REL WEBINAR SERIES

# College & Career Readiness

REL APPALACHIA

REL MIDWEST

REL NORTHWEST

REL WEST

# Supporting College and Career Readiness through Advanced Course Taking: Findings from states and districts

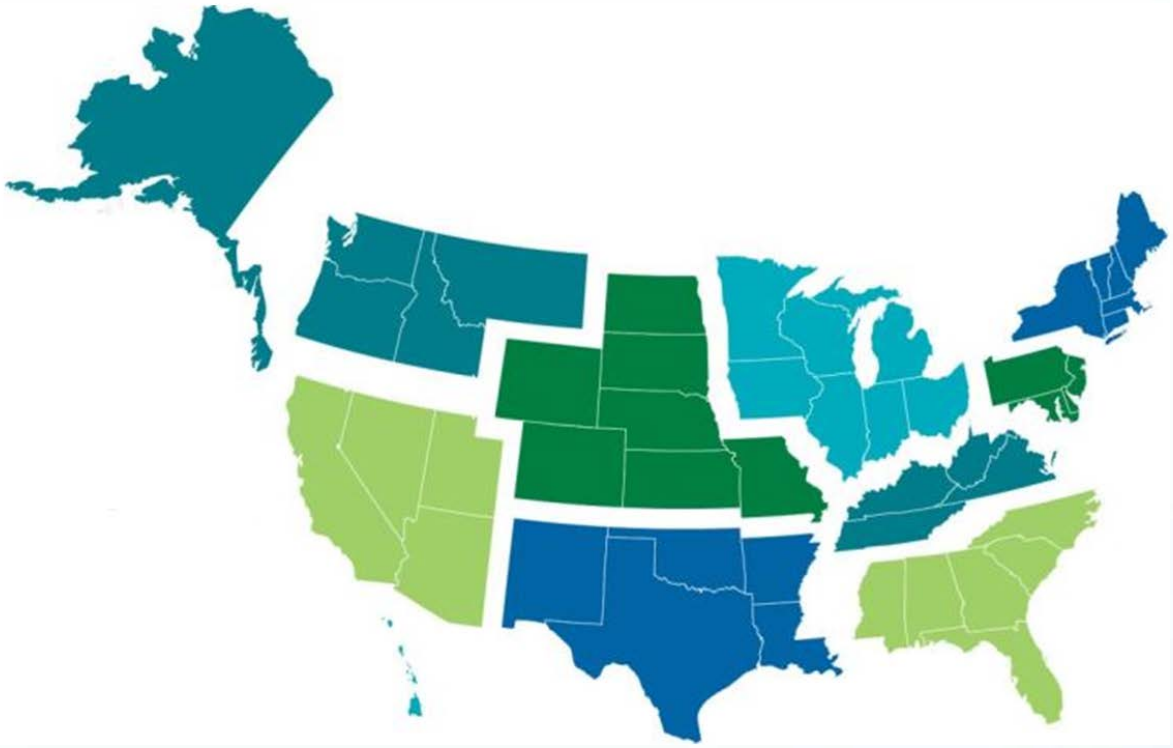
Presented by the national Regional Educational Laboratory (REL) College and Career Readiness Workgroup



REL APPALACHIA REL MIDWEST REL NORTHWEST REL WEST

# The Regional Educational Laboratory (REL) Program

- 10 Regions
- Bridging research, policy, and practice



# Goals of the Webinar

- Understand the link between advanced course taking on students' college readiness and enrollment.
- Examine the characteristics of students who take advanced courses and the contexts in which they take them.
- Hear from experts about how advanced course taking in high school is linked to student success.

# Agenda

- **The Promise**: The benefits of advanced course taking and dual enrollment
- **The Challenge:** Which students are taking advanced courses (and which are not?)
- **What's Working So Far:** What we know about district implementation
- **Practitioner Perspective:** Improving advanced course offerings in eastern Oregon

# Presenters

Michelle Hodara, REL Northwest

Elisabeth (Lyzz) Davis, REL Midwest

John Rice, REL West

Michael Flory, REL Appalachia

Kris Mulvihill, InterMountain Education Service District (Oregon)

# The Promise:

The benefits of advanced course taking and dual enrollment

- Michelle Hodara, Senior Researcher, REL Northwest

# Advanced course taking options

- Dual credit
- Dual enrollment
- Advanced Placement/International Baccalaureate
- Other local programs

# Why take advanced courses in high school?

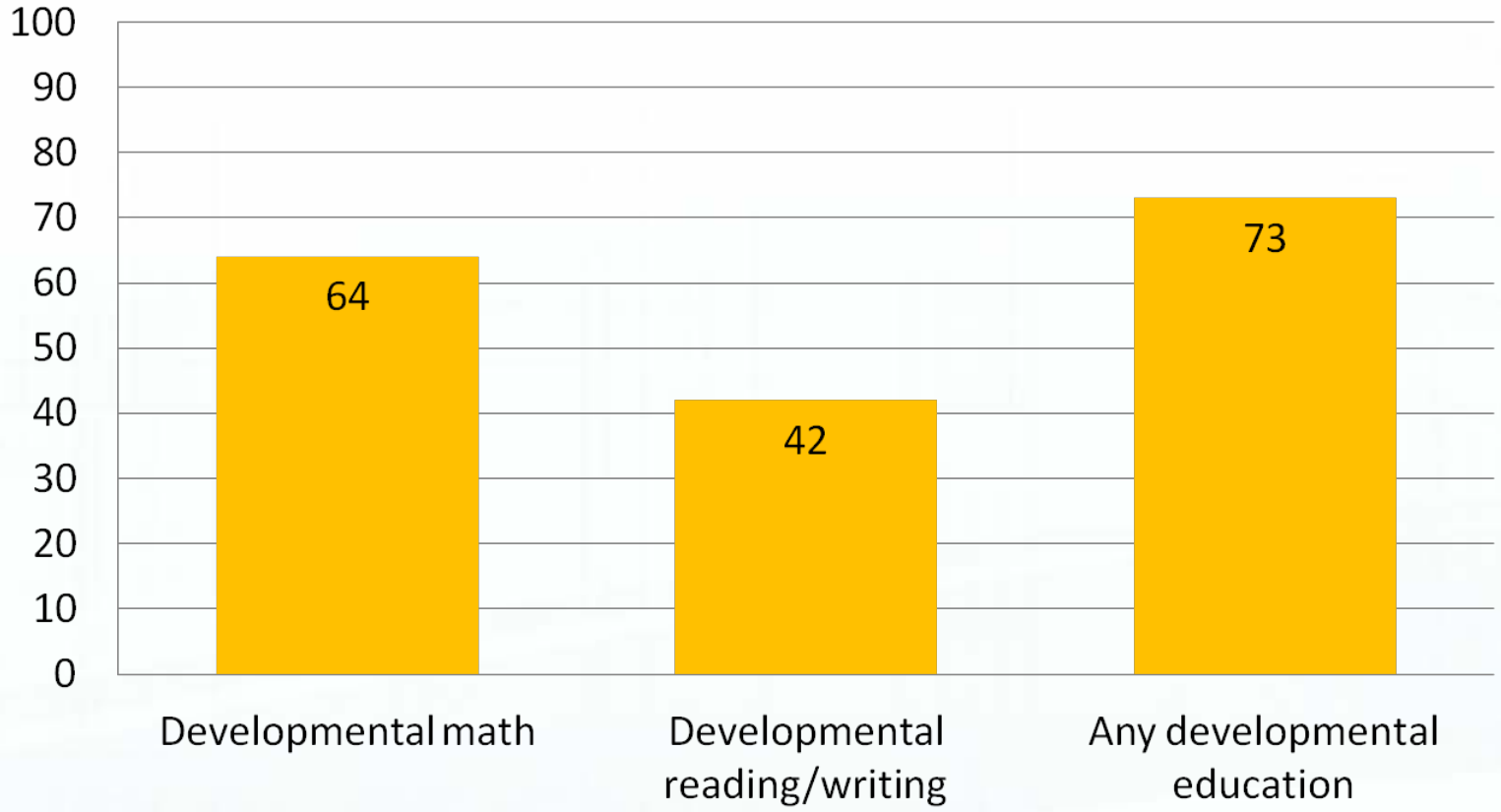
**Accelerated college credit can …**

- Improve high school outcomes
  - Graduation
  - Grade Point Average
  - Overall engagement
- Improve college outcomes
  - Enrollment
  - Persistence
  - Completion

# Advanced course taking and developmental education

- In Oregon, how many high school graduates who attend community college enroll in developmental education?
- Among graduates who attend community college, what is the connection between taking dual credit in high school and subsequent developmental education enrollment?

# Nearly three-quarters of recent Oregon high school graduates took developmental education, 2005/06–2011/12



# Dual credit

- Most consistent factor related to decreasing developmental education enrollment
- Recent high school graduates who took dual-credit courses…
  - In math - 33 percentage points less likely to enroll in developmental math
  - In English - 15 percentage points less likely to enroll in developmental English

# Dual credit subject areas associated with lower developmental English enrollment

| | Dual Credit Subject | Popular course title |
|---|---|---|
| Less likely to enroll in developmental reading and writing | • English<br>• Math<br>• World languages<br>• Social science<br>• History<br>• Business and management | • English Composition<br>• College Algebra<br>• First Year Spanish<br>• Introduction to Economics<br>• History of the United States<br>• Personal Finance |
| No impact on enrollment in developmental reading and writing | • Technology<br>• Health sciences<br>• Science<br>• Industrial and engineering systems<br>• Human resources<br>• Arts, information, and communication<br>• Natural resource systems | • Computer Fundamentals<br>• Emergency First Aid<br>• General Biology<br>• Basic Drafting<br>• Introduction to Early Childhood Education<br>• Photoshop<br>• Animal Science |

# Dual credit subject areas associated with lower developmental math enrollment

| | Dual Credit Subject | Popular course |
|---|---|---|
| Less likely to enroll in developmental math | • Math<br>• English<br>• World languages<br>• Social science<br>• History<br>• Science<br>• Industrial and engineering systems<br>• Technology | • College Algebra<br>• English Composition<br>• First Year Spanish<br>• Introduction to Economics<br>• History of the United States<br>• General Biology<br>• Basic Drafting<br>• Computer Fundamentals |
| No impact on enrollment in developmental math | • Business and management<br>• Health sciences<br>• Human resources<br>• Arts, information, and communication<br>• Natural resource systems | • Personal Finance<br>• Emergency First Aid<br>• Introduction to Early Childhood Education<br>• Photoshop<br>• Animal Science |

# Major takeaways from study

- Dual credit seems to be related to college readiness
  - Popular dual-credit courses associated with a lower likelihood of taking developmental education include **United States history**, **Spanish**, and **introduction to economics**
- Represents a promising strategy for expanding opportunities for high school students to engage with college-level material and for secondary and postsecondary institutions to collaborate

# The Challenge:

Which students are taking advanced courses (and which are not?)

- Lyzz Davis, REL Midwest

- John Rice, REL West

# Forthcoming REL Midwest Study

Acceleration Programs in Minnesota:

Characteristics and Postsecondary Pathways of Students Who Participate

*Presented by:* Elisabeth (Lyzz) Davis, Senior Researcher

REL Midwest at American Institutes for Research

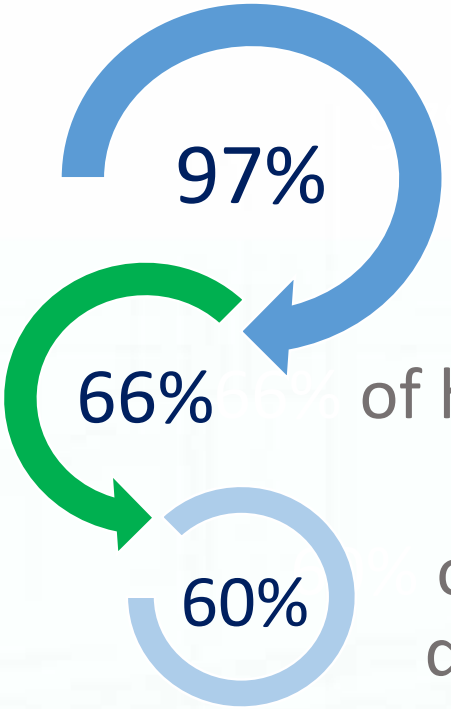
# Overview

- Why this study
- What we measured
- What we found
- Potential implications

# Why this study

Study context

# Background



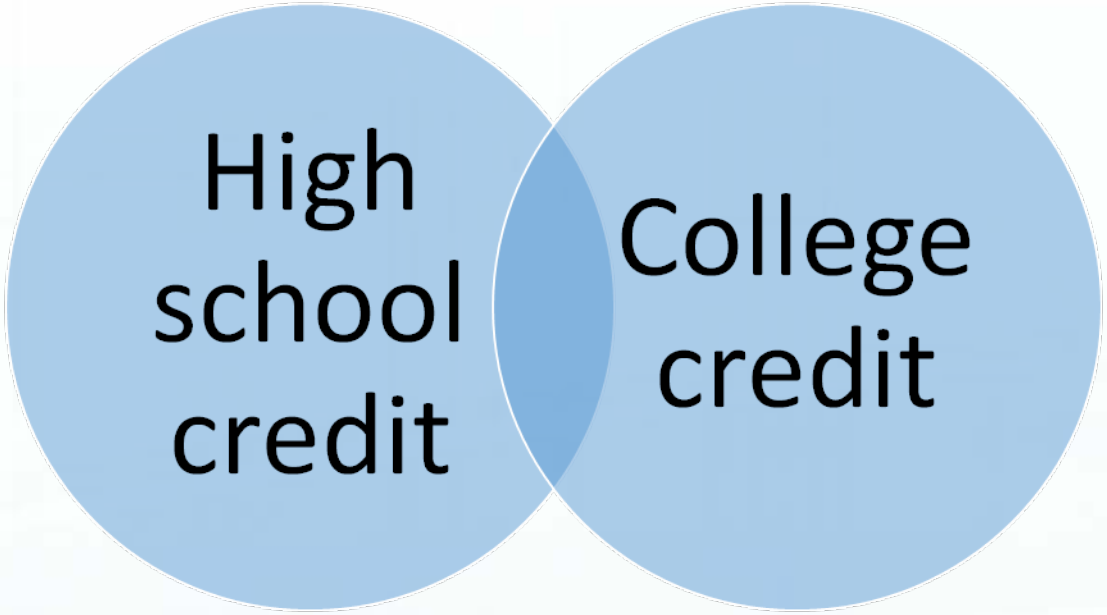

of high school students plan to attend college

of high school students actually enroll

of those who enroll complete their degree

# Background

Acceleration programs: earning **high school and college credit** simultaneously



# Background


HS Completion
Degree completion
Acceleration program participation
College enrollment
College persistence

# Acceleration Programs

- Advanced Placement
- International Baccalaureate
- Postsecondary Enrollment Options (PSEO)
- Concurrent Enrollment

# In Minnesota…

In 2010-11, **21%** of 11th and 12th graders participated in PSEO.

# In Minnesota…

**23%** of high school students participated in Advanced Placement programs

**2%** of high school students participated in International Baccalaureate programs

# In Minnesota…

Little information exists about

- **the students who participate** in accelerated programs
- their **postsecondary outcomes**

# What we measured

Study methods

# Data Sources

- Minnesota's Statewide Longitudinal Education Data System (SLEDS)
- Barron's Profile of American Colleges
- National Center for Education Statistics (NCES) Elementary and Secondary information system (ElSi) (formerly Common Core of Data)
- Publicly available data from Minnesota Department of Education (MDE)

# Study Sample

**60,000**

Minnesota high school graduates from the class of 2011

# Research Questions

- What students are **participating**?
- What students are **awarded credit** in college?
- What **types of colleges** do participants enroll in?
- What are participants **postsecondary outcomes**?
- Does **award** of credits matter?

# Data collection and analysis

- Acceleration program **participation**
- Student, high school, and college **characteristics**
- Credit **awarded** at college level
- Postsecondary **outcomes**

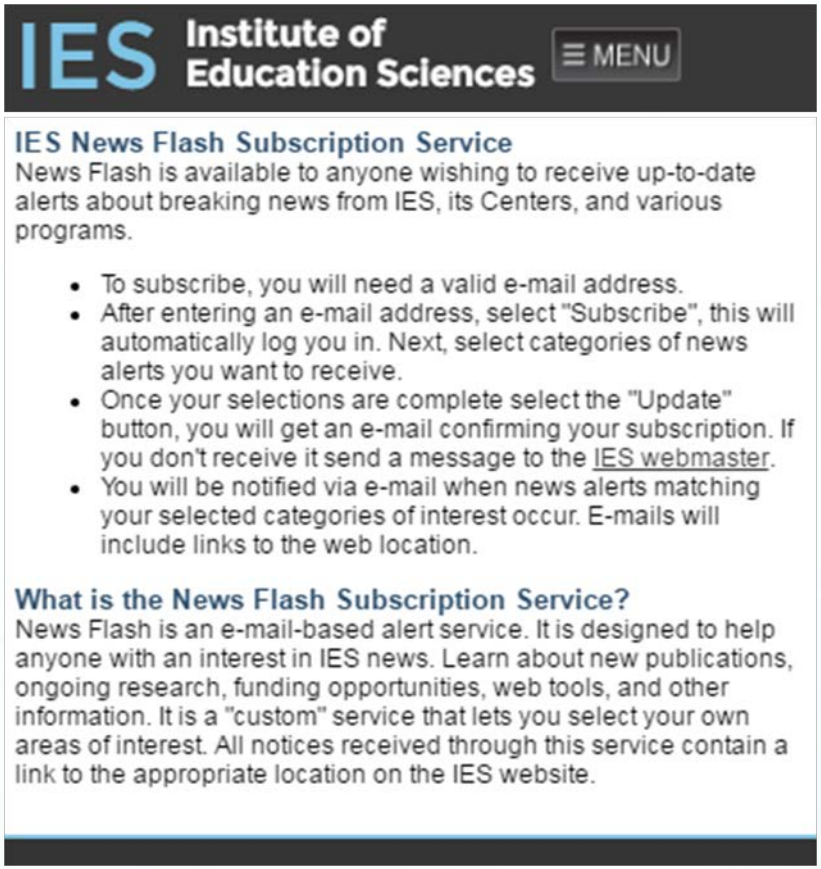
➢ Used **descriptive** statistics and **Hierarchical Linear Modeling**

# What we found

Study findings

# Findings are forthcoming!

Be sure to sign up for Institute of Education Sciences Newsflash: https://ies.ed.gov/newsflash/about.asp



IES Institute of Education Sciences ≡ MENU

**IES News Flash Subscription Service**

News Flash is available to anyone wishing to receive up-to-date alerts about breaking news from IES, its Centers, and various programs.

- To subscribe, you will need a valid e-mail address.
- After entering an e-mail address, select "Subscribe", this will automatically log you in. Next, select categories of news alerts you want to receive.
- Once your selections are complete select the "Update" button, you will get an e-mail confirming your subscription. If you don't receive it send a message to the IES webmaster.
- You will be notified via e-mail when news alerts matching your selected categories of interest occur. E-mails will include links to the web location.

**What is the News Flash Subscription Service?**

News Flash is an e-mail-based alert service. It is designed to help anyone with an interest in IES news. Learn about new publications, ongoing research, funding opportunities, web tools, and other information. It is a "custom" service that lets you select your own areas of interest. All notices received through this service contain a link to the appropriate location on the IES website.

# Potential Implications

How results will help Minnesota and other states

# Potential implications

Findings may help with…

- **Targeting resources** to underrepresented students
- Plan **future** acceleration program offerings
- Influence **education policy**
- Serve as a **model** for other states

# REL West study

## Advanced Course Completion in Comprehensive and Magnet High Schools: A Study in Clark County School District

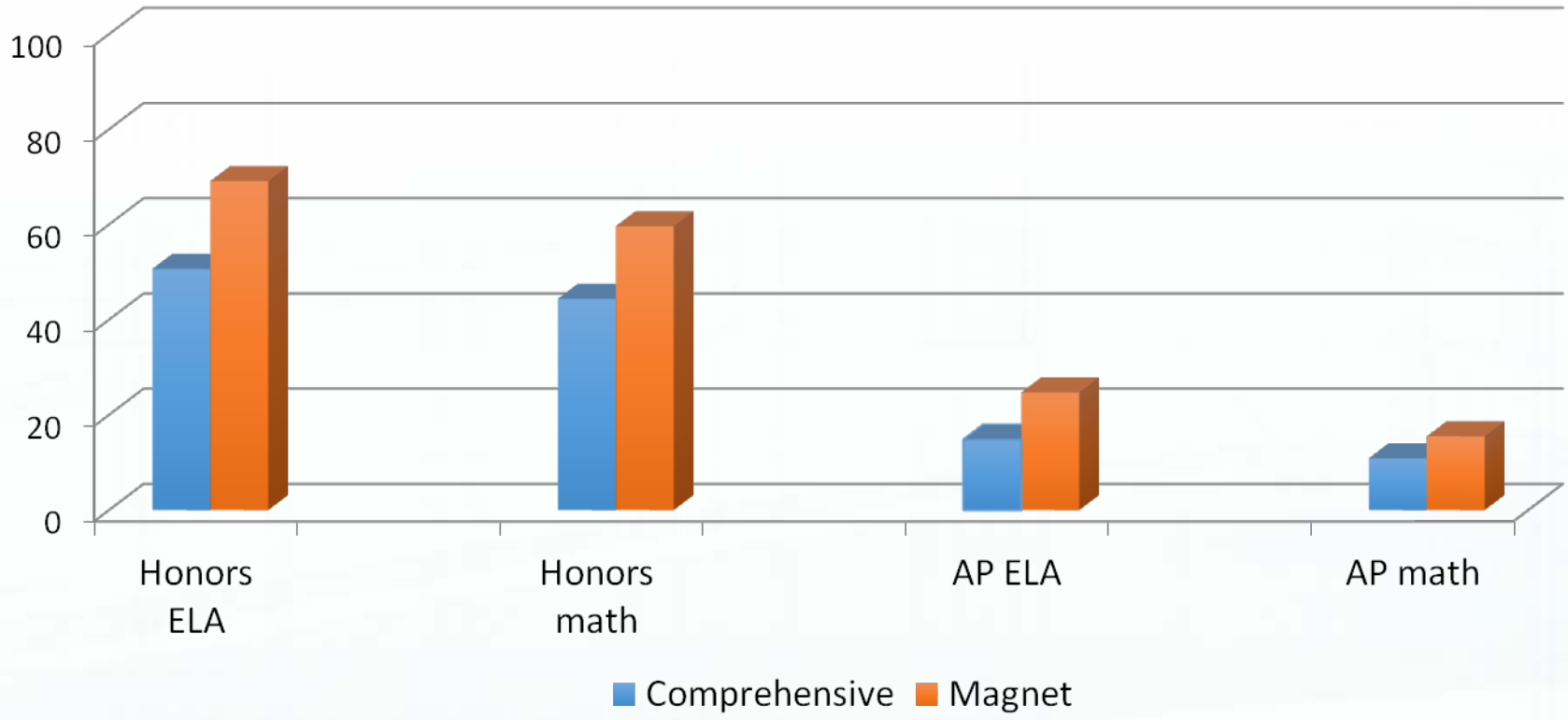
*Presented by:* John Rice, Senior Researcher, REL West

*Coauthors:* Min Huang, Andrea Lash, & Loan Tran, REL West

# Background

- Clark County School District (CCSD) was concerned about the college readiness of its graduates.
- The district wanted all students to experience advanced course work (Advanced Placement and honors) to help them prepare for college.
- But the likelihood of completing advanced courses is different at different types of schools.

# A Higher Percentage of Students in Magnet High Schools Complete at Least One Advanced Course Compared to Students in Comprehensive High Schools



# Why the observed difference?

- One possibility is because there are more higher achieving students attending magnet schools.
- Another factor might be differences in the resources and supports available to students in magnet high schools.

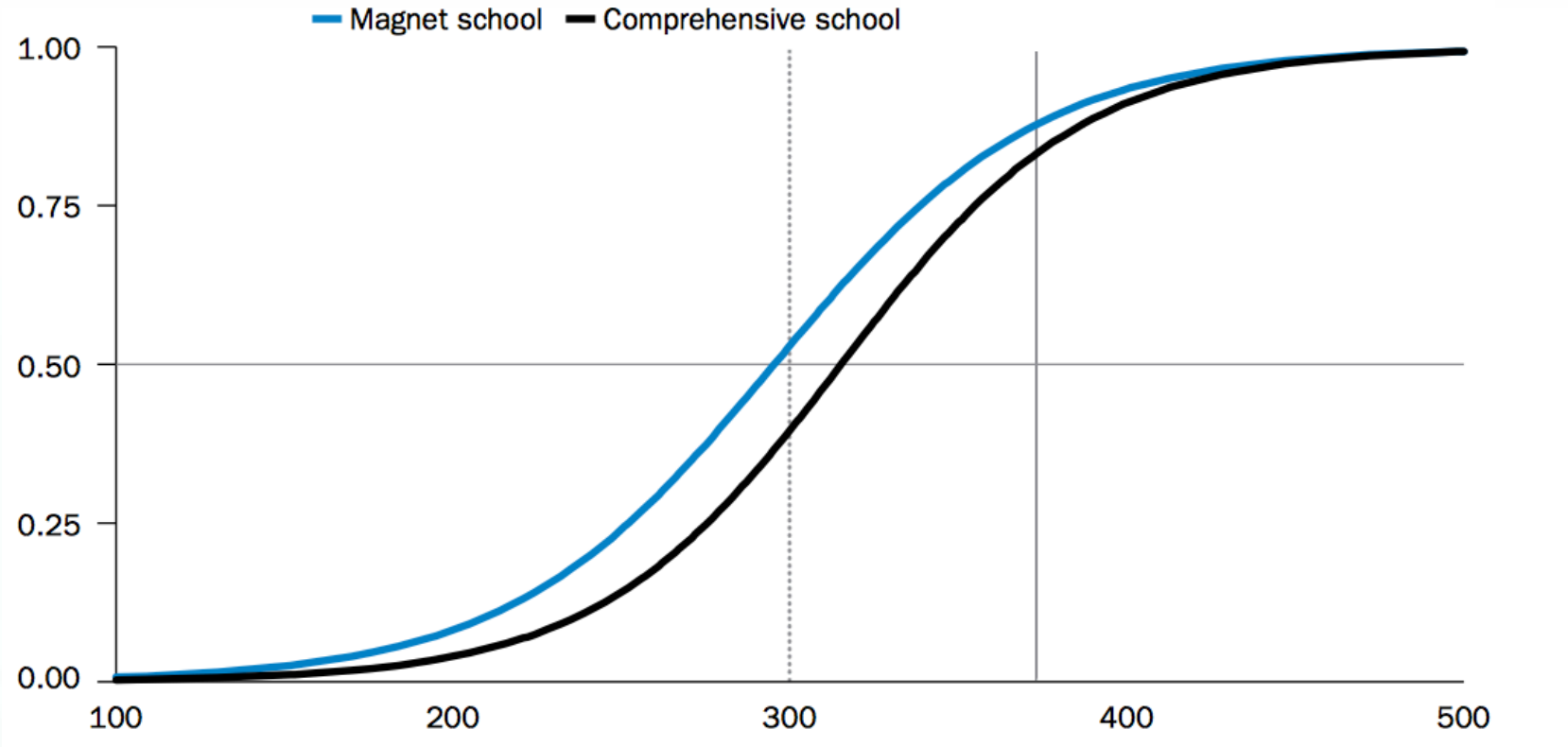
# What we asked

- Is there a relationship between the type of high school (magnet or comprehensive) attended and the likelihood of having completed an advanced course, after students' prior achievement is accounted for?
- Does the strength of the relationship between the type of high school attended and the likelihood of having completed an advanced course differ by students' prior achievement?

# What we did

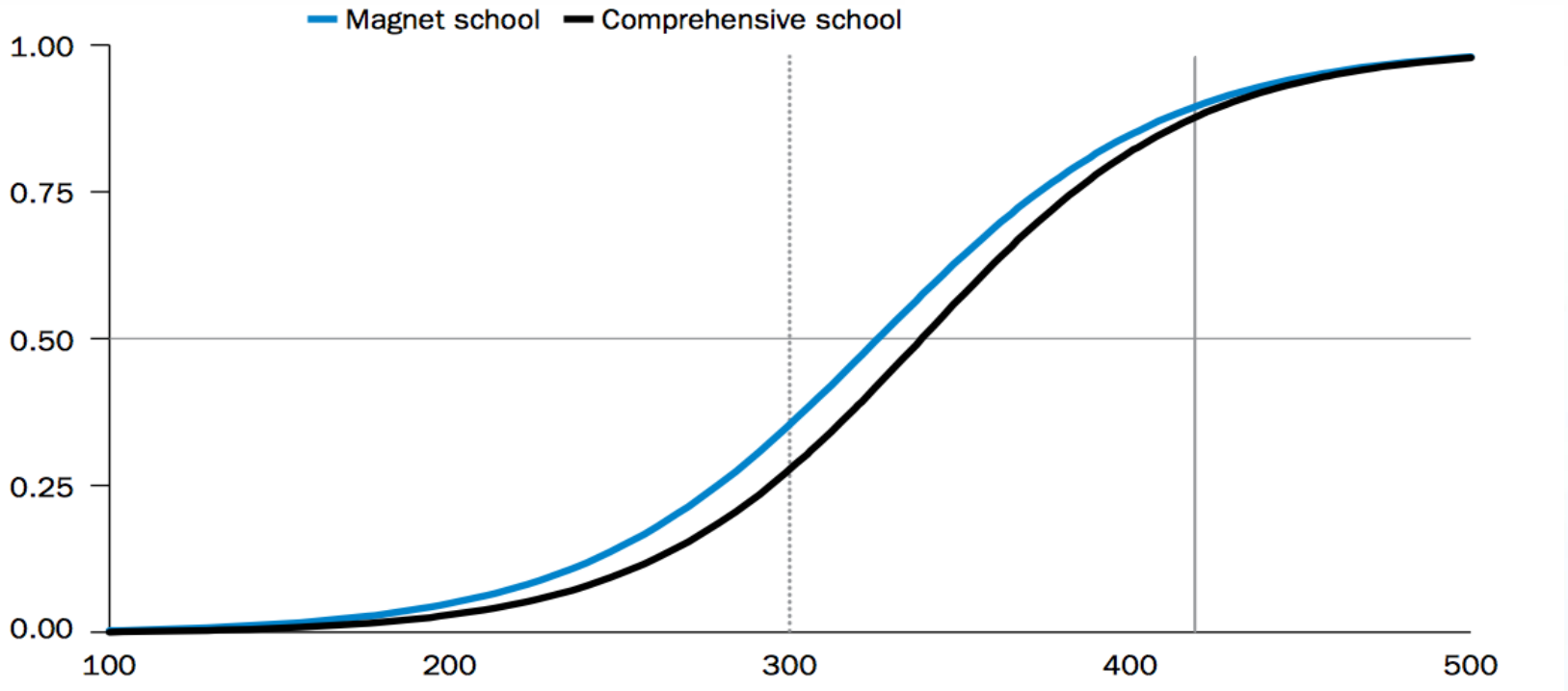
- REL West analyzed student records for 26,529 Clark County School District students who graduated from 43 high schools (7 magnet and 36 comprehensive) in 2011 and 2012.
- We examined which students, during their high school careers, completed at least one course in:
  - honors English language arts (ELA)
  - honors math
  - Advanced Placement ELA
  - Advanced Placement math

# After accounting for graduates' prior achievement, graduates of magnet high schools *were more likely* than graduates of comprehensive high schools to complete an honors ELA course.



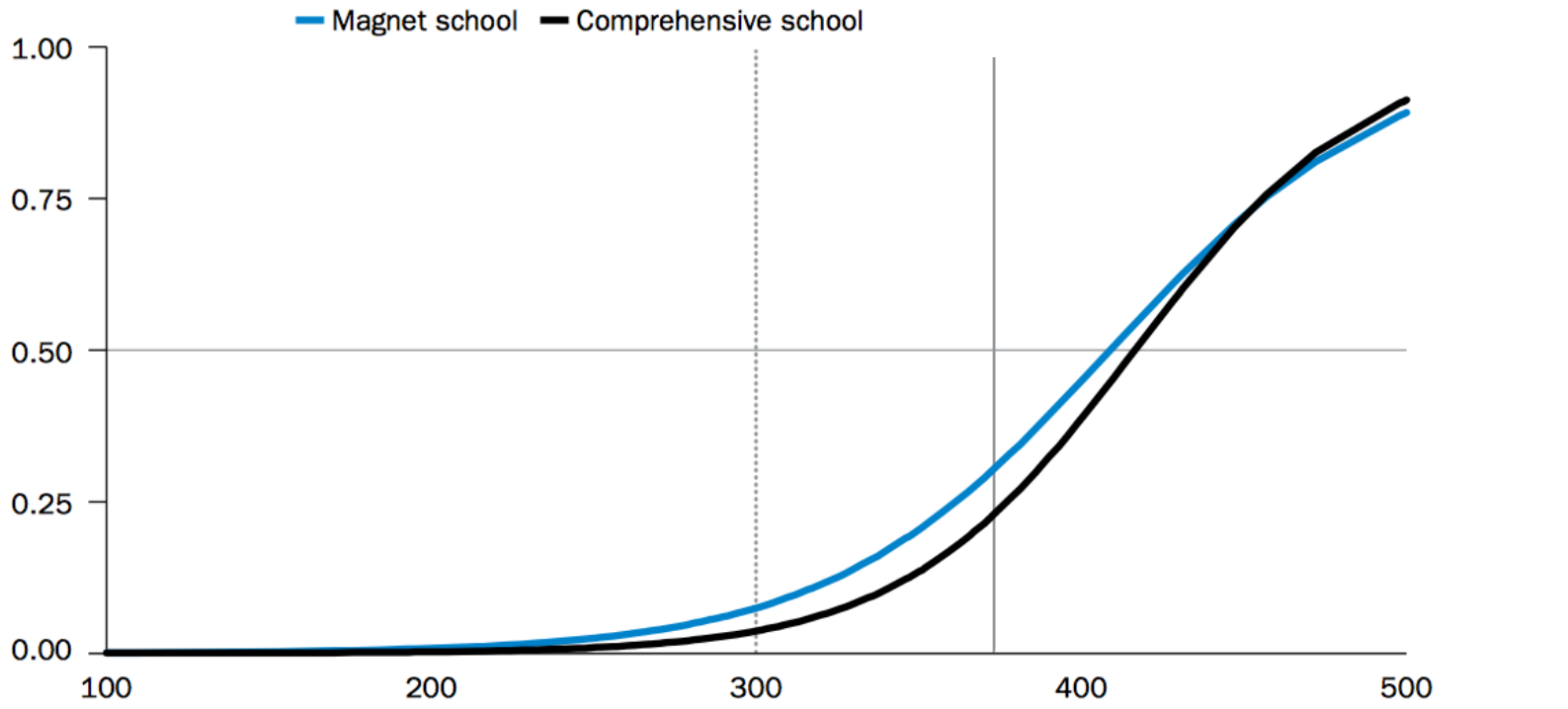

**State standardized assessment reading scores, grade 8**

After accounting for students' prior achievement, graduates of magnet high schools *were no more likely* than graduates of comprehensive high schools to complete an honors math course.



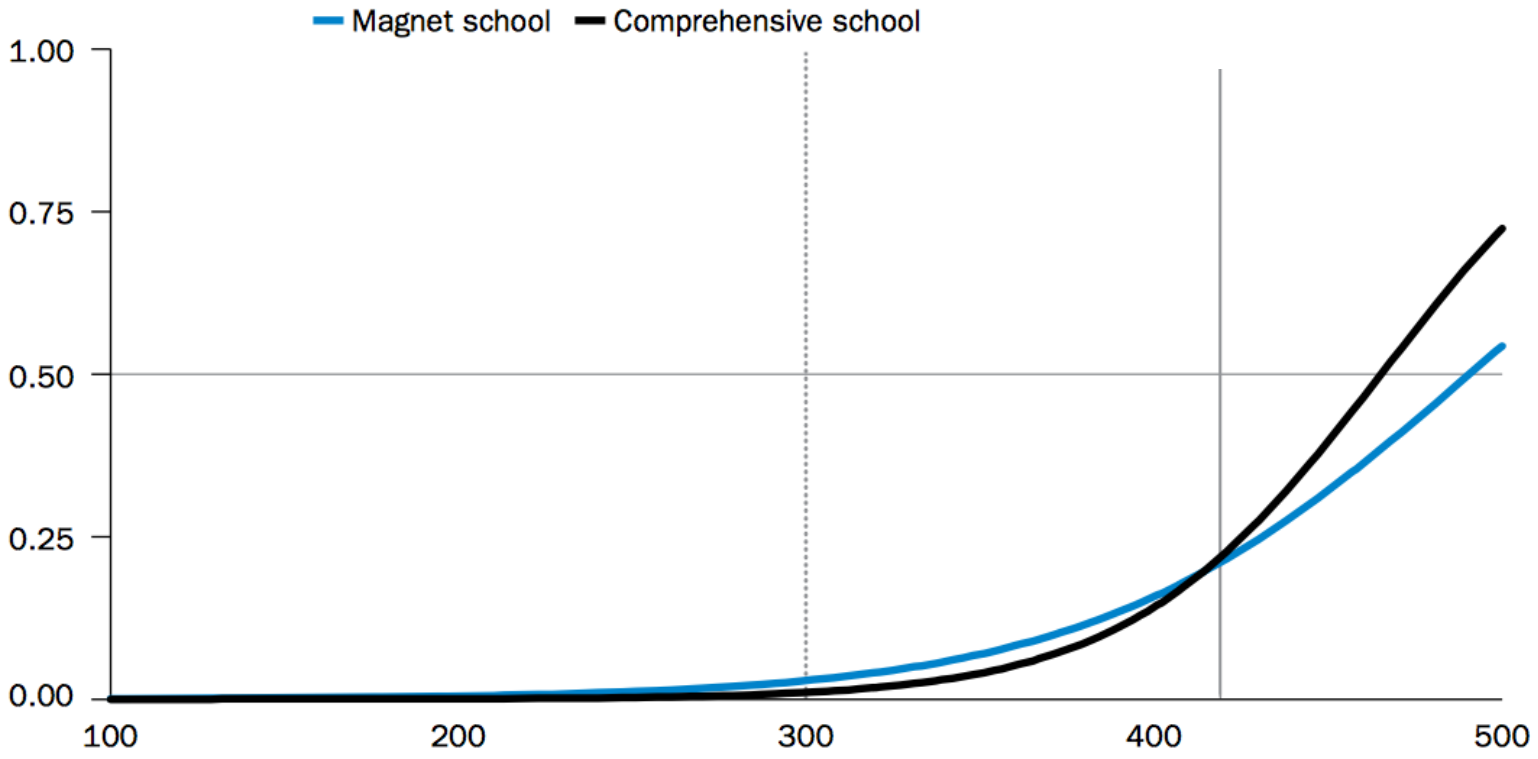

**State standardized assessment math scores, grade 8**

# The relationship between prior achievement and the likelihood of completing an AP ELA course was weaker for graduates of magnet schools than for graduates of comprehensive schools.




**State standardized assessment reading scores, grade 8**

# The relationship between prior achievement and likelihood of completing an AP math course was weaker for graduates of magnet schools than for graduates of comprehensive schools.




**State standardized assessment math scores, grade 8**

# Findings Summary in CCSD

- Graduates at all levels of prior achievement had a greater likelihood of completing an honors ELA course if they attended magnet high schools than if they attended comprehensive high schools.
- Graduates with higher prior achievement had a greater likelihood of completing an honors math course whether they attended magnet or comprehensive schools.

# Findings Summary in CCSD

- Prior achievement was less important in predicting whether a student in a magnet high school completed an Advanced Placement (ELA or math) course compared to whether a student in a comprehensive school completed one.

# Possible Explanations

- Characteristics unique to magnet or comprehensive schools
  - course availability, policies, or practices
- Student differences
  - motivation or persistence
- Familial/community differences
  - resources or supports

# Implications for efforts to increase students' advanced course completion

- Districts should examine differences between their school in terms of policies and procedures for advanced course enrollment and supports.
- Districts should look beyond the academic and demographic differences of students who enroll in and do not enroll in (and who complete and do not complete) advanced courses.
- Districts could consider policies or practices that that make students' likelihood of completing advanced courses less dependent on type of school attended.

# What's Working So Far:

What we know about district implementation

- Michael Flory, REL Appalachia

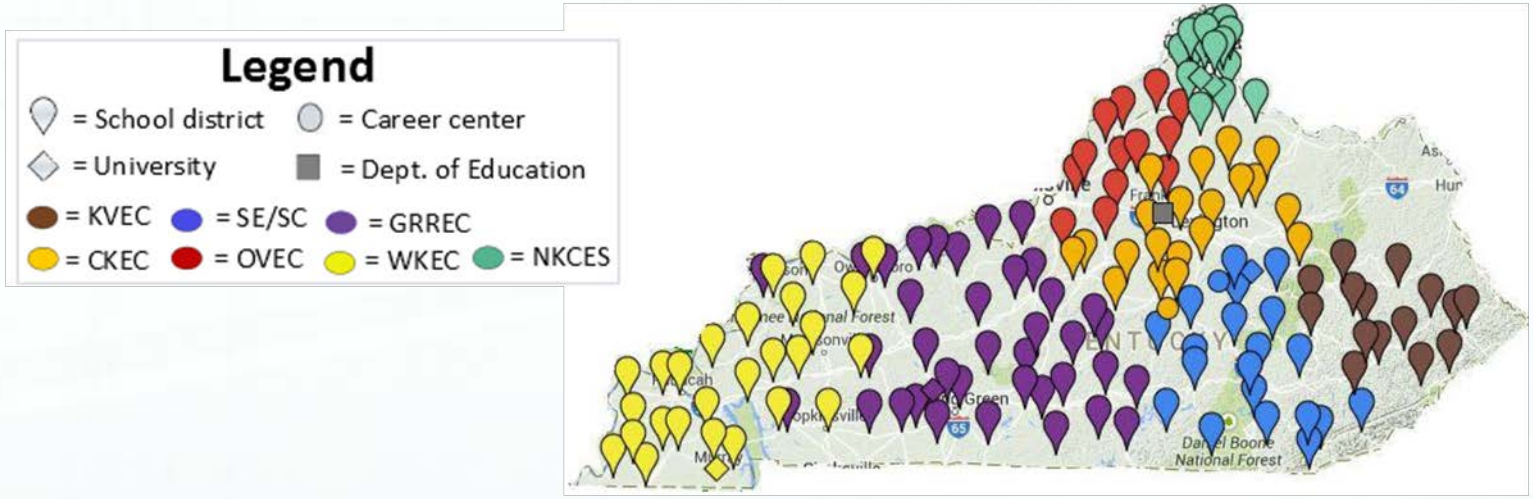
# REL Appalachia studies

## Dual Enrollment and Dual Credit Participation and Implementation in Kentucky

*Presented by:* Michael Flory, Research Scientist, REL Appalachia

# Kentucky College and Career Readiness Alliance

- Member organizations:
  - Seven regional educational cooperatives, 147 districts, mostly rural
  - Kentucky Department of Education (KDE)
  - Council on Postsecondary Education (CPE)
- Goal: Improve students' college and career readiness.



# Kentucky Policy Context

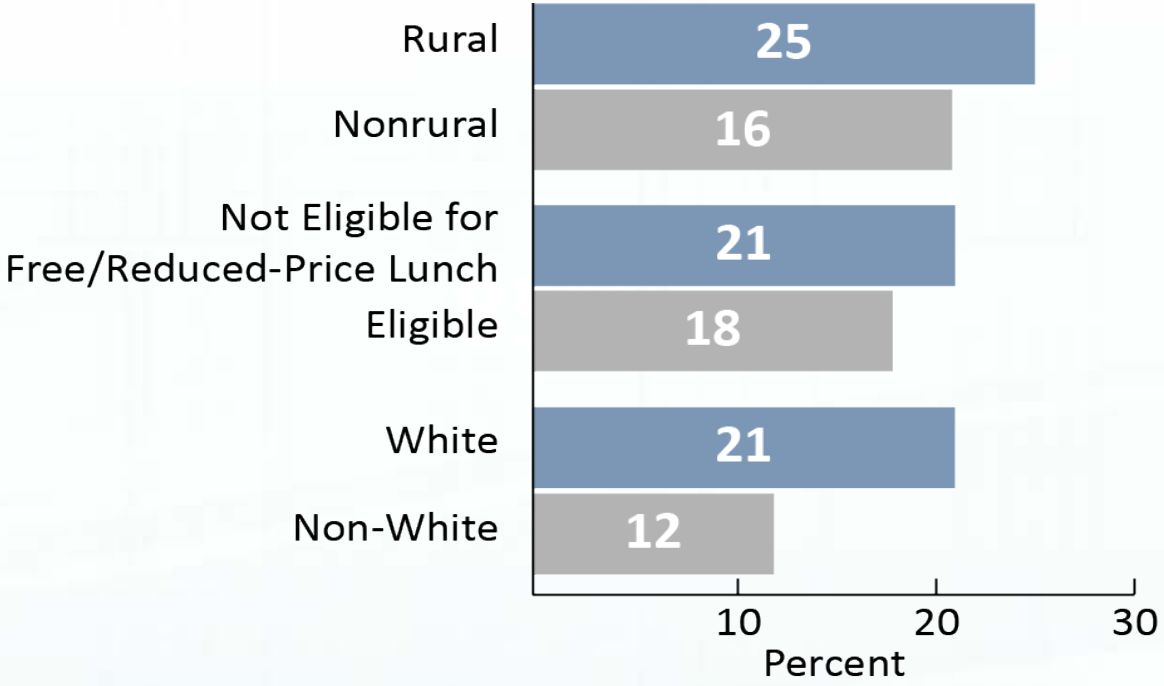
- 2009: Senate Bill 1 focused on college and career readiness
- 2013: College and Career Readiness Delivery Plan
  - Goal: To increase percentage of students who are college and career ready.
  - One strategy: Opportunities for high school students to earn postsecondary credit.
- 2015: Revised dual credit policy for fall 2016
  - Goals: Access, quality, transferability, affordability.
  - One strategy: At least three general education and three Career/Technical Education (CTE) courses available to all eligible students.

# REL Appalachia Studies in Kentucky

1. Statewide study: Student participation and completion
   - Focus: Dual enrollment courses, including both general education and CTE offerings
   - Data sources: Kentucky longitudinal data system, including both postsecondary and K-12 data
   - Study period: 2009/10 to 2012/13
2. District profiles: Programs and practices in six nonurban districts
   - Focus: Dual credit, general education courses
   - Data sources: Interviews, documents
   - Study period: 2013/14

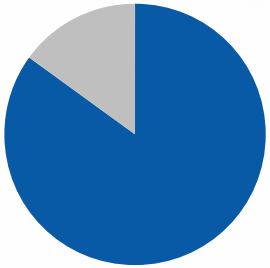
# Statewide Participation

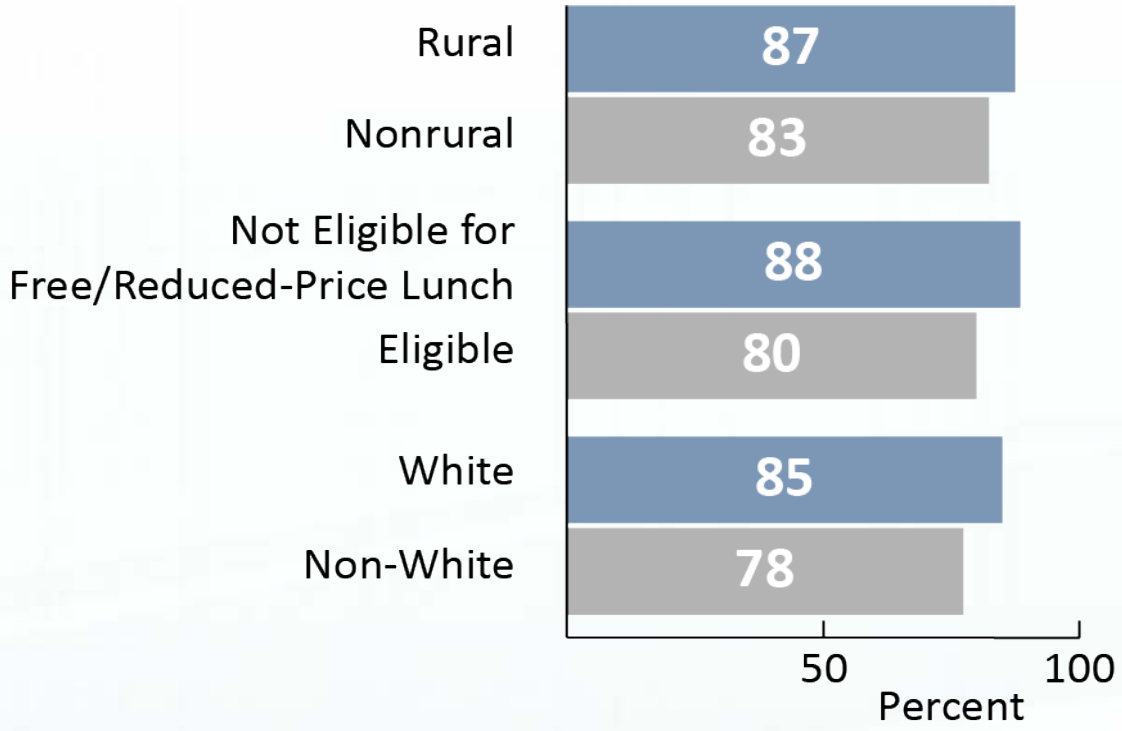
**About one in five** Kentucky students in grades 11 and 12 participated in dual enrollment courses annually.



# Completion Rates

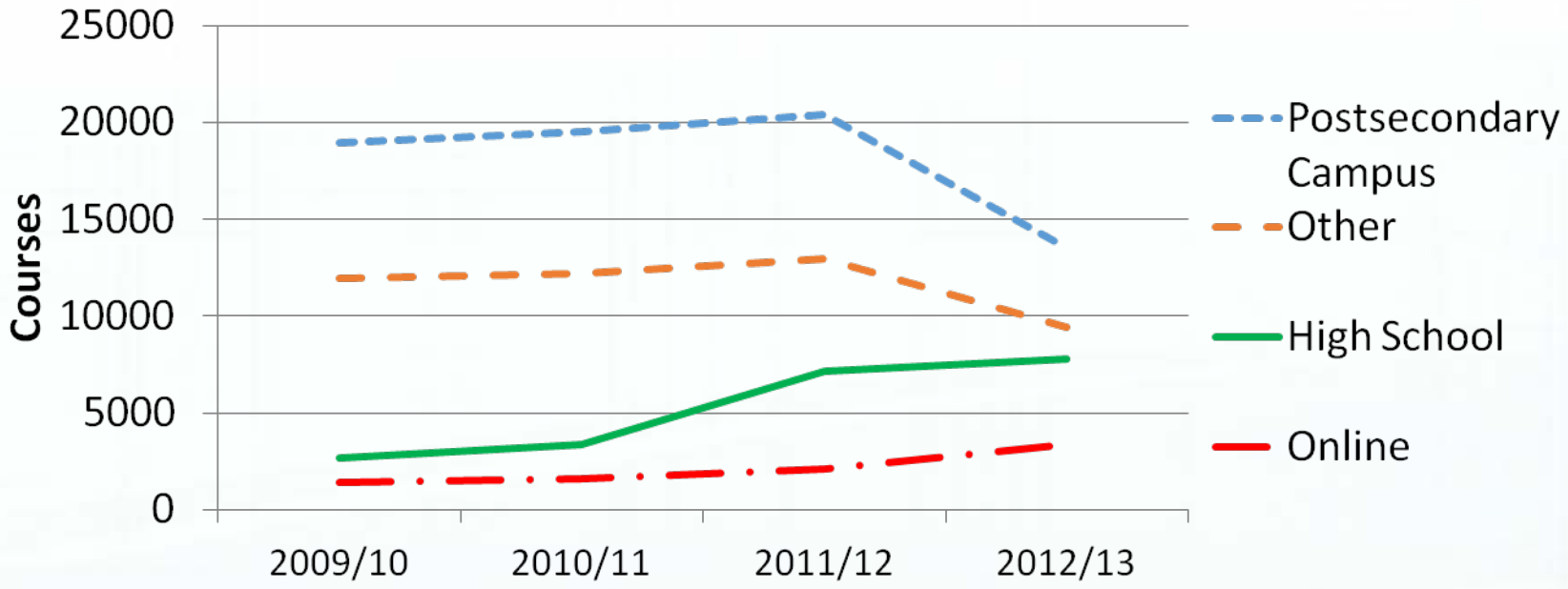
Students passed about **85 percent** of courses attempted.





# Where Courses Occur

The number of courses taught at high schools and online has been steadily increasing.



# Dual Credit Programs in Six Non-Urban Districts

- REL Appalachia worked with regionally based education cooperatives to identify districts with varying experience and conditions.
- Two districts each in eastern, central, and western Kentucky.
- Interviewees focused on academic/general education courses.

# Common Features

Central feature of college readiness efforts.

Partnerships with both **two-year and four-year colleges** in each district.

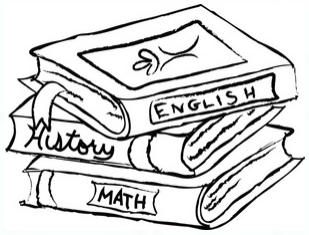
Predominate approach: on **high school campus** taught by **high school teachers.**

Limited availability of credentialed teachers.

# Variation *Across* and *Within* Districts

## Programs

- "Singleton" courses with no specific supports
- Early college programs including transportation and transitions skills courses




## Courses

- From 8 to 40 courses across districts
- From 11 to 28 courses across high school in one district

## Costs

- Borne by students, districts, or universities
- Districts subsidize to varying degrees

# Facilitators of Dual Credit Implementation

Dedicated secondary and postsecondary staff to manage programs

Positive relations between district and postsecondary staff

Geographic proximity to postsecondary institutions

# Creative Solutions Needed

- Instructor shortage
- Access, especially in remote, rural locations
- Course completion for students from high-poverty schools
- Affordability for all students
- Course quality measures
- Personnel to manage dual credit programs

# For more details, see…


- Lochmiller, C. R., Sugimoto, T. J., Muller, P. A., Mosier, G. G., & Williamson, S. E. (2016). *Dual enrollment courses in Kentucky: High school students' participation and completion rates* (REL 2016–137). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Appalachia. Retrieved from http://ies.ed.gov/ncee/edlabs.
- Piontek, M. E., Kannapel, P. J., Flory, M., & Stewart, M. S. (2016). *The implementation of dual credit programs in six nonurban Kentucky school districts* (REL 2016-136). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Appalachia. Retrieved from http://ies.ed.gov/ncee/edlabs.


- Michael Flory, florym@cna.org

# Practitioner Perspective:

## Improving advanced course offerings in eastern Oregon

- Kris Mulvihill, Eastern Promise Coordinator, Pendleton, Oregon

# is a Collaboration:

Eastern Promise

Blue Mountain Community College

EASTERN OREGON UNIVERSITY

TREASURE VALLEY COMMUNITY COLLEGE

InterMountain EDUCATION SERVICE DISTRICT

Malheur EDUCATION SERVICE DISTRICT












# Goals

1. Grow a college-going culture
2. Increase access to affordable college credit in high school for ALL students

State of Oregon goal: by 2025, 40-40-20

*Students who earn at least 9 college credits in high school are MUCH more likely to complete a degree*

WEBINAR SERIES
College & Career Readiness

REL APPALACHIA REL MIDWEST REL NORTHWEST REL WEST

# Academic Momentum curriculum—always building on the previous year

- Grade 5: What I like plus what I'm good at equals career choices
- Grade 6: Why is college important?
- Grade 7: Financing your future
- Grade 8: Within my reach/Interests and talents/High school
- Grade 9: Success 101 for three college credits/10-year plan
- Grades 10, 11, and 12: College credit by proficiency

# Increased capacity to award college credit by adjusting high school teacher authorization criteria

## Initial Teacher Authorization:

**Dual Credit**

- Master's Degree in content area (or 20 graduate credits)

*Versus*

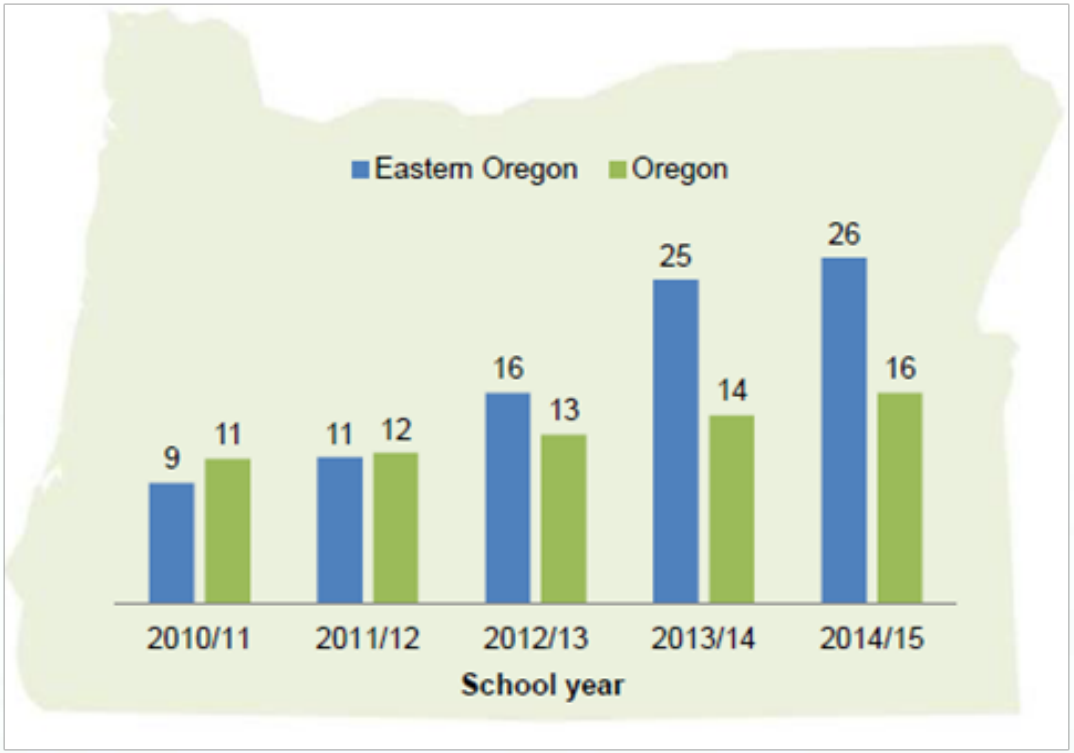
**Sponsored Dual Credit**

- Bachelor's Degree in related content area
- Plus 45 graduate credits (some in content area)
- 3 years teaching experience

# Eastern Promise Sponsored Dual Credit Growth

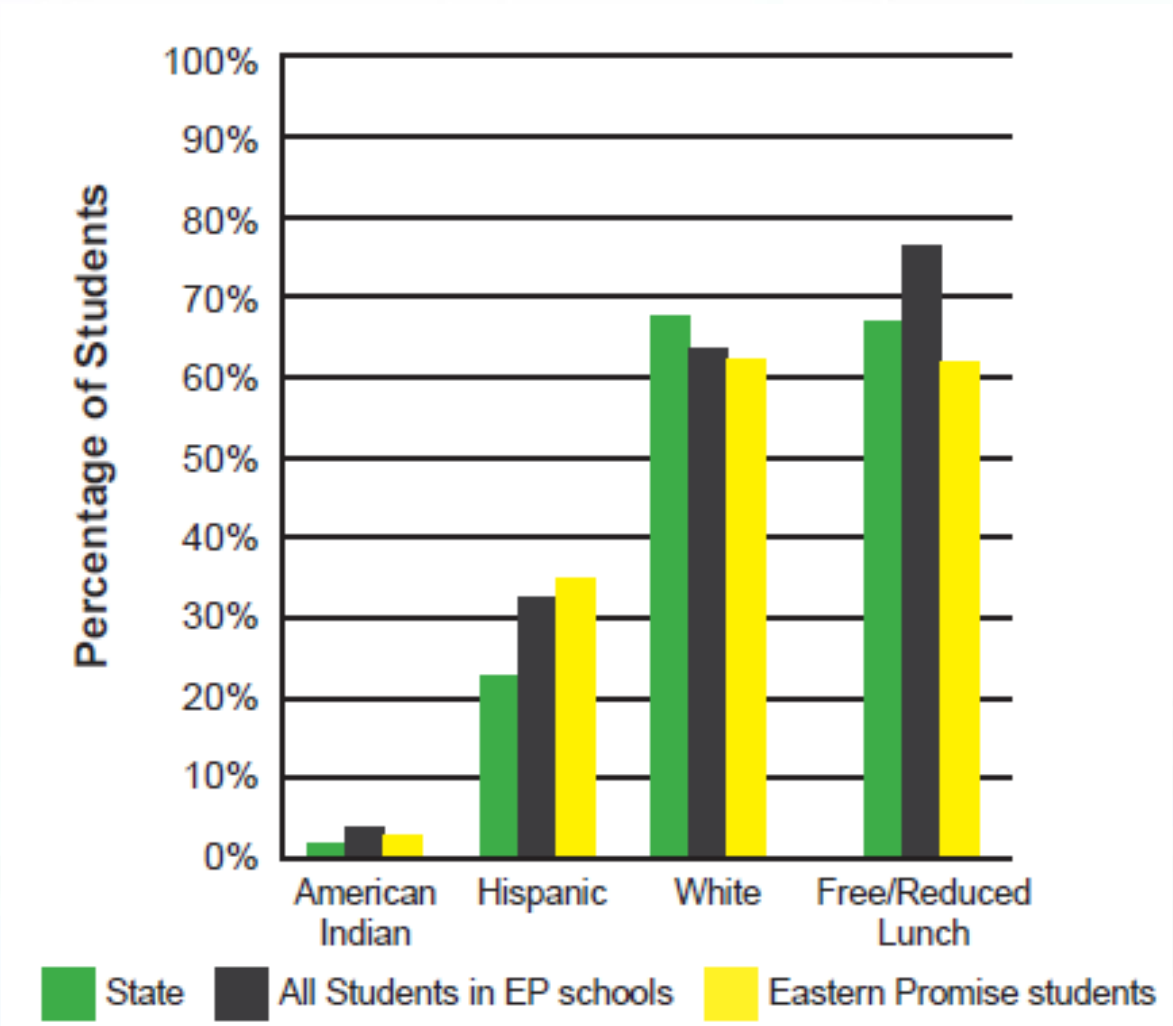
- 2011/12:
  - Math 112
- 2012/13, added:
  - Biology 101-103
  - Speech
  - Writing 121
  - Chemistry
  - Success 101
- 2013/14, added:
  - Spanish 101-103
  - Health250/298
  - Computer Science
  - History 103
- 2014/15, added:
  - History 101,102,103
  - History 201, 202, 203

# Eastern Promise - Sponsored Dual Credit increased access to affordable college credit in high school

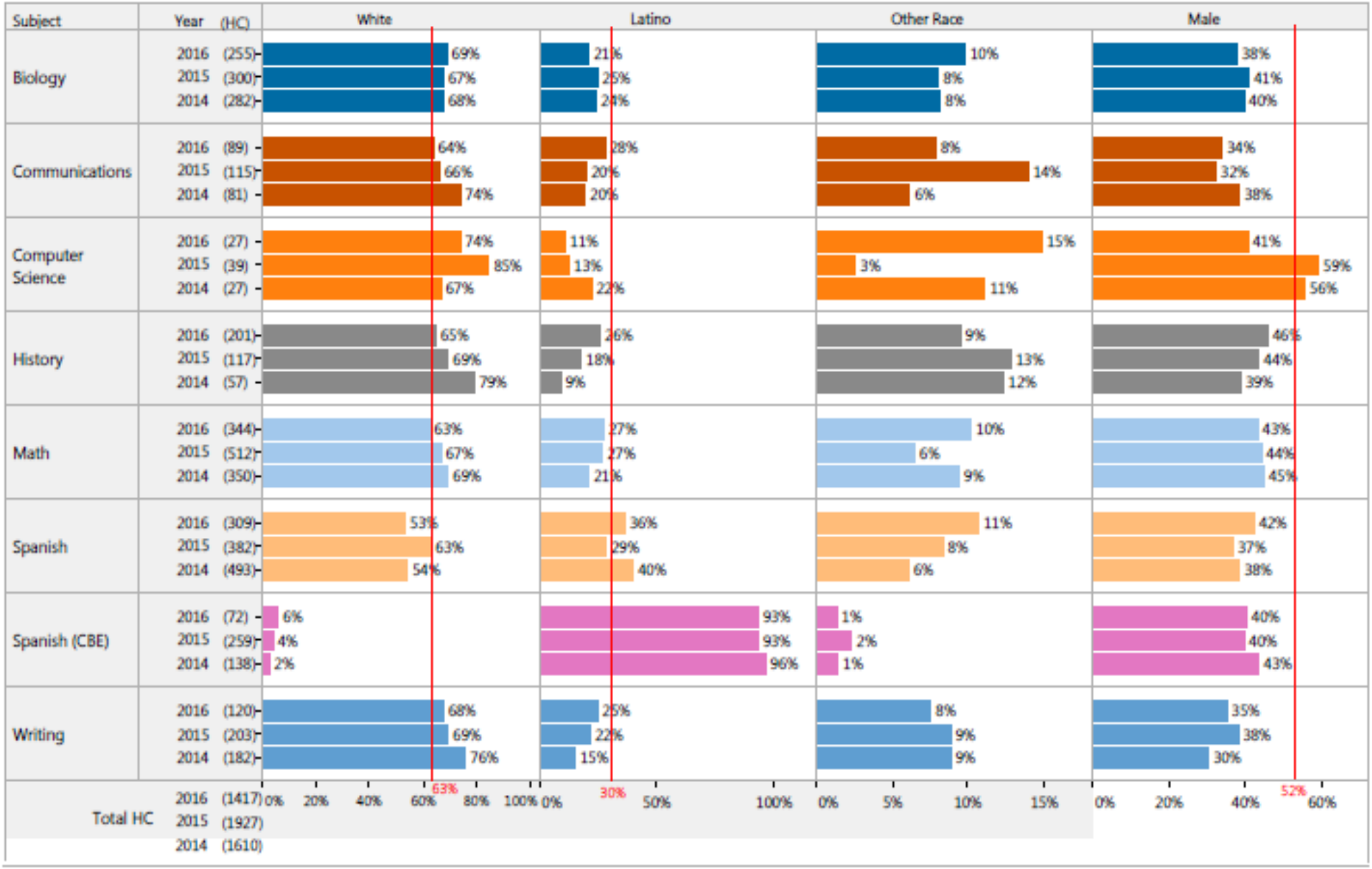



The percentage of Eastern Oregon high school students participating in community college dual credit was higher than the statewide dual-credit participation rate.

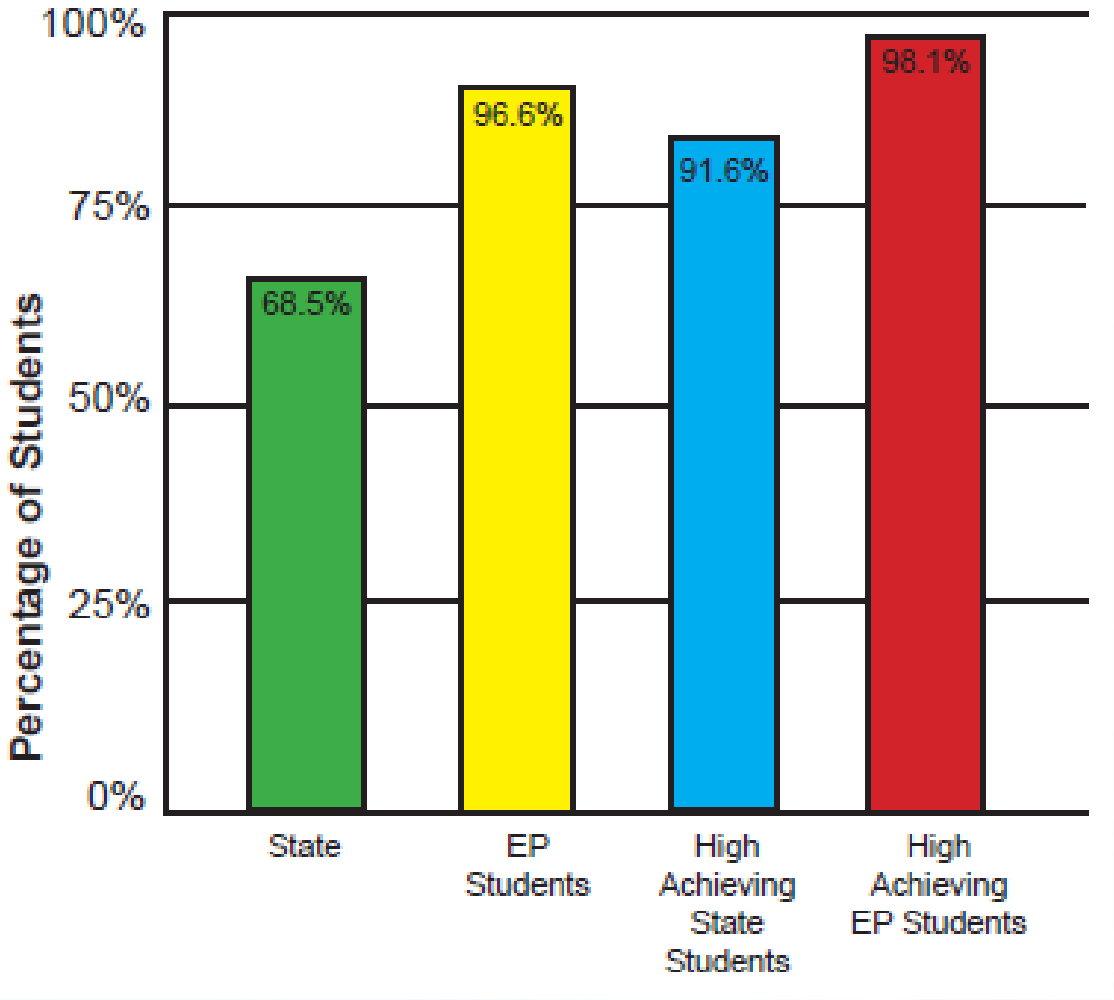
# Demographic Comparison



# Blue Mountain Community College Sponsored Dual Credit 2014 through 2016



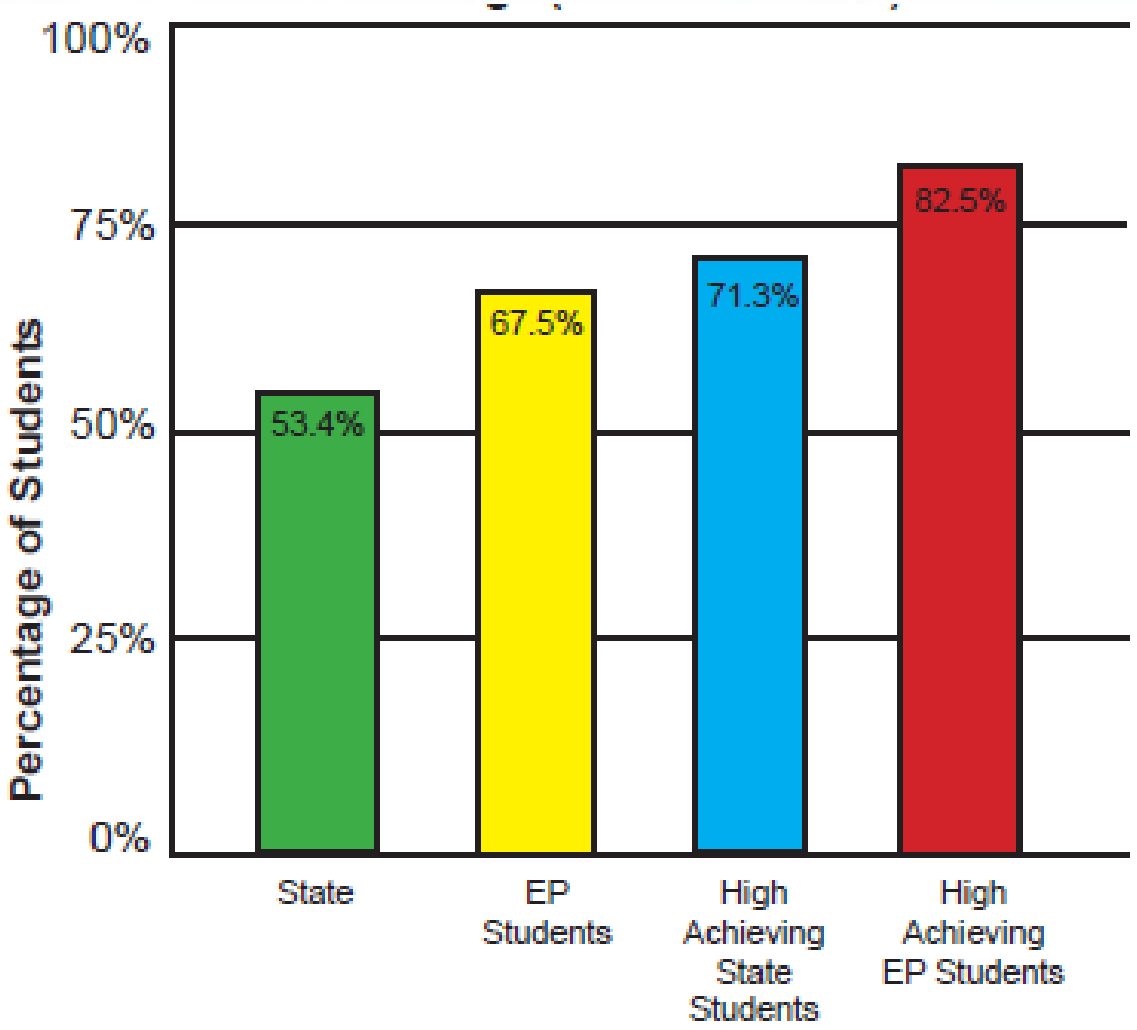
# Percentage of 2013-14 12th Graders Who Completed High School



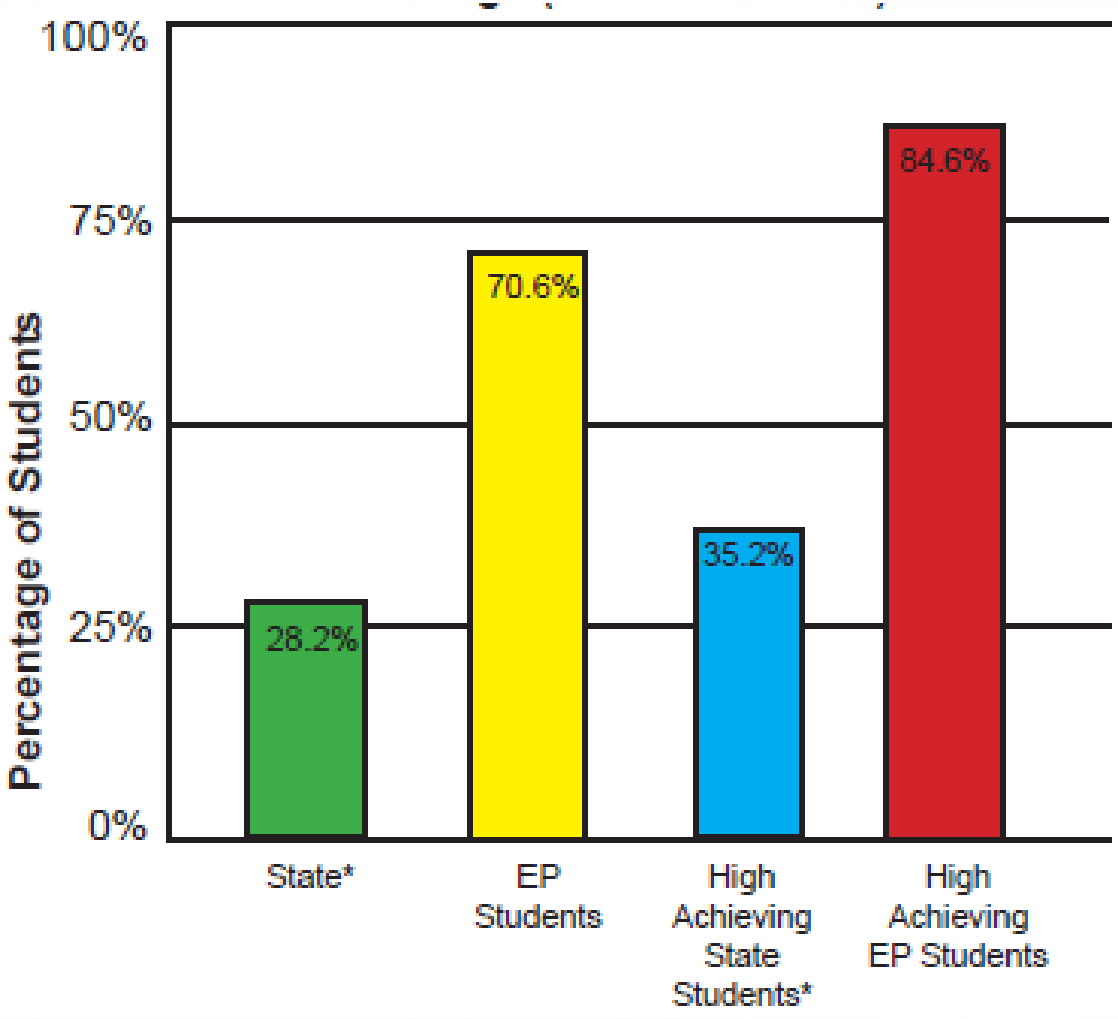



REL APPALACHIA REL MIDWEST REL NORTHWEST REL WEST

# Percentage of Students Who Enrolled in College (2014 Graduates)



# Percentage of Students Who Stayed in College (2013 Graduates)



# Strategies to increase success of under-served students:

- Spanish Credit by Exam (Spanish 101, 102, 103)
- Virtual Advisor- 9th to 14th pathway to graduation/Associate of Arts Oregon Transfer Degree
  - http://www.eastern-promise.org/
- 3 High Wage High Demand career pathway checklists
- New state Math/Writing placement policy including multiple measures (state standardized test scores, Grade Point Average, Grade of last Math/Writing course)
- Online registration for Blue Mountain Community College courses

# Transfer Degree Tracking

Eastern Promise

http://www.eastern-promise.org

Stanfield Secondary School

**BMCC Associate of Arts Oregon Transfer Degree (AAOT)**

| My Credits | # of Credits | BMCC AAOT Degree Requirement | Courses offered at My High School | High School Teacher | College |
|---|---|---|---|---|---|
| | 4 | **COM 111** | Speech (4) | Durbin | BMCC |
| | 3 | **HWS 250** | Health 11 | Reeser | EOU |
| | 5 | **MTH 111** | Math 111 (5) | Davis | BMCC |
| | 8 | **WR 121 and WR 122 (4 credits each)** | WR 121 (4) | Sharp | BMCC |
| | 12 | **Arts and Letters (3 courses) (SPAN201,202/ ENG 104/ ART/MUS/TA)** (Must include at least 2 disciplines) | | | |
| | 16 | **Social Science (4 courses)** (*HST/PS/PSYCH/*SOC) *Fulfills Cult. Literacy requirement | US History (HST 202, 203- 8 cr.) | Rogers | BMCC |
| | 12 | **Lab Science (3 courses) (BIO101-103, CHEM 101)** | Adv. Biology(8) Chemistry(4) | Tynkila Tynkila | BMCC EOU |
| | 4 | *CS120 OR BA131 or AG111 *and* MTH112 or CHEM 101 (*Fulfills Comp. Literacy and Non-Lab Science requirements) | Comp. Applications (BA 131) And Math 112(5) or Chem. (4) | Sperr Davis/ Tynkila | BMCC BMCC |
| | @ 26 | **Possible Electives: SPAN101-3, HUM 103, MTH 112, HST101-3 up to 12 CTE credits** | Spanish 2 (8) Success 101(3) MTH 112 (5) CTE (12) | Brandhagen Sharp Davis Sanders/Sperr | BMCC BMCC BMCC BMCC |

**90 Total AAOT CREDITS**

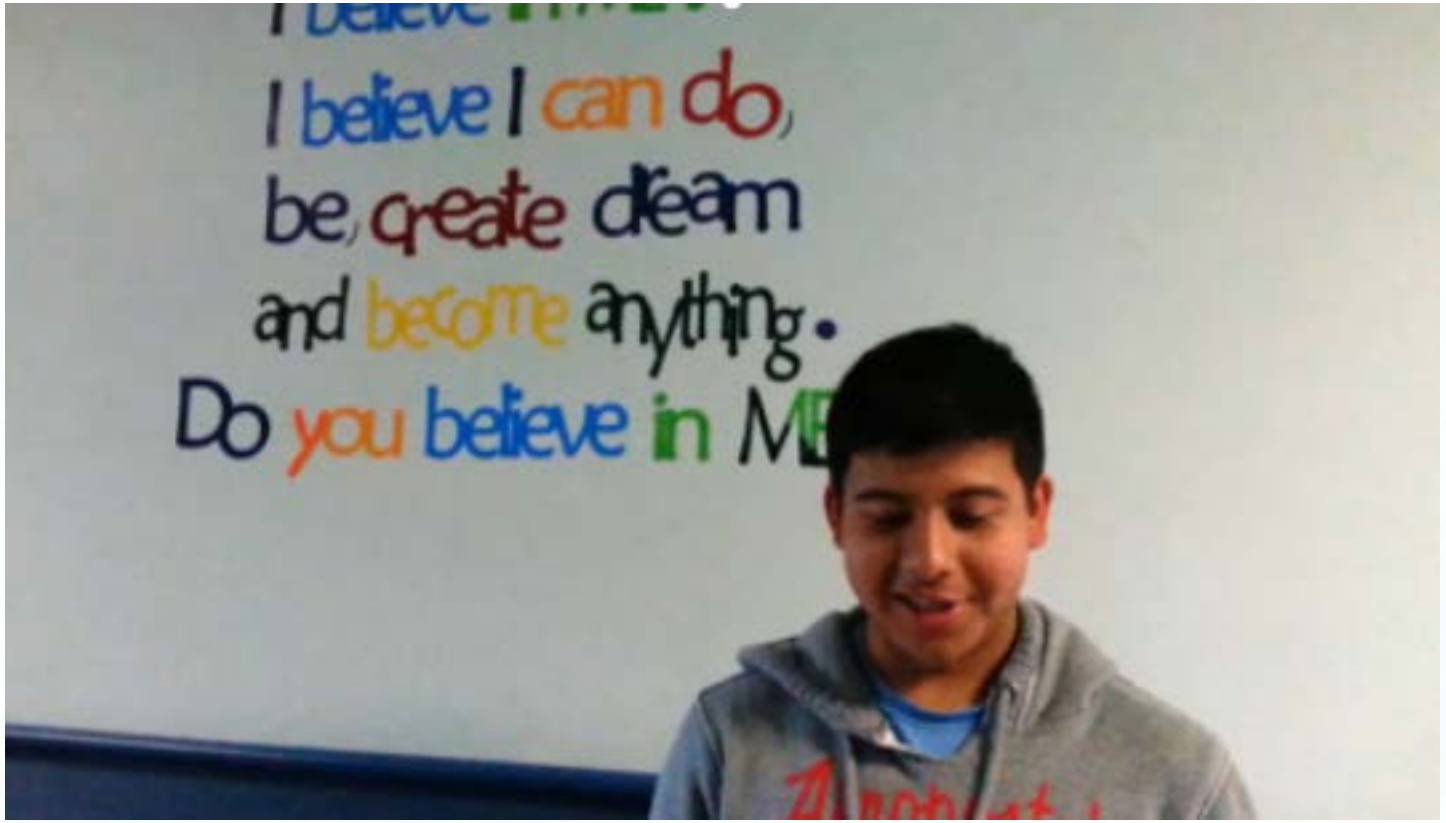
**Subject to change based upon teacher availability.**

# Virtual Advisor

## Stanfield Secondary School Virtual Advisor - 9th to 14th grade

| Subject Area | 9th Grade | HS Credit | 10th Grade | HS Credit | 11th Grade | HS Credit | 12th Grade | Credit per class | Grad. requirement | College Credit |
|---|---|---|---|---|---|---|---|---|---|---|
| English | Comm. 1 | 1 | Comm. 2 | 1 | Comm. 3 or **Advanced College Comp.** | 1 | College Prep Comm. 4 or **Advanced College Comp.** | 1 | 4 | 4 |
| Science | General Science | 1 | Biology/**Chemistry** | 1 | **Adv. Biology/Chemistry** | 1 | **Adv. Biology/Chemistry** | 1 | 3 | 11 |
| Math | Algebra 1 | 1 | Algebra 2 | 1 | Geometry | 1 | **Math 111/Math 112** | 1 | 3 | 10 |
| Social Studies | Global Studies | 1 | - | | **U.S. History** | 8 | Government/Personal Finance (required) | 8 | 3 | 8 |
| Health/PE | Health 9 and PE | 1.5 | | | **Health 11 (HWS 250)** | 0.5 | | | 2 | 3 |
| World Language/Arts/CTE | **"Spanish Prof. Test, AG 1,** | 1 | Span 1/**Span 2** or **"Span.Prof. Test** | 1 | Span 1/**Span 2 or "Span.Prof. Test Adv. Accounting, Ag. 2, Ag. 3, Computer Applications** | 1 | Span 1/**Span 2** or **"Span.Prof. Test/Adv. Accounting, Ag. 2, Ag. 3, Ag. 4, Computer Applications** | 1 | 3 | 24 |
| Electives (see course catalog for full list) | Variety of Electives - **Success 101 /Speech** for college credit | 1 | Variety of Electives - **Speech** for college credit | 3 | Variety of Electives - **Speech** for college credit | 1.5 | Variety of Electives - **Speech** for college credit | 2 | 6 | 6 |
| **Total** | **Total** | 7.5 | **Total** | 7 | **Total** | 14 | **Total** | 14 | 24 | 66 |

# Brian: “Until two years ago, I didn’t know about college credits at my school … I wish I had that …”



# Resources from the Regional Educational Laboratories

- Ask A REL: http://ies.ed.gov/ncee/edlabs/askarel/index.asp
- Follow us on Twitter!
  - REL West: @REL_West
  - REL Appalachia: @REL_Appalachia
  - REL Midwest: @RELMidwest
  - REL Northwest: @RELNW
  - IES: @IESResearch