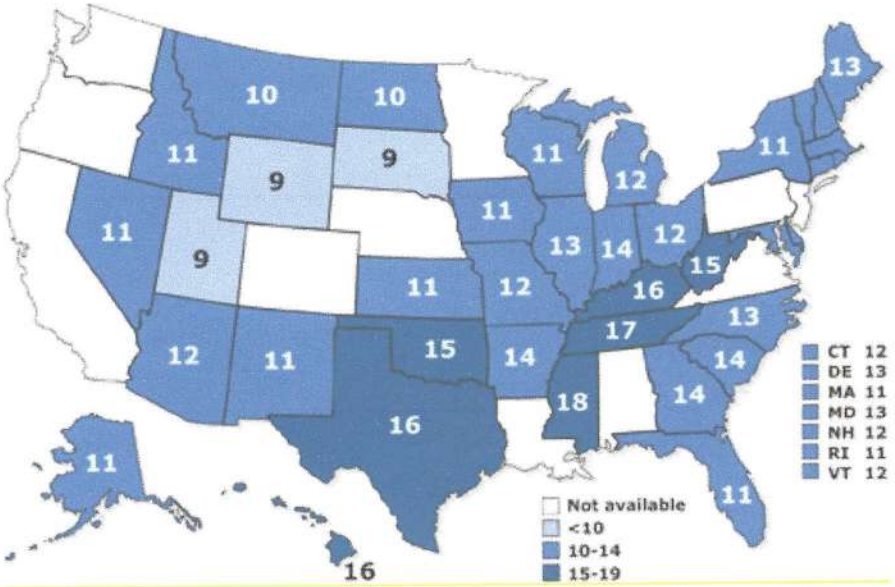
A text version of this map is available.





Percentage of high school students who were obese* — selected U.S. states, Youth Risk Behavior Survey, 2007

A text version of this map is available.



Percentage of high school students who were obese* — selected U.S. states, Youth Risk Behavior Survey, 2005

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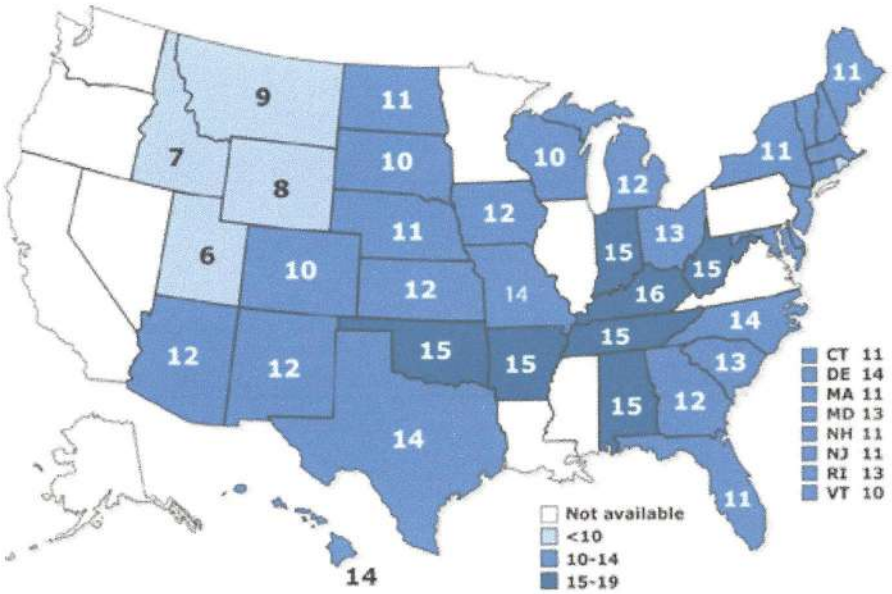

Percentage of high school students who were obese* — selected U.S. states, Youth Risk Behavior Survey, 2003

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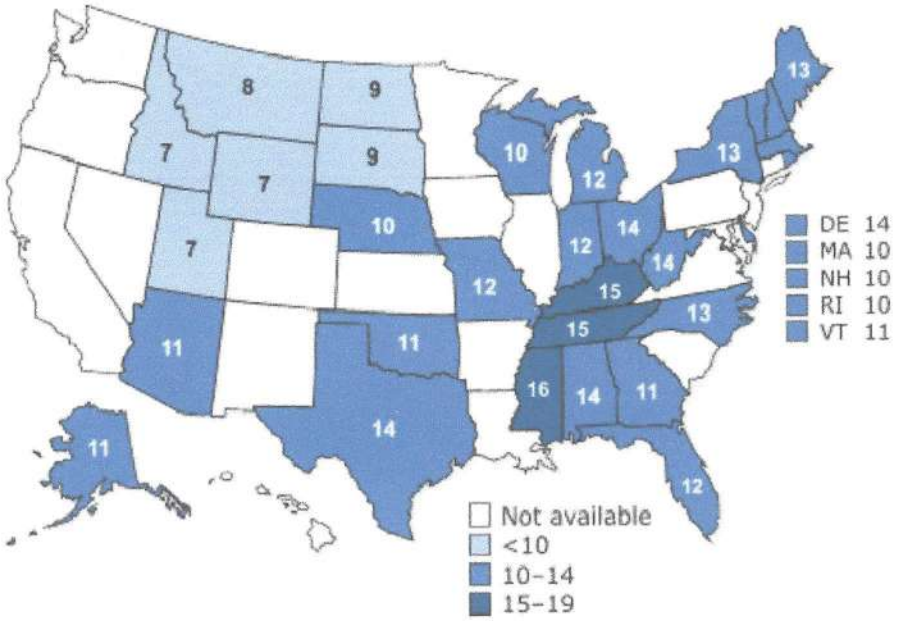


* Previous YRBS reports used the terms "overweight" to describe those youth with a BMI ≥ to 95th percentile for age and sex and "at risk for overweight" for those with a BMI ≥ 85th percentile and < 95th percentile. However, this report uses the terms "obese" and "overweight" in accordance with the 2007 recommendations from the Expert Committee on the Assessment, Prevention, and Treatment of Child and Adolescent Overweight and Obesity convened by the American Medical Association (AMA) and cofunded by AMA in collaboration with the Health Resources and Services.

LEAN Tech Academy

Appendix 4 Section 1.1

VITAL SIGNS

DELAWARE

Business leaders in Delaware have sounded an alarm. They cannot find the science, technology, engineering and mathematics (STEM) talent they need to stay competitive. Students' lagging performance in K-12 is a critical reason why.

To address this challenge, Delaware is raising the bar. The state has joined 44 others in adopting high math standards for K-12 — the Common Core State Standards — and is working with other states to create rigorous assessments aligned to those standards. These are promising steps, but the state must do more to succeed amid profound political, practical and financial challenges.

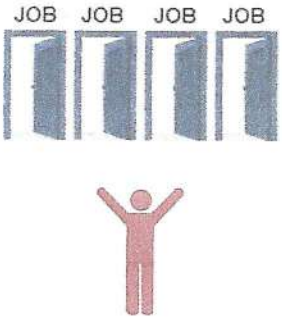
Delaware needs to ensure that schools and students have opportunities to meet a higher bar. Not enough students— least of all minorities— get the chance to learn rich and challenging content that prepares them for college and careers, and the state spends millions of dollars to put more than half of its entering community college students through remediation in math. Yet the state also shows strengths in science: Elementary students spend more time on science than their peers in other states do, and eighth graders are more likely to conduct hands-on investigations.

The state receives less bang for its buck than many other states do. Smart investments will be critical as business leaders work with educators and state leaders to tackle new reforms in lean times.

STEM SKILLS ARE IN DEMAND

In Delaware, STEM skills have stayed in demand even through the economic downturn.

STEM:
3.8 jobs for every
1 unemployed person



Non-STEM:
1.7 unemployed people for every **1 job**

CAN DELAWARE MEET THE DEMAND FOR STEM SKILLS?

Students have made real academic strides in most states, but no state is on track to getting all students the STEM skills they need to succeed in college and career. Low-income and minority students lag farthest behind.

Students have improved in math

Eighth graders in Delaware have made gains on the National Assessment of Educational Progress (NAEP), also known as "the nation's report card." Yet most still have far to go to reach a score of 299, NAEP's cutoff for "Proficient" performance.

8th Grade NAEP scale scores, 2003 & 2013

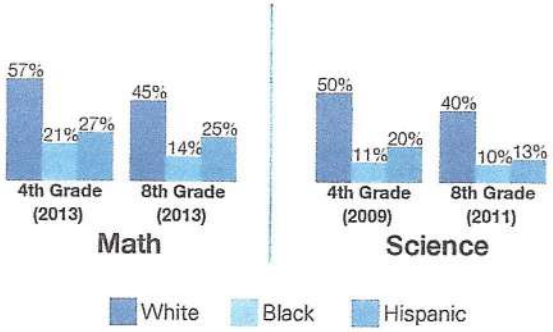
	NAEP Scale Score		Change Since 2003	
	2003	2013	DE	Most Improved State
All	277	283	+6	+22 (DC)
Low Income	261	270	+9	+22 (DC,NJ)
White	287	294	+7	+18 (HI)
Black	260	266	+6	+21 (DC,NJ)
Hispanic	257	274	+17	+22 (MA)

Totals may not sum due to rounding errors.

Closing achievement gaps must remain a priority

No state has closed the persistent achievement gaps among racial and ethnic groups.

Percentage of Delaware students scoring at or above proficient in math and science



§ State did not participate in 4th grade science test.
* Data not available or reporting requirements not met.

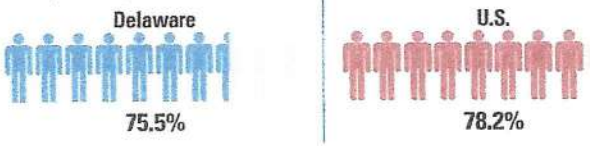
For the complete state report, methodology, and sources, visit changetheequation.org/stem-vital-signs.

CHANGE THE EQUATION

IN PARTNERSHIP WITH the American Institutes for Research.

Delaware must plug gaps in the STEM pipeline

What percentage of high school students graduate? (2010-2011)



Of students who enter a two-year degree program, what percentage graduate? (2009)

Of students who enter a four-year degree program, what percentage graduate? (2009)

What percentage of college degrees and certificates are in STEM fields? (2011–12)

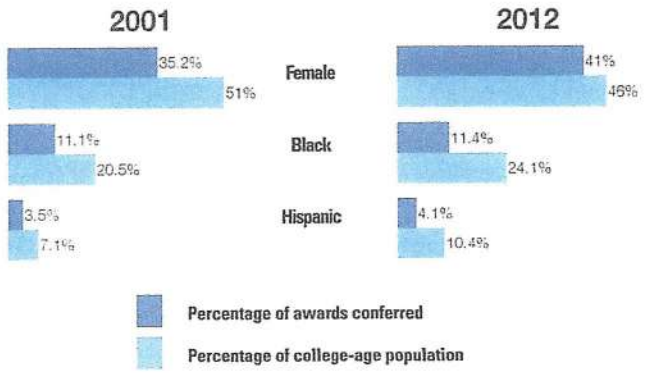
No student should need remediation

54% of Delaware's first-time community college students need remediation in math, which costs the state $3,342,861 each year.

Women and minorities are too critical a resource to remain untapped

Women and minorities are a very large share of the population, but they earn a small share of STEM degrees and certificates.

Percentage of degrees/certificates conferred in STEM fields in Delaware



WILL DELAWARE STAND FIRM ON HIGH EXPECTATIONS?

Setting high expectations is a critical step toward raising student performance in STEM.

Delaware is showing a commitment to high expectations

Delaware has joined 44 other states in adopting Common Core State Standards in math. Delaware is also working with other states on common math tests to gauge students' mastery of those standards.

Common standards and tests in math could be a game changer

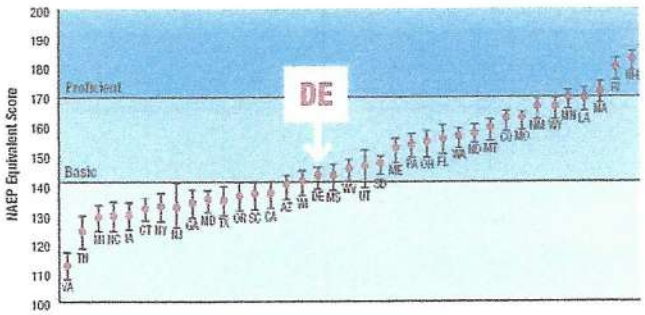
As states adopt common tests aligned to the Common Core, they also will have to set a common high passing score or threaten the credibility of the entire common standards enterprise. As the bar goes up, the rate of the Delaware's students passing may plummet. Delaware leaders will have to stand strong on high expectations, even in the face of pressure to back down.

Science is the next frontier for better standards and higher expectations

Twenty-six states, including Delaware, are collaborating on common, "Next Generation" content standards in science, which they aim to complete in 2013. If these standards meet a high bar, Delaware should adopt them or standards as rigorous.

Delaware should also raise the bar on its 8th-grade science test. In 2009, the state's passing score on that exam was near NAEP's bar for "Basic" performance.

NAEP scale equivalents of grade 8 science standards for proficient performance, by state, 2009



DELAWARE

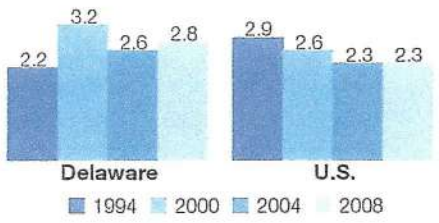
ARE STUDENTS EXPOSED TO CHALLENGING AND ENGAGING CONTENT?

Lack of access to such content severely limits young people's college and career prospects.

Building a strong foundation in science takes time

Time for science in Delaware has risen since 1994.

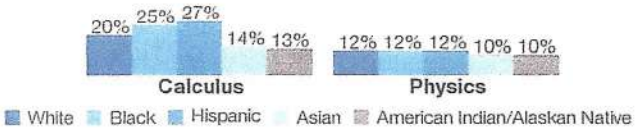
Hours per week spent on science in grades 1–4, 1994–2008



Students of all backgrounds need access to challenging math and science courses

Many minority students lack access to such courses.

Percentage of students in schools that do not offer challenging math and science courses, by race/ethnicity, 2009



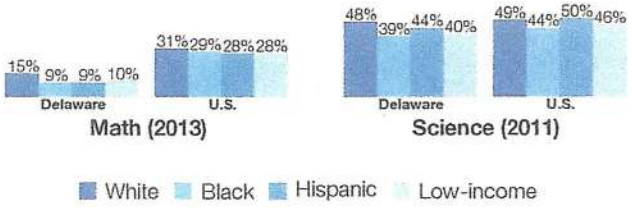
** *Includes trigonometry, elementary analysis, analytic geometry, statistics, and precalculus*

ARE TEACHERS PREPARED TO TEACH TO HIGH STANDARDS?

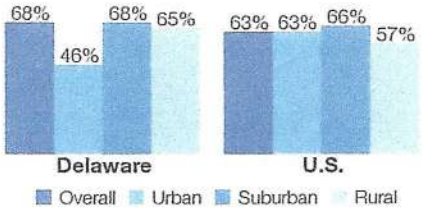
Research shows that teachers' content knowledge and teaching experience can affect student performance.

Teachers need deep content knowledge

8th graders whose teachers have an undergraduate major in the subject they teach



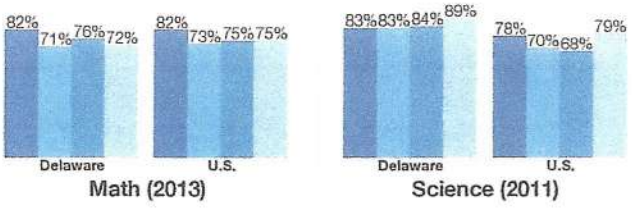
8th graders whose science teachers took three or more advanced science courses in college, 2011



High-need schools need to retain excellent teachers

In most states, minority and low-income students are most likely to have inexperienced teachers, indicating high turnover rates.

8th graders whose teachers have 5+ years of experience teaching their subject



* *Reporting Standards not met*

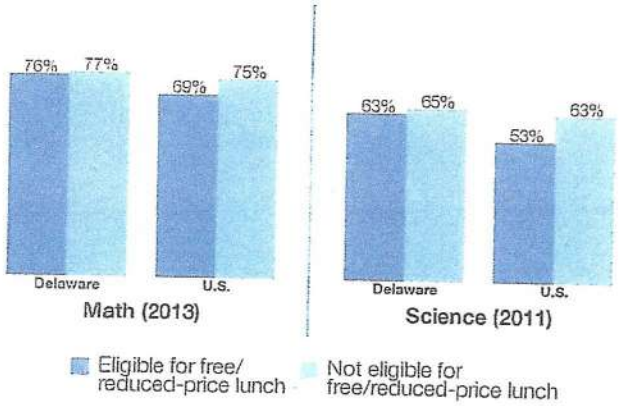
For the complete state report, methodology, and sources, visit changetheequation.org/stem-vital-signs.

DELAWARE

DO SCHOOLS AND TEACHERS IN DELAWARE HAVE WHAT THEY NEED TO SUCCEED?

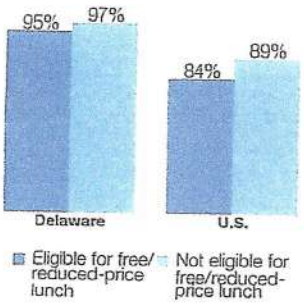
Teachers need the tools of their trade

8th graders whose teachers say they have all or most of the resources they need, by income



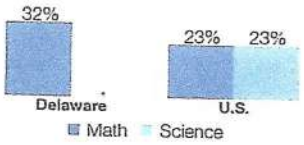
All students need access to science facilities and supplies

8th graders whose schools have science labs, by income, 2011



Parent support and engagement are critical to student success

Teachers who say lack of support is a serious problem, 2011



For the complete state report, methodology, and sources, visit changetheequation.org/stem-vital-signs.

RECOMMENDATIONS

Impatience is a virtue when it takes data and real solutions as its guides. The time to act is now. These Vital Signs provide business, education, state and policy leaders with an extensive and reliable set of indicators to promote STEM learning and high expectations for all students. We've crunched the numbers to offer insights into much-needed actions that can be undertaken right away with resolve.

Make science count

Delaware tests students in science, but it only holds schools accountable for meeting student performance targets on reading and math tests. Science should count, too. When there are no consequences for science achievement, schools can easily give science short shrift. But simply holding schools accountable for science is not enough. Delaware should also raise the passing score on the state science tests. For example, the bar on its 8th-grade science test is so low that schools would be held accountable for meeting a weak standard.

Ease the transition between high school and college

Delaware students should understand the requirements for college admission and whether a high school diploma prepares them for college-level work. One way to ensure that diplomas have meaning is to align state high school graduation and college entrance requirements. Delaware also should expand access to rigorous courses in math and science. For example, the state could strengthen initiatives that help schools boost participation in AP courses, especially among women and minorities.

Stretch the STEM education investment

In lean or flush times, Delaware must improve its return on investment in K-12 STEM education. Every dollar spent should be linked to student mastery of high expectations in STEM courses. This does not mean that resources are not critical to dramatically raising student performance. It does mean that Delaware has to ask tough questions and make choices about which investments in STEM learning are most closely tied to the goals of college and career readiness.

LEAN Tech Academy
Appendix 4
Section 1
See : http://changetheequation.org/stemtistics-facts-figures
http://changetheequation.org/state-summaries

Positive Behavioral Interventions and Supports

Connecticut State Education Research Center

Best Practices In Education

Welcome to the Best Practices section of SERC's Web site! We're here to research, compile, disseminate and promote practices for educators and families with the goal of improving educational opportunities for *all* children. SERC, with support from the CT State Department of Education and the Connecticut Vanguard Schools Initiative, has identified effective practices -- connected to nine standards found in effective schools -- that improve student performance.

This dynamic database of information, literature, and materials has been compiled from a variety of local and national resources and is continuously updated. It is intended to support administrators, practitioners, and family members seeking strategies that have been proven successful in a variety of settings. You will find information on Best Practices in early childhood, elementary, and secondary education.

In addition, this site recognizes and celebrates the Connecticut schools that have embodied the nine standards and strive to continue Best Practices. By sharing their methods, we hope to demonstrate that Best Practices in Education can be achieved in *every* school.

What is "Best Practice?"

The term "Best Practice" has been used to describe "what works" in a particular situation or environment. When data support the success of a practice, it is referred to as a *research-based practice* or *scientifically based practice*. As good consumers of information, we must keep in mind that a particular practice that has worked for someone within a given set of variables may or may not yield the same results across educational environments.

Grover J. Whitehurst, as assistant secretary for Educational Research and Improvement at the U.S. Department of Education, defined evidence-based education as "the integration of professional wisdom with the best available empirical evidence in making decisions about how to deliver instruction." Professional wisdom allows educators and family members to adapt to specific circumstances or environments in an area in which research evidence may be absent or incomplete. But without at least

some empirical evidence, education cannot resolve competing approaches, generate cumulative knowledge, and avoid fads and personal biases.

These are the nine standards:

- 1: A Clear and Common Focus

  In high-performing schools, administrators, teachers, students, and parents share and commit to clearly articulated and understood common goals based on the fundamental belief that all students can learn and improve their performance. There is clear evidence of school practices to support this belief.

- 2: High Standards and Expectations

  High-performing schools show evidence that each teacher believes "all students can learn and I can teach them." Staff members are dedicated to helping every student achieve challenging state and local standards. All students are engaged in an appropriately ambitious and rigorous course of study in which the high standards of performance are clear and consistent and the conditions for learning are modified and differentiated. This results in all students being prepared for success in the workplace, postsecondary education, and civic responsibilities.

- 3: Strong Leadership

  School leadership is focused on enhancing the skills, knowledge, and motivation of the people in the organization and creating a common culture of high expectations based on the use of skills and knowledge to improve the performance of all students. Leadership fosters a collaborative atmosphere between the school and the community while establishing positive systems to improve leadership, teaching, and student performance.

- 4: Supportive, Personalized, and Relevant Learning

  In high-performing schools, supportive learning environments provide positive personalized relationships for all students while engaging them in rigorous and relevant learning.

- 5: Parent/Community Involvement

  In high-performing schools, parents and community members help develop, understand, and support a clear and common focus on core academic, social, and personal goals contributing to improved student performance and have a meaningful and authentic role in achieving these goals. The school community works together to actively solve problems and create win-win solutions. Mentoring and outreach programs provide for two-way learning between students and community/business members.

- 6: Monitoring, Accountability, and Assessment

  In high-performing schools, teaching and learning are continually adjusted on the basis of data collected through a variety of valid and reliable methods that indicate student progress and needs. The assessment results are interpreted and applied appropriately to improve individual student performance and the instructional program.

- 7: Curriculum and Instruction

  High-performing schools have aligned curriculum with core learning expectations to improve the performance of all students. Students achieve high standards through rigorous, challenging learning. Staff delivers an aligned curriculum and implements research-based teaching and learning strategies. Students are actively involved in their learning through inquiry, in-depth learning, and performance assessments.

- 8: Professional Development

  Ongoing professional development aligned with the school's common focus and high expectations to improve the performance of all students is critical in high-performing schools. These professional development offerings are focused and informed by research and school/classroom-based assessments. Appropriate instructional support and resources are provided to implement approaches and techniques learned through professional development.

- 9: Time and Structure

  High-performing schools are flexibly structured to maximize the use of time and accommodate the varied lives of their students, staff, and community in order to improve the performance of all students. The structure of programs extends beyond the traditional school day and year as well as beyond the school building. The program draws on the entire community's resources to foster student achievement.

http://ctserc.org/s/index.php?option=com_content&view=section&id=8&Itemid=28

http://pbis.serc.co/

State Education Resource Center's website for Positive Behavioral Interventions and Supports (PBIS) in Connecticut.

Differentiated Instruction Strategies published by Glencoe/McGraw-Hill.

Differentiating Instruction: Meeting Students Where They Are

No two students enter a classroom with identical abilities, experiences, and needs. Learning style, language proficiency, background knowledge, readiness to learn, and other factors can vary widely within a single class group.

Regardless of their individual differences, however, students are expected to master the same concepts, principles, and skills. Helping all students succeed in their learning is an enormous challenge that requires innovative thinking.

What is differentiated instruction?
Differentiated instruction is an instructional theory that allows teachers to face this challenge by taking diverse student factors into account when planning and delivering instruction. Based on this theory, teachers can structure learning environments that address the variety of learning styles, interests, and abilities found within a classroom.

How does differentiated instruction work?
Differentiated instruction is based upon the belief that students learn best when they make connections between the curriculum and their diverse interests and experiences, and that the greatest learning occurs when students are pushed slightly beyond the point where they can work without assistance. This point differs for students who are working below grade level and for those who are gifted in a given area.

Rather than simply "teaching to the middle" by providing a single avenue for learning for all students in a class, teachers using differentiated instruction match tasks, activities, and assessments with their students' interests, abilities, and learning preferences.

What Differentiated Instruction Means for Teachers	
Teachers DO	**Teachers DON'T**
• provide several learning options, or different paths to learning, which help students take in information and make sense of concepts and skills.	• develop a separate lesson plan for each student in a classroom.

• provide appropriate levels of challenge for all students, including those who lag behind, those who are advanced, and those right in the middle.	• "water down" the curriculum for some students.

Laying the Foundation for Differentiated Instruction
Differentiated instruction does not happen by accident. It requires planning, commitment, and acknowledgment of the fact that diverse abilities, experiences, and interests have a tremendous impact on student learning. If you are considering using differentiated instruction in your classroom, the three steps below provide a place to start.

1. Get to know your students.

- Identify the level at which individual students are working in your subject area. Standardized test scores and other information found in student records can help determine this information.
- Administer a learning style inventory to determine how your students best learn. An instrument can be obtained through the guidance department at your school.
- Determine student interests. On a regular basis, ask students to identify topics that interest them and activities that occupy their non-school time.

2. Identify areas of your curriculum that could be adapted to differentiated instruction.

- Study the instructional goals and objectives for your subject established by your state's department of education. Identify the major concepts, principles, and skills students should learn.
- Choose one or two broad concepts or skills that lend themselves to being taught at different degrees of complexity.
- Brainstorm ideas for activities, tasks, and assessments that address a specific concept or skill. Ideas should cover a range of learning preferences, abilities, and interests.

3. Examine your role as teacher in the differentiated classroom.

- Brainstorm ways to vary your instructional delivery methods. Target auditory, visual, and kinesthetic learners in your approaches.
- Develop a general plan for facilitating time, space, and materials in your classroom. On any given day, not all students will be working on the same

assignment at the same time. You must have a plan for student access to necessary materials, where individuals or groups will work, and how much time can be allotted to specific tasks.

- Identify alternative methods of assessing student performance and understanding. Assessment results should increase teacher understanding of students' abilities, interests, and needs, and should be incorporated into future planning.

Strategies for Successfully Implementing Differentiated Instruction
Instruction can be differentiated based on three general areas. These areas include:

- the content of instruction
- the processes and techniques used to help make sense of a given topic
- the products produced by students that demonstrate their learning

The chart below shows general strategies that can be applied in most classrooms. After studying the chart, review the subject-specific articles to find how differentiated instruction can be applied in your specific subject area.

Strategies for Differentiating Instruction	
Based on Content	• Utilize pre-tests to assess where individual students need to begin study of a given topic or unit. • Encourage thinking at various levels of Bloom's taxonomy. • Use a variety of instructional delivery methods to address different learning styles. • Break assignments into smaller, more manageable parts that include structured directions for each part. • Choose broad instructional concepts and skills that lend themselves to understanding at various levels of complexity.
Based on Process	• Provide access to a variety of materials which target different learning preferences and reading abilities. • Develop activities that target auditory, visual, and kinesthetic learners. • Establish stations for inquiry-based, independent learning activities. • Create activities that vary in level of complexity and degree of abstract thinking required. • Use flexible grouping to group and regroup students based on factors including content, ability, and assessment results.

Based on Product	• Use a variety of assessment strategies, including performance-based and open-ended assessment. • Balance teacher-assigned and student-selected projects. • Offer students a choice of projects that reflect a variety of learning styles and interests. • Make assessment an ongoing, interactive process.

This article was contributed by Jennifer Willoughby, a freelance writer and former science and technology specialist for Lynchburg City Schools in Lynchburg, Virginia.

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http://www.glencoe.com/sec/teachingtoday/subject/di_meeting.phtml

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http://www.glencoe.com/sec/teachingtoday/subject/di_meeting.phtml

LEAN Tech Academy
Appendix .7
Section 1.1
Education Plan Board Strengths

Founding Board Strengths

Name	School Position	Strengths
Patsy Pipkin-Perry	President/CEO	Development of the mission and vision, achieving goals and carrying our strategic plans of the Governing Board, providing guidance and operational management of the school, building school culture, fund raising, parent and community relations, school growth, development and recognition.
Unknown	School Leader/Principal	School start up and development, administration of school policies and procedures, school culture and behavior, day-to-day management of people, systems and resources, student recruiting and admissions, parent and community relations strategic management of the school, instructional leadership, student assessment, staff recruitment empowering, supporting, learning and teaching.
Unknown	Lead Teacher	Leadership, instructional planning, instructional delivery, student assessment, empowering, supporting, learning and teaching.
Bob Anderson, Sr. with Bridge to Achievement, LLC	Long-term Consulting and Advisory Group	Board Development and Leadership Training, Strategic Planning, Curriculum Support/Development, Staff Recruitment, Project Based Learning Strategies, Promoting Leadership/Vision, Enhancing Decision Making, Professional Development, Effective Classroom

		Management, Conflict Mediation Training {staff and students} Staff Certification.

Proposed Governing Board Strengths

Governing Board Member	Board Position	Profession	Strengths
Garth Warner, MBA	President/Parent	Retired Avon, Inc., Marketing and Sales, Current Business Consulting and Adjunct Professor Wilmington Univeristy	Global Marketing, Business Development and Management, Mentoring and Empowering High School Students in Local School Districts
TBD	Vice President		
Danika Perry, Psy.D.	Secretary	Clinical Psychology Fellow at Genesys Hospital Health Systems in Grand Blanc, Michigan	Mental Health and Wellness, Working with Children K – 12 in Delaware Schools, Documented Extensive Research in Childhood Obesity and its Implications Toward Academic Achievement
TBD	Treasurer		
Lydia Anderson, Esq.	Member	Attorney – DE, PA and US Supreme Courts; US District Court of DE, and Third Circuit Court of Appeals	Legislative and Governance, Former State of Delaware Teacher
Dakota Williams Certified Chemical Technologist	Member/Acting Treasurer	Staff Technologist Siemens Realtor -- Long & Foster	STEM and Facility Management

Licensed Realtor			
Michelle Eklund, MBA, PHR	Member/Parent	Human Resources Director Christiana Care	Human Resources and Health Care

Advisory Board Strengths

Advisory Board Member	Profession	Strengths
E. Wayne Harris, Ed.D.	Associate Cambridge Strategics	School Development and Strategic Planning
Wayne Ravenell, M.S. (Chemical Engineering)	Science Teacher Brandywine School District	Delaware Science Coalition, Science Curriculum Forum to Advance Minorities in Science (FAME)
Audrey Scott-Hinson, M.Ed.	Entrepreneur/Consultant/ Instructor/Trainer Delaware State University	High School Entrepreneurship Training Program and Special Education Law
Sharon Hardnett, Ed.D.	Math Teacher Brandywine School District	Math Curriculum, Data Coach Summative Assessment Advisor
Monique Hite-Head, Ph.D.	Civil Engineering Associate Professor Morgan State University	Team Research Leader of Civil Infrastructure and Structural, Earthquake, and Bridge Engineering Classroom Engineering Projects Advisor
Michael Czarkowski, Ed.D.	Director, Doctoral Program Wilmington University	Early College Program Advisor
Carol L. Kuprevich, Ed.D.	Director, Mental Health Delaware Division of Substance Abuse and Mental Health	Public Health Resources and Advisor

Everett Dickerson, M.A. Doctor of Philosophy, Counseling Psychology – Fall 2015	Suicide Prevention and Intervention Clinician Delaware Guidance Services	Outreach and Suicide Prevention Education, Group and Individual Therapy
Robert Young, B.S. (Chemistry)	Superintendent of Safety & Environmental Affairs Delaware River & Bay Authority	STEM Projects and Research Consultant
Kelli Garrity, RN, MPH	School Nurse Christina School District	School Wellness Center Development, Parent Education Center Health Advisor
Erica Carter, M.D.	Hospital Physician	Public Health and Biomedical Consultant
Mary S. Hite, M.S.	Retired Business Education Teacher and Vocational Youth Advisor	Mentoring, Business Technology, College and Career Readiness Strategist, Personnel Management
Mary Beth French, M.S.	Physical Education Teacher and State – Wide Health Liaison	Health, Wellness, Physical Education Recreation and Dance
Nicole Hyland, M.Ed.	Special Education Teacher/Parent	Special Education, Athletics, School Administration
Stephen J. Dobraniecki	Commercial Real Estate	Property Location
Michael Ramone	Delaware State Rep. 21st District – R	Community Leader, Coach, Mentor, Entrepreneurship, Leadership, Wellness