STEM Excellence, Student Success, and Campus Engagement

November 4, 2026

Lique Coolen, Vice President for Research, Provost/Vice President for Academic Affairs

NEW MEXICO TECH
SCIENCE • ENGINEERING • RESEARCH UNIVERSITY

Background: University Leadership - Research

Research Development

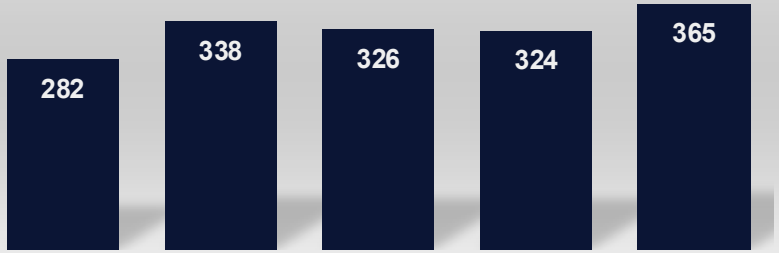
Funding - Facilities

Technology Transfer

Safety and Compliance

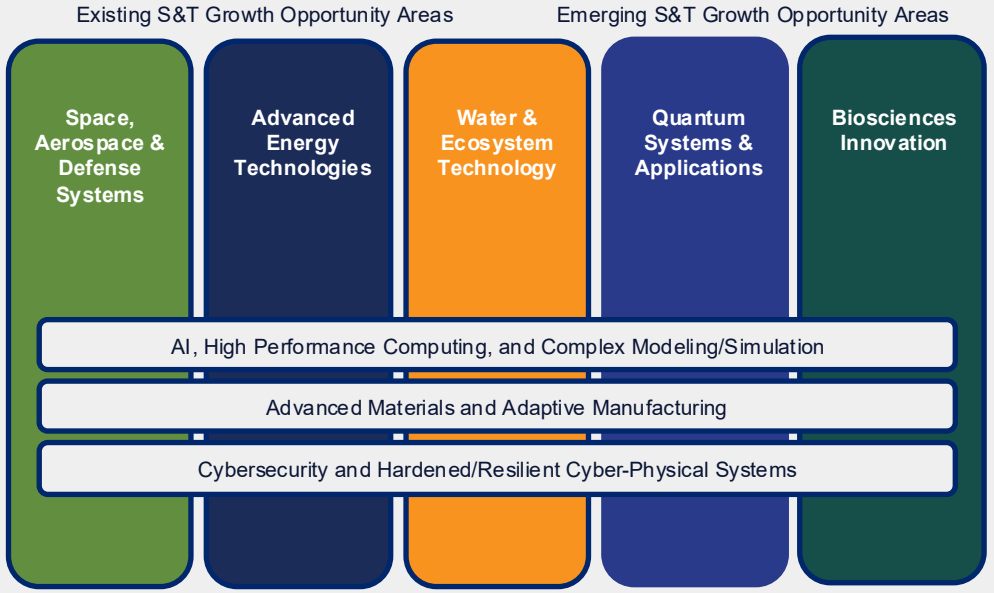
Economic Development

Total New # Proposals Submitted



FY2026:
Increased Invention Disclosures:
160%

Increased Provisional Patents Filing:
150%



NEW MEXICO TECH
SCIENCE • ENGINEERING • RESEARCH UNIVERSITY

Background: University Leadership – AA and SA

Academic Programs and Departments

Faculty Recruitment Mentoring

Graduate Studies Workforce Development

Strategic Budget Planning and Policy Development

Student Success

Recruitment Retention Completion

Inclusive Welcoming Belonging

Background: Professional Society Leadership

Faculty Mentoring

Leadership Development

Student, Postdoc, and Staff Career and Professional Development

Science Policy

Research Conduct Policy and Education

FASEB, SFN, SEBM,

Background: Faculty and Mentor

Faculty since 2000

Neuroscience

Positions at 5 R1 and 1 STEM Universities

Continuously funded

NIH, DOD, NSF, Foundations, Industry

Top 2% of scientists in world (Stanford University)

145 publications

H-index 61

Mentor

Student, Trainee, Staff, Faculty

MY WHY

MY
WORK
PASSION

Discovery
Creativity
Innovation
Support
Mentor
Coach
Engage
Inspire

New Mexico Tech: Mission and Vision

- **Educate** a diverse student body in foundational and collaborative student-focused programs.
- **Lead** by example through life-long learning.
- **Forge** scientists, engineers, and leaders for the future.
- **Serve** the public through research, scientific knowledge, economic development, and STEM outreach benefitting the communities of New Mexico and beyond.

STUDENT EXPERIENCE

New Mexico Tech: Strengths and Challenges

Faculty, Students, Staff

Committed – Shared Governance

Faculty/Student Ratio

Value Education

Career Preparation

High Earnings

Faculty, Staff Recruitment and Retention

Salaries and Start Up

Student Recruitment

Readiness for STEM

Rural

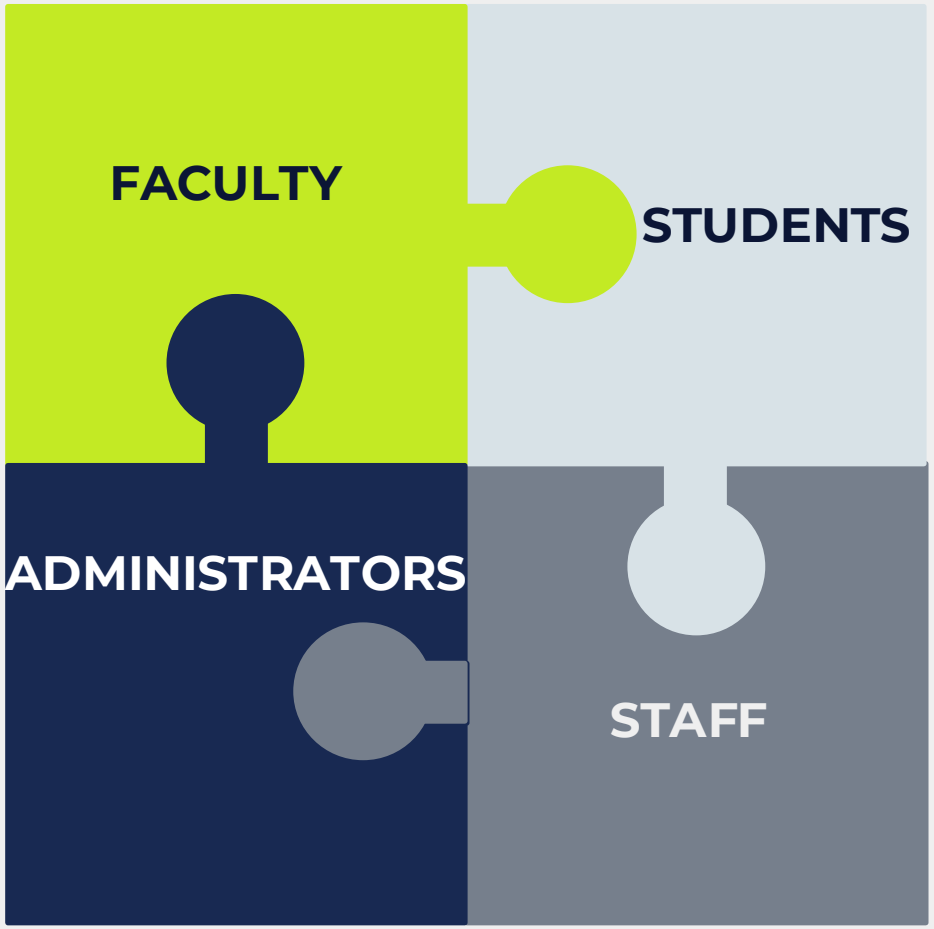
Socorro

Housing

Student Experience: Priorities and Goals

- Academic Excellence
  - Applied Learning
  - Curriculum innovation
- Career Preparation
  - Value / ROI
- Belonging and Community
  - Peer Collaborations
- Well Being
  - Mental and Physical Health
- Campus Environment
  - Rural, Dorms, Local Experiences

Who Supports Student Experience: Entire Campus



Student Experience: Academic Excellence

Classroom Learning

Curriculum Innovation: Majors, Minors, Certificates

Advising, Tutoring and Active Peer Learning

Faculty Interaction

Mentor Relationships

Peer Mentor Programs

Applied Learning

Internships, Design Projects Research

PROMISE

Applied Learning Programs Kent State University

- Provided intentional internship, experiential learning, and career exploration programs
  - from time of enrollment to completion (100-150 new students per year)
  - in 67 undergraduate and 21 graduate STEMM majors in 5 colleges and 8 campuses.
- Scholarships: Secured and managed >$9M in funding over 5 consecutive years.
- Worked collaboratively with Academic and Student Affairs administrators and staff from Financial Aid, Enrollment Management, Career Exploration, Student Support Services, Sponsored Programs, and Outreach and Community Engagement offices.

- Successes:
  - increased recruitment of students, including underrepresented populations and students with high financial need.
  - increased retention and persistence, decreased time to completion, increased graduation rates.

Curriculum Innovation: Opportunities

Career and Workforce Needs

Certificates
Stackable

Minors

Online Programs

Distance Education

Hybrid Formats

NM Online Hub Pilot

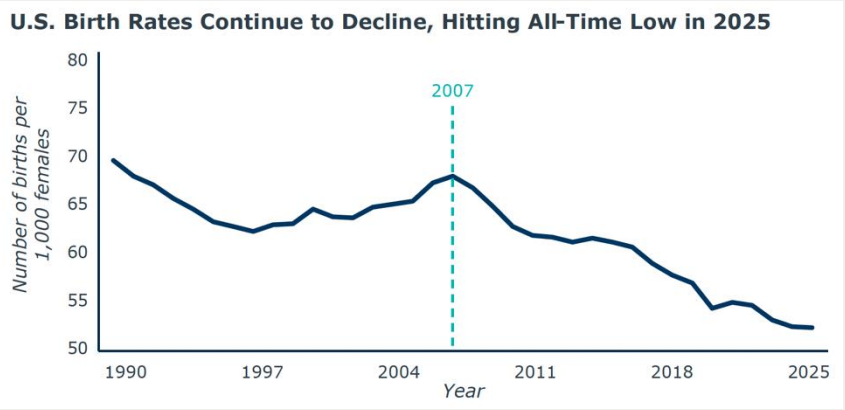
Dual Credit

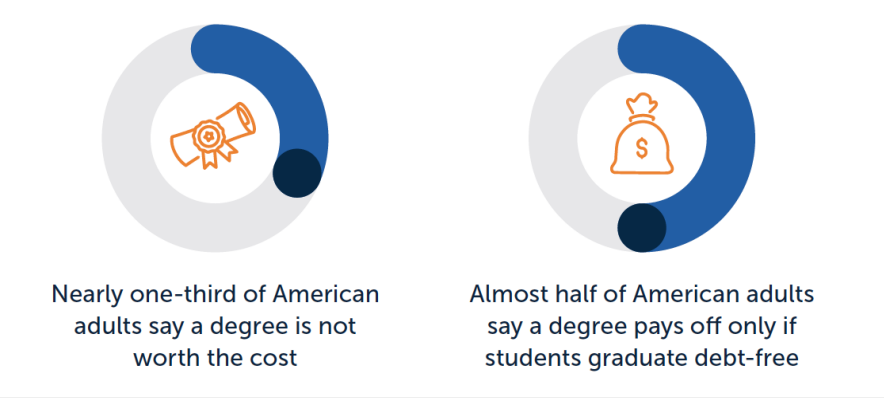
Online Programs for High School or Home-Schooled Students

Associate Degrees

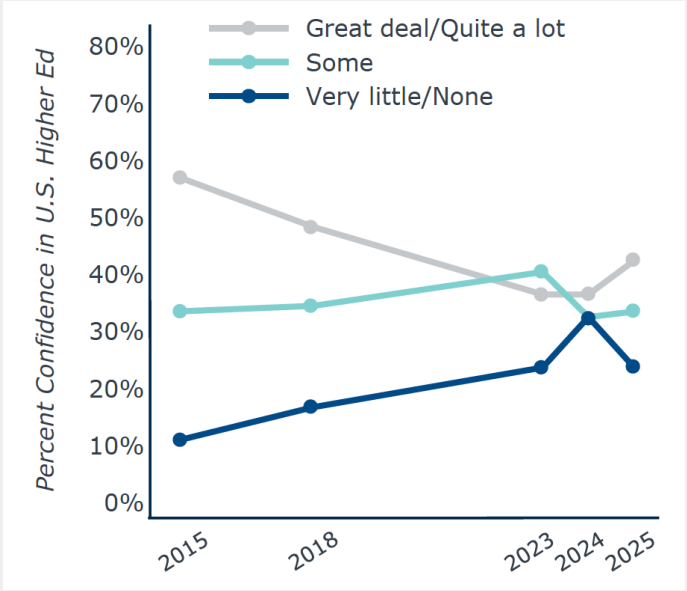
Recruitment Strategy: Value Proposition

- Declining high school graduates
- Students are looking for value and earning potential
- Earnings and ROI/Value are large factor for enrollment
- Target Different Student Populations for enrollment
  - adult learners; Industry partners

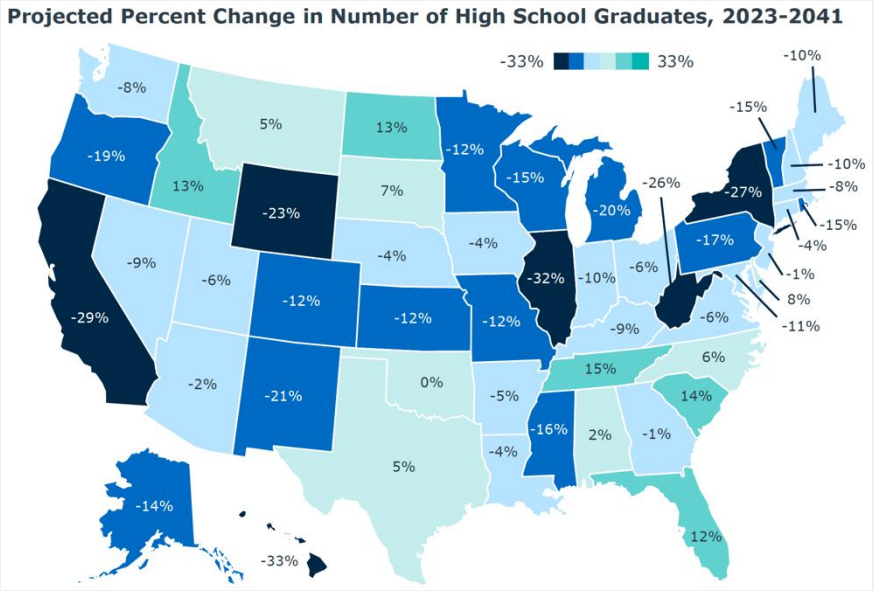




Source: EAB: Outpacing the new federal earnings mandate



Source: Gallup, U.S. Public Trust in Higher Ed Rises From Recent Low

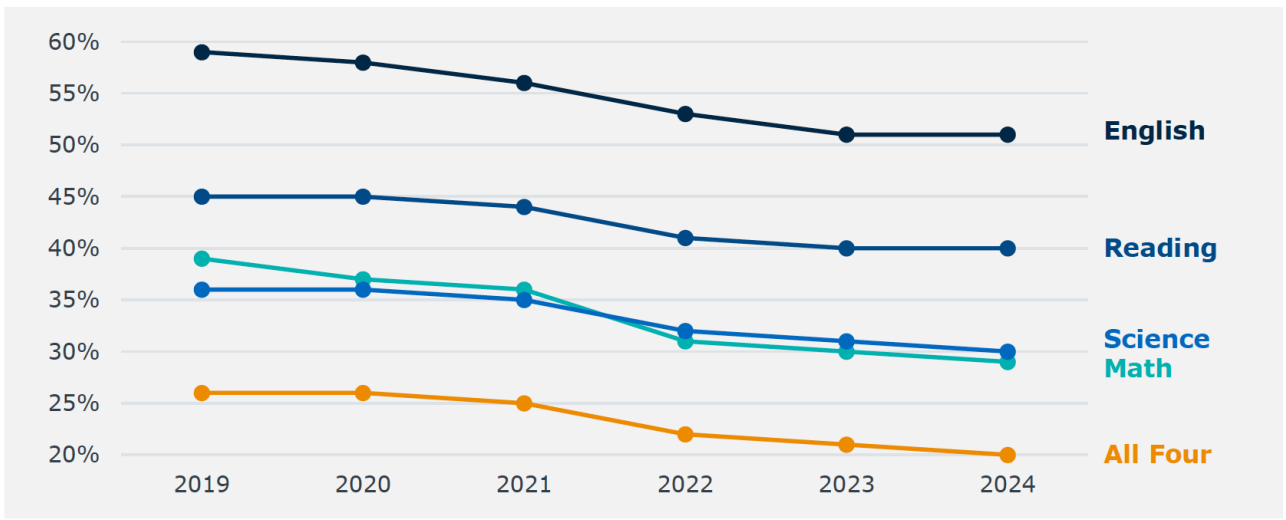


Source: EAB: Outpacing the new federal earnings mandate

Math and Reading Readiness

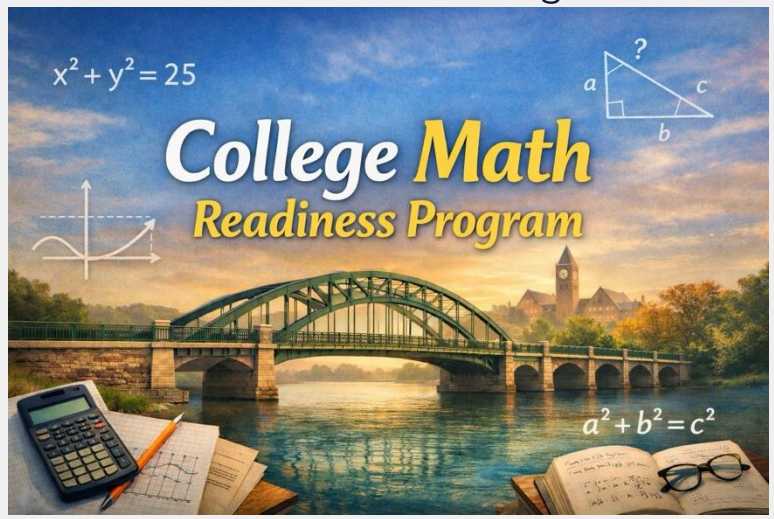
Fewer High Schoolers are Academically Prepared for College

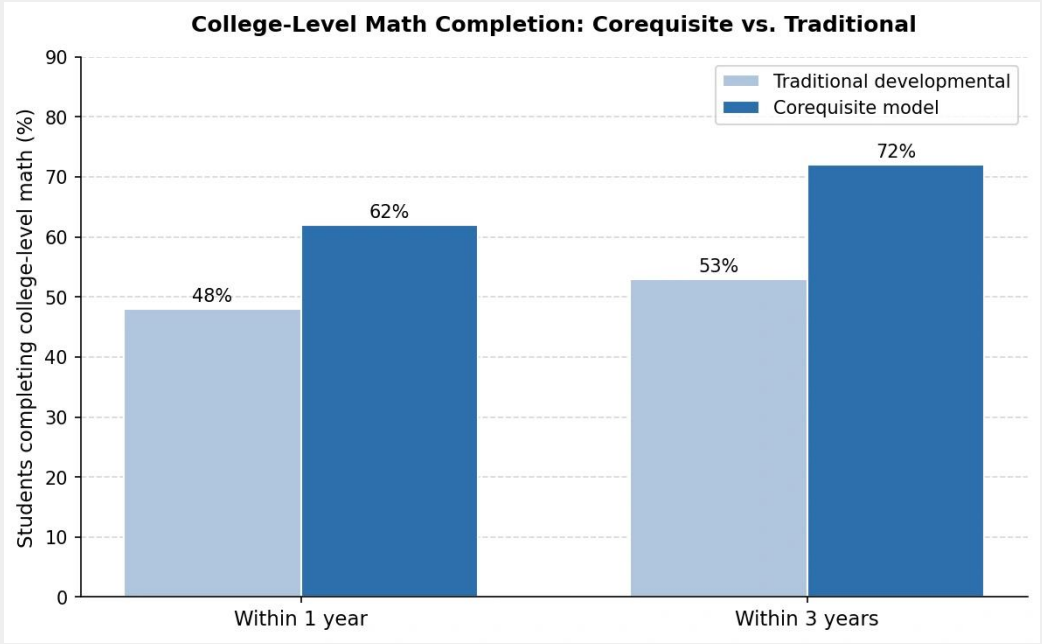
Percentages of students who met college readiness benchmarks



39% Of 8th graders performed below basic level on NAEP math assessment (2024)

Summer Readiness Program





Source: Mathematical Association of America

Source: NAEP Report Card: Mathematics; ACT, Profile Report – National; NCES, EAB

NEW MEXICO TECH
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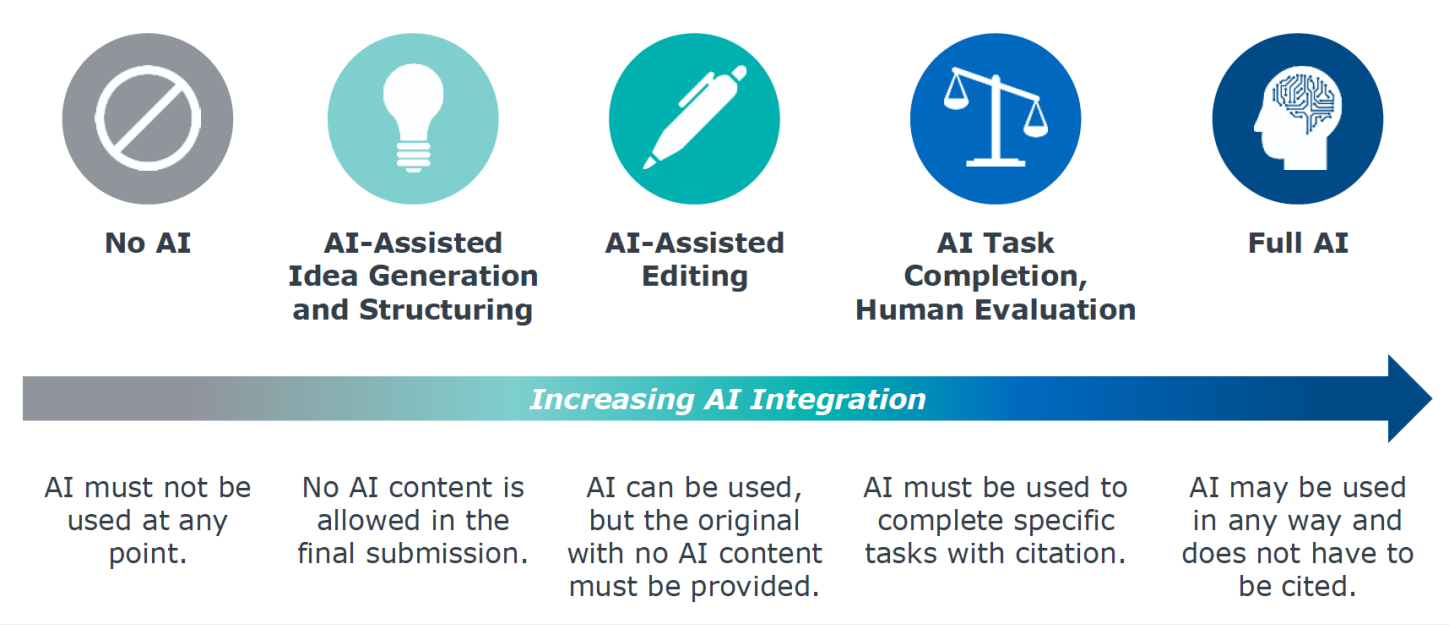
AI/SI: Disruption and/or Opportunity

Faculty
Development
Support
Training LMS

Student
Academic Support
Recruitment
Curriculum

Staff
Development
Training
Tool Development



Raul Deju Institute of AI
Research
Education
Infrastructure

Student Experience: Career Preparation

Skill Development

Building technological, critical thinking, communication skills expected by employers

Career Exploration

Career Fairs, Job Application and Interview Preparation

Value / ROI

Federal “Do No Harm” Earnings Test
Student Tuition and Transparency System (STATS) and Earning Accountability rule

Student Experience: Social Belonging & Community

Sense of belonging

Feeling valued, recognized, safe

Peer connections

Student Clubs, dorms, arts and music, cultural events

Collaboration

Diverse viewpoints
Interpersonal Challenges

Student Experience: Support and Well Being

Mental Health

Anxiety, Stress and Depression

Diversity Neurodiversity

Inclusive Campus

Physical Health

Exercise, Medical Care

Student Experience: Campus Environment

Socorro

Transportation
Ride Share

Restaurants
Shopping

Dorms

Aging Dorms

Funding for Renovations

Work Experiences

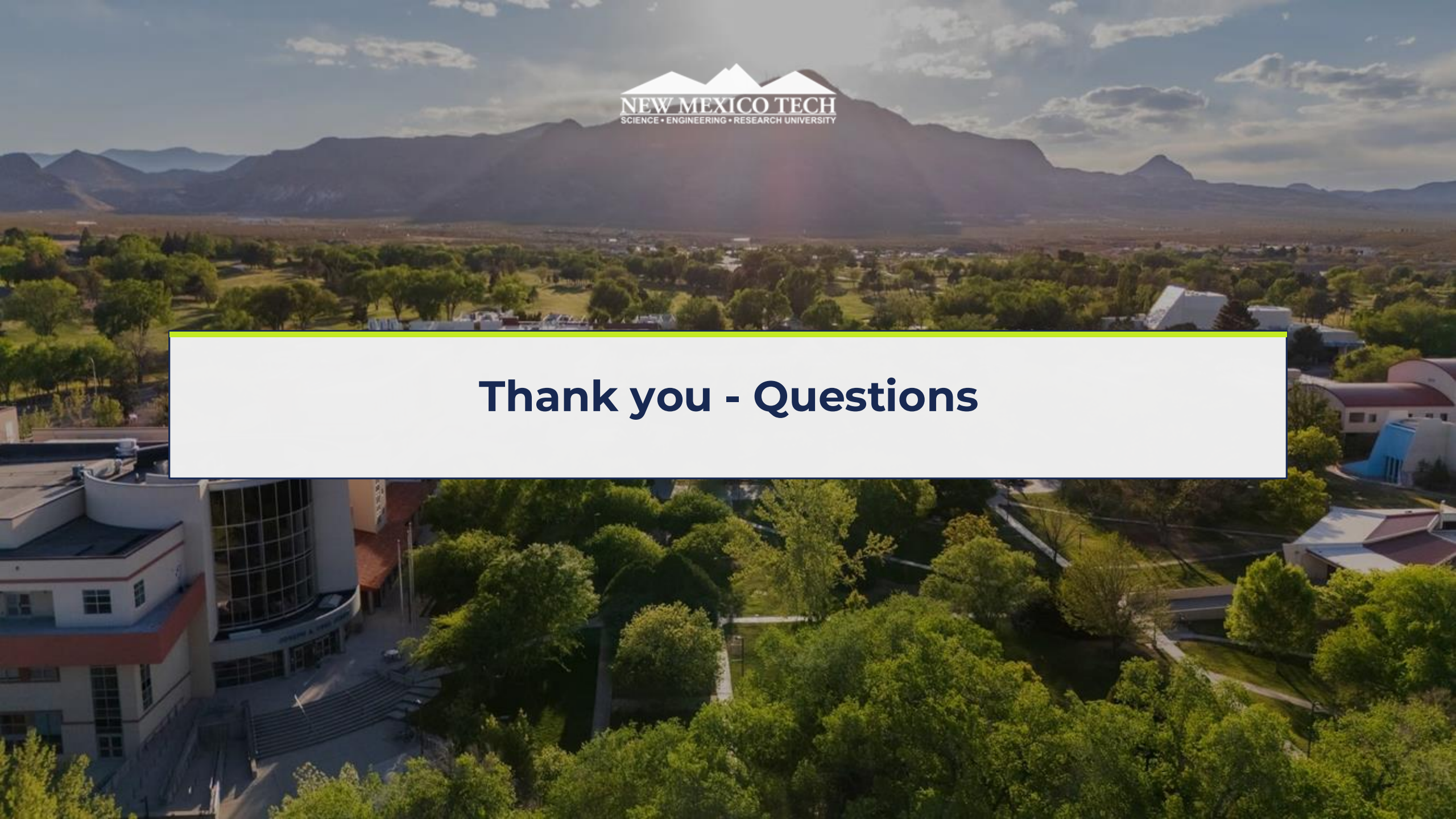
Internships

Off-campus work
Shadowing-Pre-Med/Pre-Health

Uniting Two ~~Divisions~~: Opportunities and Challenges

- Research and Academic Affairs
  - Research collaborations between research centers and academic departments
  - Joint faculty Research Centers-Academic Depts
  - Raul Deju Institute of AI
  - Sponsored Projects Development
- Academic and Student Affairs
  - Dotted reporting lines (also with VPAF)
  - Recruitment and Exploration
- Workload for VP
  - Lessons learned

Integration to support Student Experience, Academic Excellence, Student Success



Thank you - Questions

Increase Enrollment Strategies

- Long term approaches:
  - Launching new programs
- Near term approaches
  - Boost Completion
    - Personalized advising to remove roadblocks to completion
    - Simplify re-admission
  - Improve early-career outcomes
    - Career Placement: help secure well-paying jobs
    - Internships, experiential learning (industry sponsored)
  - Pipelines- Credential ladders
    - Strengthen advising connections between partner institutions for smooth transition (certificate-associate; associate-bachelor; bachelor-graduate)
    - Stackable credentials
  - Retroactively awarding earned credentials
    - Non-completers: retroactively award a credential if possible