

Best Practices for Recruiting, Retaining, and Completing Underserved Students

Fall 2020



NATIONAL
CONVERGENCE
TECHNOLOGY CENTER

Agenda

- Kyle Jones and Ryan Murphy, Sinclair Community College
 - Chris Kadlec, Georgia Southern University
 - David Keathly, University of North Texas
 - Tara Lewis, Collin College
 - Jason Mitchell, Lansing Community College
 - Rajiv Malkan, Lone Star College
-
- Please **send your name and school** to us via the “Chat” tool.
 - We will be monitoring the “**Chat**” tool for questions. There should be time at the end to answer questions.



Sinclair Lightning Round

Technology First



Technology First is an industry-led, industry-driven trade association. Our goal is to develop the Dayton and southwest Ohio region into the best-connected information technology community. As new technologies enter the marketplace leveraging the experience of peers and the knowledge of suppliers becomes necessary to make better, faster decisions.





CREATING A COMMUNITY TO SHARE KNOWLEDGE, GROW BUSINESS AND BUILD FOR THE FUTURE. 2020

Established in 1997

22 BOARD MEMBERS

- 4 Quarterly Meetings

170+ CORPORATE MEMBERS

11 ANNUAL PARTNERS

CREATING A COMMUNITY



TECHNOLOGY FIRST LEADERSHIP AWARDS

- Recognizes contributions of Technology professionals (each May)
- Outstanding Technology Team
- Best IT Services Company
- IT Executive of the Year
- Emerging Tech Leader
- Most Promising Startup
- Award of Excellence - Student Project

TECH THURSDAYS

- Casual After Hours Networking
- 5x / year

SHARE KNOWLEDGE

DATA ANALYTICS

- 20+ Attendees Each Session
- 7x/year
- Artificial Intelligence / Machine Learning
- Analytical Algorithms
- Data Strategy & Analysis Tools
- IoT Applications

CIO/CEO COUNCIL (IT LEADERS)

- Company's Highest Level IT Executive or Business Leader
- Monthly Meetings
- 25-40 Attendees Each Session
- Strategic Planning and Leading Edge Topics
- Peer-led sessions and networking

WOMEN 4 TECHNOLOGY

- Both in Dayton and Cincinnati (7x/yr)
- Four Areas of Focus
- Leadership
- Networking
- Professional Development
- Mentoring

INFRASTRUCTURE/CLOUD

- 15+ Attendees Each Session
- 7x/year
- Trending Infrastructure and Cloud Topics
- Maintenance & Security

TECH FORUMS

- 50+ Attendees Each Session
- CIO Council open to all of membership
- 3x/year (January, April, October)
- Recognized Thought Leaders

MUNICIPALITY IT

- IT Leaders, City Managers, and MSP's of Municipalities
- Smart Cities and Leading Edge Topics

WEBSITE

- 26,000+ Unique Annual Visitors

TECH SOURCE

- Helps IT Buyers find Suppliers
- Locate Resources in our Region
- RFP and Referral Requests

TECHNOLOGY FIRST MAGAZINE

- Expert Articles contributed by Members
- 1,000+ Mailed to IT Professionals
- 70,000+ readers

E-NEWSLETTER

- 4,000+ Subscribers
- Event News
- Job Opportunities
- Member Highlights
- Annual Partner Recognition

SCAN TO SIGN-UP FOR EMAILS



SOCIAL MEDIA



2 ANNUAL CONFERENCES

TASTE OF IT

- 13th Annual 11/13/19
- Tracks: Strategy, Security, Analytics, Infrastructure/Cloud, Dev/Programmers
- 400+ Participants
- 30+ Speakers
- 40+ Exhibitors

OHIO INFORMATION SECURITY CONFERENCE

- 17th Annual 3/11/20
- Tracks: Executive, Technical, Operations, Resiliency, Governance, and Workforce
- 350+ Participants
- 25+ Speakers including Expert Panels
- 30+ Exhibitors

GROW BUSINESS



BUILD FOR THE FUTURE

DIGITAL MIXER

- Annual Casual Career and Networking Night (February)
- 35+ Employers
- 200+ Students
- Local Colleges and Universities

TECH FIRST SCHOLARSHIPS

- \$5,000 in Scholarship Money to 5 students
- 2019 Winners from Sinclair College, Wright State University, and Cedarville University

STUDENT VOLUNTEERS

K-12 ENGAGEMENT

JOB POSTINGS

- Unlimited Position Postings for Members
- Full-time, Part-time, and Internship Opportunities

WORKFORCE FORECAST & SALARY SURVEY



Technology First



Technology First

CYBERSECURITY



17th Annual Ohio Information Security Conference
Wednesday, March 11, 2020

Sinclair Community College
Sinclair Conference Center, Suite 12-101 (Building 12) Ponitz Center
444 W. Third Street, Dayton, OH 45402-1460



13th Annual Taste of IT Conference
Wednesday, November 13, 2019

Sinclair Community College
Sinclair Conference Center, Suite 12-101 (Building 12) Ponitz Center
444 W. Third Street, Dayton, OH 45402-1460





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WORKFORCE FORECAST & SALARY SURVEY

Technology First

Women 4 Technology - DAYTON

Panel of Empowering Female Leaders

Collaboration Event with LexisNexis, PNC, Synchrony, Women in Defense, and the Dayton Chamber of Commerce Women's Groups!

Tuesday, September 10 | 8:00-10:00am

Sinclair College - Centerville Regional Center

5800 Clyo Road

Centerville, OH 45459



Women 4 Technology

Women 4 Technology and Sinclair hosted the 3rd annual collaboration event with LexisNexis, PNC, Synchrony, Women in Defense and the Dayton Area Chamber of Commerce's Executive Women's Council. Panelists discussed their journey to the top in the male-dominated technology industry. They also discussed how they can support the next generation of women in technology.

The panel includes:

- Jackie Gamblin, Founder & CEO, JYG Innovations
- Carla Fiden, SVP Customer Experience, Taylor Communications
- Mary Ellen Giffels, SVP Strategic Initiatives, Synchrony Financial

The event also discussed Dayton Girls Who Code



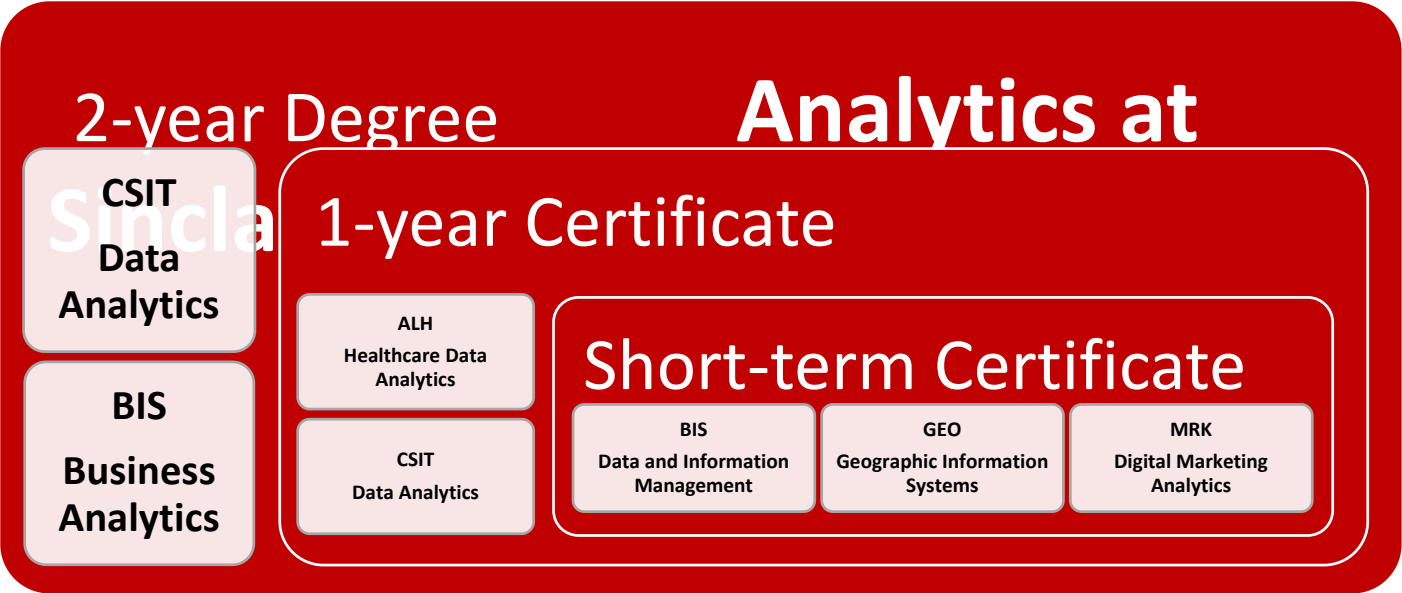
Women 4 Technology

Did you know that the US Bureau of Labor Statistics forecasts there will be 1.4 million jobs in computer science available in the US in 2020? But, a little known rather disturbing fact is that women represent only 26% of the technology workforce.

In an effort to change this dynamic, Technology First and Sinclair Community College have partnered in a Women 4 Technology program to assist women with professional development, networking, leadership, and mentoring.



Data Analytics Programs



Data Analytics Development Timeline

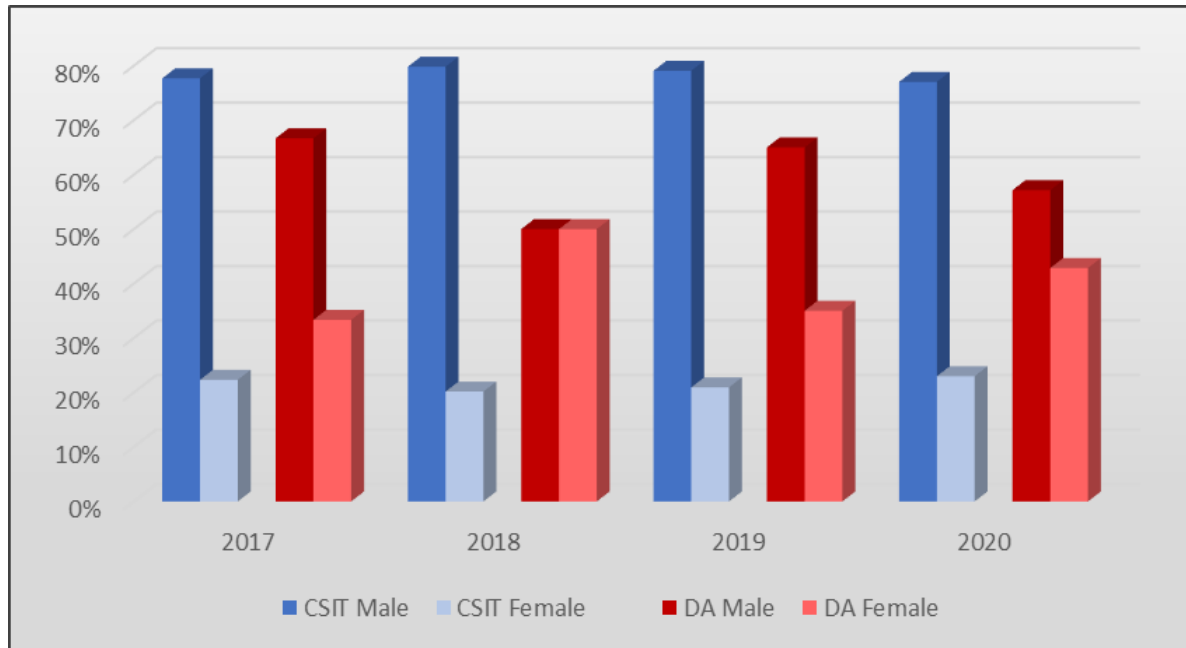


Implementing Marketing Plan 2020-2021

- Original target market: “retooling” for degree holders
- Applied for grant targeting high school students
- Brochures
- Covieo
- Social Media Spots
- Television Commercial



Enrollment Ratio Male/Female

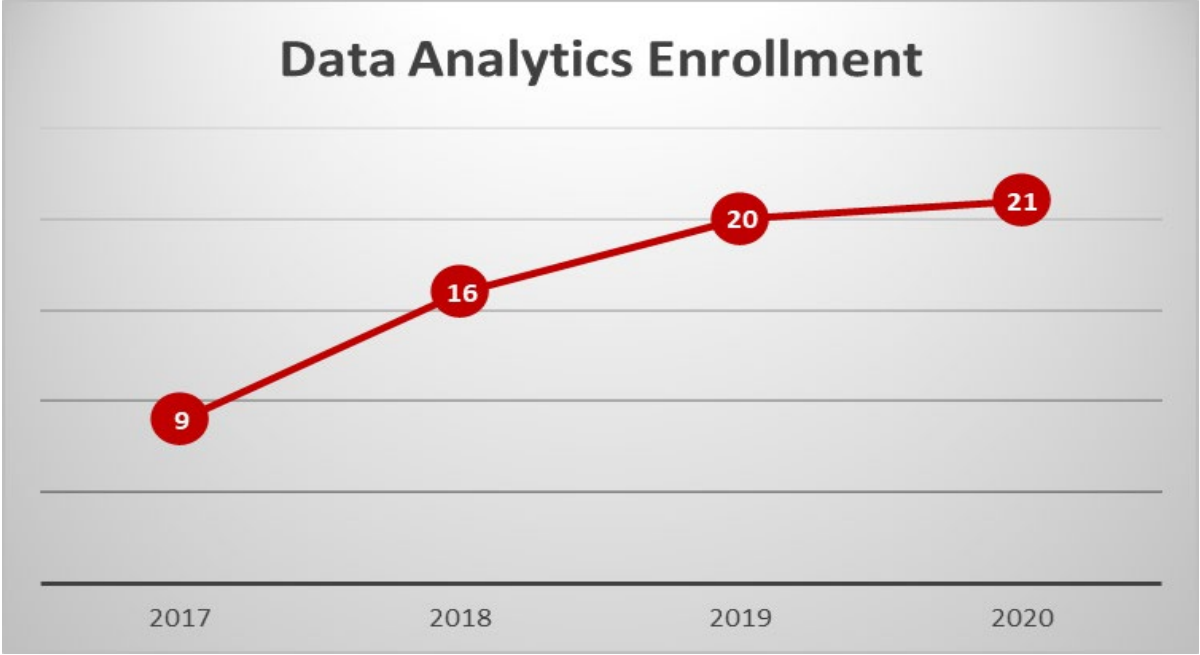


Blue columns show all CSIT Programs
Roughly 80/20 ratio (2461 students)

Red columns show only Data Analytics
Roughly 60/40 (66 students)

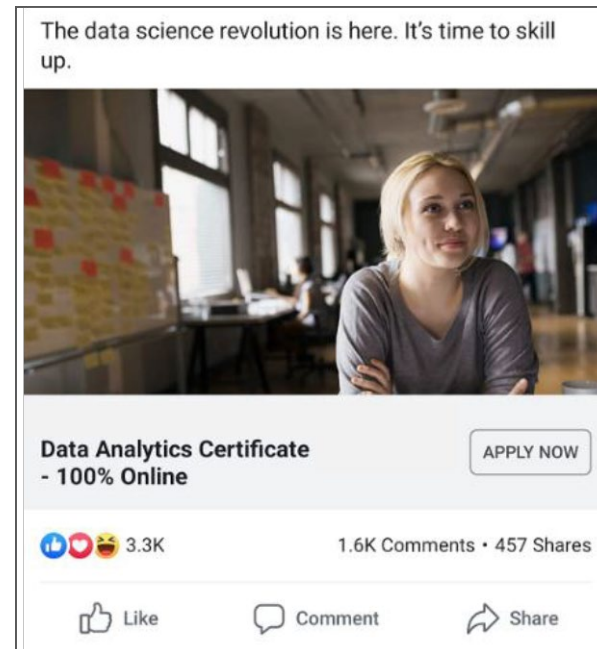


Data Analytics Enrollment Trend



Next Steps

- Implement Marketing Plan
 - Sample Facebook ad
 - Positive statement
 - Target demographic
 - Call to Action
- Monitor, Assess, Revise





THANK YOU

Stimolait

Women in Technology



Dr. Elizabeth Rasnick
Dr. Chris Kadlec

Recruitment

- Invite across majors
 - Women's Weekly
 - Sponsored talks/Events
- Encourage involvement in Campus Community
- Enthusiastic faculty

Retention

- Hold events that emphasize female leaders and leadership in STEM fields
- Women's Weekly
- Hold members-only events
- Enthusiastic faculty

The background features a dark blue gradient with faint, light blue technical diagrams. On the left, a large circular scale with numerical markings from 140 to 260 is visible. Various circular and curved lines, some with arrows, are scattered across the slide, suggesting a technical or engineering theme.

SPECIALIZED DEGREES AND CERTIFICATES FOR RECRUITING AND RETAINING STUDENT

DAVID KEATHLY

PRINCIPAL LECTURER AND BAIT PROGRAM COORDINATOR

COMPUTER SCIENCE AND ENGINEERING DEPT.

UNIVERSITY OF NORTH TEXAS

RATIONALE

- Always looking for options to attract new students – both as majors and “fellow travelers”
- And options to retain students who may be looking to make mid-stream adjustments
- Also addressing new topics in the industry in response to new employment opportunities
- Provide exploratory opportunities for inquisitive students

DEGREES

- New ABET Accredited Degree in Cyber Security
 - Different programming sequence
 - Leveraging courses available in other departments like CJUS
- New graduate offerings in
 - Cyber Security
 - AI and Machine Learning
 - Data Science / Data Analytics
- CS + X degrees
 - First offering is GIS + CS (Geography)
 - Next will likely be CS + Art (Visual arts)

MINORS

- Existing minor in Computer Science
 - Has seen renewed interest
- New Minor in Cybersecurity
 - 19 hrs

CERTIFICATE PROGRAMS

- Existing certificates
 - Security (CISSP)
 - Game Development
- New Stackable Certificates
 - Bronze Certificate in Computer Programming (2 course, 7 hours)
 - Silver Certificate in Computer Programming (Bronze + 2 additional classes, total of 13 hours)
 - Bronze Certificate in Cybersecurity (Bronze CS + 2 courses, total of 13 hours)
 - Silver Certificate in Cybersecurity (Bronze Cyber + 2 courses, total of 19 hours)
 - Gold certificate in Cybersecurity (Silver Cyber + 2 courses, total of 25 hours)
- Anticipate similar pathways in AI/Machine Learning and Data Science in the future

INVITATIONAL COURSES

- CSCE 1010 Discovering Computer Science
 - Targeted to non-majors or inexperienced majors
 - Covers several CS “Big Ideas”
 - Creativity
 - Abstraction
 - Data
 - Algorithms
 - Programming
 - The Internet
 - Global Impacts
 - Uses the same ideas as the AP CS Principles and provides a place to use those AP Credits
 - Has been approved at UNT, and by THECS, As a University Core class and is now required in a number of STEM departments
 - Can also be offered as dual-credit to begin attracting HS students

CONCLUSIONS

- Providing a number of pathways for current students and potential future students as majors
- Providing “add-ons” for students in other majors and departments who recognize the future need for more in-depth computing knowledge within their own disciplines

Recruiting and Retaining: Providing holistic student support

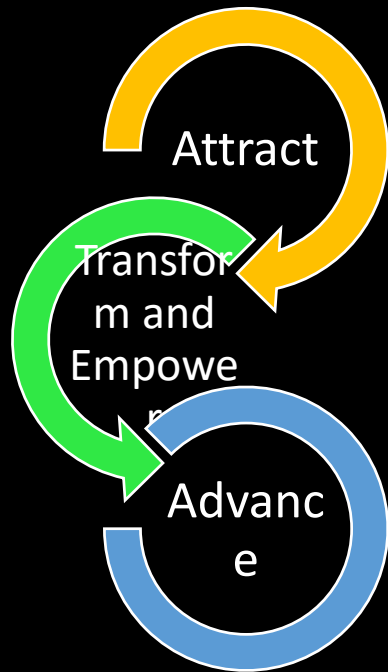
Dr. Tara N. Lewis
Collin College

Holistic student support

- Is intentional planning and integration of mission critical student academic and personal supports.

<https://www.achievethegoal.org/resources/initiatives/holistic-student-supports#:~:text=A%20holistic%20student%20supports%20approach%20is%20the%20intentional%20planning%20and,for%20designated%20populations%20of%20students.>

Student Life Cycle



- 8 Steps

- Engagement
- Recruitment
- Application/Admission
- Orientation/Enrollment
- Studentship
 - Academic – in and out of class
 - Student Life
 - Civic Engagement`
- Graduation
- Alumni

<https://www.csusm.edu/successcoaching/program/lifecycle.html>

Who are our students?

- 1st generation
 - LGBTQIA
 - BiPOC – Black, Indigenous, and persons of color
 - Veterans
 - Women
 - Disabled – visible and hidden
 - Transitioning careers
 - Retooling
 - Parents
 - Caregivers
 - Working full-time or part-time
 - Religious
 - Non-religious
 - Married | Divorced | Single | Widowed
- *An intersection of these & more
- *An iceberg – more than you see!

Things to keep in mind during each stage

Be aware of

- Your biases
- Situational factors
- Authenticity
- Stereotypes
- Barriers
- Imposter Syndrome

Build

- Trust
- Early exposure
- Communities
- Supportive environments
- Your team

Student Development theories/models to implement

- Sanford – challenge and support
- Bandura – Self-efficacy
- Tinto – Persistence & Completion
 - Setting high expectations
 - Support
 - Assessment & feedback (frequent)
 - Involvement – Engagement starts in the classroom – use as a springboard
 - Administrative action

Increase retention and persistence: Career Coaching and Academic Advising

- Strong collaborative partnerships with academic advisors and career coaches (and student services).
- **Intrusive** developmental advising
- Creating connections and opportunities for networking and mentorship
- Mentorship
- Learning Communities

Faculty have industry knowledge; advisors know how all the things work.

Lansing Community College

Retention Through Success

About Academic Success Coaches

Academic Success Coaches that are responsible for ensuring that students receive persistent, proactive, individualized mentoring, academic coaching and support throughout their time at Lansing Community College.

What They Do

We meet with students! Students are encouraged to reach out to an Academic Success Coach; they may also be referred to us by instructors or other members of the LCC community. During our meetings we will learn about the students' experiences at LCC, identify obstacles that may be barriers to their academic success, and help strategize solutions and next-steps. Some of the topics discussed may include:

- Study strategies - how to effectively study, take notes, and keep organized
- Time Management - how to balance work, school, and other responsibilities
- Self-Awareness - helping students identify their strengths, purpose, and goals
- Campus Engagement and Resources - Identifying opportunities and resources on campus and helping students make those connections

The Process

1. Faculty submit an Early Alert Referral during the required timeframe.
2. The referral is received by the Early Alert Intervention Team.
3. The Early Alert Intervention Team first assigns student to a Success Coach, then connects student to appropriate resource for outreach and assistance.
4. Success Coach reaches out to student and resource referral to check status and close any gaps.
5. Success Coach or Early Alert Intervention Team follows-up with faculty referrer.

Stats

- From August 20th – November 20th, 2020 (first 3 months of the semester) there were 2,141 Early Alerts submitted for 1,457 students. Many are referred for multiple reasons...

Academic Reasons – 3,343

Reason	Amount
Academic Skill building	985
Language Barrier	18
Missing Assignments	1660
Tutoring Referral	633
Writing Studio Referral	47

NonAcademic Reasons – 1,084

Reason	Amount
Attendance	773
Community Resources	45
Financial Resources	31
Limited Access to Technology	26
Limited Technology Ability	16
Non Academic Skill Building	108
Student Support Services Referral	85

Links

- <https://www.lcc.edu/admissions-financial-aid/get-started/success-coaches.html>



Recruiting and Retention

Rajiv Malkan

July 4th Community Parade



July 4th Community Parade



July 4th Community Parade



High Schools – Football Games



High Schools – Football Games



High Schools – Football Games



High Schools – Football Games



High Schools – Football Games



High Schools – Football Games



High Schools – Football Games



OPEN HOUSE LIVE





COMPUTER INFORMATION TECHNOLOGY

BASS Division

FUNDAMENTAL COMPUTER CLASSES

- BCIS 1305 – Business Computer Apps
- COSC 1301 – Intro to Computers
- ITSC 1301 – Intro to Computers

WHAT DO WE OFFER?



- Fundamental Computer Courses
- Programming
- Drafting & AutoCad
- Digital Imaging & Video
- Web Design

THANK
YOU



Thank you!

Kyle Jones, Sinclair Community College - kyle.jones4990@sinclair.edu

Ryan Murphy, Sinclair Community College - ryan.murphy@sinclair.edu

Chris Kadlec, Georgia Southern University - ckadlec@georgiasouthern.edu

David Keathly, University of North Texas - david.keathly@unt.edu

Tara Lewis, Collin College - tnlewis@collin.edu

Rajiv Malkan, Lone Star College - rajiv.r.malkan@lonestar.edu

Jason Mitchell, Lansing Community College - mitch24@lcc.edu

Mark Dempsey, Collin College – mdempsey@collin.edu

Please take the three-question survey



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