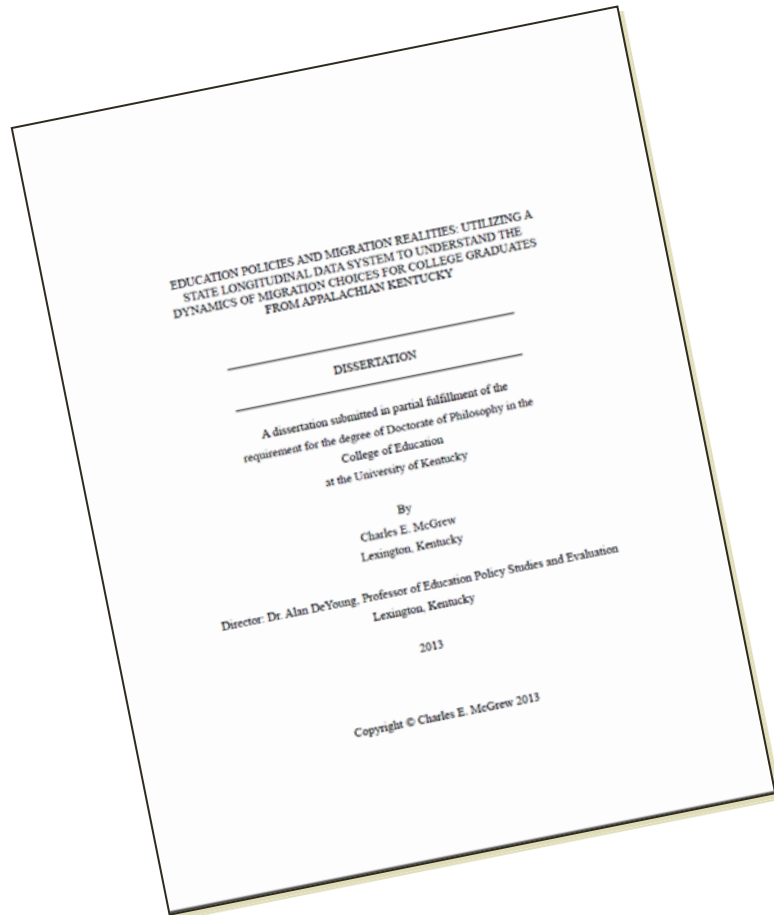


Water Runs Downhill: The Realities of Braindrain in Eastern Kentucky

Charles McGrew, Ph.D.
Jane McEldowney Jensen, Ph.D.

Appalachian Migration Research



EDUCATION POLICIES AND
MIGRATION REALITIES:
UTILIZING A STATE
LONGITUDINAL DATA
SYSTEM TO UNDERSTAND
THE DYNAMICS OF
MIGRATION CHOICES FOR
COLLEGE GRADUATES
FROM APPALACHIAN
KENTUCKY

Charles E. McGrew

http://uknowledge.uky.edu/epe_etds/5/

Appalachian Aspirations

A Study of Community Influences on the Post-Secondary Aspirations

Jane McEldowney Jensen

“Valley View”



“Mountain City”



Aspirations & Out-Migration

- Where do college degrees take Eastern Kentucky graduates?
- What types of students remain in the region?
- How do home and destination counties, economic opportunities, and individual characteristics factor into the high out-migration rates for college graduates?
- How do students' aspirations in high school translate into realities of adulthood?

Appalachian Migration Research

Overview

Identify the cohort of public and non-profit in-state college graduates from 2005-06 and examine their characteristics relative to whether they were still living in the region or not 5 years later. Employer location was used as a proxy for where they were living.

A Tale of Two Kentuckys

Regional Characteristics	Appalachian Kentucky	Non-Appalachian Kentucky	Overall Kentucky
Per Capita Income	\$17,652.00	\$24,394.00	\$22,554.00
Percent of Residents in Poverty	24.40%	15.20%	17.70%
Percent of Residents Medicaid Eligible	27.40%	14.70%	18.20%
Percent Without Health Insurance	19.50%	15.40%	16.50%

A Tale of Two Kentuckys

Educational Attainment	Appalachian Kentucky	Non-Appalachian Kentucky	Overall
Less than a High School Diploma	28%	16%	19%
High School Diploma or Equivalent	37%	33%	34%
Some College	16%	21%	20%
Associate Degree	6%	7%	7%
Bachelor's Degree	7%	14%	12%
Graduate/Professional Degree	6%	9%	8%

Educational Preparation

Free and Reduced Lunch Eligible	66%	53%	57%
Classified as Special Education	15%	13%	13%
Graduates Ready for College Level Mathematics	30%	40%	37%
Graduates Ready for College Level English	43%	52%	49%
Graduates Ready for College Level Reading	37%	43%	41%
In-State College Going Rate	56%	57%	57%
Out-of-State College Going Rate	5%	9%	8%
College Going Rate -- Overall	61%	66%	65%

2005-06 Graduates by County/State of Origin

	Appalachian Kentucky		Non-Appalachian Kentucky		Out-of-State	
	N	%	N	%	N	%
Female	5782	66%	14211	61%	4075	56%
Male	3045	34%	8912	39%	3179	44%
Black, not Hispanic	150	2%	1867	8%	526	7%
Other or Unknown	428	5%	1636	7%	1612	22%
White, not Hispanic	8249	93%	19620	85%	5116	71%

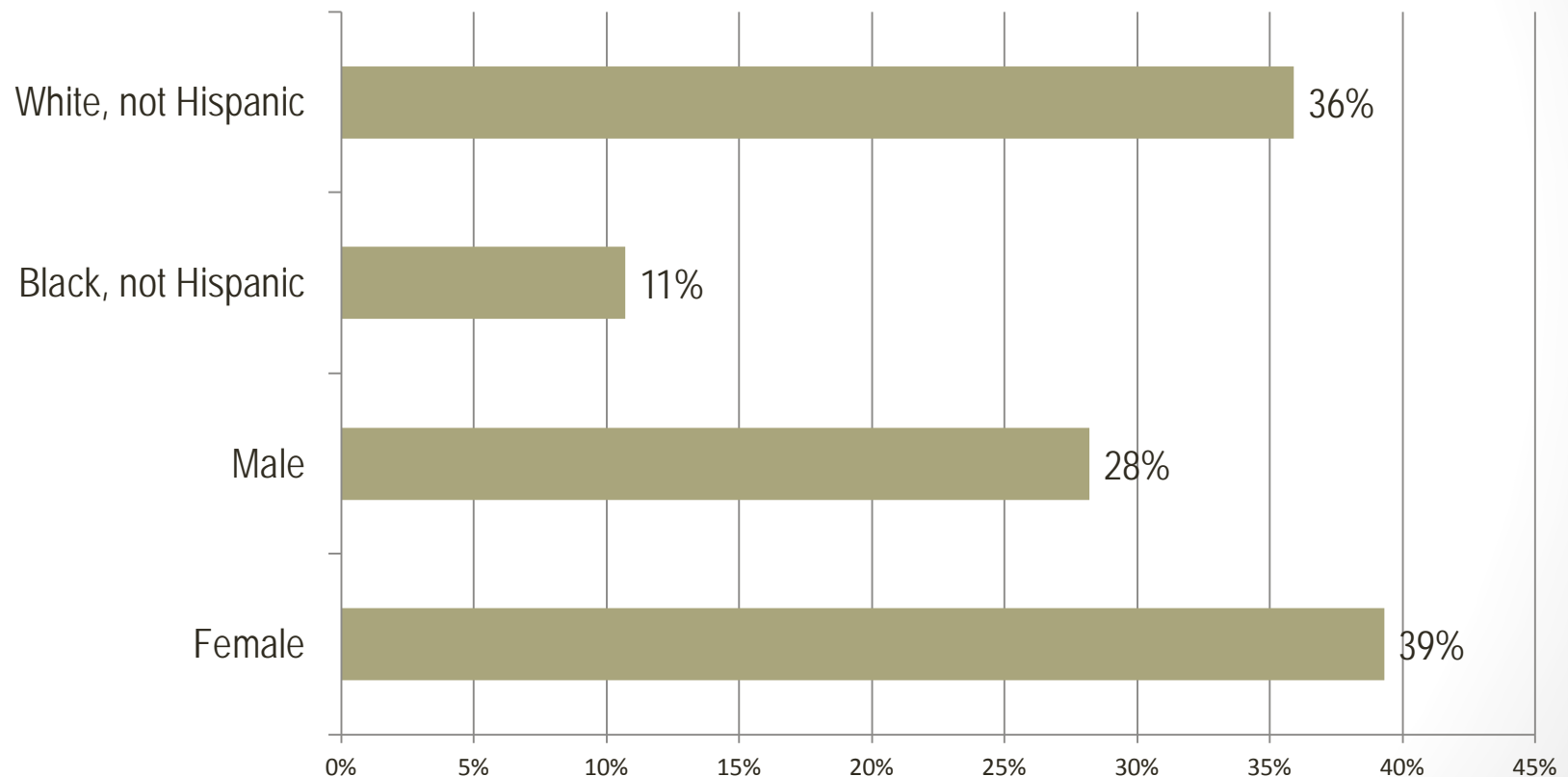
2005-06 Graduates by County/State of Origin – Institution Type Attended

Institution Type	Appalachian Kentucky		Non-Appalachian Kentucky		Out-of-state	
	N	%	N	%	N	%
2-year Public Community /Technical College	3548	40%	7456	32%	546	8%
4-Year Public University	3994	45%	12901	56%	5332	74%
4-Year Non-Profit Independent Institution	1285	15%	2766	12%	1376	19%
Institution Location						
Non-Appalachian Kentucky	2450	28%	21520	93%	5950	82%
Appalachian Kentucky	6377	72%	1603	7%	1304	18%

Migration of College Graduates from Appalachian Kentucky

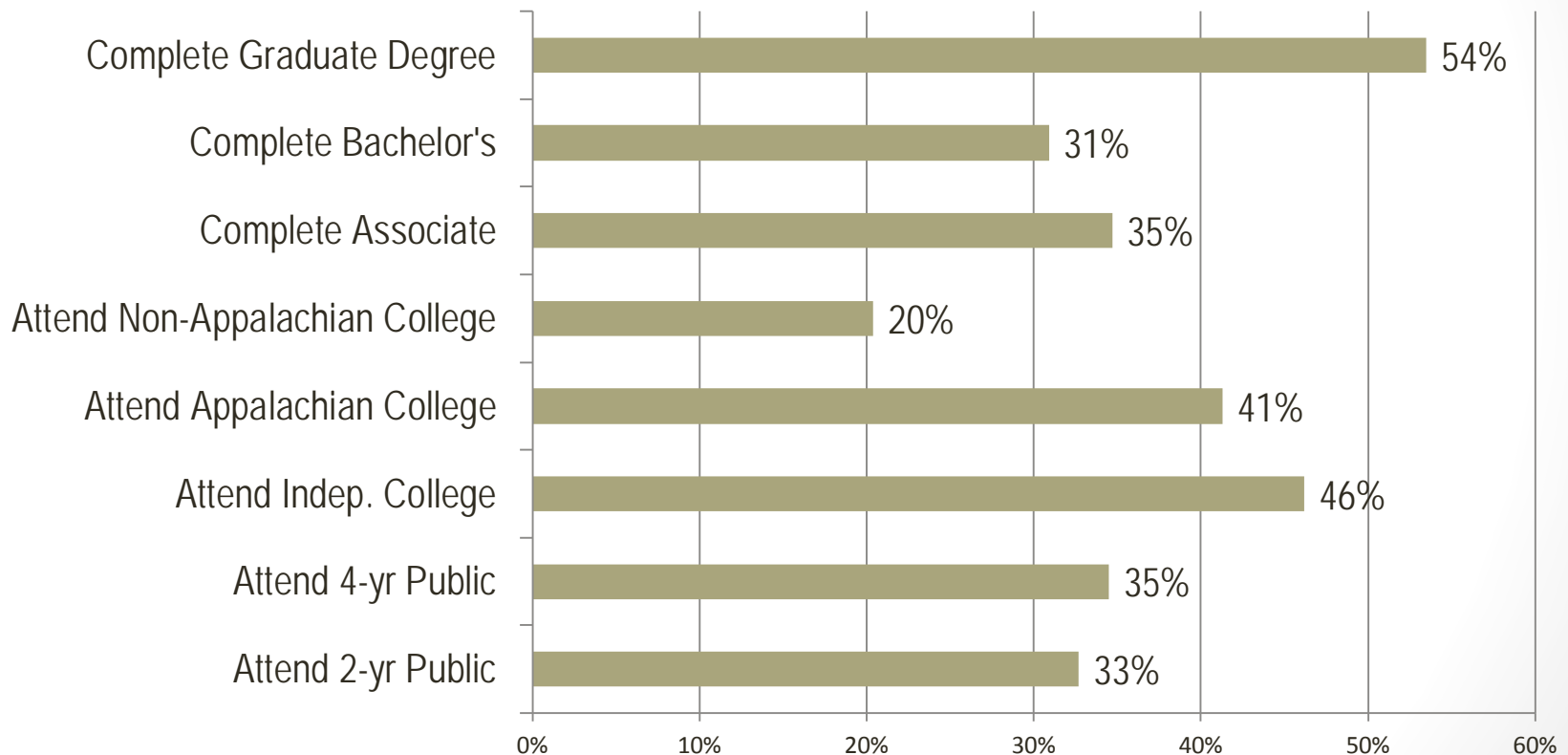
Demographic Characteristics

Percent Returning to Appalachia



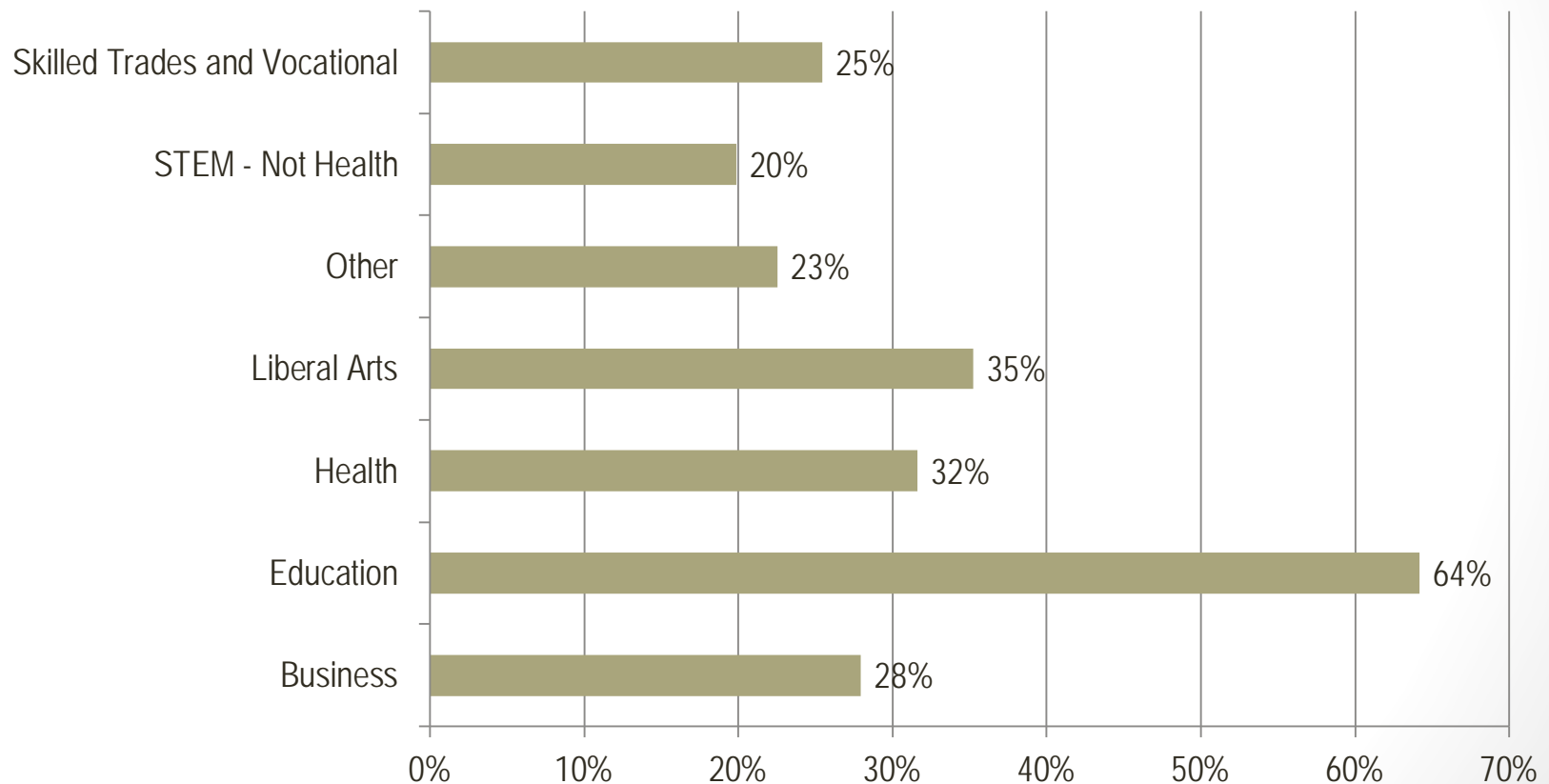
Academic Characteristics

Percent Returning to Appalachia

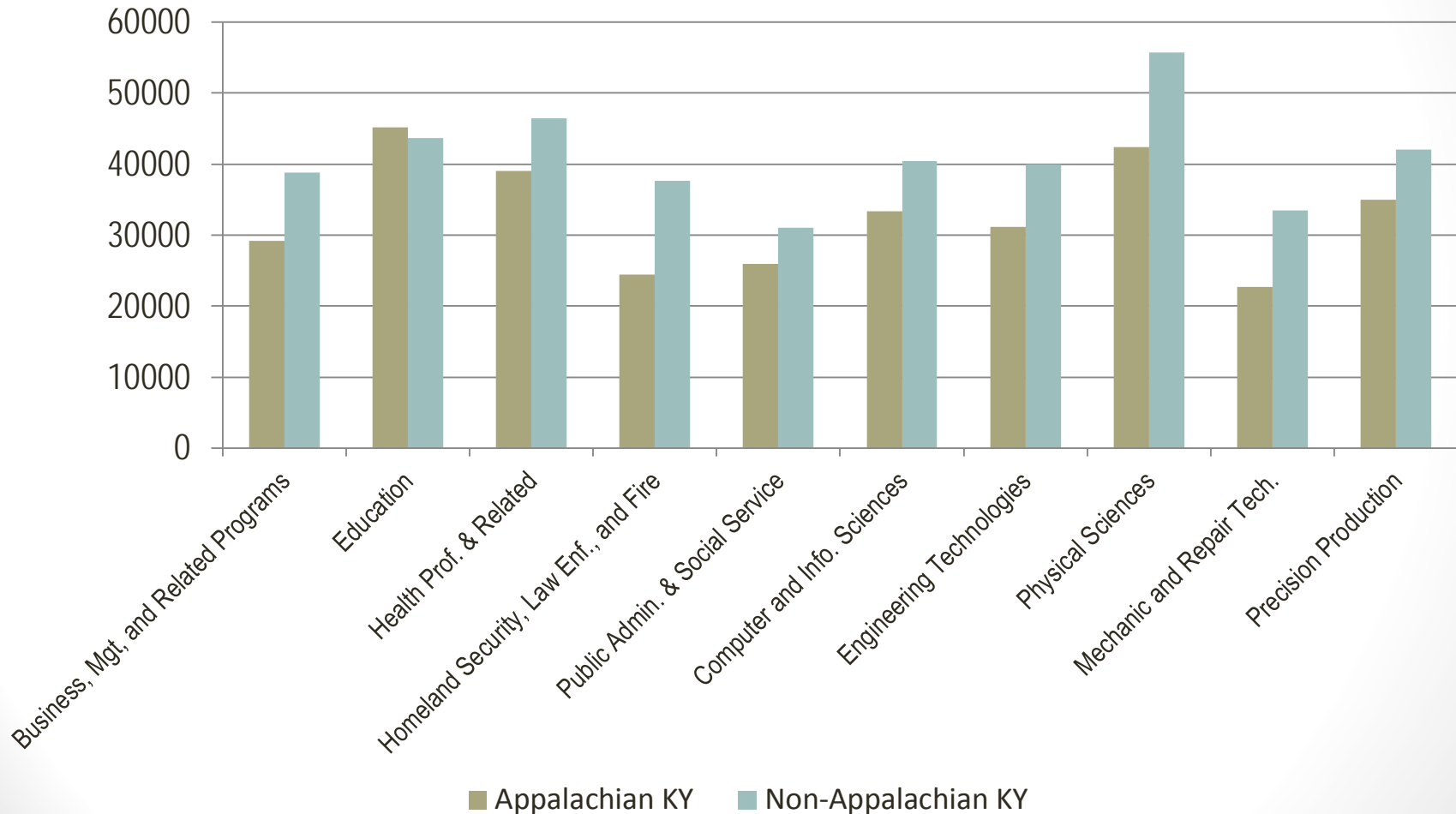


Academic Programs

Percent Returning to Appalachia



Earnings by Major and Migration



Statistical Significance

Categorical Variables	λ	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Gender	.063	.008	7.901	.000
Race	.009	.003	2.661	.008
Age at Graduation	.047	.011	4.083	.000
Type of Institution Attended	.041	.009	4.596	.000
College or University Location	.085	.006	12.656	.000
Degree or Credential Level	.076	.012	6.117	.000
Academic Major	.115	.012	9.285	.000

Logistic Regression

Independent Variable	B	S.E.	Wald	df	Sig.	Exp(B)
FEMALE	-.380	.068	31.226	1	.000	.684
BLACK	1.500	.293	26.127	1	.000	4.481
AGE30	-.119	.061	3.759	1	.053	.888
COLLEGE_IN_APP	-1.082	.070	240.313	1	.000	.339
LR_2YR_COLLEGE	.058	.162	.128	1	.720	1.060
4YR_COLLEGE	.575	.091	40.017	1	.000	1.778
BACHELORS	.218	.260	.702	1	.402	1.244
LR_ASSOCIATE	.333	.284	1.370	1	.242	1.395
SUBASSOCIATE	.325	.301	1.163	1	.281	1.384
MASTERS	-.198	.268	.545	1	.460	.821
DOCTORAL	-.384	.558	.474	1	.491	.681
LR_MAJOR_BUSINESS	-.400	.139	8.317	1	.004	.671
MAJOR_EDUCATION	-1.493	.129	133.656	1	.000	.225
MAJOR_HEALTH	-.202	.121	2.791	1	.095	.817
LR_MAJOR_LIBERALARTS	-.518	.115	20.353	1	.000	.596
MAJOR_STEM	-.031	.151	.042	1	.837	.970
MAJOR_SKILLED	-.620	.181	11.671	1	.001	.538
Constant	.992	.276	12.906	1	.000	2.697

Appalachian Aspirations

- Selection of 8-10 students from two high schools in same region representing different positions relative to the economy. Class of 2006
- Participant observation at the high schools, interviews with selected seniors, their best friends, and an adult they identified.
- Follow up conversations (formal and informal) in person, on the phone, and by Facebook message after first year of college
- Continuing “check ins” by Facebook and email through 2014.

Fine Grained Comparison

Two Schools: One Coalfield

Mountain City High School

- 85% or more of Mountain City High School graduates have gone to post-secondary schools over the last five years.
- Mountain City is one of the five top performing high schools in the State with options for dual credit in math and chemistry

Valley View High School

- 30% of Valley View graduates have attended post-secondary schools over the last five years, mostly two year schools.
- Valley View is the smallest high school in the County School District and Participates in federal GEAR UP programs

Dreams and Aspirations

- Mountain City

- To be happy
- To have a **good** job
- To “get out of here”
- **To enjoy college**
- To “come home **someday maybe**”
- To have a family someday

- Valley View

- To be happy
- To get a job that **pays** well.
- To be able to come **home** and “live next to my sister”
- To marry and “take care of my **family**”

Class of 2006: Where did they study?

Valley View-County

Morehead State (5)

Education (2)

Radiology (2)

**General studies
(STEM-1)**

Pikeville College (2)

Education

BSCTC (1)

Mountain City

Georgetown College (3)

**Education, Physics,
Psychology**

University of Kentucky (3)

**Business, Architecture,
Engineering**

Western Kentucky (1)- History

Alice Lloyd College (1)-Pre-Pharm

Pikeville College (1)-Comm

Transylvania University (1)

Philosophy, Anth, English

What are the county kids doing now & where?

- BS: Radiologic Technician in Central KY (married with child)
- AS: Early Childhood Educator (employed living in Eastern Kentucky with 2 children)
- BS: Education Degree (employed in Eastern Kentucky with 2 children)
- BS: CT/MRI Technologist in Eastern Kentucky (married)
- BS, MS: High School English Teacher in Eastern Kentucky (married HS sweetheart both employed by hometown school district)
- AS: Sound Engineer in Central KY (employment unknown)
- No Degree - Retail staff in West Virginia, divorced.
- No Degree- (last heard working in Central Kentucky)

What are the city kids doing now?

- MS Rose Hulman in Optical Engineering (married living in south-central Kentucky)
- MS in Accounting UK living in Central Kentucky
- JD from Dayton School of Law living near Dayton
- PharmD University of Cincinnati College of Pharmacy-living near Columbus, OH
- MS in Engineering from UK living in Texas
- BS in Business from Georgetown working as communications officer for Kraft Foods in Eastern KY
- BA from Transylvania, going to graduate school after serving as Americorps College Coach—in Eastern Kentucky
- BA from UK College of Design, Undergraduate award for Architecture, working on MS at University of Virginia
- Clerk at Magic Mart in Eastern Kentucky

Complicating “Brain Drain”

- Appalachian students more likely to come home if they study home and if they study something (education) that still provides jobs.
- College graduate out-migration is gendered and occupationally stratified
- Stratification starts at home with socially reproduced differences of opportunity, cultural capital, and aspiration found in high schools within the region.