

# ***Appalachia Rising*** **Data and Research Review** **1995 – 2015**

Patricia Kannapel, Senior Research Scientist  
Michael Flory, Research Scientist  
CNA Education

Appalachian Higher Education Network  
Portsmouth, OH  
November 20, 2015

# Before we begin....

---

On your own, jot down:

- 3-5 educational accomplishments in Central Appalachia over the past 20 years
- 3-5 current education challenges in the region

*Hold these ideas for later discussion.*

# Who We Are: CNA Education

---

- A not-for-profit research and analysis organization Arlington, VA
- Conduct research, policy analysis, program evaluation, TA
- In Appalachia:
  - Regional Educational Laboratory (REL) Appalachia
  - I3 evaluation
  - TN SCORE
  - Appalachian Technology in Education Consortium

[www.cna.org](http://www.cna.org)

Facebook

Twitter (#AppalachiaRising)



# What We Did

---

- Focused on “Middle Appalachia”— a mostly contiguous portion of Kentucky, North Carolina, Ohio, Tennessee, Virginia and West Virginia
- Reviewed more than 275 studies written over the past twenty years
- No such study has been done since 1983



# Why we did it

---

- Provide direction to practitioners, policymakers, and researchers
- Understand the current condition of education in the most impoverished section of Appalachia
- Illuminate progress and identify challenges
- Spotlight five education topics of regional and national priority
  - **College and Career Readiness**
  - **Educator Effectiveness**
  - **Access to High Quality Curriculum and Instruction**
  - **Systemic Capacity**
  - **Health and Wellness**

# Context, Themes and Findings

# A traditional picture of Middle Appalachia



Population

Middle Appalachia:

9,000,000

The Nation

310,000,000

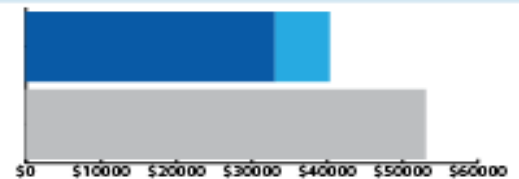


Median household income



\$33,000-\$41,000

\$53,000



Persons in labor market



70%



78%

Children in poverty



25%



21%

White, not Hispanic (students)



86%



51%

---

*“The place of poverty in the United States’ consciousness.”*

(Obermiller & Couto, 2004, p. 249)



# A Complex Region That Defies Simple Stereotypes

## And yet they...

- Live in or border major cities like Knoxville, Cincinnati, and Charleston
- Are fiercely independent and committed to the region
- Value place, family & community
- Hold schools and educators in high-esteem



# Education: Key Themes

---

- Culture embedded in education policy and practice
- Many state and national initiatives have improved educational outcomes

In the era of college and career readiness,  
we see...

- Progress— K-12 outcomes, stable educator workforce, technology, regional partnerships
- Challenges— college and careers, raising academic standards, health and wellness

# Educator Effectiveness: Key Themes

---

- Preparation/Qualifications
- **Recruitment/Retention**
- **Effectiveness**
- Educator attitudes toward families and students



# Educator Recruitment, Retention, Effectiveness

---

Stable educator workforce, but...

- Are they up to the task?

And more teachers needed in STEM,  
special education

...which leads to ...

- Initiatives to “grow your own”

# School Improvement Efforts: Key Themes

---

- Strong national influence
  - Common Core
  - Mathematics and science improvement initiatives
- State systemic reform
- Place-based learning

# Strong National Influence

---

- Common Core State Standards (5 of 6 states)
- Federal grants support STEM, CCR
  - NSF initiatives (ARSI, AMSP)
  - Race to the Top: \$1.5 billion+
  - Investing in Innovation (i3) grants: \$30 million

## The above focus on....

- Academic rigor through challenging standards
- College and career readiness
- STEM
- Educator effectiveness
- Blended/online learning

# Mathematics and Science Initiatives

---

## Federally-Funded STEM Initiatives



- Appalachian Rural Systemic Initiative (ARSI): 1995-2005
- South Fork Local Systemic Initiative (unknown timeframe)
- Coalfields Rural Systemic Initiative: 2002-2007
- Appalachian Collaborative Center for Learning, Assessment, and Instruction in Mathematics (ACCLAIM): Established 2001
- Appalachian Math and Science Partnership (AMSP): 2002-2014
- Rural Math Excel Partnership (RMEP): 2012-2016

# Math & Science Initiatives: Research Findings

---

- External funding is critical
- Regional partnerships essential to capacity and buy-in
  - Colleges and universities play pivotal role
- Weak teacher preparation, content knowledge in math and science
- Technology infrastructure necessary; not insufficient
- Community partnerships not prioritized
- No rigorous impact studies





# State Systemic Reform

---

- Idea emerged nationally in 1990s
  - Entire system must support and sustain improvement
- State systemic improvement efforts, e.g.
  - Kentucky Education Reform Act of 1990
  - Tennessee Education Improvement Act of 1992
- Externally generated and/or funded initiatives, with regional/local stakeholder involvement

# State Systemic Reform: Local Reactions

---

## Local stakeholders welcomed...

- Increased funding
- Challenge to power structures
- Equal funding and opportunities for **all** students

## Less positive about...

- External definitions of priorities and policies
- Accountability measures
- Perceived devaluing of local knowledge, common sense, mountain culture
- Tax increases

# Place-Based Learning

---

## Emphasis on rigorous standards set against...

- Rural/Appalachian researchers' call for locally relevant instruction, i.e.:
  - Place-based learning: Ground curriculum in local context
  - Collectivist learning models
- Few examples in literature of attempts to use place-based, collectivist models to teach to rigorous standards

# Emerging Issue: Health and Wellness

---

- Childhood obesity
  - Children in rural and Appalachian communities at high risk
  - Childhood obesity rates are on rise (5/6 states rank in top 15)
- Substance abuse

Rates higher in some parts of the region, especially...

- Prescription pain killer use, drug overdose deaths (KY, TN, WV)
- Tobacco and alcohol use

# College Readiness Has Seen Great Progress

- States in Middle Appalachia are leaders in definitions, measures and data.
- High school graduation meets or exceeds national average.
- Other academic measures—ACT scores and Advanced Placement—are similar to non-Appalachian regions (limited data).

Averaged Freshman Graduation Rates	
U.S.	76.5%
Middle Appalachia	79.2%
North Central	81.0%
Central	76.5%
South Central	78.5%

# College Attainment Lags National Averages

	Associate's (%)	Bachelor's or higher (%)
U.S.	8.5	30.2
Middle Appalachia	8.1	20.3
North Central	7.8	19.8
Central	7.0	13.3
South Central	8.7	23.4

# Higher Education: Complex Attitudes

---

- Few adults went to college
  - Few college-educated role models
  - Little guidance on practical aspects of going to college
  - Discouraging messages about college
- Attachment to place
  - Pull to stay with family vs. Push to find better options
  - Local values may be different from national movements.

# College persistence

---

- Appalachian students need supports to enroll and persist in college.
  - High school awareness programs and mentoring
- Continued supports once they arrive in college
  - Establishing sense of connection and place



# Career Preparation Presents Challenges

---

- High school
  - Career and technical education programs may be misaligned to job opportunities.
  - Varies by location
- Postsecondary education
  - Students wish to use higher education to improve communities...
  - but perceive few careers in the region.

# Implications for Policy and Practice

# Discussion

---

Reflecting on the issues you identified before the presentation, discuss:

- Does the report capture the key issues?
- What are your key take-aways?
- What are implications for policy and practice?
- What additional research is needed?

# Stay in touch

---

- Patty Kannapel      kannapelp@cna.org
- Michael Flory      florym@cna.org
  
- Website:      www.cna.org
- Full report:      [https://cna.org/cna\\_files/pdf/CRM-2015-U-011063.pdf](https://cna.org/cna_files/pdf/CRM-2015-U-011063.pdf)
- Follow CNA on Facebook or Twitter