Correlates and Consequences of On-Time Graduation

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https://mldscenter.maryland.gov/

Presentation Outline

- Background
- Prior Research
- Current Study
- Implications
- Future Directions

Problems Associated with Not Earning a High School Diploma

Increased odds of adverse outcomes

   Unemployment (U.S. Department of Labor, 2014)

   Lower lifetime earnings (Rouse, 2005)

   Poor health outcomes (Pleis et al., 2010)

   Arrest and incarceration (Aud et al., 2011; Maynard et al., 2015)

   Reliance on welfare programs (Levin et al., 2007; Maynard et al., 2015)

Opportunity costs (Belfield, Levin, & Rosen, 2012)

   Each non-graduate costs an estimated $755,900

   Total cost of non-completers in 2010 $1.96 trillion

Research

- Student factors
  - Characteristics
  - Behaviors
  - Academic performance

- School factors
  - Characteristics
  - Climate

(Bowers, Sprott, & Taff, 2013; De Witte et al., 2013; Rumberger & Lim, 2008)

Trends in High School Graduation

- National trend towards lower dropout and increasing graduation rates
  - record high four-year graduation rate of 81% in 2013 (Kena et al., 2015; Stark & Noel, 2015).

- In 2012, 17% of first-time ninth graders attending a U.S. public school
  - persisted through four years of high school,
  - but did not graduate on time (Stetser & Stillwell, 2014).

Gaps

- Problem Definition

- Institutional Factors
  - School- and District-level
    (e.g. Concentrations of Student Characteristics, School Climate)

Current Study

Purpose: examine the population of students, who persist through four years of high school, but do not graduate on time

Goal: Inform policy, programming, and practice in order to promote on-time graduation, preparation for the workforce, and post-secondary readiness.

Data Sources - The Maryland Longitudinal Data System Center (MLDSC)

- Independent unit of State government

- Statewide longitudinal data system that includes linked K-12, post-secondary, and workforce data

- De-identified individual level data starting in ~2008

School Exit Status

- **On-time graduate** – Students who graduate with a regular diploma four years after entering the ninth grade as first-time freshmen (MSDE, 2015)

- **Persister** – Students who do not formally withdraw from school and do not earn a regular diploma four years after beginning high school as a first-time freshman

- **Dropout** – Students who formally withdraw from school (MSDE, 2015)

Persisters

Merriam-Webster's Online Learner's Dictionary defines persistence as

"the quality that allows someone to continue doing something or trying to do something even though it is difficult or opposed by other people

the state of occurring or existing beyond the usual, expected, or normal time"
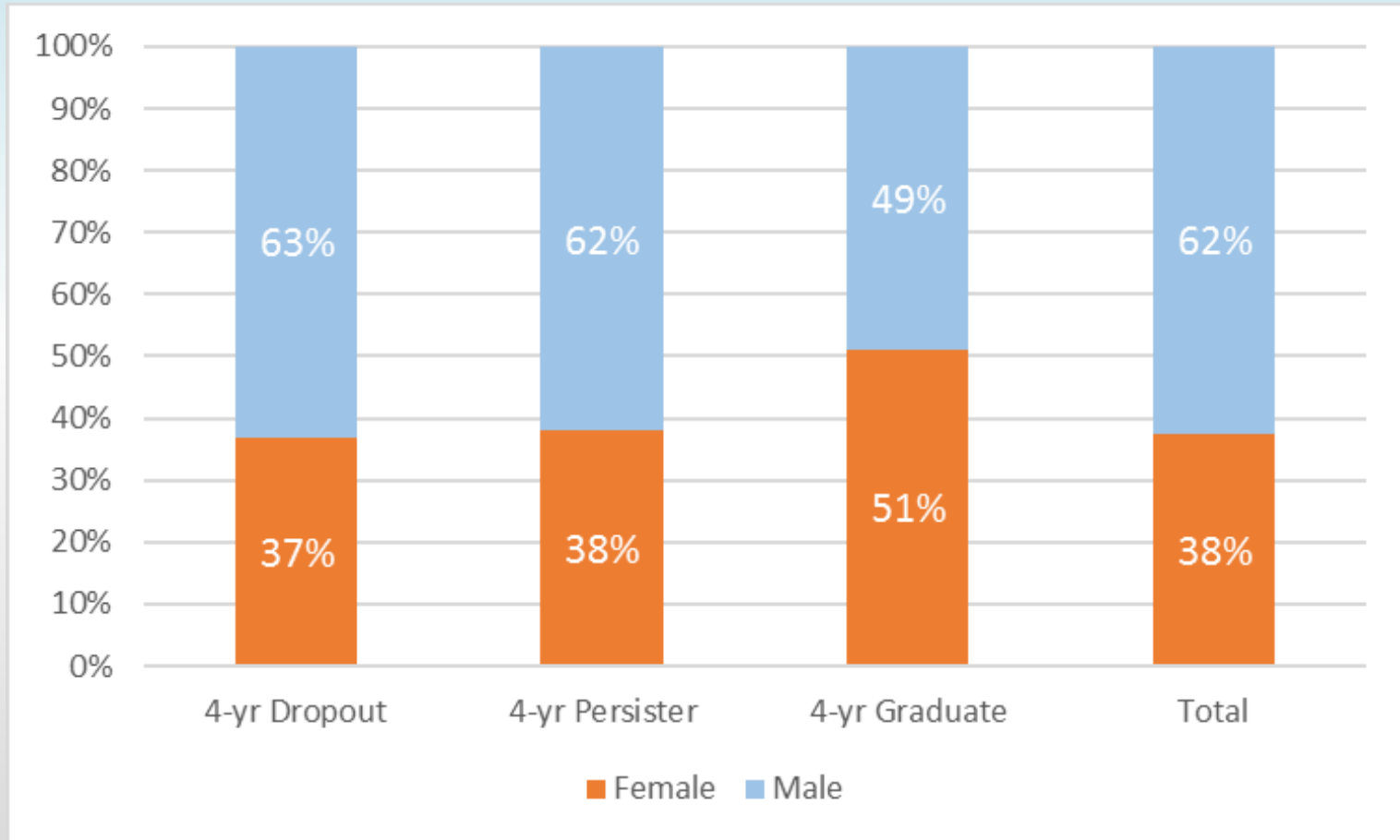
Research Agenda

High School Experiences

Early Postsecondary & Workforce Experiences

Life Course

Years 1-4

Year 5-6

Years 7+

What are the secondary school outcomes for students who do not graduate on time graduation?
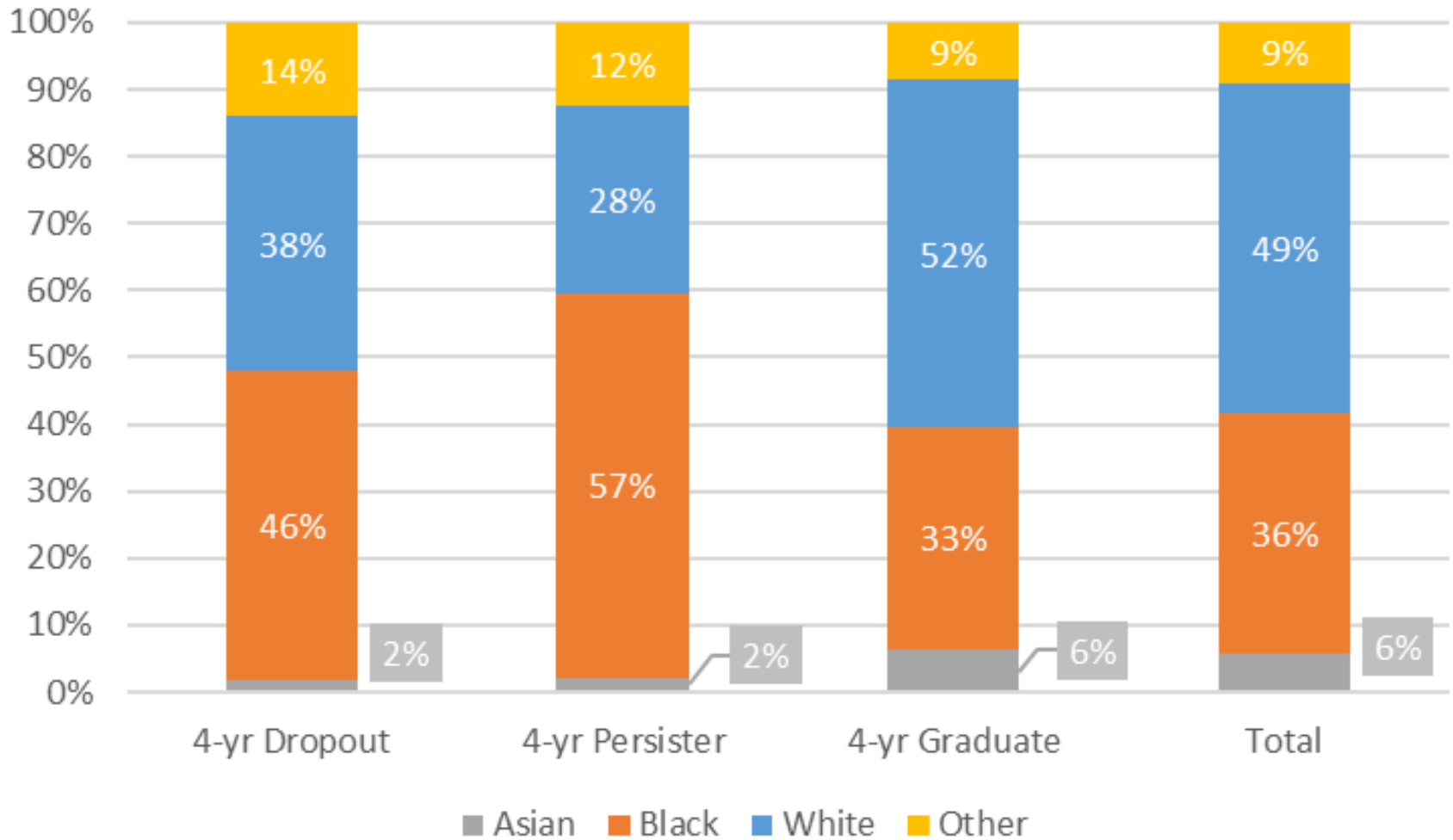
Fourth and Fifth Year Status
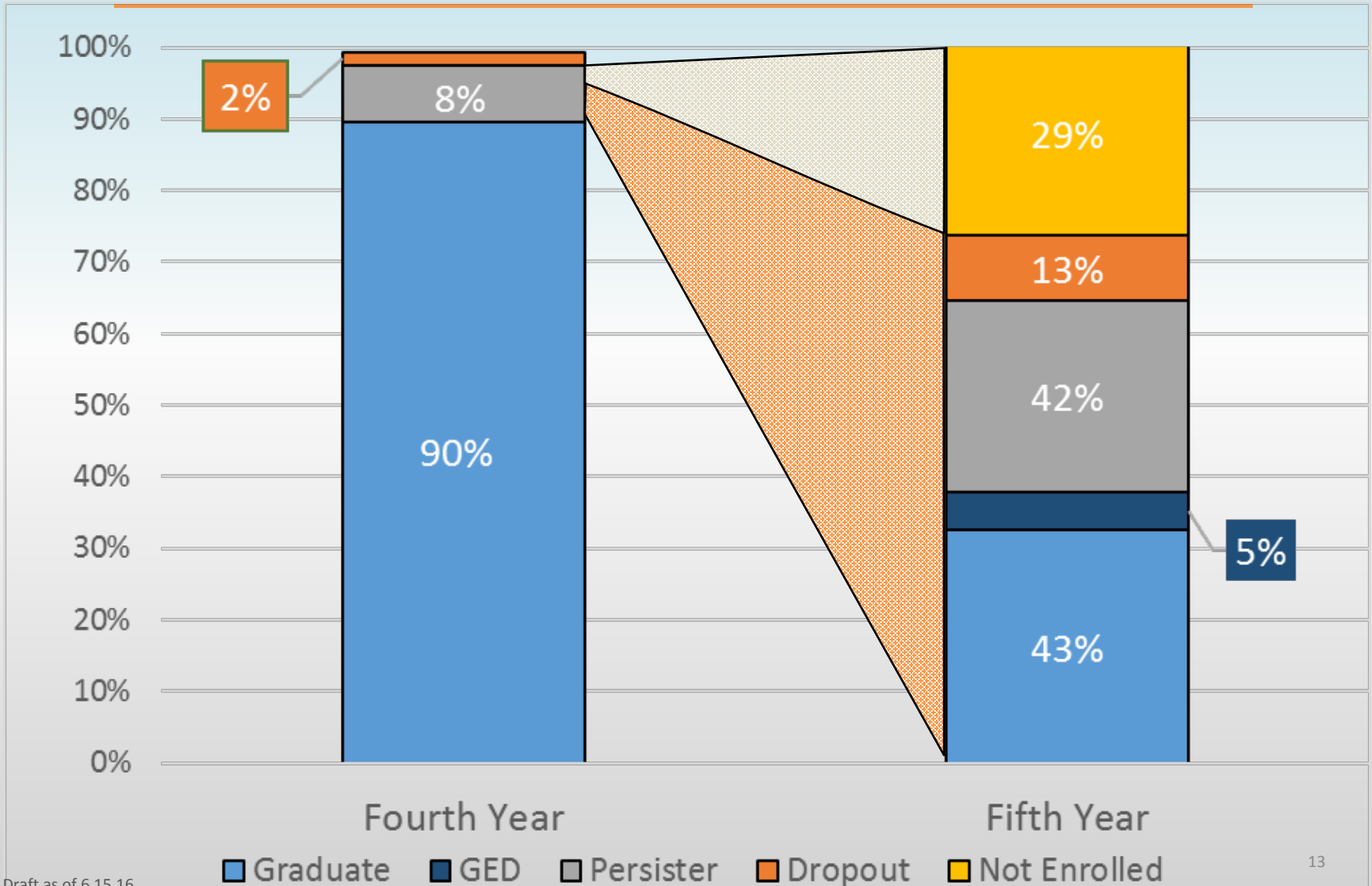
Year 4 Status by Gender
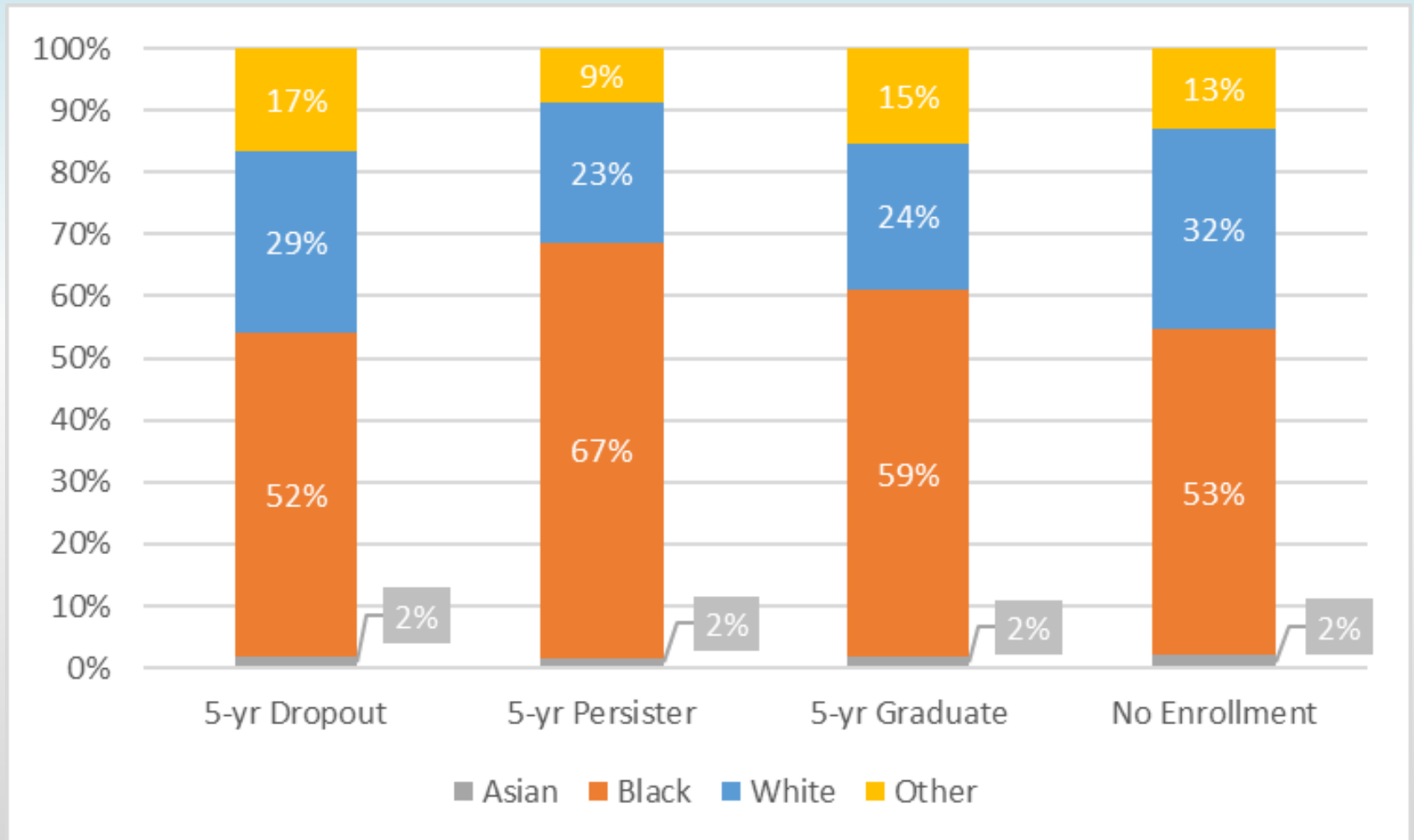
Year 5 Status by Gender
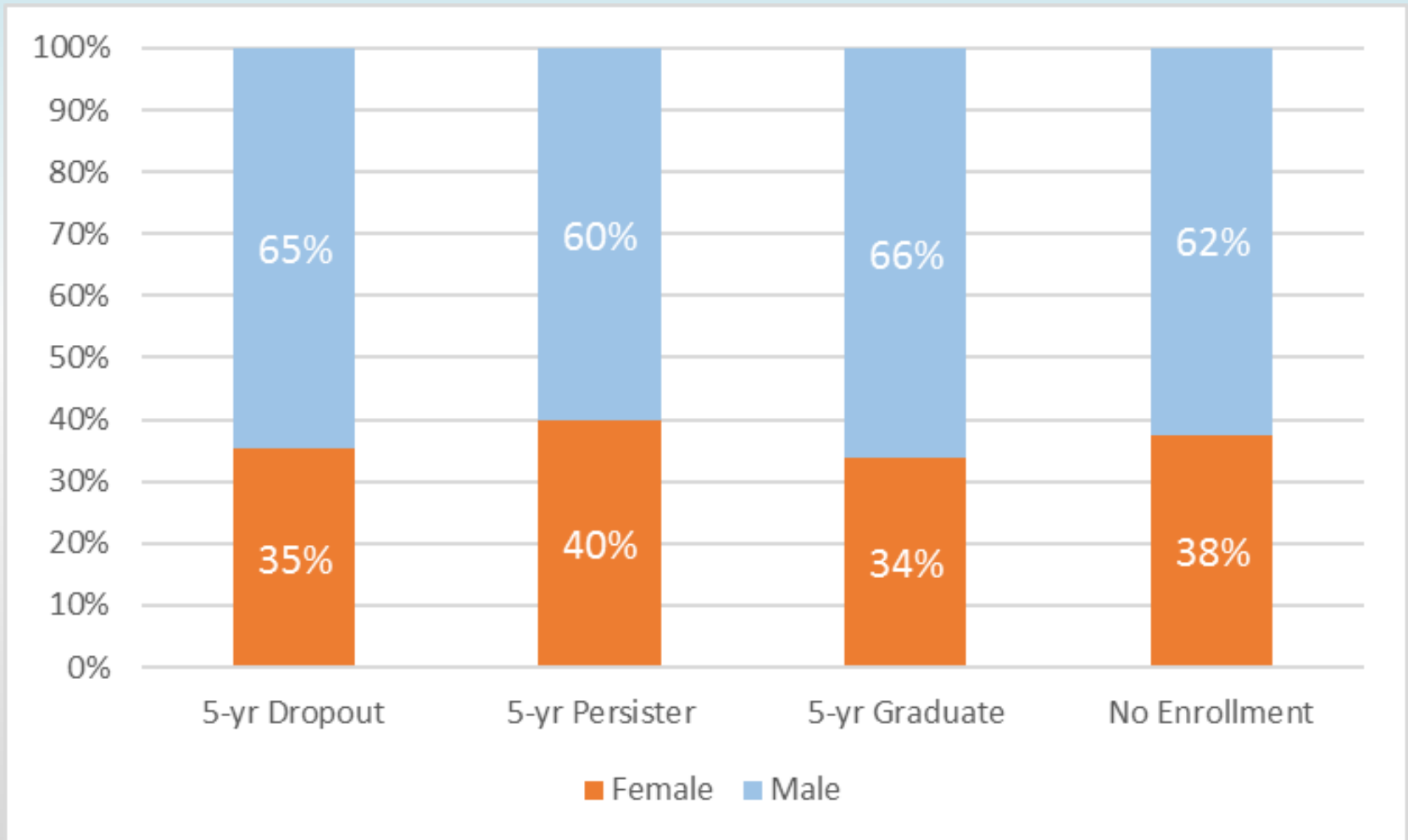
Year 4 Status by Race

Year 5 Status by Race

Does post-secondary and workforce participation vary based on exit type?

Post Secondary Enrollment
# One Year Post Graduation

4-year Graduate	71
5-year Graduate	19

A Note on Workforce Data

- For persons employed in Maryland who also attended a public Maryland secondary or postsecondary institution

- The data does not include wages related to Military Service, Federal Government employment, or independent contractors

Workforce Participation (Fall 2014-Spring 2015)

Draft as of 6.15.16
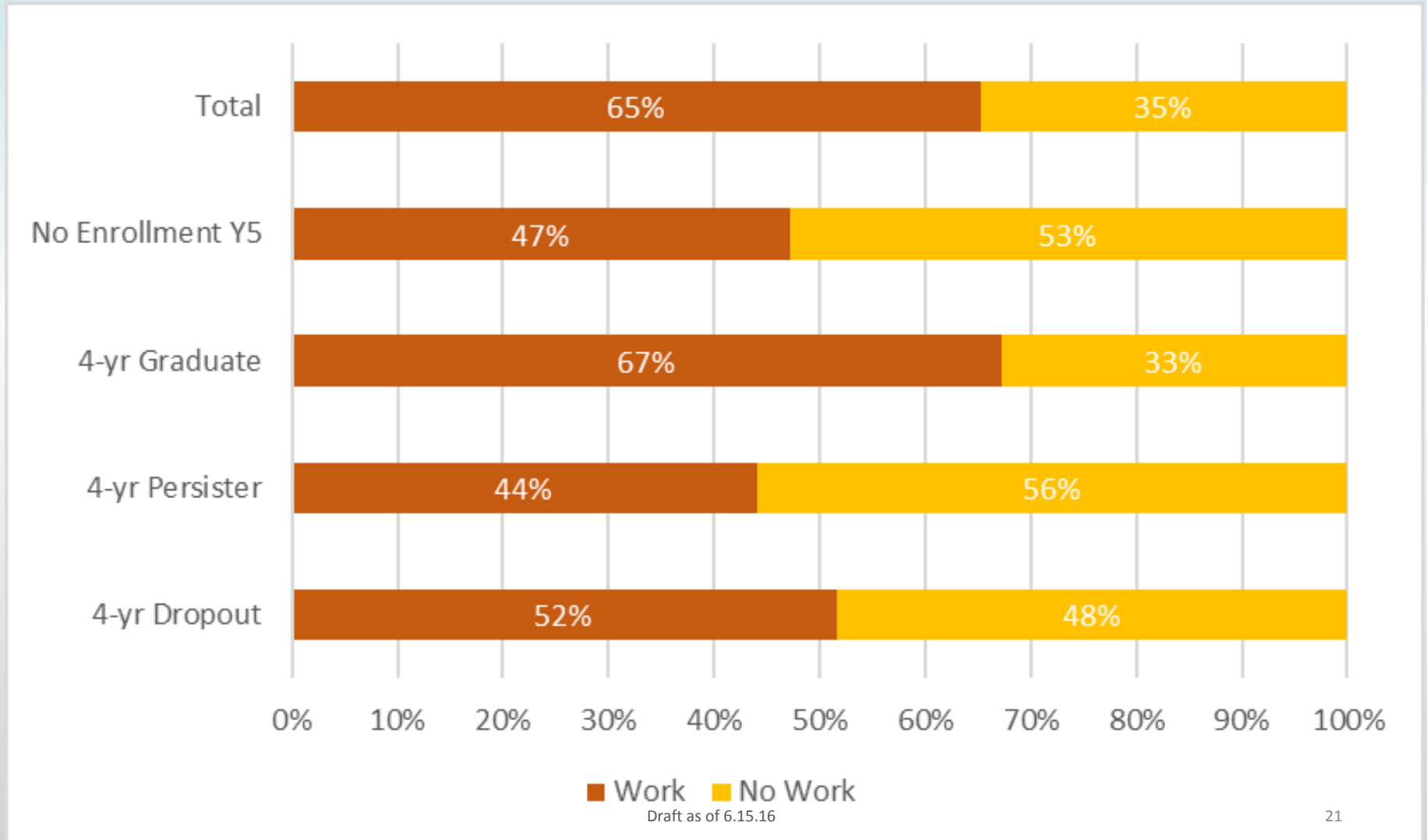
# Do student odds of on-time graduation vary across schools and jurisdiction?

Three Level Null Model

Covariance Parameter Estimates				
Cov Parm	Subject	Estimate	Standard Error	ICC
Intercept	Jurisdiction	0.569	0.252	0.15
Intercept	School	3.070	0.364	0.48

Integrated Model of High School Graduation

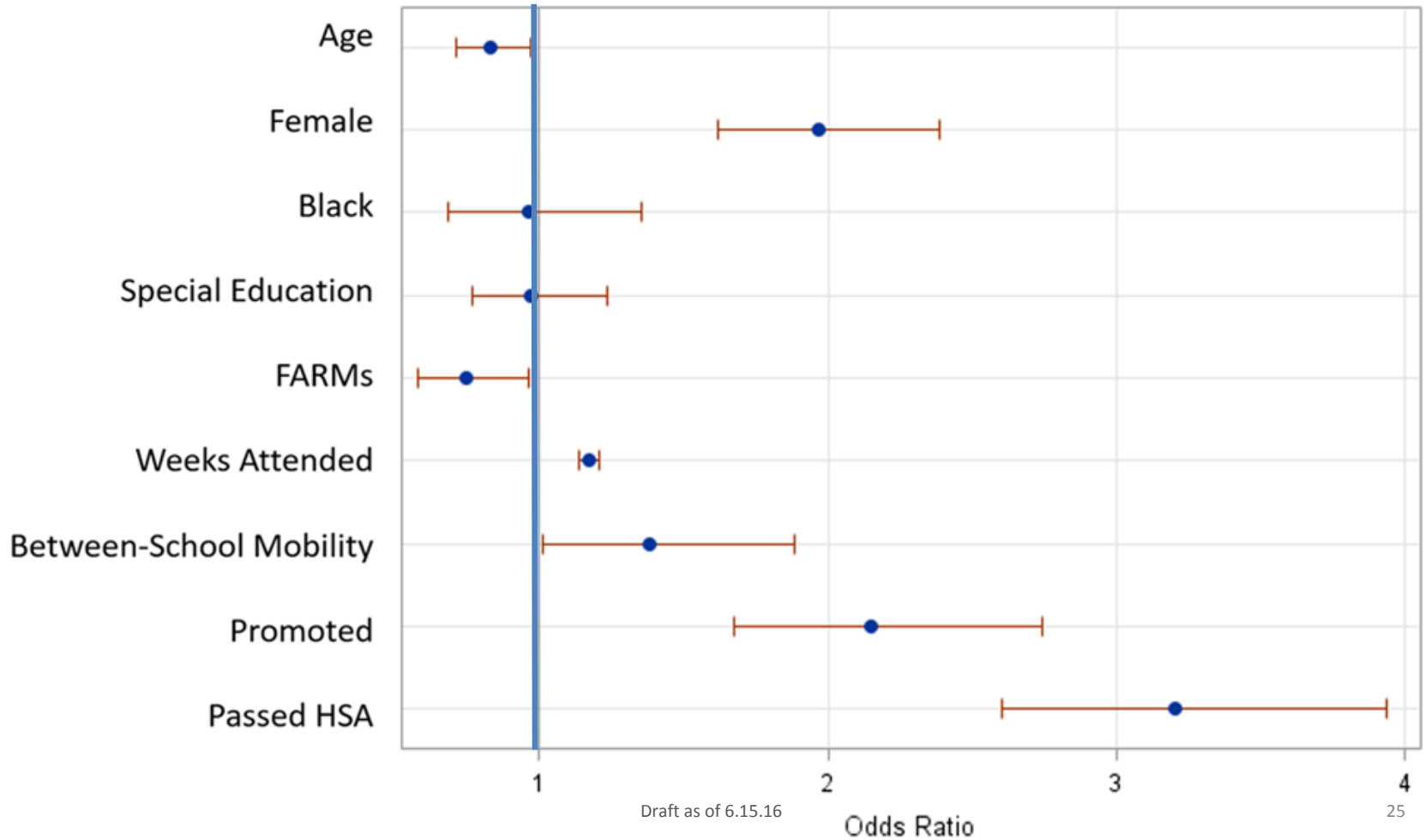Informed by "Conceptual Model of High School Performance" (Rumberger & Lim, 2008)
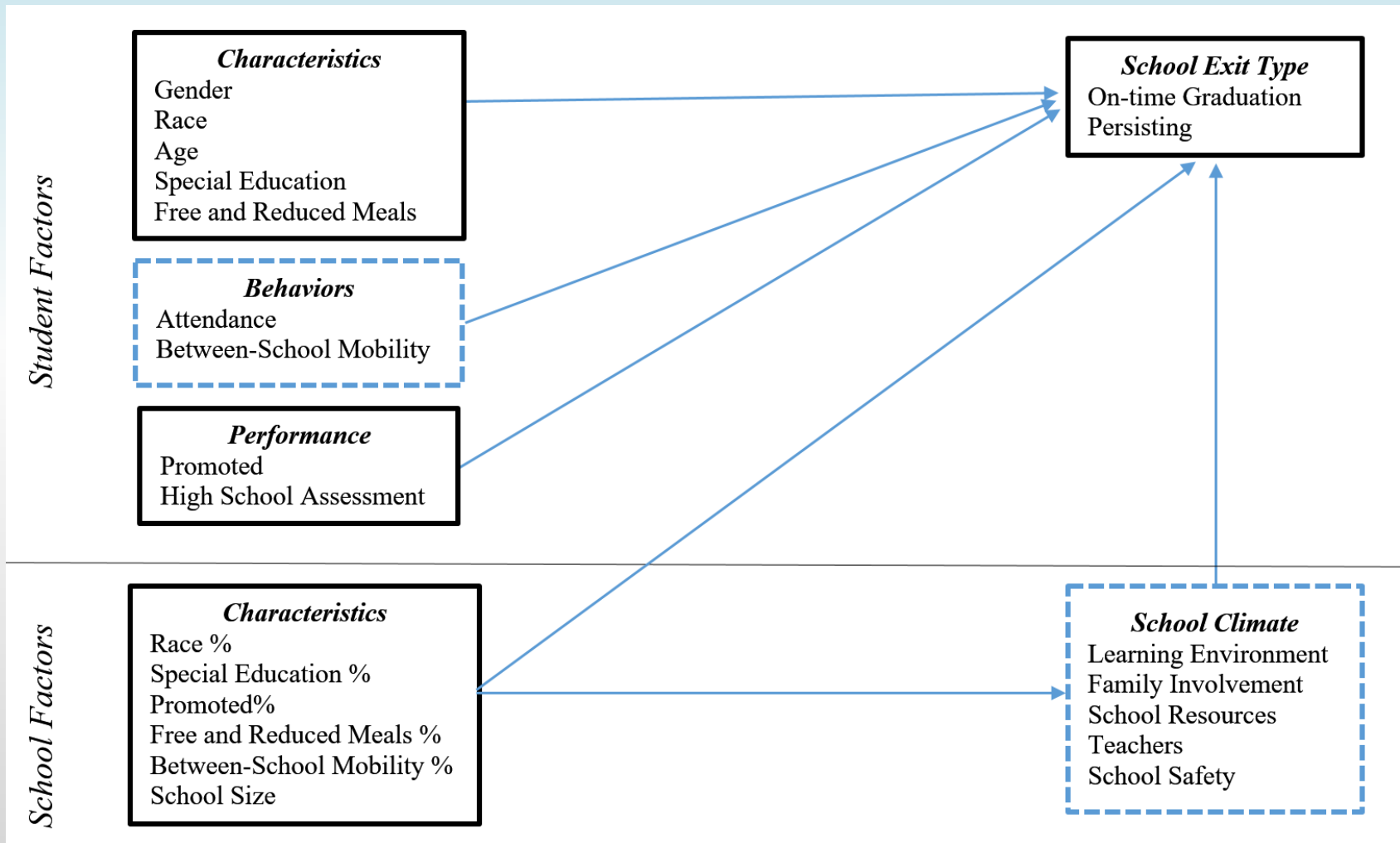
Preliminary Findings from a Single-District Study

Odds Ratios with 95% Confidence Limits
Covariate Effects: Unit Change from Mean

Draft as of 6.15.16

Implications

- The phenomenon of persisting should be considered along with dropout as a critical element of a more informative analysis of high school graduation.

- High school graduation should be examined as a function of students within their academic environments.
  - school-level factors that may provide an opportunity for intervention.

Strengths and Limitations

- Strengths
  - Understudied phenomenon
  - Multilevel analysis
  - Data collected by schools
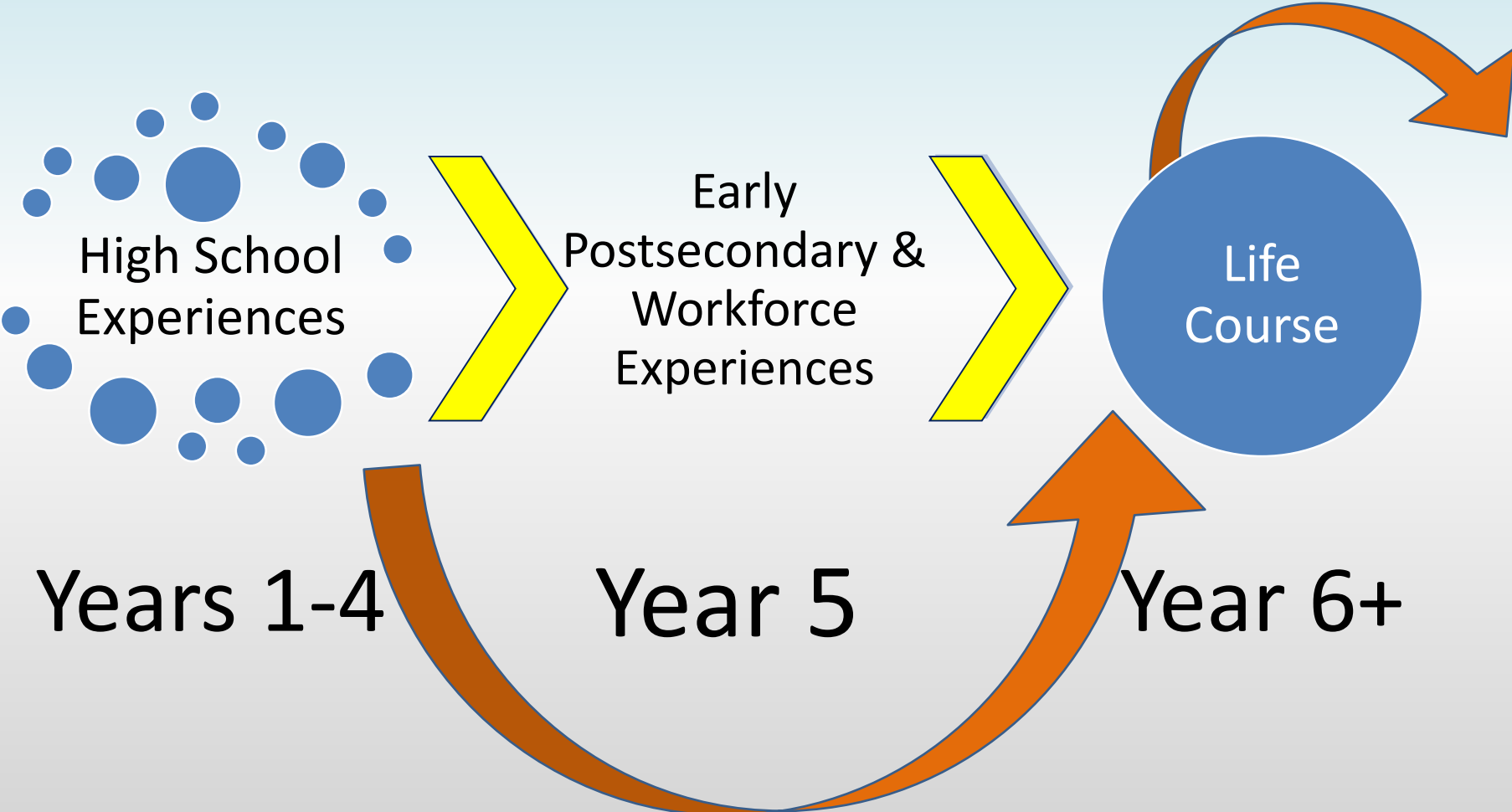
- Limitations
  - Administrative data
  - Scales

Future Research Agenda

- Measurement
  - Existing administrative data
  - Develop and/or refine the tools
- Explore longer-term relationships with
  - Workforce
  - Post-secondary
  - Diploma alternatives
- State-wide analyses
  - Replication of findings
  - Geographic distribution

Future Research Agenda contd.

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Early Postsecondary & Workforce Experiences

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Year 5

Year 6+

Thank You
&
Questions

Acknowledgement