

# Short-Term Academic Outcome Comparisons: Before and after the AP Policy

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# AP policy, its components, premise, & post-policy results

## AP Policy

Ohio Department of Higher Education (ODHE) implemented its Advanced Placement (AP) policy in FY2009-10.

## Components

Guaranteed college credit for AP test scores of 3,4, & 5. Also, AP credit meeting graduation requirements, and transferring among institutions.

## Premise

Equivalency of learning outcomes between AP test scores of 3, 4, 5 & on-campus completed courses.

## What to expect?

No change in outcomes after policy.

## Findings?

Comparison of beneficiaries & control group – GPA, course completion rates, attempted hours, & retention rates over time.

**No change after policy.**

## Awarding AP credit in Ohio: Before policy

- The College Board offers Advanced Placement (AP) tests, and provides the following interpretation of test scores:
  - **5: Very well qualified, 4: Well qualified, 3: Qualified**  
**2: Possibly qualified, 1: No comment.**
- Scores of 3, 4 and 5 are considered passing scores.
- Prior to the AP policy implementation in Ohio, the granting of college credit for AP tests differed among institutions.
  - Individual institutions decided the AP test score cutoff values.
  - When granting AP credit, institutions also decided the following:
    - Particular course to which credit was assigned; if AP credit would meet graduation requirements; if AP credit would transfer between institutions.

## AP policy establishes uniform rules

- The Ohio Board of Regents (OBR), currently known as the Ohio Department of Higher Education (ODHE) implemented the AP policy in FY2009-10.
- Earlier, the State Legislature had passed Ohio Revised Code 3333.163 in 2007 to create a set of uniform rules.
- Subsequently, a set of guidelines were crafted by a committee consisting of faculties and representatives from the OBR; the resulting AP policy was approved by the Ohio *Articulation and Transfer Advisory Council* and endorsed by the OBR Chancellor.
- *Directive 2008-010* was issued to institutions in summer 2009, and the policy implementation coincided with the arrival of the FY2009-10 freshman class.

## AP policy components included in *Directive 2008-010*

- A score of 3 or higher will provide credit at any institution. The credit must count toward graduation and will meet a general education requirement if the course to which the AP credit is equivalent fulfills a requirement at the receiving institution.
- When it clearly enhances the opportunity for student success, an institution should strongly advise that an AP score of at least 4 is needed for a student to be successful in a second course in a highly dependent sequence of courses in a STEM area.
- A score of 3 or higher on an AP exam in a foreign language area will provide credit for at least the first year of foreign language at any institution.
- Each institution will provide information on awarding AP credits, which should include the number of credits awarded and the course equivalents earned for scores of 3 or higher.
- Credits earned via AP tests are transferable among Ohio public institutions of higher education according to transfer policy rules.

## AP policy components: Immediate changes

- Three immediate changes brought in by the AP policy:
  - State-wide guarantees of college credit for AP test scores of 3, 4 and 5.
  - Elimination of uncertainties regarding AP credit granting as institutions are required to provide complete information on specific courses and the number of hours they grant for separate scores of 3, 4 and 5 in each AP test.
  - AP credit meeting graduation requirements at all institutions and transferring among institutions.
- Overall, the AP policy is expected to help students accumulate early credit and save resources.

## Equivalency of learning outcomes

- Fundamental underpinning of the AP policy:
  - Learning outcomes associated with AP test scores of 3, 4 and 5 are equivalent to the learning outcomes associated with the successful completion of corresponding college courses.
- If learning outcomes are really equivalent, the AP policy guarantees a like-for-like substitution of on-campus completed hours with AP credit.
- Students benefit from the accumulation of early credit but without any change in academic outcomes.

## How do academic outcomes compare?

- If learning outcomes are indeed equivalent, academic outcome comparisons – between students without AP tests and those with test scores of 3, 4 and 5 – would show no significant difference before and after AP policy.



# Data source

- Data source:
  - College Board
    - Information on AP tests
  - Higher Education Information (HEI) system of the Ohio Department of Higher Education
    - Grades, hours, course completion, and retention rates.
- Sample: First-time freshman cohorts at Ohio's public 4-year university main campuses
  - FY2005-06, FY2006-07, FY2007-08, and FY2008-09 from before the implementation of the AP policy
  - FY2009-10, FY2010-11, FY2011-12, and FY2012-13 from after the implementation of the AP policy
- Students are classified:
  - No AP test – control group
  - AP tests with scores of 3, 4 and 5; beneficiaries of the AP policy.

# Sample

		<b>N=251,474</b>			
		<b>Before Policy Sample</b> N=124,020		<b>After Policy Sample</b> N=127,454	
<b>Beneficiary Group:</b> <b>AP test scores of 3, 4, 5</b>		<b>Before Policy: Beneficiaries</b> N=30,457		<b>After Policy: Beneficiaries</b> N=38,911	
		FY2005-06 N=7,055	FY2006-07 N=7,542	FY2009-10 N=8,601	FY2010-11 N=9,196
		FY2007-08 N=7,850	FY2008-09 N=8,010	FY2011-12 N=10,267	FY2012-13 N=10,847
		<b>Before Policy: Comparison Group</b> N=93,563		<b>After Policy: Comparison Group</b> N=88,543	
<b>Comparison Group:</b> <b>No AP test</b> <b>No dual credit</b> <b>No alternative credit</b>		FY2005-06 N=23,118	FY2006-07 N=23,839	FY2009-10 N=22,541	FY2010-11 N=22,506
		FY2007-08 N=23,383	FY2008-09 N=23,223	FY2011-12 N=22,793	FY2012-13 N=20,703

# Academic outcome indicators

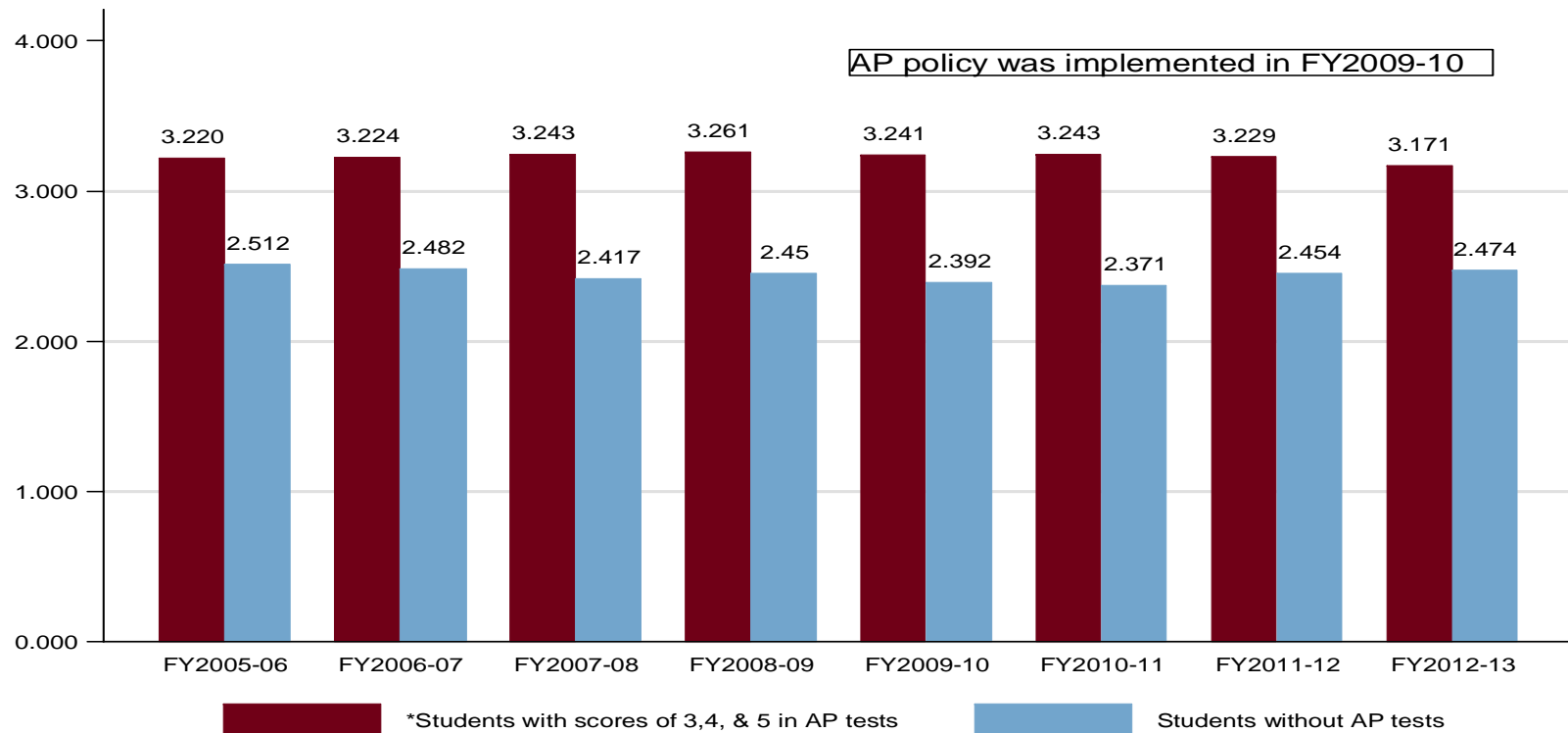
- Five different indicators of academic outcome
- Three from the end of the first year of attendance
  - Grade point average (GPA)
  - Number of attempted hours
  - Course completion rates
- Two from the second year of attendance
  - First-to-second year retention rate (in any public institution of higher education in Ohio)
  - First-to-second year retention rate in the same campus

## What to expect with the comparison of academic outcome?

- The equivalency of learning outcomes – between scores of 3, 4 and 5 in AP tests and corresponding college courses – if valid, implies that the AP policy leads to a like-for-like substitution of on-campus completed hours with AP credit.
- As such, the comparison of academic outcomes between students with scores of 3, 4 and 5 in AP tests, and those without AP tests should not show significant differences after the implementation of the AP policy.
  - For example, the comparison should be similar for the FY2005-06 to FY2008-09 freshman cohorts from before the AP policy, and the FY2009-10 to the FY2012-13 freshman cohorts from after the AP policy.

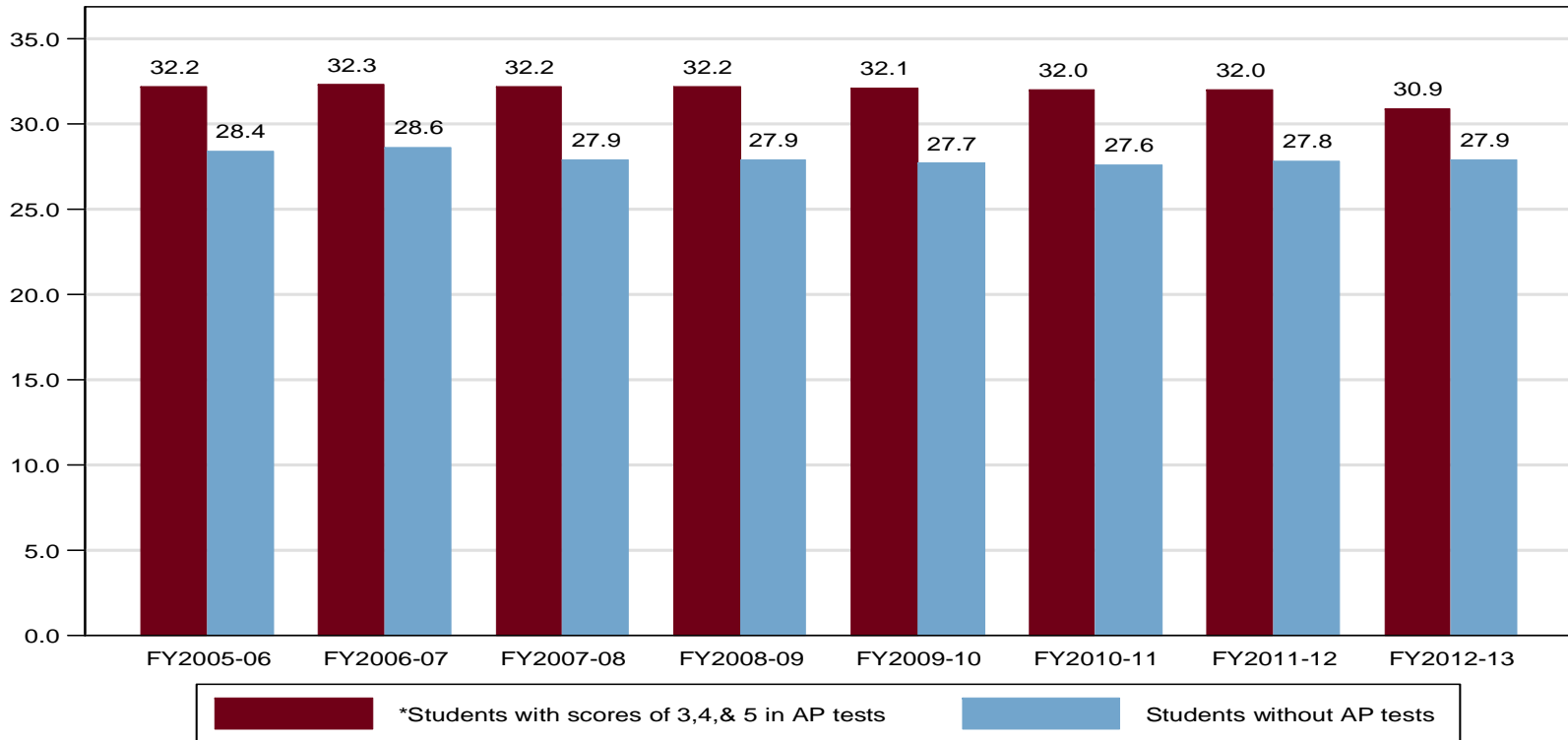
# Result: Grade Point Average

Comparison of First-Year Grade Point Average (GPA) over Time  
Students with and without AP Tests\*



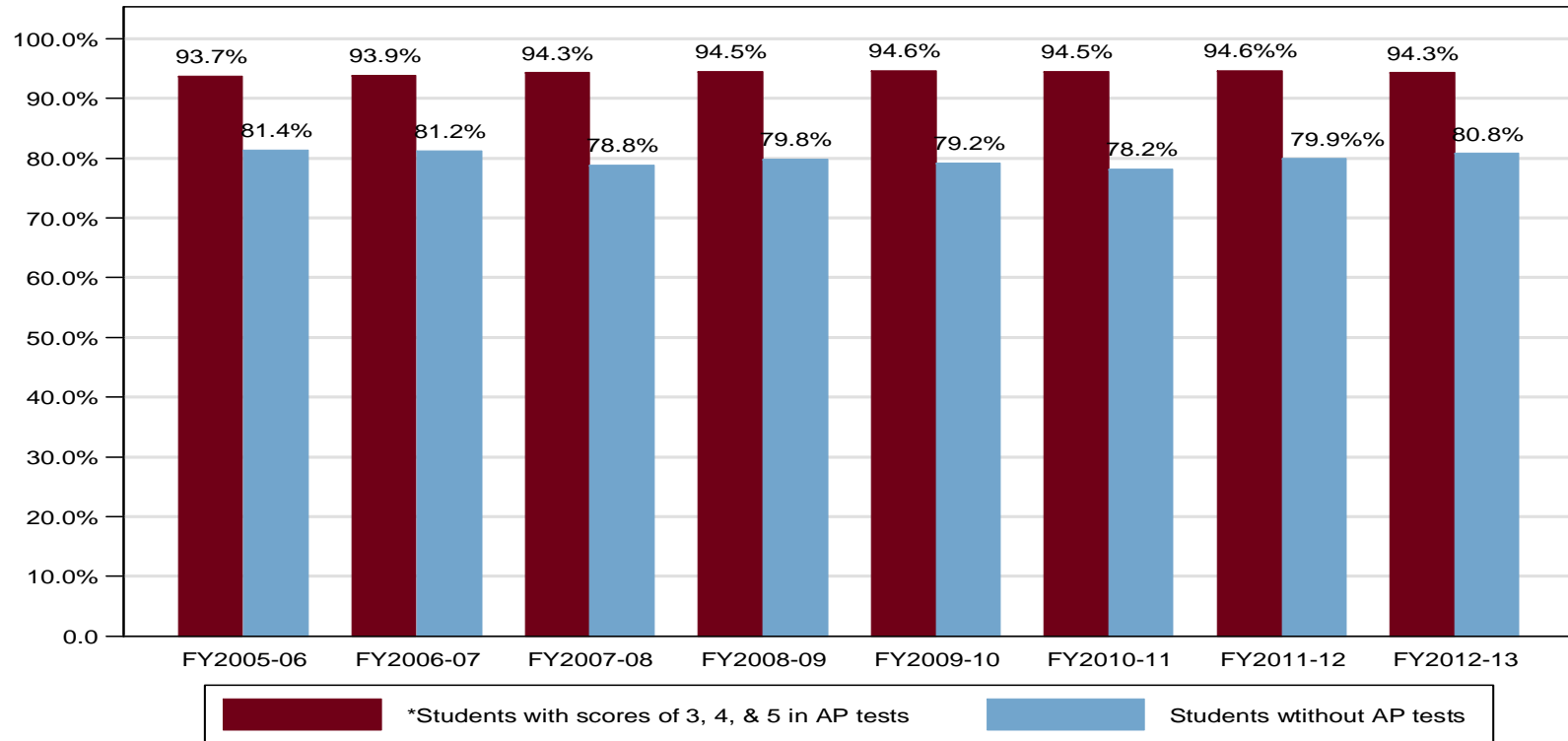
# Result: Number of attempted hours

## Comparison of First-Year Attempted Hours over Time Students with and without AP Tests\*



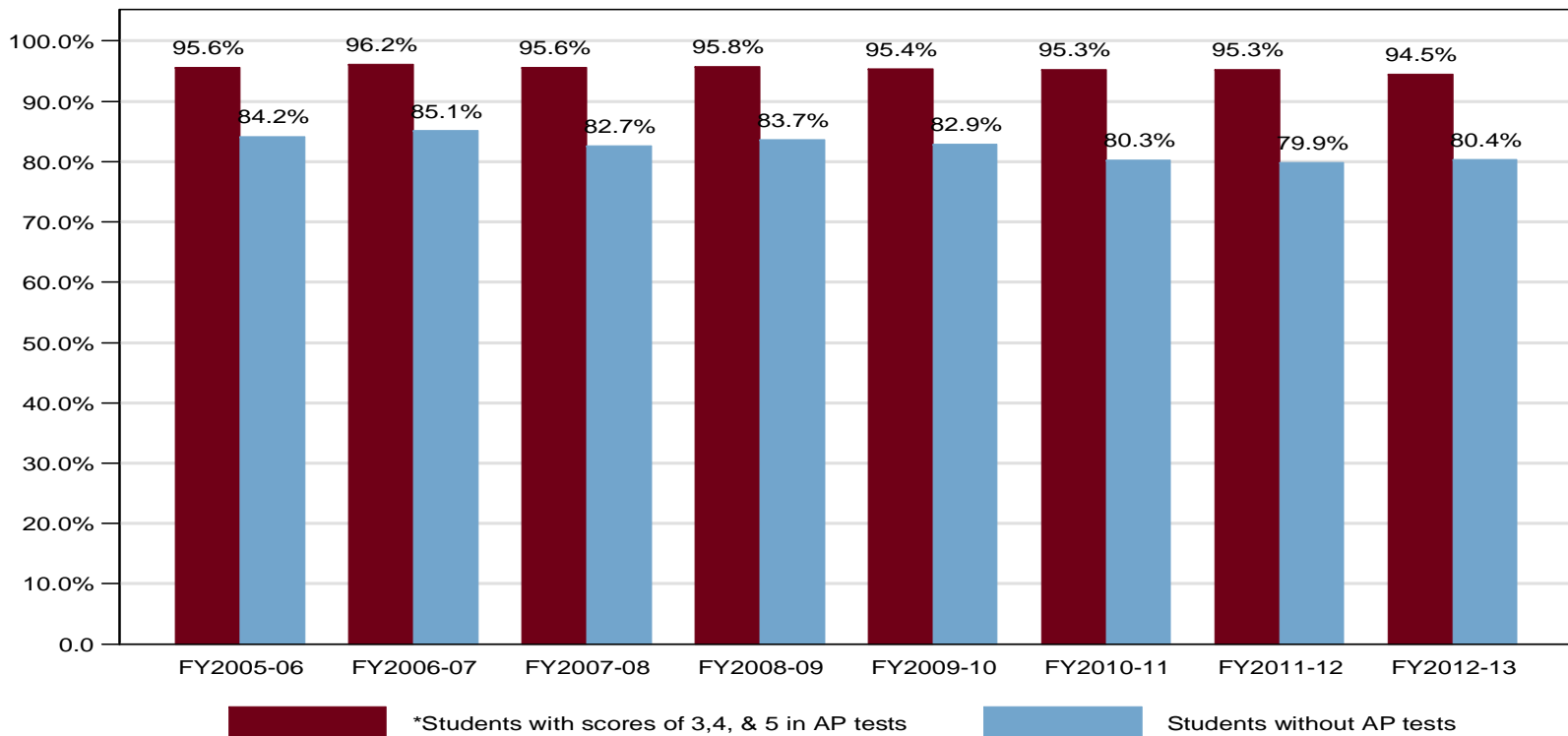
# Result: Course completion rates

## Comparison of Course Completion Rates over Time Students with and without AP tests\*



# Result: Retention rates (statewide)

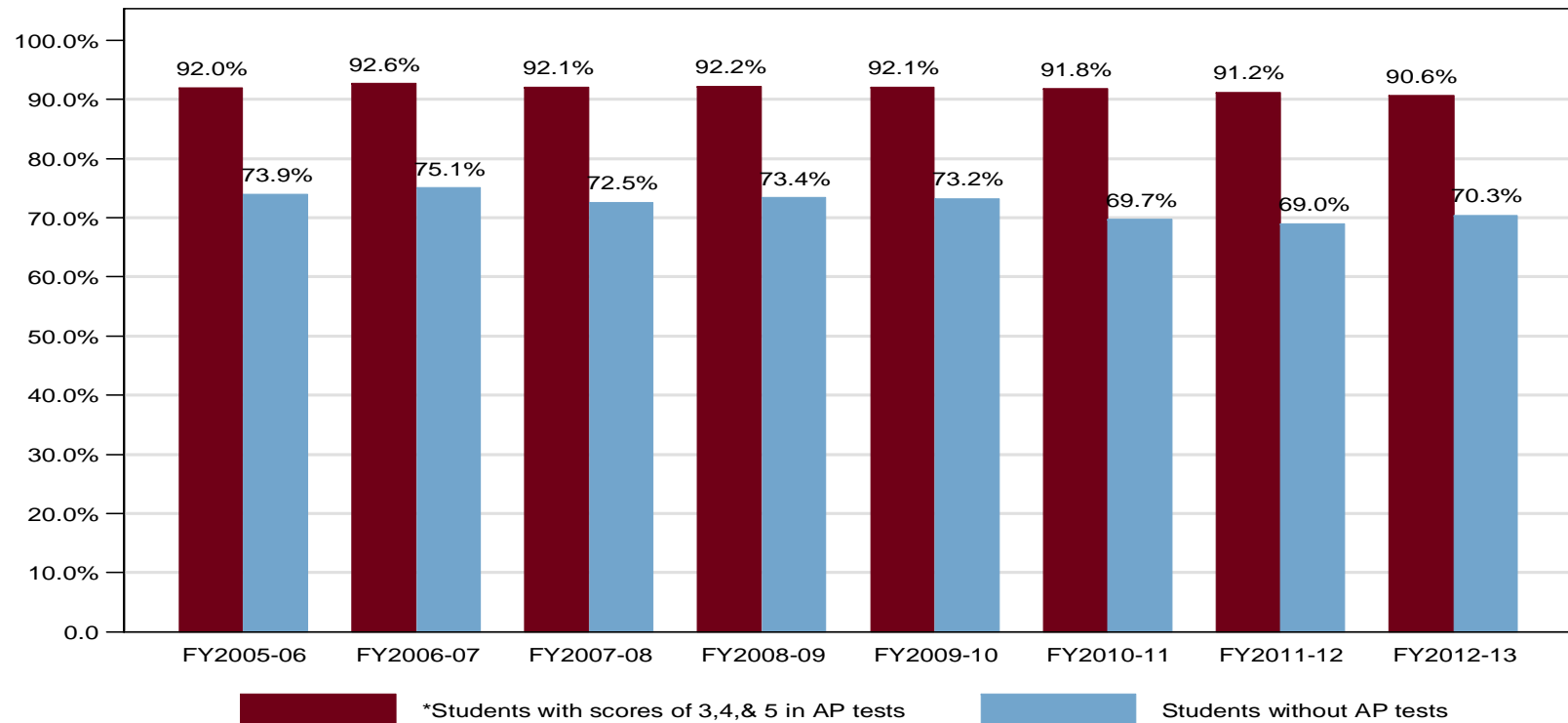
Comparison of First to Second Year Retention Rates over Time  
Students with and without AP Tests\*





# Result: Retention rates (same campus)

## Comparison of Same Institution Retention Rates over Time Students with and without AP Tests\*



## What do the results show?

- Students with AP test scores of 3, 4 and 5 have substantially higher average indicators of academic outcome both before and after the AP policy.
- The comparison of academic outcomes between students with and without AP tests over time remains unchanged.
- All indicators of academic outcome for both groups are remarkably similar over time, implying that the implementation of the AP policy did not influence academic outcomes in any significant way.
- The results are consistent with the hypothesis of equivalency of learning outcomes.

## Compared to results from a previous study

- A rigorous investigation in 2013 found no impact of the AP policy on GPA, the number of attempted hours, and course completion rates.
- The previous investigation had used data on four cohorts, two from before the AP policy, and two from after.
- The current report uses four additional freshman cohorts and obtains similar descriptive results.
- For freshman cohorts from one, two, three of four years after the implementation of the AP policy, the results are consistent with the equivalency of learning outcomes.