

ATEA

American Technical Education Association

Journal



**OUTSTANDING
TRUSTEE
2020**

**Adventure is the
Best Way to Learn**
Lake Area Technical College,
Watertown South Dakota

**Technical Education in
Rapidly Transforming
World of Aerospace and
Space Travel**

Host Dona Ana Community College, Las
Cruces, New Mexico and White Sands
Testing Facility, Las Cruces, New Mexico

4	Executive Director's Letter	Sandra Krebsbach, Ph.D., M.S., Executive Directors Column
5	President's Letter	Sue G. Smith, President ATEA Board of Trustees
6	ATEA Board Action	Board Action June 3 Annual Meeting and Board Meeting
7	Lake Area Technical College	Tribute to Brooks Jacobsen, ATEA Outstanding Trustee 2020
8-10	Region 5 Conference:	"Adventures! Are the Best Way to Learn" October 7, 2020 Virtual
11	Best Practice Calls	June to December 2020
12-13	Focused topic conference	"Technical Education in the Rapidly Transforming World of Aerospace and Space Travel" October 28 and 29, 2020 virtual-based in Las Cruces, New Mexico.
14-15	Keynote: "Building the Workforce Pipeline for Aerospace and Commercial Space"	Tracey Bryan, President and CEO of The Bridge of Southern New Mexico October, ATEA Conference October 28 2020
16-17	Krystal Klear	"COVID-19 Collaboration" Darrell Kesler, Ph.D., Ivy Tech Community College

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The American Technical Education Association (ATEA) was founded in 1928 and incorporated as a non-profit professional education association in 1960. In 1973 the national headquarters was moved from Delmar, New York to Wahpeton, North Dakota. In 2012 ATEA relocated to the Dunwoody College of Technology, Minneapolis, MN. ATEA is the only autonomous and non-affiliated international association devoted solely to the purposes of postsecondary technical education. ATEA is the leading association for the postsecondary technical educator with emphasis on professional development. Educators and individuals from business and industry come together at conferences to discuss the latest trends and developments in technology. The organization is dedicated to excellence in the quality of postsecondary technical education with emphasis on practical teaching ideas and best practices.

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American Technical Education Association

Values:

To communicate the role and importance of technical education

To share best practice

To build professional relationships

To identify trends that effect technical education

Mission

The organization is dedicated to excellence in quality of postsecondary technical education focusing on practical teaching ideas and best practices. ATEA recognizes outstanding performance and leadership and provides a network for career connectivity.



**AMERICAN TECHNICAL
EDUCATION ASSOCIATION**



Dear ATEA Members and Readers of the ATEA Journal,

This edition covers the fall of 2020, the first full term of technical education functioning in a pandemic. Onsite education was restricted in some way, be it, spacing, masking and virtual training. ATEA's roster of Best Practice Calls from July through December 2020 is on page 12. Best Practice Calls hosted by ATEA members and free to all is an integral part of ATEA's programming.

ATEA held its Region 5 Conference virtually, hosted by Lake Area Technical College from Watertown, South Dakota. They created a strong program with the added dimension of a video produced by their aviation program of a take-off and landing as an introduction and closure to the conference. LATC "flight attendants" guided us through the conference—a must see. The full program is reprinted on pages 6, 7, and 8.

The full video is available through LATC. Thank you to President Carney for his presentation and support of ATEA. Brooks Jacobsen, ATEA Board member and LATC supervisor and faculty in Robotics and Electrical Systems, was awarded the Outstanding ATEA Board of Trustee for 2020. He is featured on the cover. He leads the LATC participation at conferences and is the Chair of the ATEA National Awards Program.

ATEA moved a two day conference from Las Cruces, New Mexico, "Technical Education in the Rapidly Transforming World of Aerospace and Space Travel" to a virtual conference. It was masterfully chaired by Mary Kaye Bredeson, Executive Director of the Center of Excellence in Advanced Manufacturing and Aerospace, State of Washington and ATEA Board of Trustee and by Jean Pierre Laguerre, Director, Education NAM - 3DEXperience/PLM, Dassult 3D Systemes.

The presenters were from Spaceport American, Virgin Galactic, White Sands Test Facility and both Dona Ana Community College and New Mexico State University on how the area transformed to meet the needs of the emerging space travel industry. Bridges of Southern New Mexico's, President and CEO, Tracey Bryan, opened the conference. Slides from her comments are on page 12. The content of the two day conference is on a link on the ATEA Website.

ATEA thanks the team in Las Cruces, Joe Butler, Dean of Science, Engineering and Mathematics, Dona Ana for panels from both Dona Ana and New Mexico State University, pages 10-11 on the reorganization of departments and services to meet known needs and the built-in the flexibility to meet those to come. Thank you for Joe Bullington, Director of Commercialization Jacobs Co. White Sands Test Facility for making White Sands focus on technical education.

The conference had a Space Ports panel, focused on what they are, there are 12 licensed and the economic impact for the future of space travel. Thank you to spaceport panelists: Robert Smith, Assistant Director of Business Development, Alabama Department of Commerce; Ryan Nalty, Director of Economic Development Adams County Colorado Air and Spaceport; and Robin Toth, Director of Aerospace the Governor's Sector lead, Office of Economic Development and Competitiveness, State of Washington. A fourth panelist, Laura O'Neill Ott, Brazen Company spoke from an industry growth perspective.

ATEA will continue with themes of aerospace and aviation in the national conference next spring.

Best regards,

Sandra Gehlen Krebsbach, Ph.D., M.S.
Executive Director



Sue Smith
Ivy Tech College Vice President,
Advanced Manufacturing, Engineering,
& Applied Science

Dear ATEA Members,

Another virtual year is underway and ATEA member schools are again examples of how to work together sharing best practices and online resources to deliver the highest quality technical education. I am so proud to be a part of this organization. Congratulations to the Region 5 team for a successful virtual conference. ATEA also delivered an amazing aerospace conference about technical education transforming the sector. Thank you to Don Ana Community College for hosting from New Mexico. Great things continue to happen during this challenging time.

Martin Luther King, Jr. said, "If you can't fly then run, if you can't run, then walk, if you can't walk then crawl, but whatever you do you have to keep moving forward." ATEA continues to move forward in planning for the second national virtual conference. Leading as an example for other organizations to follow using a sector approach to ensure relevant tracks support programs in technical education. The board is active assigning champions, connectors, experts, faculty, and business partners to lead and participate in each sector. Thank you to all the board members and participants for your commitment and service. ATEA is truly an organization for its members lead by its members.

One great example of a board member who works tirelessly in support of his students and technical education is Brooks Jacobsen. Congratulations to Brooks on being selected for the much deserved Outstanding Trustee award!

We have had challenging times in the past. We are in challenging times now and we know we will face challenges in the future. I am confident that no matter what lies ahead, ATEA will continue to turn challenge into opportunity and continue to move forward. Please join me in embracing the future of this great organization.

Best Wishes,

Sue Smith

President, ATEA

sgsmith@ivytech.edu

American Technical Education Outstanding Board of Trustee 2020 is:
Brooks Jacobsen, Electric Systems and Robotics Department Supervisor
Lake Area Technical College, Watertown South Dakota

President Michael Cartney, Lake Area Technical College will present the award on behalf of President Sue G. Smith at the ATEA Region 5 Conference.

Board Actions

board actions

Board Action: Sectors–

The ATEA Board approved a sector approach to ATEA programs and conferences. ATEA wants to maintain the ability to be flexible to move on the mission of identifying trends and technology that effect technical education. Also to identify the integration of technologies such as mechatronics (2020) and others as they emerge.

The sectors for 2020-2021

1. Allied Health
2. Cybersecurity—larger sector is IT
3. Manufacturing, artificial intelligence
4. Agriculture and Forest Products
5. Aerospace and Aviation

Other sectors are

1. Construction
2. Transportation, automotive and diesel
3. Energy

6-Sided Matrix Approach Sectors:

- 1 Champions connectors to champions
- 2 Experts/faculty, agencies,
- 3 Business Partners
- 4 Institutions leading or participating in the sectors
- 5 Networks
- 6 Integrated technology or programs among sectors

Board members signed up as Champions or Connectors to develop the national conference for 2021.

Board of Trustee Meeting News: Accepted the resignation of Dr. James Sherrard.

Dr. James Sherrard, Chair, Nuclear Programs, Three Rivers Community and Technical College, Norwich, CT

Nomination of Vice Presidents in Line of Succession

Line of succession vice presidents each serving two year terms in each position up to and as president through 2029. One of ATEA's strengths is leadership. With active members and an engaged board, ATEA has excelled in providing services to its members and supporting technical education. Strong and consistent leadership is critical to any organization. ATEA is proud to announce an amazing slate of leaders to continue its mission and vision. Thank you to our board of trustees for your support and to everyone who stepped up to assume a leadership role for ATEA. We look forward to the future!

Susan G. Smith, President, ATEA Board of Trustees 2019-2021



Dr. Betty Breynard
1st Vice President
2021-23

Dr. Betty Reynard, President of Lamar State College Port Arthur, Port Arthur, Texas



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2021-23

President of Western Dakota Technical College, Rapid City, South Dakota



Mr. Ryan Purdy
3rd Vice President
2021-23

President of Mid Plains Community College, North Platte, Nebraska

IT'S AMAZING OPPORTUNITIES
IT'S IN-DEMAND SKILLS
IT'S EPIC CAREERS



LAKE AREA
TECH COLLEGE

It is you.



We are proud of you,
Brooks Jacobsen!

You are a true ambassador of
career and technical education and
an EPIC representative of
Lake Area Technical College!

MAKE YOUR
STORY
EPIC

Watertown, SD

lakeareatech.edu

31

CAREER PROGRAMS
JOB PLACEMENT

99%

AMERICAN TECHNICAL EDUCATION ASSOCIATION

BOARDING PASS

Virtual Conference

DESTINATION Lake Area Technical College
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GATE LAKE AREA TECH ROW 1201 ARROW AVE WATERTOWN SOUTH DAKOTA SEAT YOUR OFFICE


ADVENTURES!
 ARE THE
 BEST WAY
 TO
 LEARN

10. 9. 2020

FIRST CLASS



ADVENTURE ITINERARY

- 8:15-8:30 AM **Sponsor Presentations**
- 8:30-8:35 AM **Welcome from ATEA President**—Sue Smith
Award Presentation - Sue Smith
- 8:40-8:45 AM **Welcome to your ATEA Adventure!** Featuring Greg Klein—Lake Area Tech College Aviation Program
- 8:45-9:00 AM **What to Expect!** Adventure Directors—Julie Stevenson/Katie Paulson, Lake Area Tech College staff
- 9:00-10:00 AM **KEYNOTE -THINK 3D—Vaney Hariri**

 THINK 3D will challenge participants to see how simple, yet tangible, steps can and must be taken to address the workforce gap, the shifting workplace environment, and the transition from our current unprecedented situation to transformation of opportunity and inspiration. Enjoy your adventure!
- 10:00-10:15 AM **BREAK /Adventure Activity #1**
- 10:15-10:55 AM **ADVENTURE BREAKOUT SESSION 1**
 - Introducing Soft Chalk Cloud...Content Creation Software** - See how you can create-your-own engaging, interactive, personalized online lessons that your students can access anytime, anywhere, on any device. Q & A.
Presenter: Gina Grant—Lake Area Tech College Assessment Coordinator
 - Connecting Apprenticeships with High School and Industry**—Apprenticeships are a great way for secondary school students to explore careers and for businesses to build a skilled workforce. High School students earn dual credits, a paycheck, and a nationally recognized certificate – all while they are going to high school. This presentation will help you explore the benefits and challenges of establishing such an apprenticeship program. Q & A.
Presenter: Terri Cordrey -Lake Area Tech College Grant Writer
 - Soil Your Undies!** - Do you want to know what the soil is doing under your feet? Do you want to see if your soil is working with you in decomposing organic matter? In a unique way, e will share how different soil management practices will affect the soil in your fields! Q & A.
Presenter: Jeff York—Lake Area Tech College Agriculture Faculty
 - Maximizing Simulation with the Use of GoPro** - The purpose of this session is to demonstrate how a GoPro camera can be utilized in the nursing simulation environment. Using this technology allows faculty to meet clinical requirements of distance learning students as well as satisfy course and program outcomes. Q & A.
Presenters: Lake Area Tech College Nursing Faculty

11:00- 11:40 AM ADVENTURE BREAKOUT SESSION 2

Preparing Students to "Sell" Their Skills in the Job Interview—Many students entering the workforce are relying on the words in their degree to get them hired. However, when encountering their first job interview, many struggle to identify their skills and strengths in order to convince the employer that they are the right person for the job. This presentation will share the ways in which LATC prepares its students to win the job interview through resume preparation and interviewing techniques. Q & A.

Presenter: Sherray Hurlbert— Lake Area Tech College General Education Department Supervisor/Faculty

The Big Disconnect: Remaining Present in a Digital Age—The Big Disconnect draws our attention to the social and emotional damages caused by the age of technology. Technology is eroding our attention spans, our communication abilities, and our ability to self-soothe. This interactive presentation will examine the implications of technology on college mental health and offer digital detox suggestions. Q & A.

Presenters: Barb Kleinjan—Lake Area Tech College General Education Speech Faculty and Val Albert—South Dakota State University General Education Speech Faculty

An Adventure in Bovine Stomach Dissection - Classroom dissection and discussion of the characteristics and functions of ruminant stomach compartments. Q & A.

Presenter: Greg Miller—Lake Area Tech College Agriculture Department Supervisor/Faculty

Reverse Row Teaching in a Hands on Field—The Lake Area Tech welding instructors discuss their transition to online learning during the Covid19 campus closure. Q & A

Presenters: Andy Rossow and Josh Jutting—Lake Area Tech College Welding Faculty

11:45 -12:30 PM LUNCH ON YOUR OWN (Optional Self-Guided Virtual Tour of Lake Area Technical College campus)

<https://www.lakeareatech.edu/campus/virtual-tour/>

12:35–1:20 PM ADVENTURE BREAKOUT SESSION 3

Creating and Sharing High Quality Content on Social Media and Exploring the Analytics that Drive Success—Exploring the analytical side of social media and how to use data to shape the content you create. Also previewing free apps to create high quality content to help promote your competitive edge. Q & A.

Presenter: Tom Mulholland—Lake Area Tech College Business Associate Department Supervisor/Faculty

Online Observation Rubric—Learn how our online observation rubric became our template for quality online courses. Q & A

Presenter: Gina Grant—Lake Area Tech College Assessment Coordinator

Step on the Ball! - The student who has never spun an airplane simply does what the instructor says because he or she has been told the airplane might go into a spin. Come along for a flight lesson that lets the student profoundly experience the sights, sensations and feels that result from an off-center ball, causing the stalled wing on the inside of the turn to "tuck under" while the outside wing continues to "fly over the top."

Presenters: Greg Klein -Lake Area Tech College Aviation Department Supervisor/Faculty; Aaron Weeldreyer- Professional Pilot Faculty

Starting and Maintaining a College Makerspace: Lessons Learned—Lake Area Tech College developed a Makerspace for students before Makerspaces were trendy. The Lake Area Tech College librarian will discuss how the Makerspace got started, how it has changed, and what we've learned along the way. Q & A

Presenter: Nicki Yackley-Franken – Lake Area Tech College Librarian/Makerspace Manager

1:25–2:05 PM ADVENTURE BREAKOUT SESSION 4

Things Great Teachers Do—"Every teacher's experience is unique, and every classroom is different. But great teachers-no matter where or whom or what they teach-have much in common." Todd Whitaker Join long time educator Dr. Mike for a review of author Todd Whitaker's "What Great Teachers Do Differently-17 Things That Matter Most". It's a great reminder of who we are and what we do as educators. Enjoy the adventure! Q & A

Presenter: Dr. Mike Butts—Lake Area Tech College Dean of Academics

Student Support Services Roundtable Discussion—In this roundtable discussion, we will focus on the ways in which the Center for Student Engagement & Support (CSES) supports students to remove personal and academic barriers that might stand in the way of their success. Q & A.

Presenters: Stephanie Danielsen – Lake Area Tech College Coordinator for Student Engagement & Support; Lori Kwasniewski – LATC Educational Services Coordinator/Disability Services/ Testing/ Tutoring; Lee Quale – LATC Retention Coordinator/Dual Credit

ADVENTURE BREAKOUT SESSION 4 continued on next page

Dig Deep & Dream Big—Informational video on the Heavy Equipment Operator department partnership and development of the Stoney Point Marina and Resort project. Enjoy the adventure!
 Presenter: Steve Henningsgaard—Lake Area Tech College Heavy Equipment Operator Department Supervisor and Faculty <http://www.stonypointsd.com/future-of-stony-point-sd/>

3D Printing PPE Setup for Distribution—How to set up and implement a 3D printing community to print PPE for distribution of face shields. With the help of local community members and LATC, we were able to print and laser 37,000 face shields for frontline workers in the fight against COVID-19. Q & A.
 Presenters: Brooks Jacobsen Lake Area Tech College Electronic Systems Technology/Robotics Supervisor and Faculty; Bob Poor Lake Area Tech College Electronic Systems Technology/Robotics

2:10–2:25 PM **BREAK/Adventure Activity #2**

2:30–3:10 PM **ADVENTURE BREAKOUT SESSION 5**
College is a Pathway, Not a Destination— Over the course of time, Lake Area Tech College changed the direction of their conversations and strategically adopted the philosophy that college is a pathway, not a destination. Listen to Lake Area Technical College President Mike Cartney as he explains what this means for the student and how this has changed the direction of post-high education for this college. Q & A.
 Presenter: Mike Cartney—Lake Area Tech College President

3:10 PM **Thank You for Going on an Adventure With Us!** - Julie Stevenson/Katie Paulson/Greg Klein
Invitation to Region V—2021 ATEA Conference—Bismarck, ND
Message from ATEA Executive Director - Sandra Krebsbach
Please complete the survey at <https://www.surveymonkey.com/r/2020ATEA>

All completed surveys will be entered for door prizes! Email address will be required for shipping arrangements. Thank you!

See you next year at the Region V ATEA Conference in Bismarck, ND!

- ◆ A special thank you to the Lake Area Technical College ATEA Conference Committee. The planning this year has definitely been an adventure! #goawaycovid19 #staystrong #inthisogether
Committee members: Brad Heesch , Brooks Jacobsen; Katie Paulson; Diane Stiles ; Steve Hauck; Tina Kruse; Shane Ortmeier; Karen Henricks; Kristina Pearson; Shane Swenson; Julie Stevenson; Dennis Heller; Bonita Russell; Dodie Bemis; Jon Redmond; Mike Butts; LuAnn Strait, IT Department and Computer Information Systems program Faculty and Students.
- ◆ A shout out to **ATEA Executive Director, Sandra Krebsbach** for her guidance and an occasional phone call to “talk us off the cliff”! Your enthusiasm and passion for ATEA is undeniable. Thank you!

Thank you sponsors!



Best Practice Calls July to November 2020 moved from triage to transition to planning for re-entry students in a Post Covid Time.

BEST PRACTICES

July 22, 2020, “ATEA Best Practice Call, the Value of Apprenticeships to Engage Employers with Students a look at New Jersey and Tennessee”

Hosted by Camden County College, Blackwood Campus, Camden, New Jersey and Tennessee College of Applied Technology on the Chattanooga State Community College, Chattanooga, Tennessee

Thank you to leaders, Kevin Schmidt, Director of Engineering and Technology Programs, Camden College, Blackwood Campus, Camden, New Jersey and Dr. James Barrott, Executive VP, for Technical College, TCAT, at Chattanooga State Community College. Kevin Schmidt spoke on apprenticeships and contextual learning a research area for his doctoral program. Dr. Barrott compared the types of college managed apprenticeship programs and the advantages for employers.

August 25, 2020 Best Practice Call “ Prior Learning Assessment: the Role of PLA in a post COVID World”

Hosted by Maine College of Health Professions, Lewiston Maine and Wallace State College. Hanceville Alabama

Thank you Dr. Alex Clifford, Vice President of Academic Affairs and Student Affairs, Maine College of Health Professions, Lewiston, Maine and Susan Peek, Success Coach and Prior Learning Specialist, Wallace State College, Hanceville Alabama. They discussed what worked and what did not work in processes for prior learning; the importance of prior learning for program innovation and survival. Dr. Clifford spoke specifically about the “Bridge Program into Nursing,” at Maine College of Health Professions and provide a map of the process used in PLA. Susan Peek spoke on PLA for a machinist program and the standard process format used for PLA.

September 24, 2020 International Panel on “Apprenticeships and Workplace Learning”

Hosted by Bates Technical College, Tacoma, Washington

Thank you to all who helped to organize and those who presented in an international “Best Practice Call” The panelists were: American Technical Education Association Board member Dr. James Barrott, Executive VP for Technical College, TCAT, Chattanooga State Community College, who spoke on the types of apprenticeships in United States: Dr. Sandy McDonald, President and CEO of Holland College, Prince Edward Island, Canada, representing the Colleges and Institutes of Canada CICan, spoke on Canadian Apprenticeship Programs; and Ms. Yuon Cheng, Vice President, Ningbo Polytechnic representing Chinese Education Association for International Exchange, speaking on international apprenticeships. Thank you to Dr. Lin Zhou, President of Bates Technical College, Tacoma, Washington, for working with the panelists and the organizations to provide a board perspective on apprenticeships both internal to nations and collaborations among nations.

September 30, 2020 “Local Employer Apprenticeships”

Hosted by Trident Technical College, Charleston, South Carolina

Thank you to Elizabeth Colbert-Busch, Advisor to the President Trident Technical College, South Carolina, for hosting the “Best Practice Call on Local Employer Apprenticeships.” The panelists were: Melissa Stowasser, Vice President for Community Partnerships at Trident Technical College, Debbie McLeod, President and Apprenticeship Director for McLeod Information Systems; and Arthur Gibson, student apprentice. Debbie organized and set up the only cybersecurity apprenticeship program in the State of South Carolina. The “Call” moved through sets at Trident Technical College to set up the apprenticeship and its accomplishments.

November 17, 2020 “Best Practice Heavy Equipment Logging and Truck Driving in the Forest Industry”

Hosted by Shasta College, Redding, California.

Thank you to Becky Roe, Senior Program Director for Economic Development and to ATEA Trustee, Marie Price, from business partner, Idaho Forest Group for organizing the “Call” and moderating and hosting it. Shasta working with Sierra Nevada Forest Products received a grant for heavy equipment and truck driving in the logging industry. The call featured, John Livingston, faculty in the Maintenance of Heavy Equipment Program and a recent student who is now an alumna of the program, Sabrina Cantu, Heavy Equipment Operator, Warner Industries. Ted James, Sierra Pacific Industries and Sierra Cascade Logging Conference was a panelist from the industry side.

best practice call

Technical Education in the Rapidly Transforming World of Aerospace and Space Travel

October 28 and 29, based in Las Cruces, New Mexico home of Spaceport America, Dona Anna Community College, and White Sands Testing Facility and White Sands Missile Range.

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Joe Butler Dean of
Science, Engineering
and Mathematics, Dona
Ana Community College



JP Laguerre
3D Systems,
Dassault
Nov. 2018

SPEAKERS - OCT. 28th

Southern New Mexico Educational and Workforce Development Ecosystem that supports the aerospace industry



Tracey Bryan
President/CEO of The
Bridge of Southern New
Mexico
Selected PowerPoint from her
presentaion on pages 14 and 15.

Technical Jobs at the NASA White Sands Test Facility, related training, teaming with engineers, needed skills, both technical and soft skills



Joe Bullington
Jacobs Technology,
Commercialization
Manager for NASA's White
Sands Test Facility

Technical Businesses in southern New Mexico and relationship to a technical workforce: "What has changed and what is required?"

Joe Butler, Dean of Science, Engineering and Mathematics Division of DACC

Louie Garcia, Project Engineer, Southwest Range Services, at White Sands Missile Range

Anthony Blea, Directed Energy Testing Team, Southwest Range Services, White Sands Missile Range

Joe Bullington, Commercialization Manager, Jacobs Technology, NASA White Sands Test

Jonathon Scott, Pilot, AeroVironment, Spaceport America

SPACE PORT AMERICA PANEL

"A Look Around the Country at the Diversification of Aerospace and Spaceports"

Robert Smith, Assistant Director of Business Development, Alabama Department of Commerce

Laura O'Neill Ott, Government Relations, Barzan Company, Charleston, South Carolina

Ryan Nalty, Director Economic Development at Adams County, Colorado, Colorado Air and Space Port

Robin Toth, Director of Aerospace, Governor's Sector Lead, Office of Economic Development & Competitiveness

Dona Ana Community College Overview: How it started, decisions made, adjustments and changes, advantages and challenges, and reorganization

Joe Butler, Dean of Science, Engineering and Mathematics Division of DACC

Saundra Castillo, Dean of Advanced Technologies, DACC



Renay Scott, VP Student Success, (former DACC campus President)



Monica Torres, DACC Campus President (former DACC VP for Academic Affairs)

DACC & New Mexico State University—how it works—Programs that support Aerospace, Transfer, Guided Pathways and BAS degree—with partnership updates

Joe Butler, Dean of Science, Engineering and Mathematics Division of DACC

Dr. Enrico Pontelli, Dean of Science, Engineering and Mathematics, DACC



Dr. Patty Wojahn, Dept Chair, Interdisciplinary



Brad Mazdra, Director of Academic Advising DACC



Dr. Patricia Sullivan, Associate Dean of College Engineering, NMSU

DACC how it works—Programs that support Aerospace, shared course, collaboration, working with industry

Joe Butler, Dean of Science, Engineering and Mathematics Division of DACC

James Fredrickson, Assistant Prof of Aerospace Technologies, DACC

Saundra Castillo, Dean of Advanced Technologies, DACC



Chipper Moore, Dept. Chair, Drafting and Design Technologies, DACC

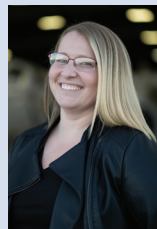


Terri Mount, Dept Chair for Commercial Technologies, DACC

SPACE SPORT & VIRGIN GALACTIC



Alison Carruth, Space Port America



Katie Westley, Virgin Galactic

focused virtual conference

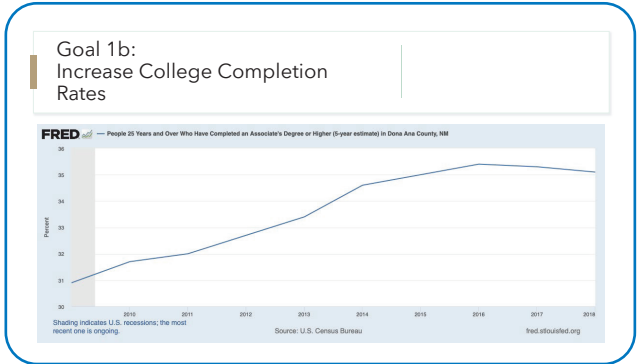
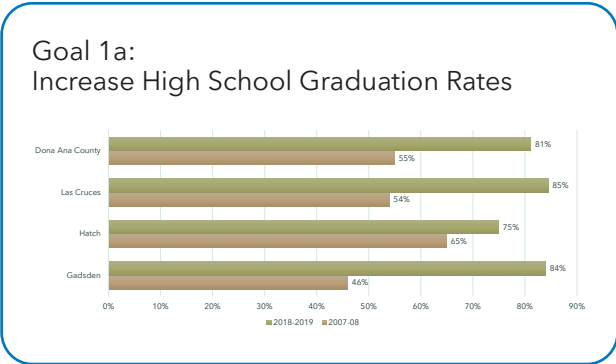
KEYNOTE

ATEA Conference, October 2020

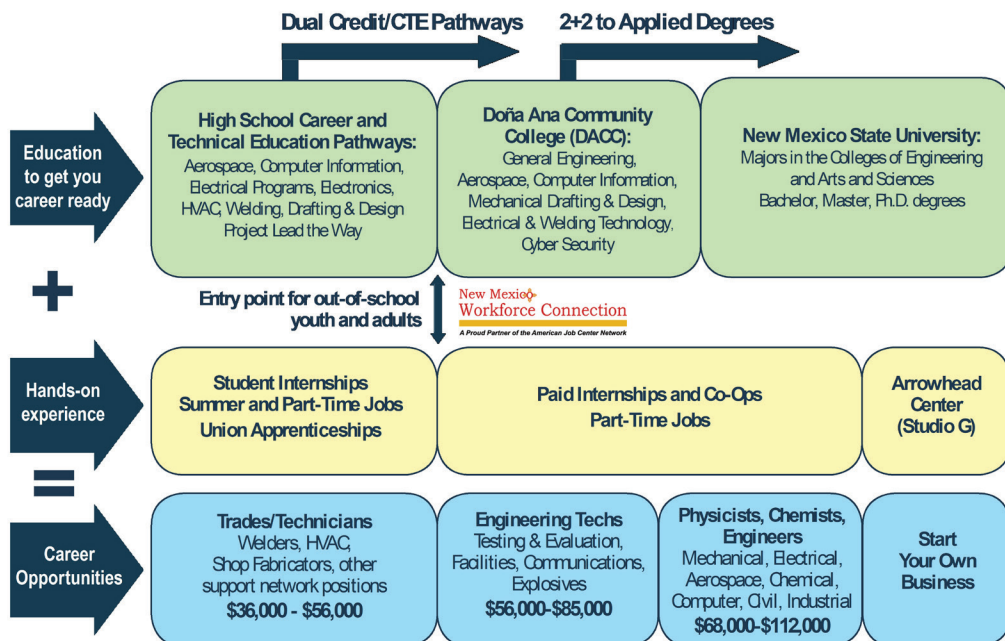
Building the Workforce Talent Pipeline for Aerospace and Commercial Space

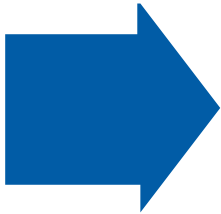


Tracey Bryan
Position



Aerospace, Space, and Defense Industries Pathways, Partners, and Positions





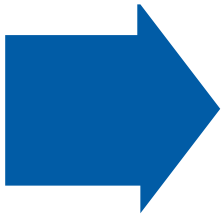
Most Requested Degrees

Bachelor Degrees:

- Mechanical Engineering
- Electrical Engineering
- Computer Engineering
- Computer Scientist
- Business Management/Accounting
- Aerospace Engineer
- Cyber Security
- Physicist

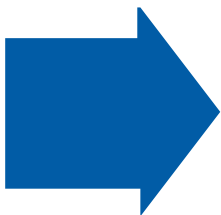
Associate Degrees:

- Electrical Engineering/Electronics Technology
- Computer Information Technology
- Engineering Technician
- Mechanical Technology
- Manufacturing Technology
- Computer Assisted Design
- Chemical Technician
- Web Design
- Water Technician
- Applied Technology
- Welding Technician
- Hospitality



Most Requested Experiences (No degree required)

- Logistics/Supply Chain-Materials Handler/Inventory Clear
- Administrative Assistants
- Facilities
- Mechanical Technicians
- Electrical Technicians
- Chemical Technicians
- Computer Technicians
- Laborers
- Baristas



Most Requested Trades and Certificates

- Licensed electricians
- Welding
- Airframe and Powerplant
- Electricians
- Water System Operator
- Emergency Medical Technician
- Mechanic
- Drafting
- Heavy Equipment Operator/ Commercial Driver's License
- Pilots for manned and unmanned aerial vehicles
- Hospitality

COVID-19 Collaboration

Darrel J. Kesler, Ph.D.

I woke up startled; but within a minute realized my dream was our reality—we're living in a pandemic. Science fiction is often filed in dust bins; however, Oryx and Crake's plot, a post-pandemic world as the result of a deadly virus, is now frighteningly recognizable. How is our story playing out?

Science, to many, is an arcane, sluggish discipline staffed by eggheads. Well, these "eggheads" are writing an amazing storyline. ProMed1, a human-curated, open-access resource for threatening viruses, sounded the alarm just before midnight, December 30, 2019. Bioscience research's and public health officials pivoted from whatever they were doing and focused on the anticipated pandemic. An exceptional open-sourced collaboration emerged. College, government, and industry employees began openly sharing, openly collaborating like never seen before. Two biomedical preprint servers (medRxiv2 and bioRxiv3), where scientists post pre-peer-reviewed articles, began seeing a tsunami of postings. Within four months of the first COVID-19 era posting in 2020 (1/19 on bioRxiv), there have been more than 1900 articles posted. Research in other biosciences has come to a near standstill.

The world has learned incredible new ways to collaborate. Academia, often in an ivory tower, is collaborating with industry and government scientists, and not just within the U.S. but globally. They are creating an unprecedented global collaboration. The fight against the virus made humans unite, collaborate, and forget their differences. There's been productive dialogue in the business literature about collaboration. Although collaboration has increased, it's often lopsided. "In most cases, 20% to 35% of value-added collaborations come from only 3% to 5% of employees."4 That's abruptly changed.

Teaching faculty across colleges pivoted like bioscience researchers. Face-to-face teaching was paused; all teaching became virtual. Inventive faculty swiftly rose to the occasion. Faculty across our state-wide system began to collaborate in earnest. Ideas sprang forth during brainstorming sessions, previously unused teaching software was identified, downloaded, and adopted, faculty traveled to help colleagues, and many more endeavors. Within a week of returning from spring break, my faculty were then locked out of their offices and labs; teaching virtually was now called the norm. ATEA stepped forth and offered virtual "Best Practices" dialogues, several lead by my faculty, in an excellent format. I had a high degree of collaboration among my faculty pre-COVID-19. The pandemic enhanced porosity in residual silos and enhanced collaboration to an astonishing level. They, like others across the country, worked insane hours for their students.

A 100% virtual technology- and skills-based education platform will not be the

new norm; however, our pre-COVID-19 teaching pedagogy has been disrupted and will change. Change was forthcoming. What it will look like will be up to technical educators. On March 22, I used the phrase The Great Education Experiment with my faculty. Four years earlier (2006) Steven Mintz, professor at the University of Texas, Austin and founding director of The University of Texas System's Institute for Transformational Learning said "Anyone who thinks that a decade from now higher education will look much as it does today is sadly mistaken." The transformation has begun in earnest. Anyone planning on going back to things as before COVID-19, think again. What will emerge, I don't know exactly; however, I do see scenarios. They include a virtual element, yes even for skills-based classes; they include more open-lab, independent, competency-based work. Instructors not as live face-to-face lecturers, but coaches and mentors. Welcome to a Brave New World in education. Technical educators, you are creating the future of technical- and skills-based education.

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1 <https://promedmail.org/about-promed/>

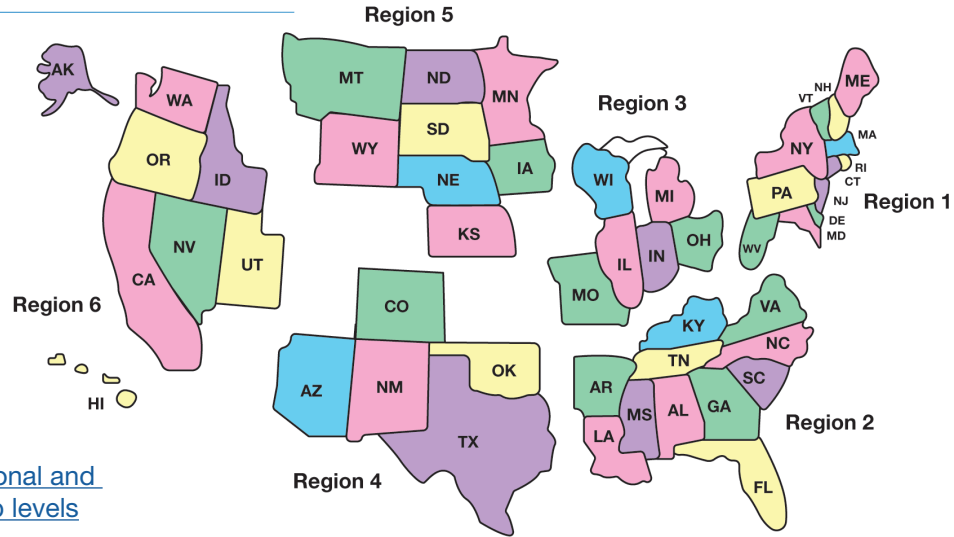
2 <https://www.medrxiv.org/>

3 <https://www.biorxiv.org/>

4 Cross, R. et al., 2016



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2021

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Virtual 1:00-5:00 ET

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