

# MLDS CENTER

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**A Bridge to  
Graduation:  
Testing the Effects of  
an Alternative Pathway  
for Students Who Fail  
Exit Exams**

Jane Arnold Lincove  
UMBC & MLDS Center Research Branch

Catherine Mata - UMBC

Kalena Cortes - Texas A&M University

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# Background and Motivation

Empirical studies (e.g., Dee & Jacob, 2007; Papay, Murnane & Willett, 2010) suggest that high school exit exams are not meeting their goals.

Instead, they have been found to:

- be associated with increased probability of dropout
- exacerbate inequalities in high school completion
- have no impact on employment and earnings

# Background and Motivation

Hemelt and Marcotte (2013) look at changes in states' graduation after implementing or expanding exit exams

On average, graduation rates decrease when exit exams are added

No effect of exit exams on dropout rates for states (including Maryland) that offer a non-test alternative path to graduation

# This Study

Programs like Bridge cushion the effect of high-stakes exit exams and allow more students to graduate

**Do students who graduate through non-test pathways have adequate preparation for post-secondary success?**

Research questions:

1. Do Bridge completers have *similar* post-secondary outcomes to test passer?
2. Do Bridge completers have *better* post-secondary outcomes than high school non-completers?

## Maryland HSA Policy

Year	English	Algebra	Biology	Government
2008	x	x	x	x
2009	x	x	x	x
2010	x	x	x	x
2011	x	x	x	x
2012	x	x	x	NOT REQ
2013	x	x	x	
2014	x	x	x	
2015			x	
2016			x	
2017				x
2018	REVISED POLICY			x

## High School Cohorts for Analysis

Year	English	Algebra	Biology	Government
<b>2008</b>	<b>x</b>	<b>x</b>	<b>x</b>	x
<b>2009</b>	<b>x</b>	<b>x</b>	<b>x</b>	x
<b>2010</b>	<b>x</b>	<b>x</b>	<b>x</b>	x
<b>2011</b>	<b>x</b>	<b>x</b>	<b>x</b>	x
2012	x	x	x	NOT REQ
2013	x	x	x	
2014	x	x	x	
2015			x	
2016			x	
2017				x
2018	REVISED POLICY			x

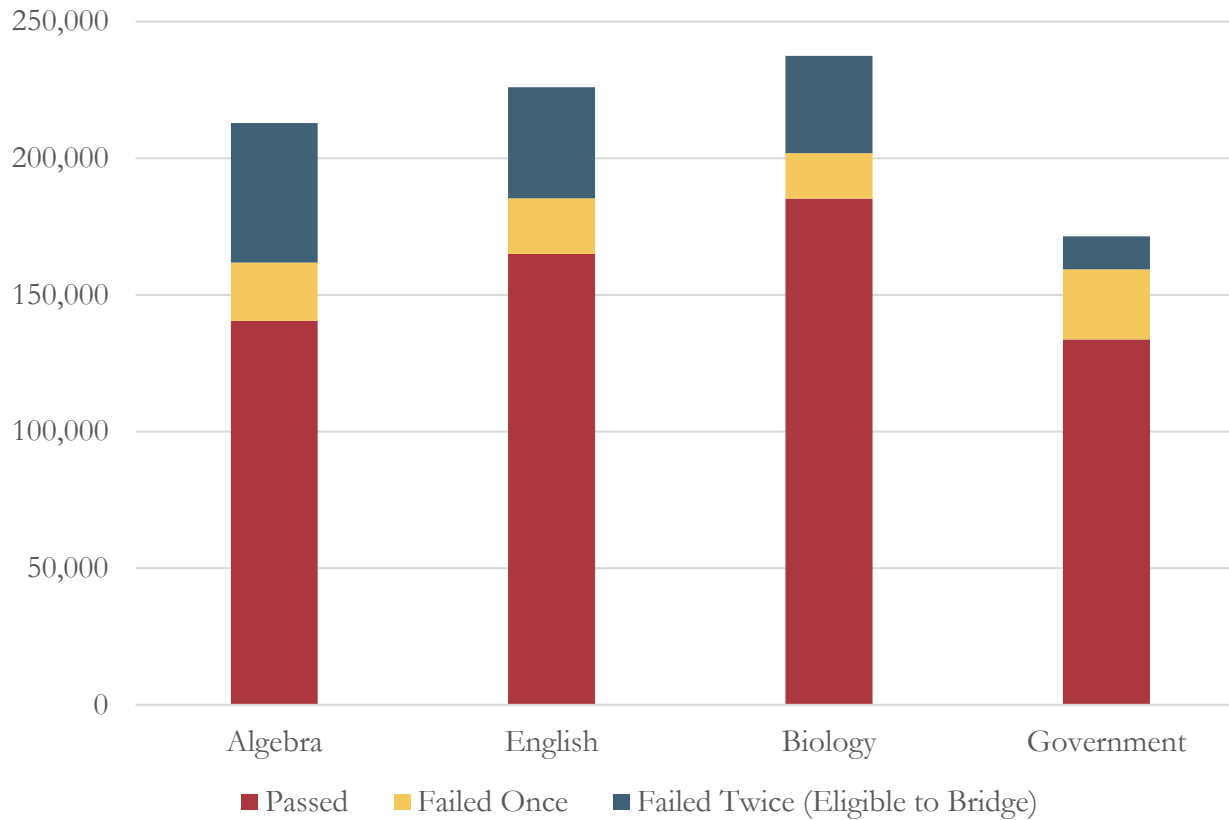
# High School Cohorts in Analysis

Enter 9 <sup>th</sup> grade	Graduate HS*	post-secondary Year 1	HSAs required
Fa 2008	Sp 2012	Fa 2012	eng, alg, bio +
Fa 2009	Sp 2013	Fa 2013	eng, alg, bio +
Fa 2010	Sp 2014	Fa 2014	eng, alg, bio +
Fa 2011	Sp 2015	Fa 2015	eng, alg, bio

\* assumes normal progress through high school

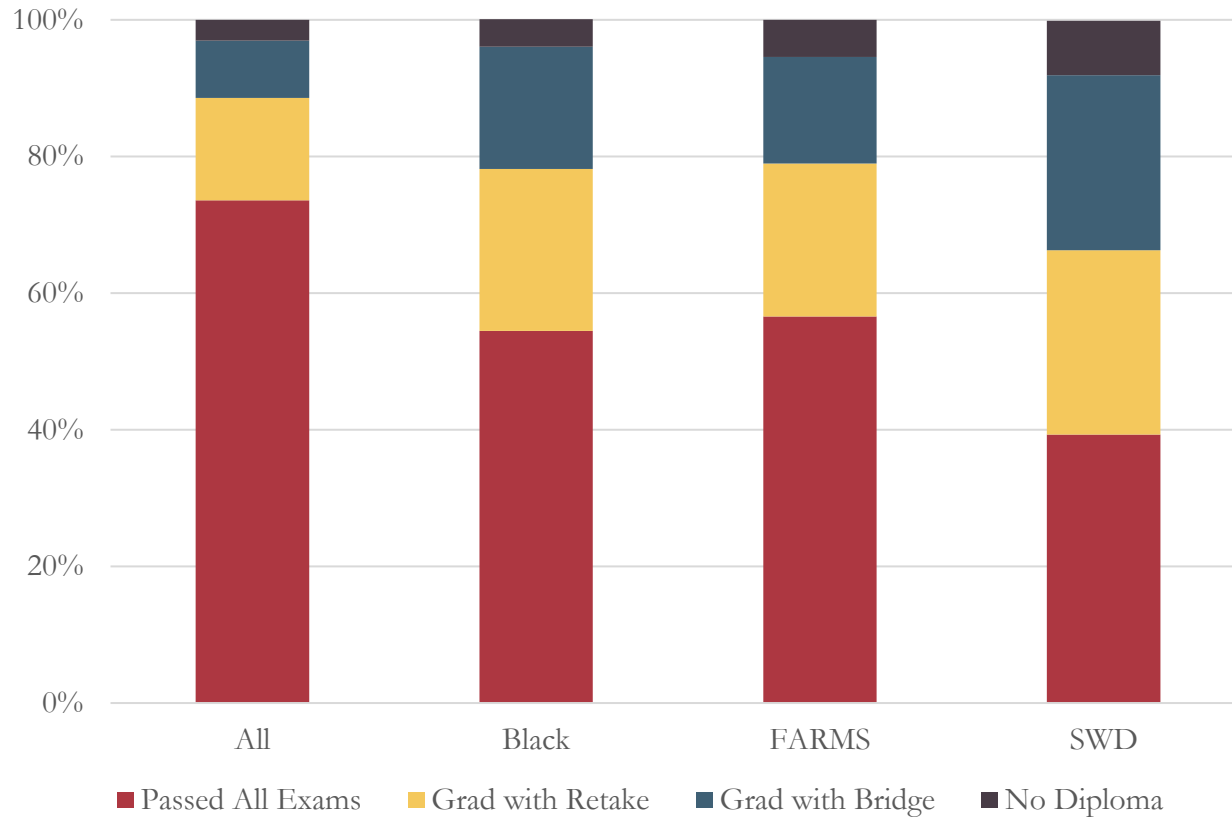
+ government HSA was given but not required for graduation

# HSA Outcomes 2008-2012 Cohorts



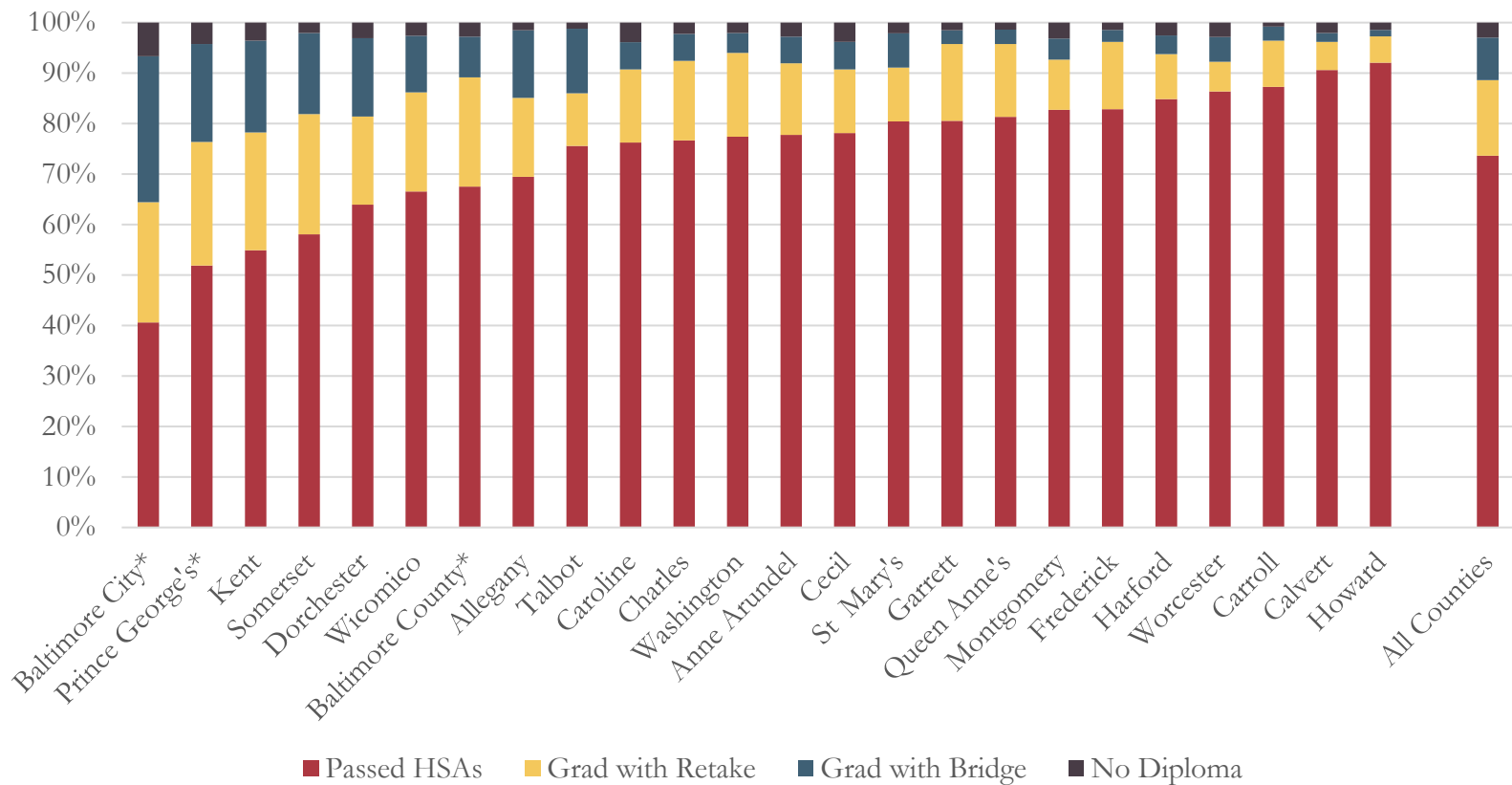


# Pathways by Student Characteristics

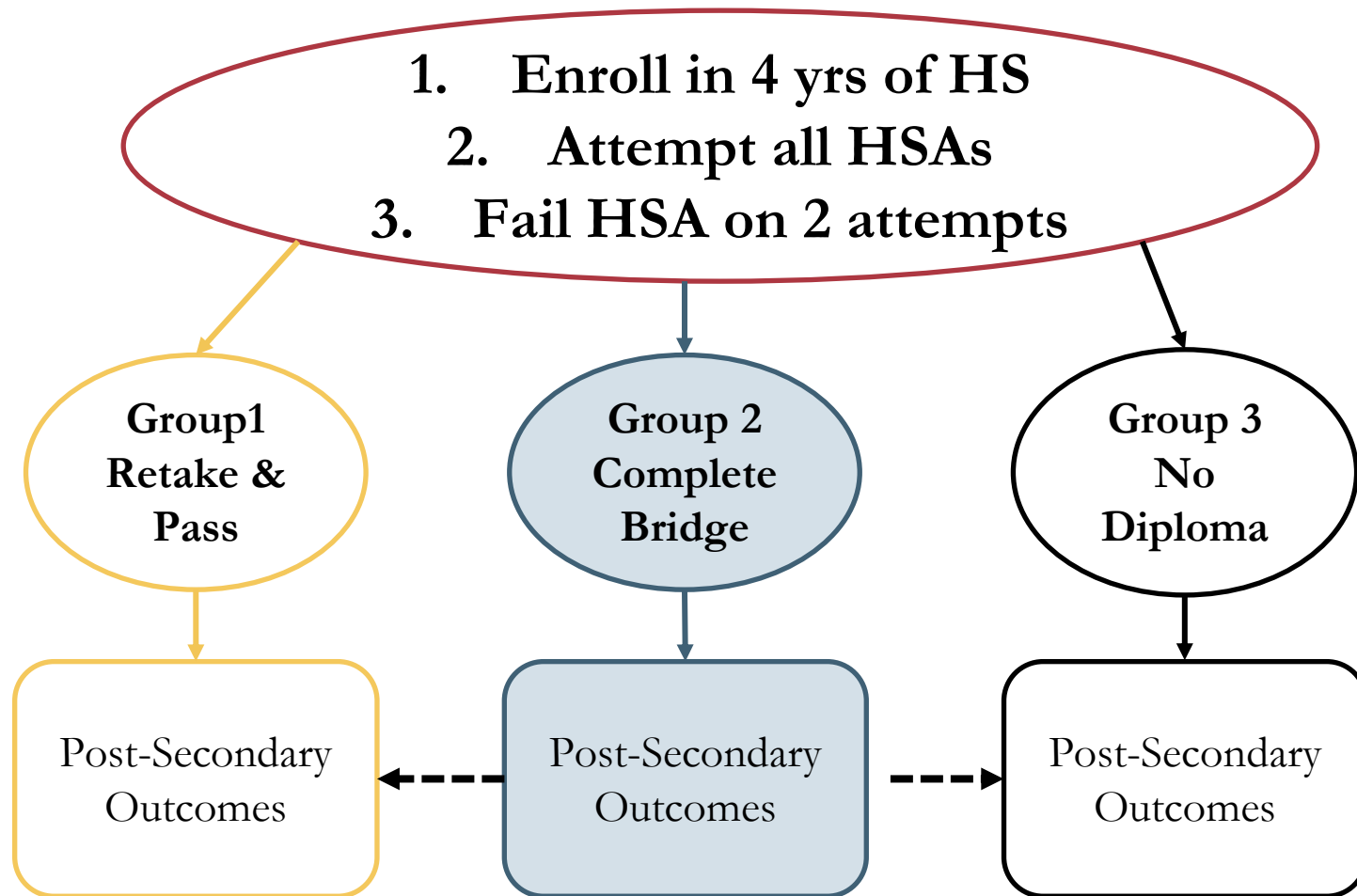




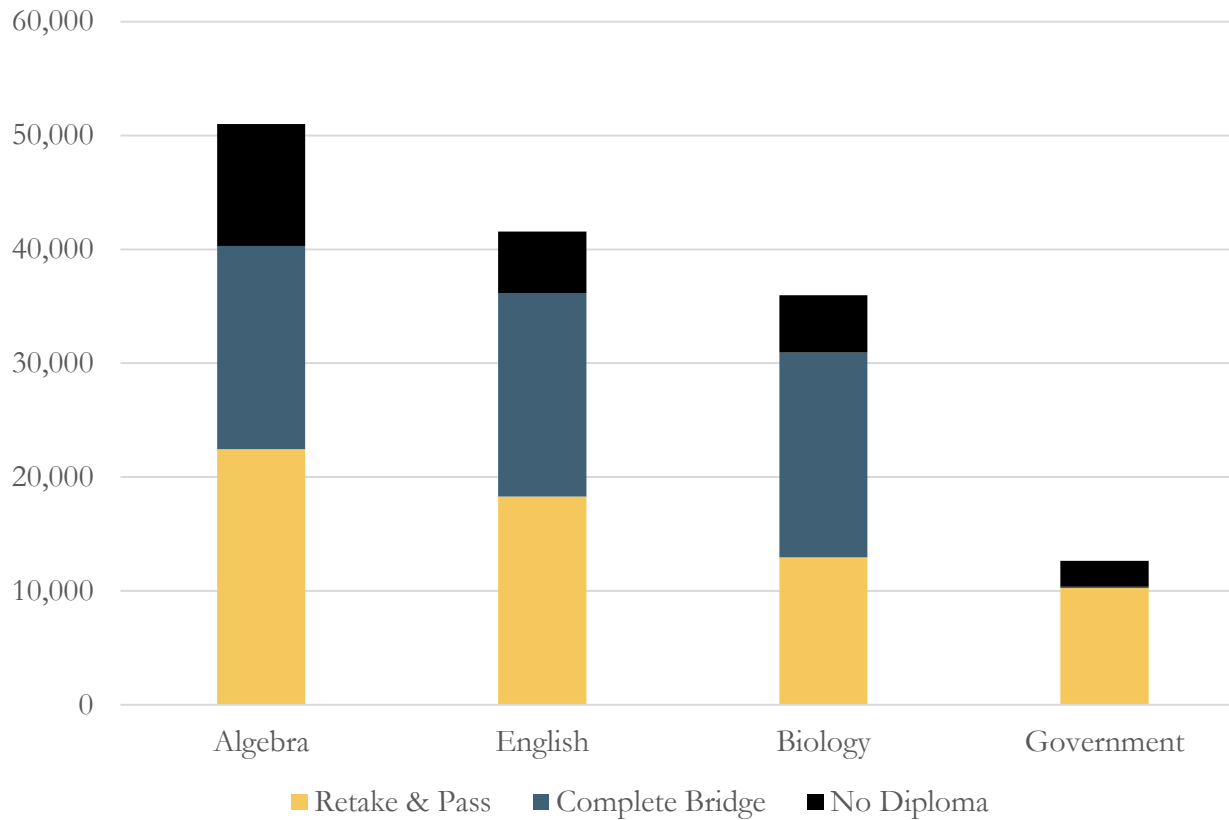
# Where do Students Bridge?



# Matched Analysis of Similar Students



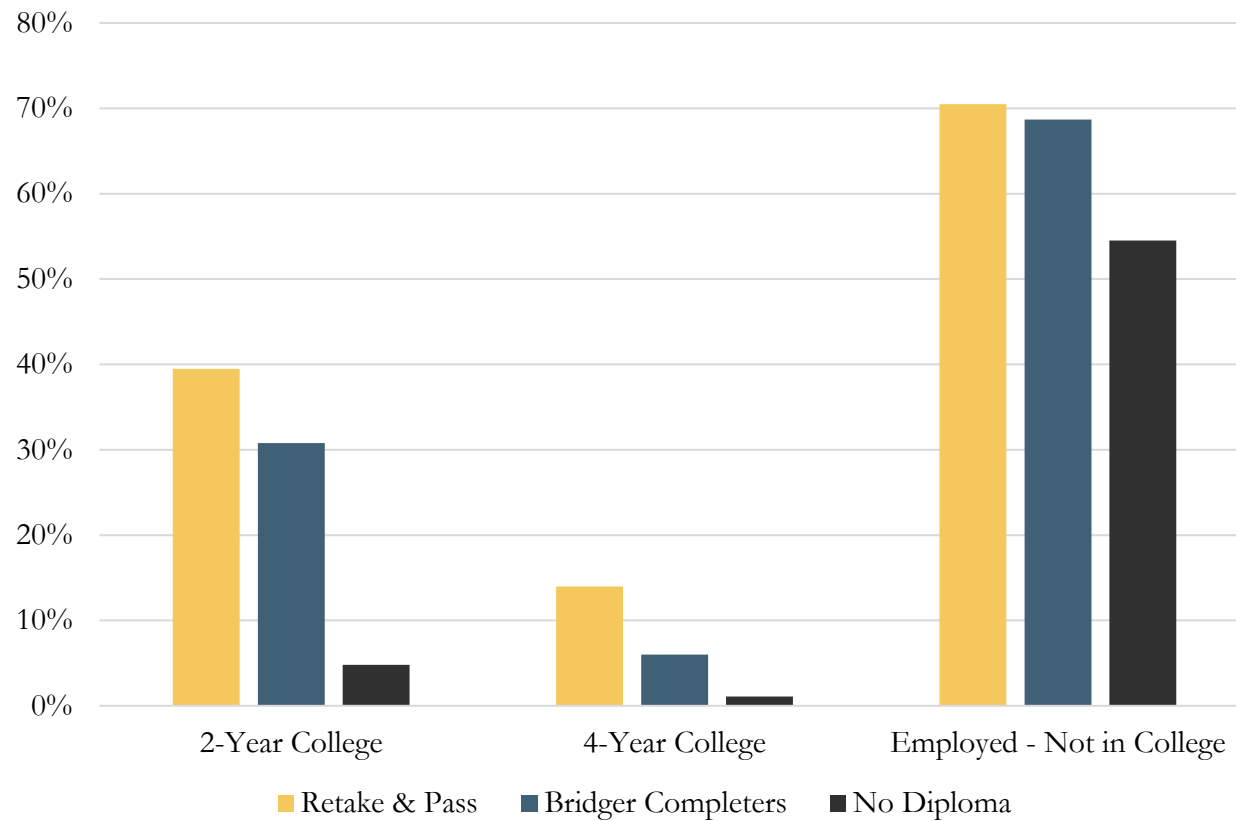
# HS Completion for Students Who Fail 2 HSAs



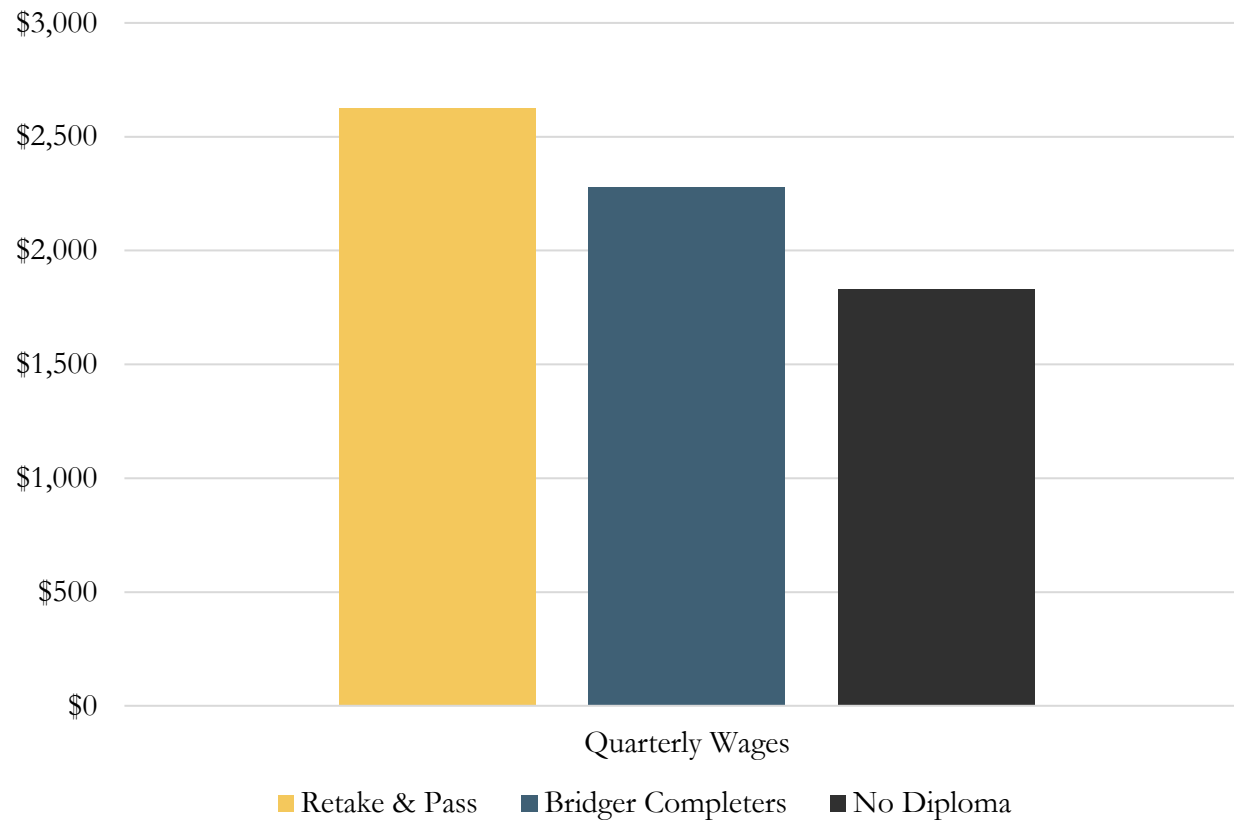
# Limitations

- We only observe completed Bridge and not attempted Bridge
- Interaction of performance in different subjects is likely complex (average student is eligible to Bridge in 2.6 subjects)
- UI data includes formal, non-federal gov't employment in Maryland and likely omits employment types that are typical for graduates with low test scores
- Students decide to Bridge based on many unobserved factors (teacher advice, peer influence, feelings about tests, etc.). Results are not causal effects of Bridge but observed differences between very similar students who do and do not Bridge.

# Unmatched Outcomes by Pathway



# Unmatched Outcomes by Pathway



# Matched Analysis by Subject

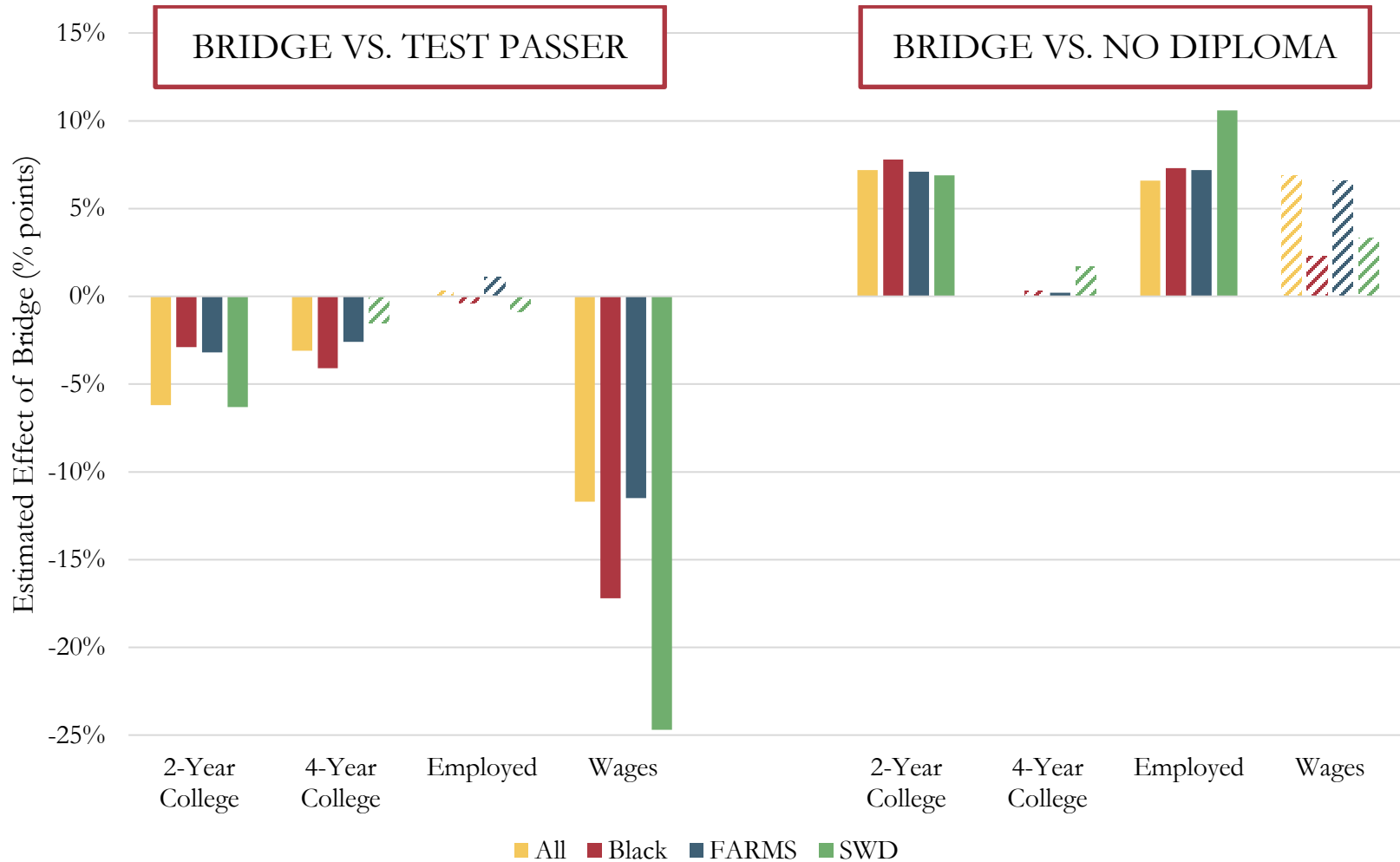
BRIDGE VS. TEST PASSER

BRIDGE VS. NO DIPLOMA

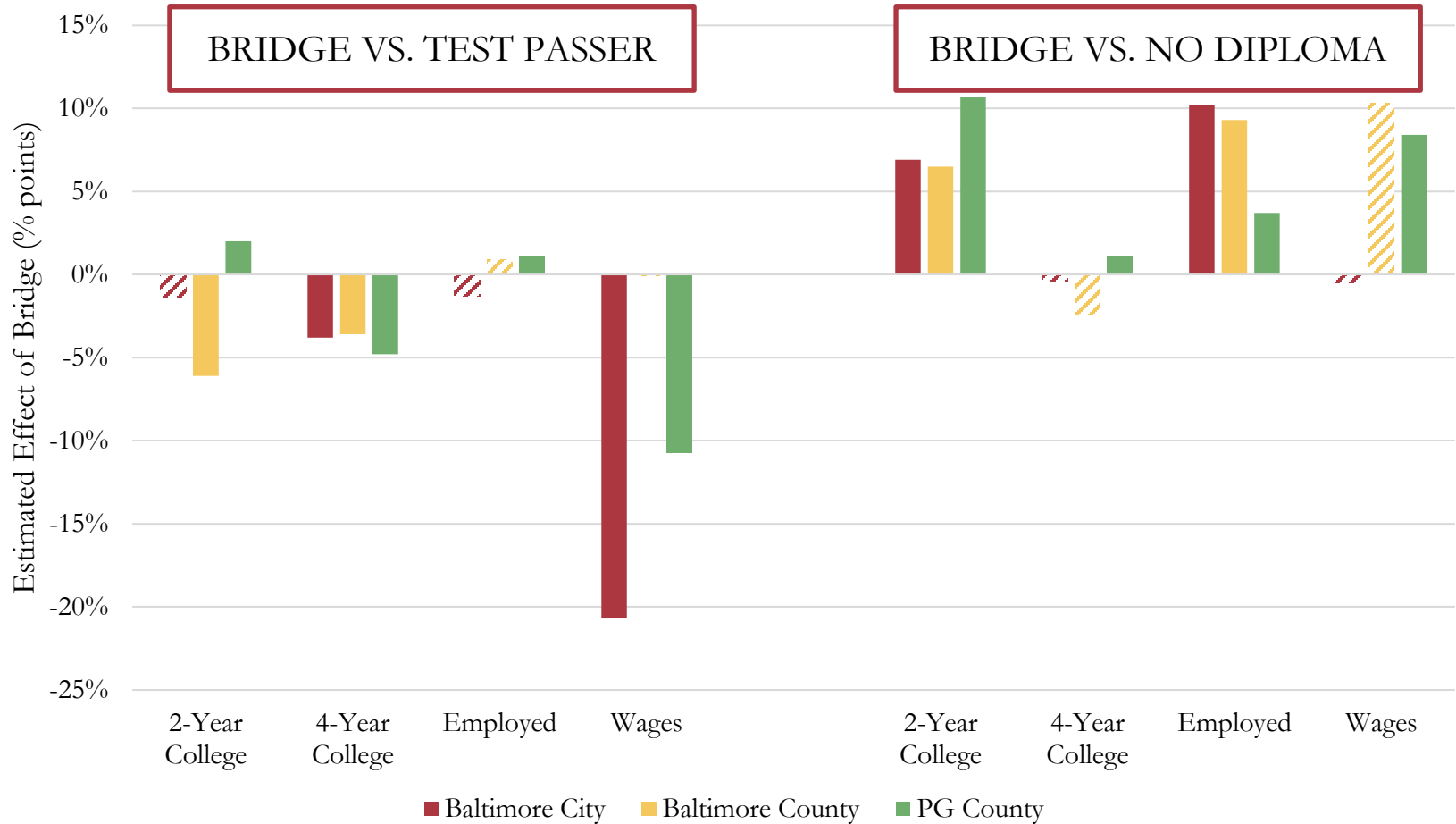




# Matched Analysis by Subgroup - Algebra Only



# Matched Analysis by School Districts – Algebra Only



# Key Findings

	<b>Bridge vs. Test Passers</b>	<b>Bridge vs. No Diploma</b>
<b>2-year college</b>	-2 to 4 pts	+6 to 8 pts
<b>4-year college</b>	-2 to 3 pts	No difference
<b>Employment</b>	No difference	+ 6 to 9 pts
<b>Wages</b>	- 10 to 15% for Algebra only	+19 to 26% for Biology and English

# Implications

- Compared to non-completers, Bridge appears to provide human capital that is valuable for college access and employment
- Compared to passing tests, Bridge has a disadvantage in college access but similar employment outcomes
- Bridging and testing influence wages in different ways across subjects suggesting that employers value different types of skills

Issues for policy makers raised by these findings:

- ✓ What combinations of tests and projects across subjects that might best prepare students for college and workforce
- ✓ Can Bridge college rate be increased through college exposure during Bridge?

Thank you!

Jane Arnold Lincove  
jlincove@umbc.edu

# Sample for Comparison

- ✓ Eligible for Bridge – failed an exit exam twice
- ✓ Motivated to graduate
  - Attempted all exams at least once
  - Enrolled in 4<sup>th</sup> year of high school
- ✓ Consistency in Bridge policy
  - 4 years in one local school system
  - No more than one high school transfer

# Estimation Methods

- ✓ Regression methods compare students from the same district and school with identical race, gender, and FARMS status and similar failing exam score
- ✓ Control for all first-attempt HSA scores
- ✓ Control for 8<sup>th</sup> grade engagement and performance though days absent, suspensions, and MSA scores
- ✓ Control for additional characteristics
  - Title I, Homeless, SPED, ELL
  - High school cohort year