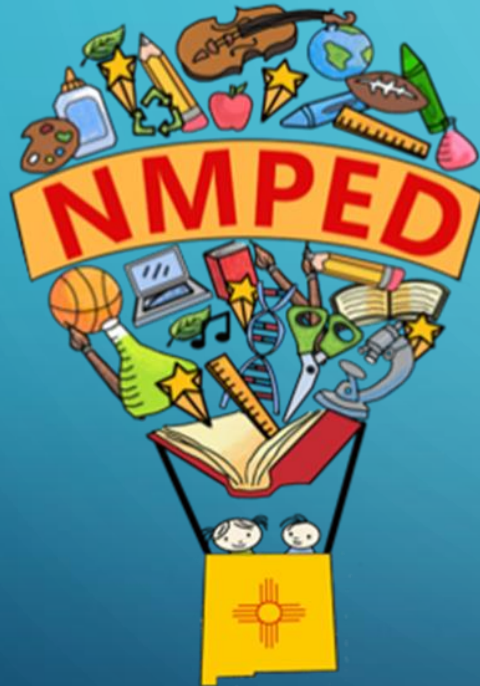




CS/IT INDUSTRY ADVISORY MEETING

JANUARY 6, 2022

WELCOME!



Director of College and
Career Readiness Bureau
Elaine Perea, PhD

TEAM CCRB

- Elaine Perea
- Marc Duske
- Alexandra Lutz
- Jaime Cherry
- John Gabaldon
- Breezy Gutierrez
- Christian Naranjo
- Barbara Armijo
- Veronica Sanders
- Susan Chaudoir
- Rick Schmidt
- Jaime Hernandez
- Luisa Bailey
- Melissa DeLaurentis
- Denise Ojeda

COLLEGE AND CAREER READINESS BUREAU

- All aspects of Career Technical Education (CTE)
 - Work-Based Learning
 - Certifications and Credentials
 - Professional Development for CTE instructors
 - Curriculum
 - Dual Credit
 - Bridge industry partnerships with school districts

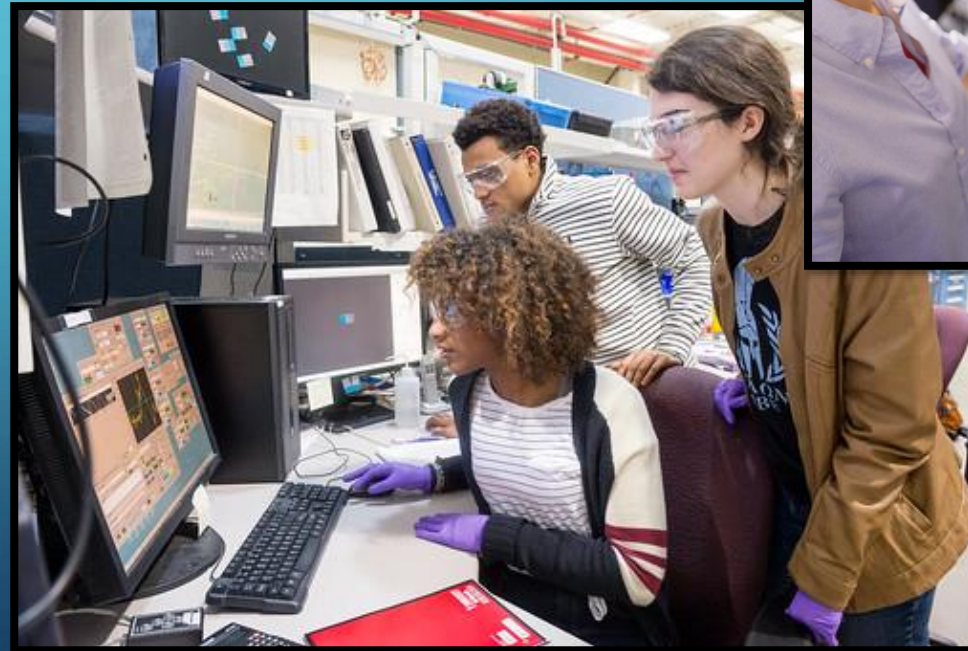


AGENDA

- NMPED Information Share
 - CS Strategic Plan, Career Technical Education Grant Supports and Priorities
 - Labor Market Information
 - Registration Survey Results
 - Funding and Enrollment Breakdown
- Breakout Sessions
- Report out

OBJECTIVE

To gain knowledge that will help inform NMPED how students can be better prepared for the CS/IT workforce.



NMPED COMMITMENT TO CS AND IT INITIATIVES

Computer science and information technology are important to every student's ability to masterfully follow a successful education and career pathway.

The occupational demands of nearly every career requires an increasing skillset and ability to understand and navigate the ever-changing technology landscape.

COMPUTER SCIENCE STRATEGIC PLAN

- In the fall of 2019, a Computer Science Taskforce was made up of individuals from across New Mexico to develop a shared vision for Computer Science education.
- In 2021 the group submitted recommendations to NMPED, leading to the completion of the Computer Science strategic plan.

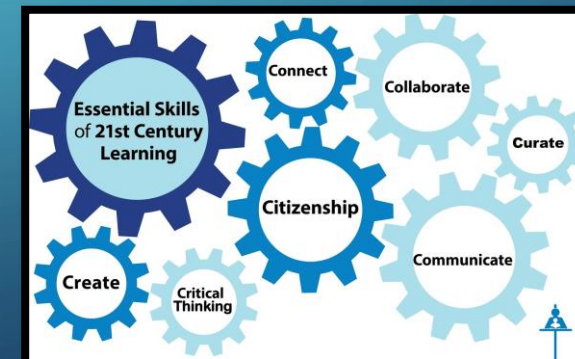


STRATEGIC PLAN HIGHLIGHTS

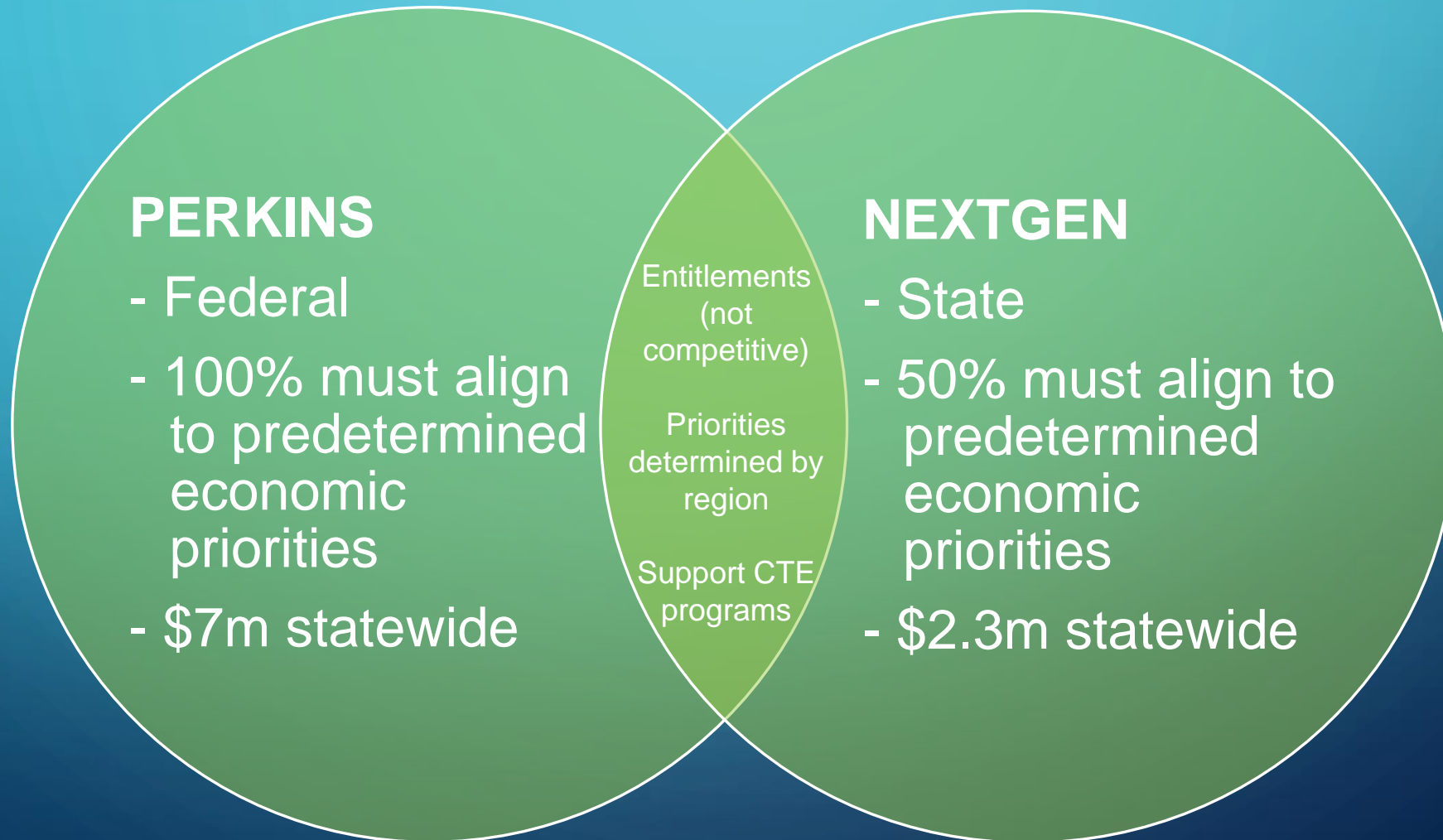
By 2026...

- Computer Science may satisfy a core graduation math requirement
- All high schools will offer at least one Computer Science course
- Annual review of courses that may be offered statewide
- The Math and Science Bureau will offer teacher professional learning
- Half of districts will have a K–12 CS implementation plan in place, which may include community partnerships
- Each high school will have students concentrating in a CS or IT program of Study

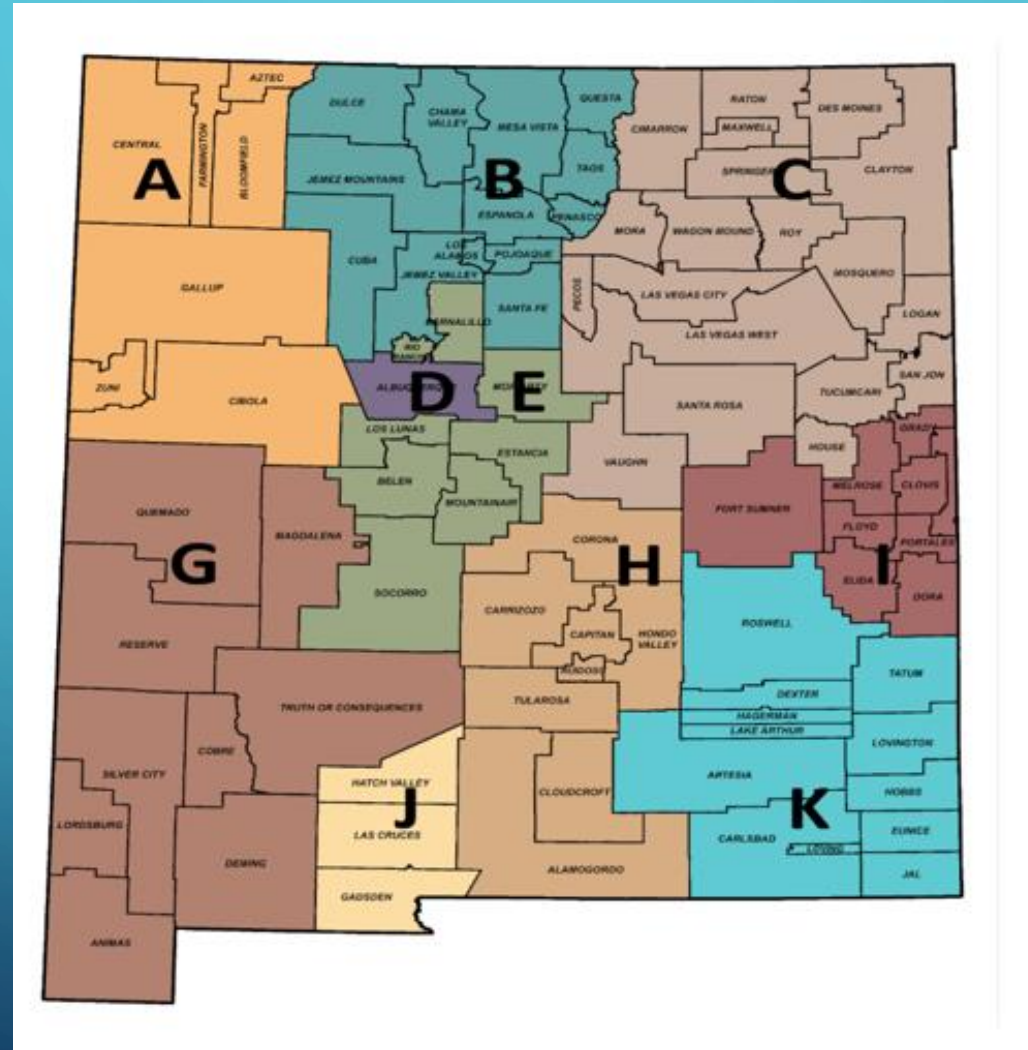
CAREER TECHNICAL EDUCATION



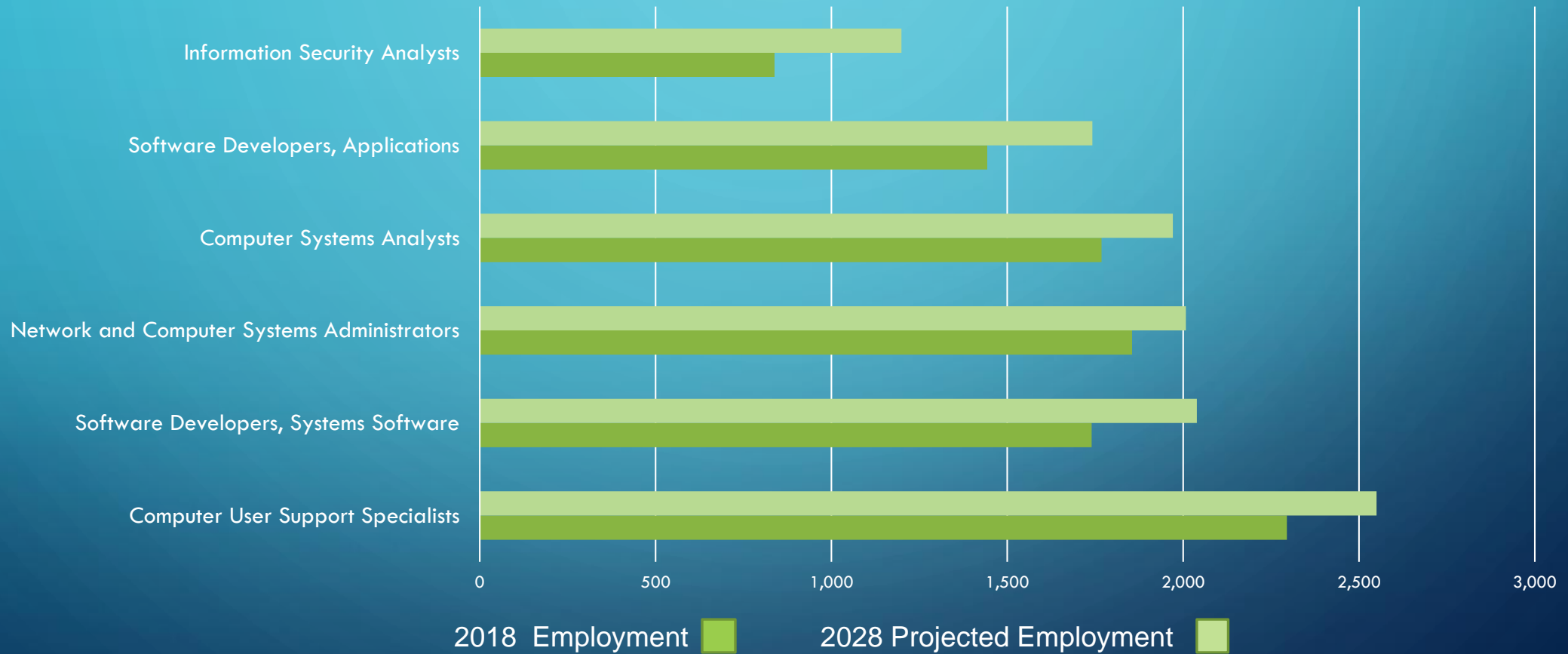
FUNDING SUPPORT



IDENTIFIED PRIORITIES



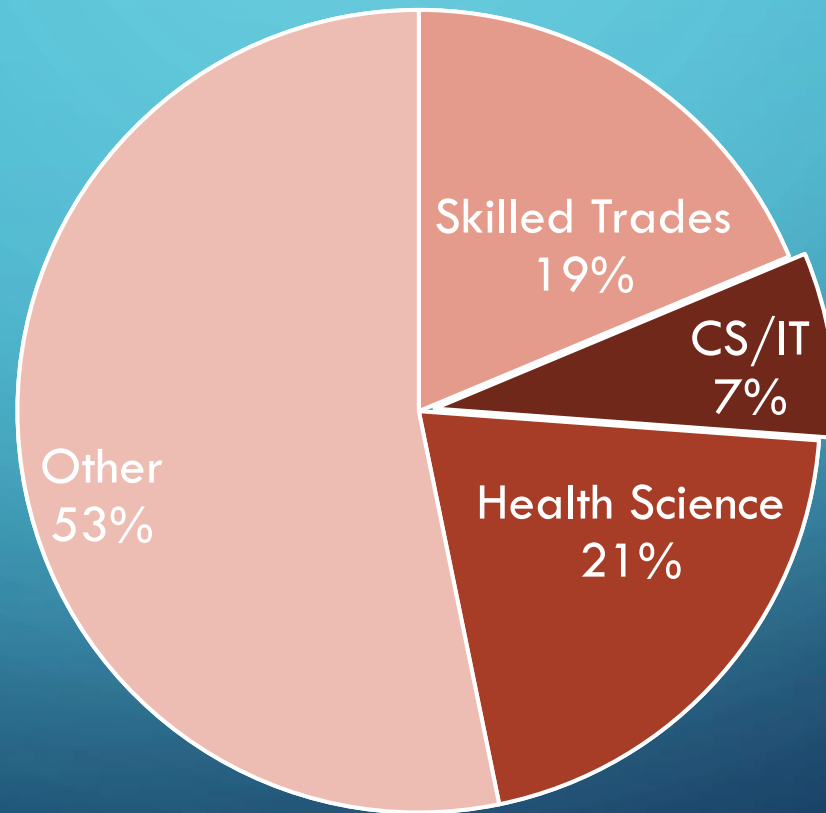
NMDWS ESTIMATED AND PROJECTED EMPLOYMENT 2018-2028



INDUSTRY NEEDS

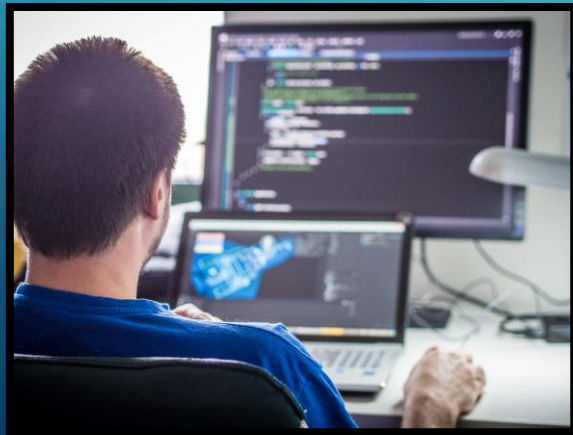
- **Cyber and software security**
- **Cloud computing, cloud architecture**
- **Network administrators**
- Application programmers
- End user and desktop support
- Web application developers
- Linux/Linux cluster system administrators

TOTAL CTE GRANT FUNDING 2021-2022 SCHOOL YEAR

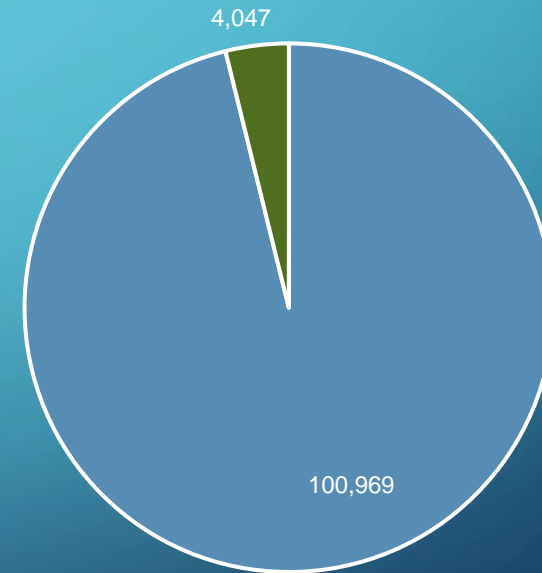


COURSES

Currently there are **44** various courses available covering basic introductory concepts to highly complex and detailed topics.



Enrollment 21-22



■ Total HS Students

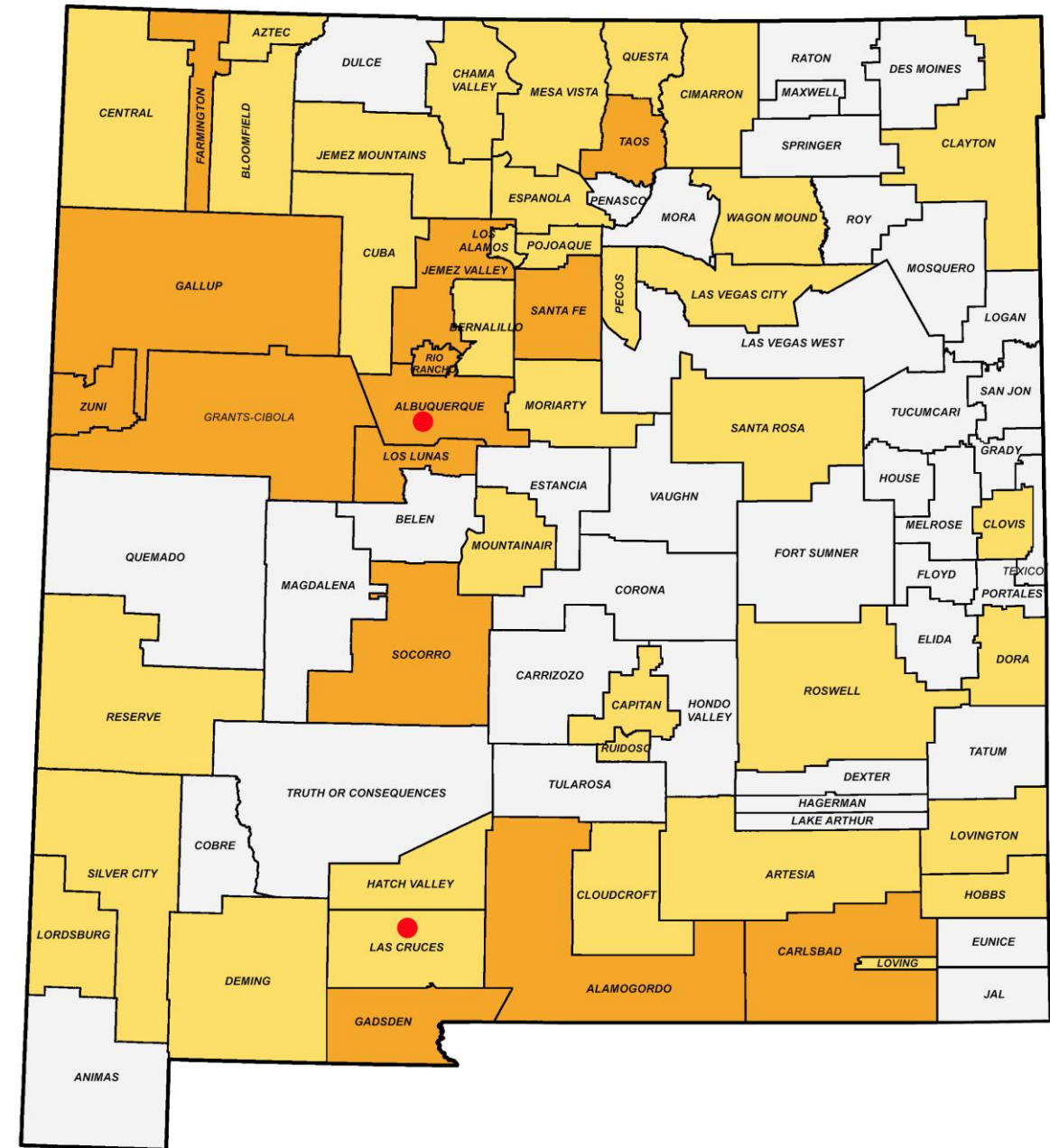
■ Total HS Students Enrolled in a CS/IT Course

PROGRAMS OF STUDY

A program of Study is a clear pathway throughout a student's high school experience

| Career Cluster | Program Name | Cluster Courses - Introduction | Pathway Courses - Concentrator | Capstone Courses - Completion |
|------------------------|--------------------------------------|--|---|--|
| Information Technology | Computer Technology Assistant | 0320 Computer Technology Assistant I | 0321 Computer Technology Assistant II; 0322 Computer Technology Assistant III | 0336 AP Computer Science Principles; 0327 Computer Science A; 0397 Computer/IT Sc-OJT; 0399 Computer/IT Sciences-Other |
| Information Technology | Database Design & Programming-Oracle | 0314 Database Foundations-Oracle Academy | 0330 Database Design/Programming-Oracle Academy | 0331 Database Programming w/PL/SQL; 0397 Computer/IT Sc-OJT; 0399 Computer/IT Sciences-Other |
| Information Technology | Informatics-SREB | 0332 Computers, Networks & Databases-AC | 0333 Design for the Digital World-AC; 0334 Databases in the Cloud-AC | 0335 Developing a Cloud Presence-AC; 0397 Computer/IT Sc-OJT; 0399 Computer/IT Sciences-Other |
| Information Technology | Java Programming-Oracle | 0323 Computer Science/Programming | 0324 Programming; 0325 Advanced Programming; 0326 Computer Programming-Other Lang | 0397 Computer/IT Sc-OJT; 0399 Computer/IT Sciences-Other; 0336 AP Computer Science Principles; 0327 AP Computer Science A |
| Information Technology | Networking | 0318 Network Technology | 0319 Computer Networking II | 0397 Computer/IT Sc-OJT; 0399 Computer/IT Sciences-Other |
| Information Technology | Networking Academy - Cisco | 0341 CCNA Routing & Switching Part 1- Cisco Academy | 0342 CCNA Routing & Switching Part 2 | 0397 Computer/IT Sc-OJT; 0399 Computer/IT Sciences-Other |
| Information Technology | Cyberbersecurity | 0323 Computer Science/Programming 0350 Cyber Literacy | 0351 Cyber Literacy 2 0353 Cyber and Society | 0352 Cybersecurity 0397 Computer/IT Sc-OJT 0399 Computer/IT Sciences-Other |
| Information Technology | Programming & Cyberbersecurity-PLTW | 0344 Computer Science Essentials-PLTW | 0345 AP Computer Science Principles-PLTW; 0346 AP Computer Science A-PLTW | 0347 Cybersecurity-PLTW; 0397 Computer/IT Sc-OJT; 0399 Computer/IT Sciences-Other |

21-22 ENROLLMENT



CORE INDICATORS OF HIGH QUALITY CTE PROGRAMS

Dual Credit

Capstone course that allows students to earn college credit while simultaneously fulfilling a high school requirement.

511 enrollments

Work-based learning

Provides students with opportunities to receive real work experiences in addition to high school credit.

16 enrollments

Industry Recognized Certifications

While in high school, students can earn credentials that can be carried with them into the workforce.

5 Python certifications

AVAILABLE CERTIFICATIONS

- Autodesk Certification
- Adobe Certified Professional
- C++ Certified Associate Programmer
- Network Certification
- Microsoft Certification
- Internet Core Computing-ICS
- CompTIA Certification
- Python Certification
- Unity Certification



BREAKOUT DISCUSSION

- What is one thing that you would consider an essential piece of every CS/IT program?
- What is one thing your company can do to support programs in CS/IT?

REPORT OUT

- What is one thing that you would consider an essential piece of every CS/IT program?
- What is one thing your company can do to support programs in CS/IT?

NEXT STEPS

- CCRB will summarize the conversations that took place today to inform and guide our regional meetings.
- Survey- If you are willing to continue to contribute in strengthening CS/IT programs, please fill out the survey provided in the chat.

THANK YOU!

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