

From Plan to Action: Using the Logic Model, Research Agenda, and Data Catalog

Presented to Clay County, Jackson County, and Owsley County

June 5, 2018



Agenda

- 9:00 a.m. Welcome, introductions, overview of goals and objectives
- 9:15 a.m. How far we've come
- 9:30 a.m. Data catalog
- 10:00 a.m. Getting some answers
- 10:30 a.m. Break**
- 10:45 a.m. Building on this work
- 11:15 a.m. Focus and planning
- 11:45 a.m. Questions
- 12:00 p.m. Adjourn**



Welcome

Introductions

Please share your:

- Name
- Affiliation
- Role
- Your hopes for your graduating seniors

Goals and Objectives

Overall Goals of Workshop Series

- Define a common logic model related to college and career readiness and success
- Develop a clear, coherent agenda for applied research, technical assistance, and dissemination activities
- Determine the types of data available to address the questions of interest, as well as any gaps in the data



Data Catalog Workshop Objectives

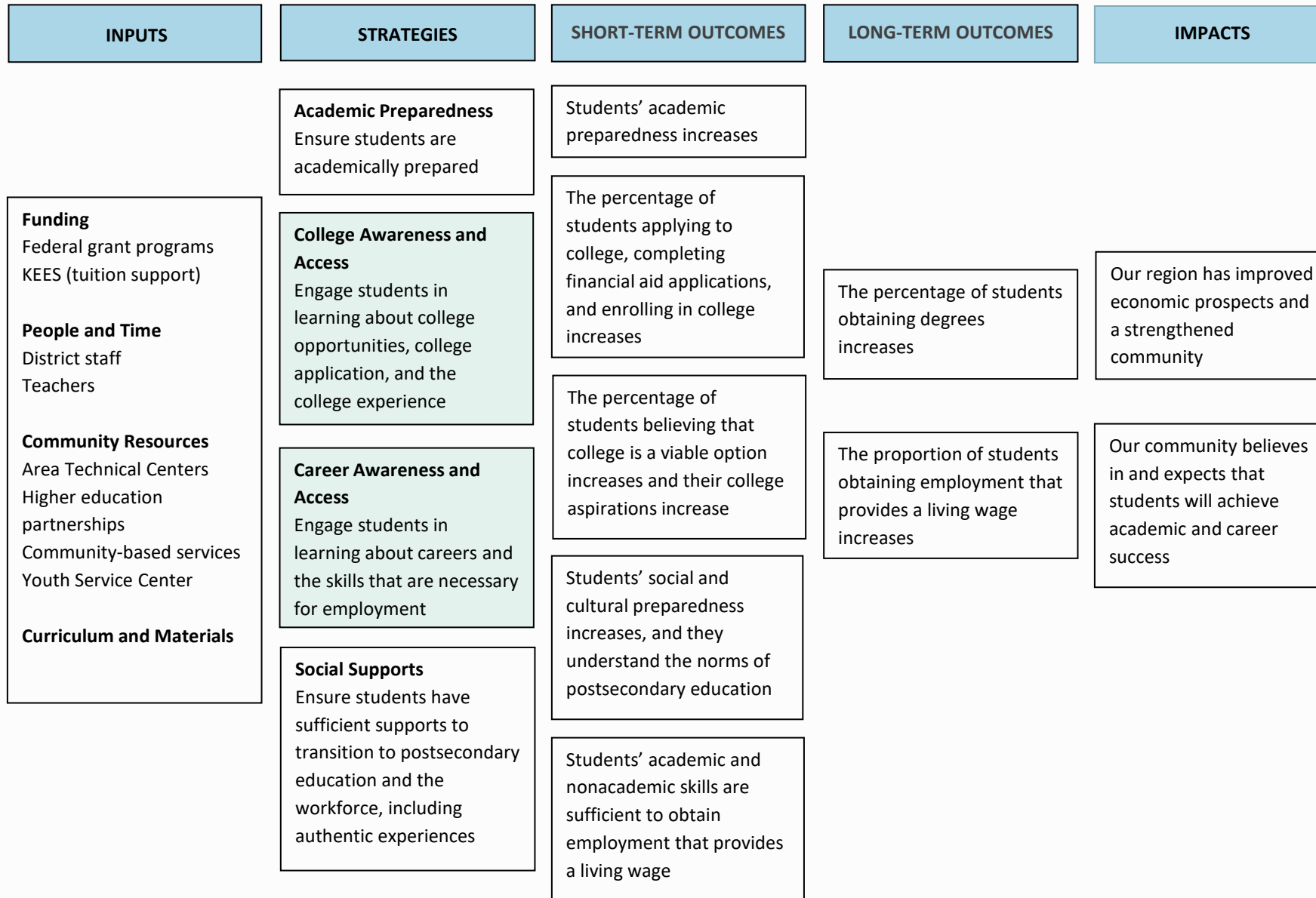
- Review the logic model and research agenda
- Review the data catalog
- Identify approaches to addressing priority questions and needs



How Far We've Come

FROM LOGIC MODEL TO DATA CATALOG





Problem Statement

Students in rural eastern Kentucky lack exposure to models of college and career success, lack confidence to pursue opportunities for college and career success, and have low college graduation rates and problems obtaining gainful employment.

Research Agenda

Topic	Subtopic	Research Questions
Career awareness and access	Outcomes associated with career pathways and industry certification	<p>21. What percentage of students who get an industry certificate get a job in that topic area?</p> <p>22. How does training, coaching, or technical support build capacity to provide students with authentic experiences in occupations, careers, and industry sectors that do not yet exist in eastern Kentucky?</p>

Research Agenda (continued)

Topic	Subtopic	Research Questions
College awareness and access	Non-academic skills and competencies	<p>11. What soft skills, such as attendance, are associated with persistence in college?</p> <p>12. What activities in K-12 provide students with life skills needed to complete a college degree?</p> <p>13. How does behavior in high school and middle school relate to college enrollment and persistence?</p>



Data Catalog

Building a Draft Data Catalog

- Began to identify data and data sources related to college and career readiness at last workshop
- Discussed available data through conversations with district staff
- Identified state-level and regional data
- Documented data sources and data characteristics across partner districts

Data Catalog Considerations

Benefits

- Identify options for answering research questions
- Facilitate conversations with state-level organizations

Qualifications

- Focus limited to college and career readiness
- Only includes data identified through conversations and public sources
- Characteristics of data are difficult to consistently identify

Draft Data Catalog: Overview

Organizing Structure

- Sort the catalog
- Review by topic and subtopic

District	Topic	Subtopic	Data Source	Data Element (variable)
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Data Characteristics

- Information about data quality
- Review when deciding which elements to utilize

Years available	Linking ID	Release frequency	Response categories	Missing data	Portion of students/teachers for whom there are data	Notes
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Data Sources

- School report card
 - Student demographics, CTE enrollment, certification, post-high school transition, parent involvement
- TEDS (Technical Education Data System)
 - Credentials, KOSSA, industrial certificates, work based learning
- KCEWS (Kentucky Center for Education and Workforce Statistics)
 - Enrollment in postsecondary, persistence in postsecondary, credits earned

Data Sources (continued)

- TELL Kentucky
 - Teacher ratings of parent and community engagement and professional learning
- Partners in Education at Berea
 - Tutoring, campus tours, application support, test prep, support services
- District/School
 - Student participation in organizations, HR data, teacher professional development

Using the Tools Together

Our research agenda example:

Topic	Subtopic	Research Questions
Career awareness and access	Outcomes associated with career pathways and industry certification	21. What percentage of students who get an industry certificate get a job in that topic area? 22. How does training, coaching, or technical support build capacity to provide students with authentic experiences in occupations, careers, and industry sectors that do not yet exist in eastern Kentucky?

Reviewing Your Data Catalog

Research Question 21:

What percentage of students who get an industry certificate get a job in that topic area?

District	Topic	Subtopic	Data Source	Data Element (variable)
All	Career Awareness and Access	Student experiences	KOSSA	KOSSA aligned with the pathway

Years available	Linking ID	Release frequency	Response Categories	Missing Data	Portion of students/teachers for whom there are data	Notes
2014-15 – 2016-17	Student ID	Annual	Aligned certificate earned by Pathway	N/A	Graduating seniors	Included in state Report Card

Reviewing Your Data Catalog

Research Question 22:

What activities in K-12 provide students with life skills needed to complete a college degree?

District	Topic	Subtopic	Data Source	Data Element (variable)
All	Career Awareness and Access	Student experiences	GEAR UP, Partners in Education	Job shadowing, Job site visit

Years available	Linking ID	Release frequency	Response Categories	Missing Data	Portion of students/teachers for whom there are data	Notes
Grant funded years	Student name	Request only	Attendance by date and activity	N/A	Students who attended	Need grant permission to share data

Getting Some Answers

Mapping Data to Research Questions

Can we answer our research questions with our data?



Identifying Strengths and Gaps

Data Catalog

- What areas of interest have data?
- What data limitations exist?

Logic Model and Research Agenda

- Which areas of the logic model are not addressed by activities?

Digging into the Data

Think about what you would need to answer these questions:

- What data would you need, at a minimum, to answer this question?
- Where would you expect this data to come from?
- How often would you want this data made available to you?
- What data would you like to link together?
- How might you be able to link the data (school ID, student ID, etc.)?

Sharing Out

Question 1: What non-academic skills, such as attendance, are associated with persistence in college?

Question 2: What programs or practices are shown to increase parents' support of postsecondary persistence and completion for their children?

Data Quality

Characteristics

- Do we need data over time?
- Do we have data for the entire population of interest?
- *What else?*

What is the right research approach?

- Descriptive:
 - Identifies patterns in data to answer questions about who, what, where, when, and to what extent
- Correlational:
 - Examines how two or more factors or conditions are related
- Causal:
 - Examines the impact of one factor or condition on another

BREAK

Building on this Work

PLANNING FOR UPCOMING PROJECTS

Three REL Activities

Training, coaching, and technical support

- Training on logic modeling and research agendas
- Technical support to assist with research design, data collection, and/or analysis plans
- Informal evidence reviews (e.g., using ESSA standards)
- Ask-A-REL responses

Applied research

- Descriptive or correlational analyses or extant data
- Literature reviews
- Effectiveness studies
- Technical reports on analytic methods
- Empirical studies of communication strategies
- Just-in-Time research

Dissemination of research findings

- REL website
- Light-touch outreach
 - Newsletters
 - Social media
 - Infographics
 - Webinars
 - Short videos
 - Blog posts

Making Connections Across Districts

Owsley Parent Survey

- What do we know about the data?
 - When is it collected?
 - For what purpose?
 - What is the response rate?
- How are the data used?
- What adaptations can be made to broaden use?

Ask a REL

Are high school attendance rates associated with college enrollment, persistence, and completion?

What does the research say?

Who has benefited from career pathways (high vs. low performing students)?

What does the research say?

Sharing Existing Evidence

Do students who take college-level courses in high school (dual enrollment) attend and persist in college at a higher rate than those who do not?

Which interventions provided by higher education institutions (for example, college fairs, peer mentoring) can increase high school students' likelihood of enrolling and later persisting in college?

Evidence of impact: dual enrollment

Table 1. Summary of findings

Outcome domain	Rating of effectiveness	Improvement index (percentile points)		Number of studies	Number of students	Extent of evidence
		Average	Range			
Degree attainment (college)	Positive effects	+25	+6 to +42	5	77,249	Medium to large
College access and enrollment	Positive effects	+15	+12 to +19	4	67,474	Medium to large
Credit accumulation	Positive effects	+14	+13 to +16	2	56,370	Medium to large
Completing high school	Positive effects	+7	+5 to +9	2	4,052	Medium to large
General academic achievement (high school)	Positive effects	+7	+3 to +13	2	2,817	Medium to large
Staying in high school	Potentially positive effects	+16	na	1	676	Small
College readiness	Potentially positive effects	+14	na	1	1,355	Small
Attendance (high school)	Potentially positive effects	+8	na	1	1,554	Small
General academic achievement (college)	No discernible effects	-1	na	1	455	Small

na = not applicable

Longer-Term Research Studies

- A research study is underway to identify effective nonacademic interventions on student **postsecondary enrollment, persistence**, and **attainment** for **high poverty populations** and **rural locales**.

And associated training . . .

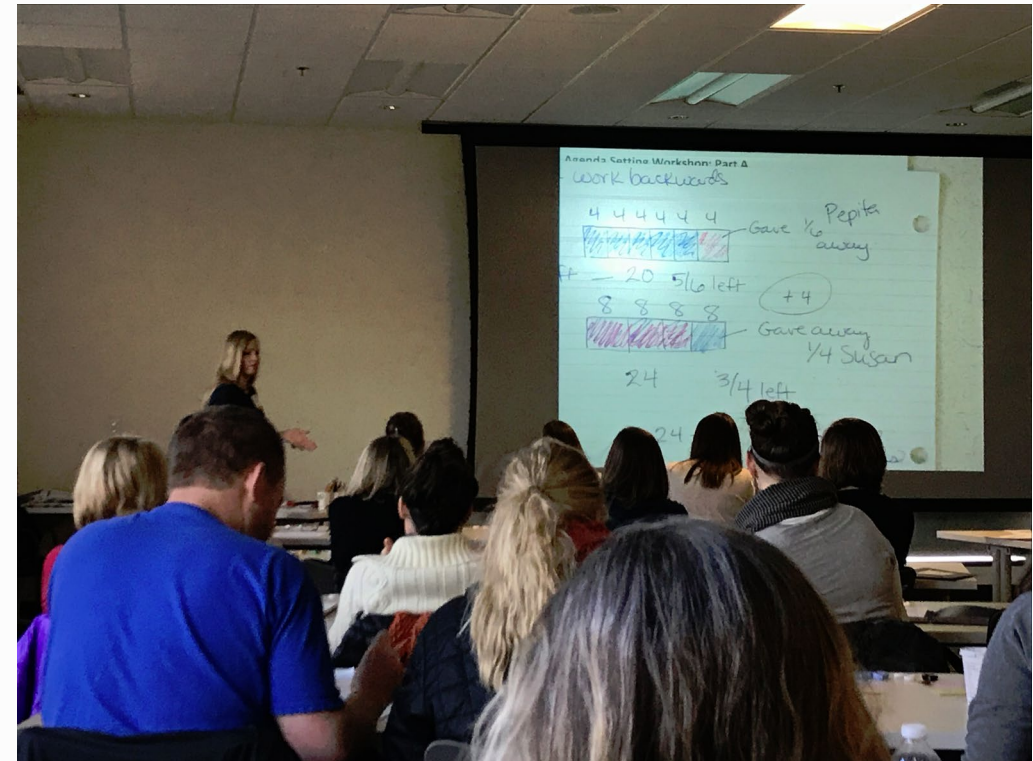
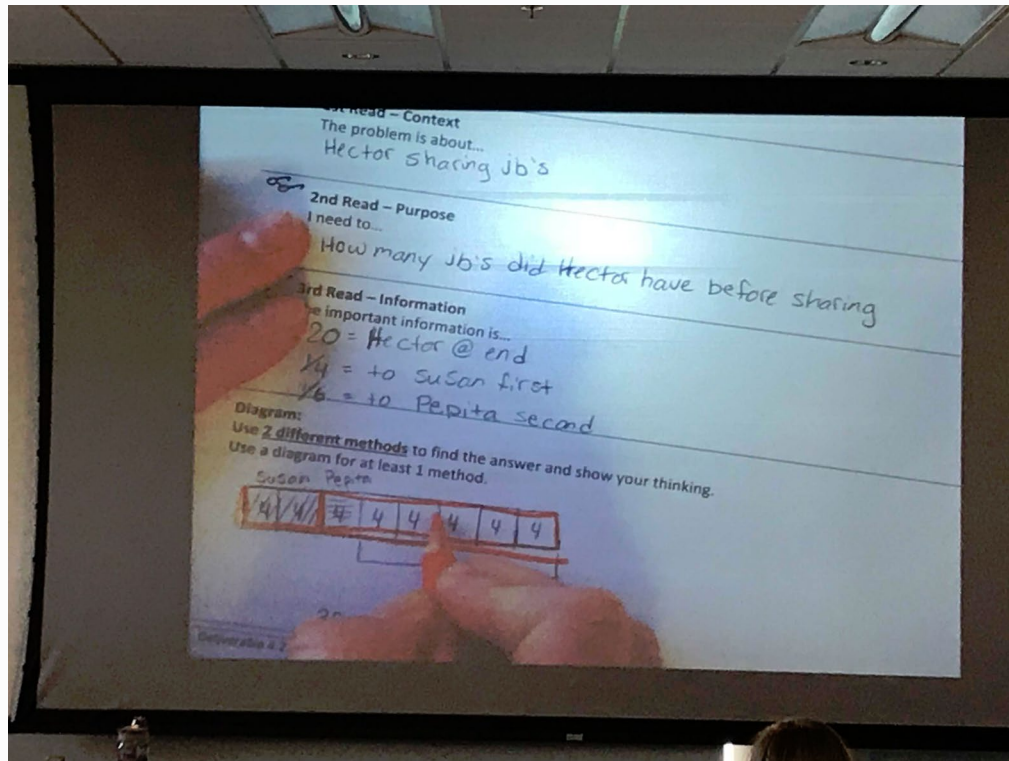
- We are planning a training series on this topic to make sure information is **timely** and **actionable**.

Example

Preparing All Students for Algebra: Applying Research-Based Strategies



Focus on Visual Representations & Language Access Strategies



VA Math: From Research Question to Training Event

- What topic/question are you interested in focusing on?
- Who needs to build knowledge and skills in this area?
- What do you want them to do with the knowledge and skills?
- What outcomes do you want to achieve by increasing knowledge and skills?
- What is the context?
- What training objectives will be needed to increase knowledge and skills?
- What additional support will be needed after the training to achieve the outcomes?

Focus and Planning

Mapping Research Questions to Eastern Kentucky Training Series

What topic/question are you interested in focusing on?

- Non-Academic Skills & Competencies
 - What soft skills, such as attendance, are associated with persistence in college?
 - What activities in K-12 provide students with life skills needed to complete a college degree?
 - How does behavior in high school and middle school relate to college enrollment and persistence?

Mapping Research Questions to Eastern Kentucky Training Series

- Who needs to build knowledge and skills in this area?
- What do you want them to do with the knowledge and skills?
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Logistical Concerns

- Timing
- Location
- Recruitment
- Other concerns?





Thank you for your participation!

How did we do?

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