RURAL REIMAGINED GRAND CHALLENGE

TENNESSEE TECH UNIVERSITY

MICHAEL AIKENS, PH.D.

OUR VISION

**TRANSFORM RURAL LIVING THROUGH
SCIENCE, TECHNOLOGY, INNOVATION, AND ECONOMIC
DEVELOPMENT**

OUR MISSION

**LEVERAGE THE UNIQUE STRENGTHS OF TN TECH UNIVERSITY TO EXAMINE AND
ADDRESS RURAL CHALLENGES IN WAYS THAT ARE REPLICABLE AND SCALABLE
THROUGHOUT THE STATE, NATION, AND WORLD**

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RURAL REIMAGINED IMPACT

BY THE NUMBERS

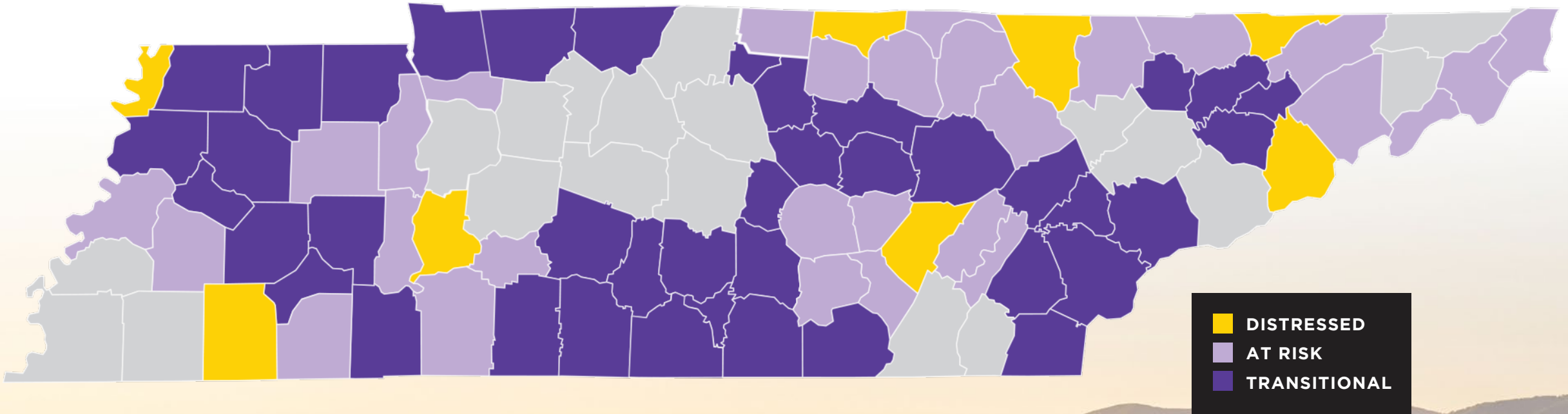| **67** RURAL TN COUNTIES | **150** FACULTY ENGAGED | **750** RURAL PROJECTS | **5,000** PARTICIPANTS INVOVLED | **113,000** VOLUNTEER HOURS | **$26M** RESEARCH AWARDS |

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OUR GOAL

SERVE ALL 76 RURAL COUNTIES IN TENNESSEE

DISTRESSED
AT RISK
TRANSITIONAL

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Key Focus Areas

- Center for Rural Innovation

- Student and faculty engagement

- Technical assistance

- Applied research

- Economic development

- Innovation & entrepreneurship

- Partnerships

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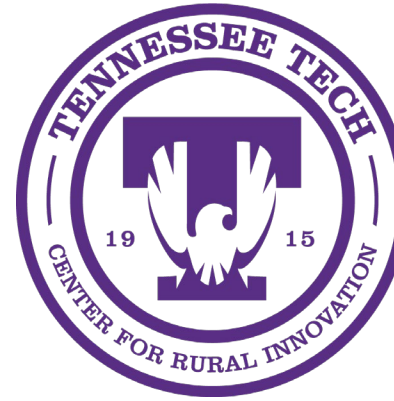
Center for Rural Innovation (TCRI)

- Operationalizes Rural Reimagined
- Office of Research and Economic Development
- TN Tech University Research Center
- Technical assistance, applied research, and economic development:
  - Small businesses, entrepreneurs, non-profits
  - Chambers of commerce
  - Local/regional/state government entities
  - Communities (cities, counties, regions, state)
  - Soon: connecting federal installations (TVC)
- **EVERYTHING** we do is **no-cost**

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TCRI – Funding

- Federal funding

  - EDA University Center Program (6 years)
  - Current awards: EDA, ARC, DOE, LaunchTN
  - Previous funding from: NSF, USDA

- State appropriations

  - Governor's budget - $1,000,000/year
  - FY23 and FY24, nonrecurring

- TN Rural Development Fund CDFI

  - Giving and sponsorships

- Private donors/university giving

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TCRI – Who We Are

- **Staff**
  - Director
  - Assistant Director
  - Office Manager
  - State Coordinator
  - Graphic Designer
  - BRC Strategy Manager

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TCRI – Who We Are

- **Students**

  - Career ready, real world experience

  - Internships, graduate research assistantships

    - Academic credit interns - 10/year

    - Paid student employees – 50-100 per year

   - Graduate assistants (masters and doctoral) – 5/year

TCRI Technical Assistance

- **600+** Entrepreneurs and small businesses helped (209 in FY23)
- Upper Cumberland + 7 Contiguous Counties
- Addresses small business knowledge and resource gaps
- Business needs analysis
- Project-based student internships
  - Paid or academic credit
  - Web, social media, photography, graphic design, and much more!
- Business Resource Collective
  - TCRI + TSBDC + Biz Foundry
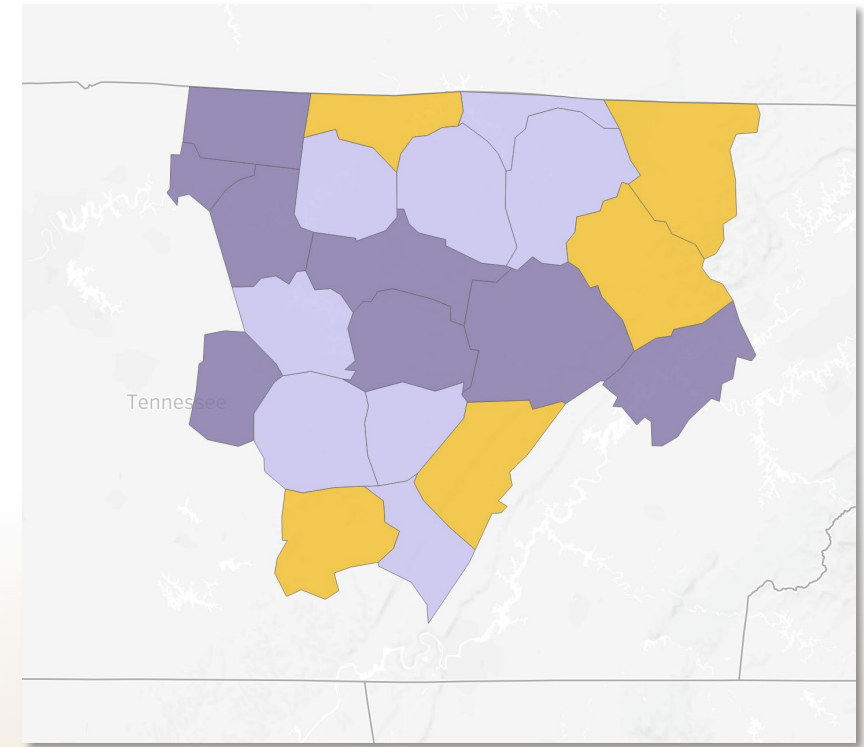
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TCRI Rural Tourism Development

- Collaboratively build tourism brands for communities (16 projects so far…)

- Any rural TN county or region

- Enhanced focus on distressed and at-risk counties

- Market on regional, state, and national levels

- Graphic design student interns produce full branding package

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TCRI Tourism Branding Model

- TN Dept. of Tourist Development partnership

- Community forms Community Tourism Advisory Council (15-20 residents)

- Community completes worksheet assessment

- TCRI conducts branding workshops/listening sessions

- Qualitative methodology

- Graphic Design interns develop:

  - Logo, color pallet, vector assets, style guide
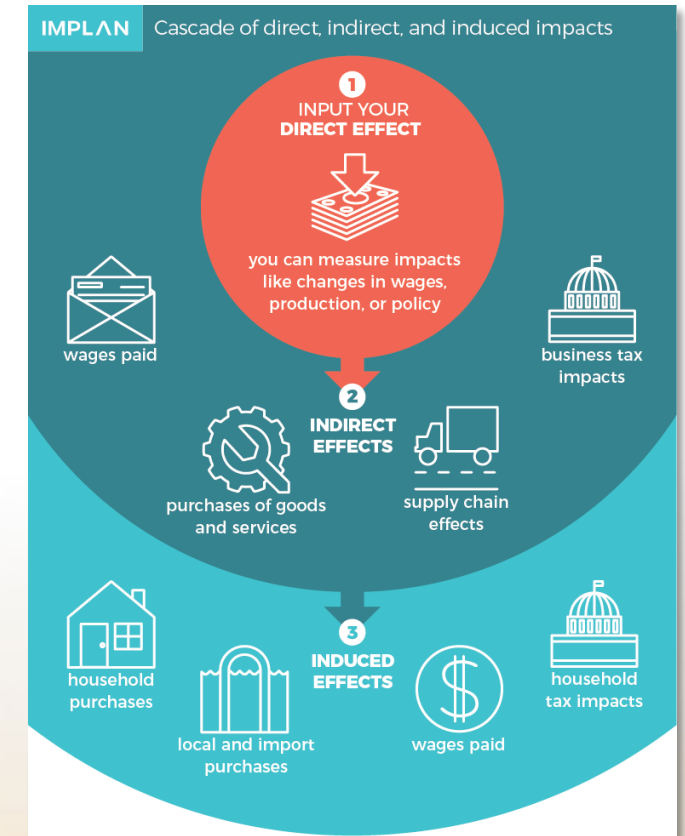
- Catalyst for business development/expansion

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TCRI Economic Impact Analysis

- Measuring the rippling effects of economic activity on communities, regions, and state

- $2+ **B**illion public and private investments analyzed
  - IMPLAN Cloud Software
  - Direct, Indirect, and Induced Effects of investments
  - Employment, Labor Income, GDP, Output, Taxes, and more!!
  - Demographic and sociodemographic data
  - Impact analysis reports ($25,000-$100,000 value)

- Examples:
  - Tourism event ROI
  - Assessing incentive packages for economic development
  - Measuring projected or actual impacts of development and/or industry changes

IMPLAN   Cascade of direct, indirect, and induced impacts

1 INPUT YOUR DIRECT EFFECT
you can measure impacts like changes in wages, production, or policy
wages paid
business tax impacts

2 INDIRECT EFFECTS
purchases of goods and services
supply chain effects

3 INDUCED EFFECTS
household purchases
local and import purchases
wages paid
household tax impacts

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TCRI Tourist Impact Analysis Model

- Unlike traditional economic impact analysis, tourist data is not readily available

- You have to ask tourists about their spending behaviors

- Applied, quantitative research design + IRB approval

- Survey tourists to develop consumer spending pattern

- Design signs/flyers with QR codes

- Cell phone traffic data

- IMPLAN analysis

- Contextual reporting

  - Illustrate ROI on public, private investment

  - Inform grant proposals
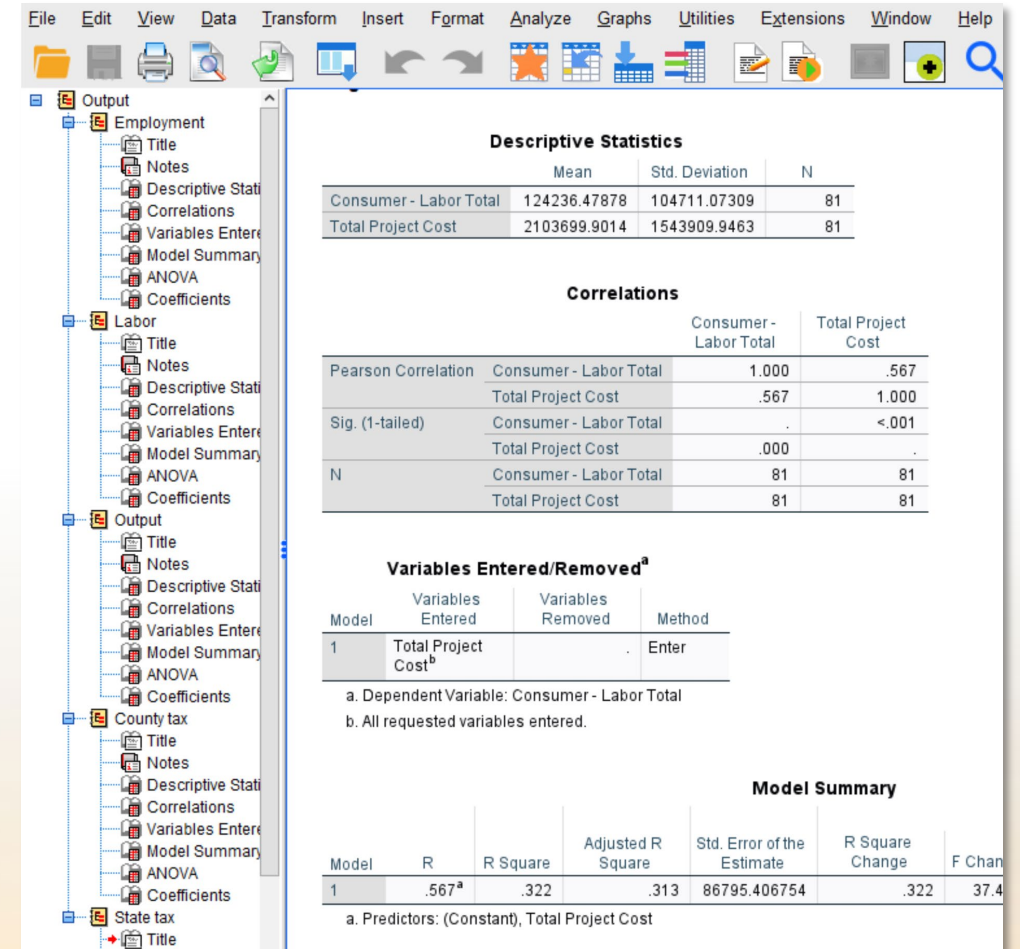
  - Optimize tourism strategies

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TCRI Applied Research

- Quantitative and qualitative methodologies that seek to increase the resiliency of rural communities
  - Advanced statistical analysis
  - IMPLAN economic impact analyses
  - Research design
  - Survey design
  - Survey response analysis
  - Dataset insights
  - Program planning and evaluation

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Rural Reimagined Grand Challenge

- Extends the scope and reach of TCRI

- Spring 2019

- Tech Tomorrow Strategic Plan

- Opportunity for **all** students, faculty, and community to collaboratively examine and address rural facing challenges

- Developing and supporting the success of rural Tennessee in a way that is replicable and scalable throughout the state, nation, and world

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Rural Reimagined Strategic Models

- Funding and budget
- Committee
- Faculty
- Applied research
- Innovation & entrepreneurship
- Affordable capital
- Service learning
- Public television
- Partnerships

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Rural Reimagined Funding

- $0 budget (hard money) FY19 – FY22

- TCRI EDA Grant

- Private donations

- Volunteering/service learning

- State appropriations FY23 and FY24

- Faculty write grants in name of Rural Reimagined to explore their specific pursuits

- Together, celebrate all awards collectively, though the funding stays within the PI's department

  - Great opportunity for internal and external PR, great for faculty service agreements, portfolios

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Rural Reimagined Operational Budget

- Staff
- Student employees
- Graduate assistants
- Travel
- Supplies

→ **Match**

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Committee Model

- Team of committed faculty, students, staff, and community

- Monthly meetings to guide strategic direction

- Create awareness, generate excitement, garner buy-in

- Administer faculty grant program

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Faculty Model

- It's not "just one more thing"

- Aligns with career, scholarly pursuits

- Rural-focused sponsored research grants

- Curriculum integration

- Publications and white papers

- Cross-disciplinary collaboration

- Community immersion

- Resources

- Faculty Grant Program

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Faculty Grant Program Model

- Seed fund faculty scholarly research

- $150,000 total, $25,000 max per principal investigator

- Requires student involvement and community immersion/outcomes

- Vetted by faculty-community review committee

Hope Springs Clinic
Urgent Mental Health Care

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Applied Research Model

- Ask faculty to buy into the vision of rural scholarly inquiry

- $26+ million rural-focused grants awarded

- Undergraduate, masters, and doctoral students

- We collectively leverage the unique strengths and talent of the university to examine and address the most challenges issues facing rural communities

  - Agriculture
  - Automotive
  - Addiction
  - Business
  - Critical infrastructure
  - Education
  - Energy
  - Food insecurity
  - Healthcare
  - Poverty
  - Public safety
  - Water
  - Workforce

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Innovation & Entrepreneurship (I&E) Models

- Business Resource Collective

- Small business/entrepreneur assistance internships

- Eagle Works

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I&E – Business Resource Collective (BRC) Model

- True partnership between TCRI, TSBDC, and Biz Foundry

- One stop shop, reduces client confusion

- Each have unique strengths and output

  - TCRI – student interns

  - TSBDC – business development, loan prep.

  - Biz Foundry – early stage, high growth investors, mentorship

I&E – BRC Process Model

1. Referrals to brcollective.org

2. Business needs analysis

3. Dispatch to appropriate partner(s)

4. Assign interns

5. Aggregating data and reporting

6. All share credit

AMERICA'S SBDC TENNESSEE

THE BIZ FOUNDRY

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I&E - Student Internship Model

- **No cost** technical assistance for any small business

- **500** businesses helped!

- Referrals: BRC, word of mouth, repeat clients

- Addresses gaps in knowledge/resources

- Web, social media, design, photography, and much more!

- $15-$17.50/hour OR
Academic credit (College of Business, Professional and Technical Communications)

- Project based (a few hours, days, weeks)

- Teach clients new skills

- Improve curricular/learning outcomes

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I&E – Eagle Works Model

- Annual (Spring) Shark Tank style competition for students

- Workshops and challenges

- $20,000+ in awards (donor funded scholarships)

- Incentivize creative problem solving for rural challenges – "Rural Reimagined Awards"

  - Idea Challenge – rural focused problem/solution ($500 RR award)

  - Maker Challenge – rural focused problem/solution ($500 RR award)

  - Eagle Works Competition – idea that most impacts rural ($2,500 award – any team regardless of competition ranking)

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Affordable Capital Model

- Microloans
  - Upper Cumberland Development District, TSBDC, Biz Foundry, TCRI
  - Up to $30,000 @ 7.25% locked
- EDA Revolving Loan Fund
  - Upper Cumberland Development District ($15M portfolio)
- CDFI lending
  - TN Rural Development Fund ($200M portfolio)
  - Below market rates for borrowers
  - Tax credits for banks

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Service Learning/Volunteering Model

- **113,000**+ hours!!
- Partner with Student Affairs Service Learning Center
- Service learning
  - Requires hours for scholarships, grants
  - Connects community organizations to students
- Volunteering
  - Community projects partner with Tech
  - Downtown cleanups

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Public Television Model

- Foster economic growth through business and tourism

- WCTE Central TN PBS

- EDA, USDA, and Rural Reimagined funding

- 1.3M viewing area (22,700 sq. miles)

- It's Your Business…with Michael Aikens

  - Tells the stories of entrepreneurs in the Upper Cumberland and disseminating Rural Reimagined resources.

- Wish You Were Here

  - Explores the places, events, activities, and adventures you can discover in the Upper Cumberland.

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Poverty Reduction Model

- TN TANF grant with UCHRA

- TCRI and College of Education/STEM Center, College of Interdisciplinary Studies

- Higher education attainment

  - Career assessment

  - Post-secondary institution selection

  - Coaching

  - Skill development

  - Workforce development

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Partnerships Model

- Local, regional, state, federal
- Activity breeds activity
- Look for common ground
- Address gaps in knowledge/resources
- Grant applications
- Technical assistance
- Telling the story

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Our Keys To Success

- Listen and communicate – **Tech does not have all the answers** – listen and learn about the challenges the communities want to address, then partner to collaboratively examine and address

- Formalize the program (Tech Tomorrow Strategic Plan)

- Embraced by senior leadership

- Work with motivated and committed students, staff, faculty, community

- Communicate the vision, allow people and groups to determine how they fit in – very DIY!

- Establish committee

- Student club/organization

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Our Keys To Success

- Adopt a problem solving mindset – don't create a solution in search of a problem

- Look for low hanging fruit, start small, establish frequent small wins, then flywheel effect kicks in

- Assess, evaluate, adapt → capacity growth

- Partner, partner, PARTNER!

- Funding opportunities – grants, appropriations, denotations, in-kind

- Tell the story often and loudly - celebrate everything with PR – everyone gets credit

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THANK YOU

MICHAEL AIKENS, PHD

WWW.TNTECH.EDU/GRANDCHALLENGE