

# **Building Quality AP Programs**

**Prepared for High School Administrators  
October-November 2013**

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Dr. John D. Barge, State School Superintendent  
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[www.gadoe.org](http://www.gadoe.org)

# College Readiness

A student is college ready when the student can enroll and succeed in a credit-bearing course at a post-secondary institution without remediation or remedial support.



# AP and College Success

- Students who take AP courses and exams are much more likely than their peers to complete a bachelor's degree in four years or less
- No AP      29% likely to finish in 4 years
- One AP      45% likely to finish in 4 years
- Two + AP    61% likely to finish in 4 years
- Another report shows that students who took AP courses were at least twice as likely to graduate college within five years (CPE 2012).



# Impact of AP on 5-Year College Graduation Rates

Student Group	AP Exam Grade of 3, 4, 5	AP Exam Grade of 1, 2	Took AP course, but not exam
African-American	28% higher	22% higher	16% higher
Hispanic	28% higher	12% higher	10% higher
White	33% higher	22% higher	20% higher
Low-Income	26% higher	17% higher	12% higher
Not Low-Income	34% higher	23% higher	19% higher



Dr. John D. Barge, State School Superintendent

Source: Chrys Dougherty, Lynn Mellor, and Shuling Jian, *The Relationship Between Advanced Placement and College Graduation* (National Center for Educational Accountability, 2005)

# AP and STEM...TIMMS research, 2009

- US Calculus students ranked #21, out of 22 countries participating
- US *AP* Calculus students who scored 3+ on AP exam ranked #1
- US *AP* Calculus students who scored 1 or 2 on AP exam tied for #2
- US Physics students ranked #22, last
- AP Physics students who scored 3+ on AP exam: ranked #1
- U.S. students who “failed” the AP Calculus exam still outperformed students from all other industrialized countries on the Trends in Mathematics and Science Study (TIMSS).





# The Advanced Placement Program in Georgia, 2012

- 55% of AP exam scores for Georgia students were in the 3 or higher range
- Georgia was 13<sup>th</sup> in the nation in the percentage of students in the Class of 2011 scoring 3 or higher on an AP exam during high school
- 38% of students in the Class of 2011 took an AP exam during high school



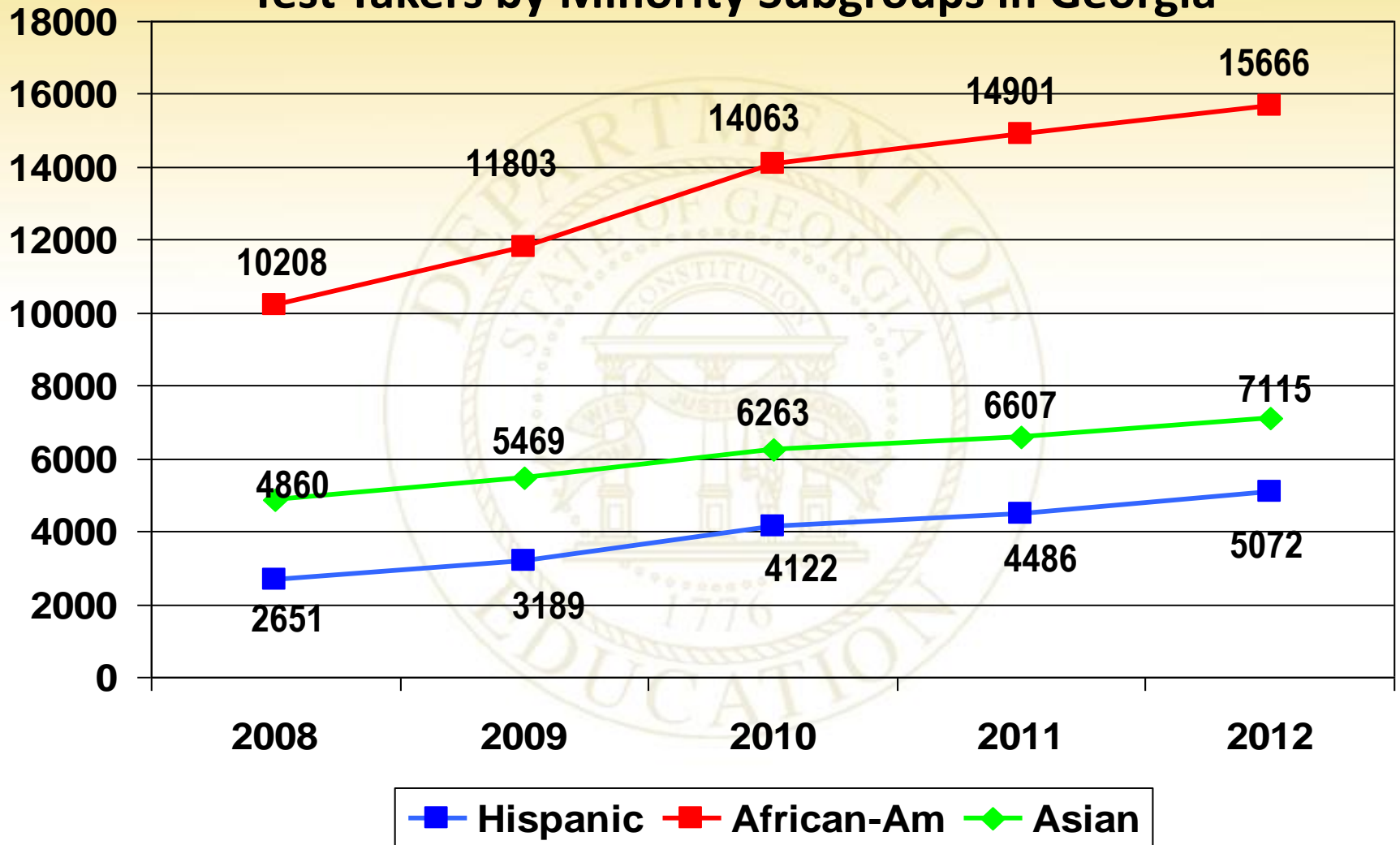
# The Advanced Placement Program in Georgia, 2012

- 85,691 students took AP courses
- 147,404 course enrollments
- 69,495 took AP exams
- 116,703 total number of AP exams
- Georgia's number of exams taken increased by 9.9% over 2011; national increase was 7%
- Number of AP exams in Georgia scored at 3 or higher has increased 55.2% since 2007



# AP is Growing Among Minorities\*

## Test Takers by Minority Subgroups in Georgia

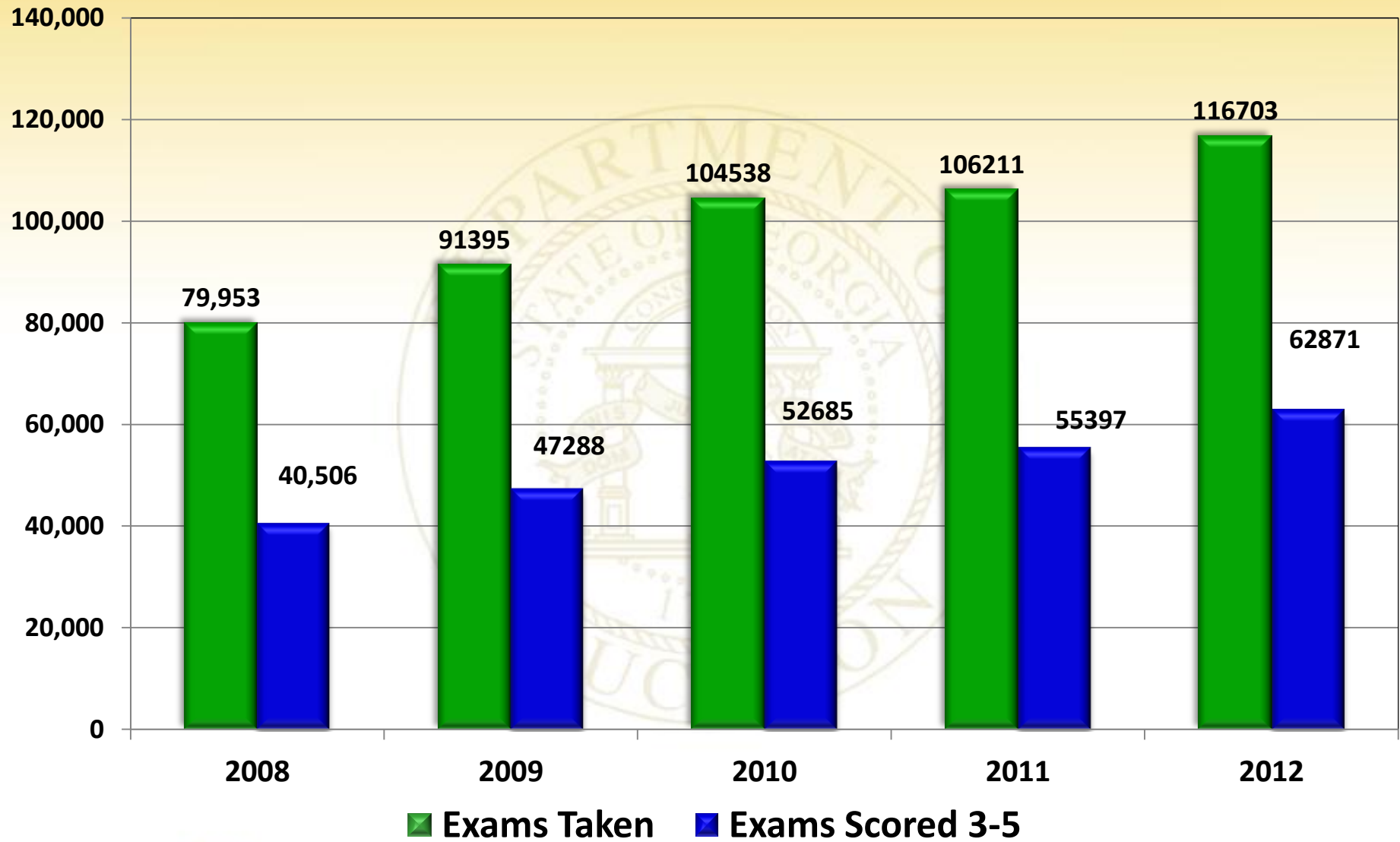


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\* public school data



# Number of GA AP Exams and Exams Scored 3, 4, or 5



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# **Can You Afford to Not Offer Your Students a Quality Advanced Placement Program?**



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# Recruiting and Training AP Teachers

- Effective AP Teachers are...
  - Internally driven to produce results
  - Goal oriented
  - Innovative
  - Use data effectively to improve instruction
  - Able to balance standards and autonomy
  - Committed to professional growth



# Attracting AP Teachers

- Open AP Opportunities to teachers new to your school
- Reference AP in Job Postings
- Showcase an Inviting Professional Atmosphere
  - School Profile Pamphlets
  - School Web Site
- Select very talented teachers to ‘shadow’ and work collaboratively with successful AP teachers who are near retirement



# Effective AP Teachers Provide

- Performance Criteria
- Guided Practice
- Detailed, Timely, Specific Feedback
- Quality, Compelling Assessments
- Compassion

Teachers who treat AP as a tool to energize the curriculum and an opportunity for all students to experience a rigorous course structure which will better prepare them for the challenges of college





# It is Essential to Have the Right Teacher in AP Classrooms.

While serving as a model of educational excellence and functioning as a catalyst that helps raise the bar for academic achievement in schools, the success of an AP program lies in the hands of teachers. Their energy and enthusiasm inspire students, and their knowledge and skills motivate their peers.



# Training AP Teachers

- Effective AP teachers attend an AP Summer Institute before launching their AP course.
- Effective AP teachers attend one day College Board workshops each year.
- Effective AP teachers use a syllabus they have submitted to the College Board for authorization.
- Effective AP teachers utilize their annual AP Instructional Report.
- Effective AP teachers utilize APCentral and the teacher communication tool.
- Effective AP teachers attend GaDOE Regional Content Workshops, each fall.



# **Teacher-Training Grants: Advanced Placement Summer Institutes Funded with Title II-A Funds\***

- **2006- 143 teachers trained\*      139 additional AP classes**
- **2007- 86 teachers trained      94 additional AP classes**
- **2008- 232 teachers trained      150 additional AP classes**
- **2009- 414 teachers trained      240 additional AP classes**
- **2010- 473 teachers trained      238 additional AP classes**
- **2011- 495 teachers trained      288 additional AP classes**
- **2012-427 teachers trained; 211 STEM classes; 248 additional AP classes**

\* 2006 included funding from another source



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# Recruiting AP Students

## Step One

The number one tool for recruitment of AP students is:

**AP Potential**



# AP Potential

- Identifies “diamond-in-the-rough” AP students
- Indicates AP courses for which they might be suited
- Promotes equity
  - Identifies candidates based on performance on PSAT
- Provides names of students for principals and counselors
  - to expand AP programs
  - to add courses
  - to increase enrollment in current AP courses





**AP Potential** is a research-driven, **free Web-based tool** that will help you **identify AP students**. This powerful tool will enable you to:

Identify students likely to succeed on AP Exams by

Improving access to AP and analyzing data and PSAT/NMSQT scores

Ensure that no student with the potential to succeed in AP is overlooked.

Help make determinations as to which AP courses to offer at your school

College Board research published in 1998 and 2006 shows **strong correlations between students' PSAT/NMSQT scores and AP Exam results**. These studies show that PSAT/NMSQT scores are strong predictors of students' AP Exam scores, and when used in conjunction with the more traditional signposts such as high school grades, grades in previous same-discipline course work, and the number of same-discipline courses a student has taken, can serve to provide reliable guidance in identifying additional students who may be ready for the rigor of AP.





# AP Potential™

A Tool for Finding Additional AP® Students



## Select Subjects

### AP Potential

- > **Select Subjects**
- > Select Pool
- > Student Roster

### About AP Potential

[SIGN OUT](#)

Select the subjects offered by your school, or those you are interested in offering.

[Print](#)

- |  |   |
|--|---|
| <input type="checkbox"/> <i>Select All Subjects</i>    |   |
| <input type="checkbox"/> Art History                   | <input type="checkbox"/> Government & Politics: Comparative     |
| <input checked="" type="checkbox"/> Biology            | <input checked="" type="checkbox"/> Government & Politics: U.S. |
| <input checked="" type="checkbox"/> Calculus AB        | <input checked="" type="checkbox"/> Macroeconomics              |
| <input checked="" type="checkbox"/> Calculus BC        | <input checked="" type="checkbox"/> Microeconomics              |
| <input checked="" type="checkbox"/> Chemistry          | <input checked="" type="checkbox"/> Music Theory                |
| <input checked="" type="checkbox"/> Computer Science A | <input checked="" type="checkbox"/> Physics B                   |
| <input type="checkbox"/> Computer Science AB           | <input type="checkbox"/> Physics C: Electricity & Magnetism     |
| <input checked="" type="checkbox"/> English Language   | <input type="checkbox"/> Physics C: Mechanics                   |
| <input checked="" type="checkbox"/> English Literature | <input checked="" type="checkbox"/> Psychology                  |
| <input checked="" type="checkbox"/> European History   | <input checked="" type="checkbox"/> U.S. History                |

[NEXT](#)

# AP Potential™

A Tool for Finding Additional AP® Students



## Select Pool

### AP Potential

- > [Select Subjects](#)
- > [Select Pool](#)
- > [Student Roster](#)

### About AP Potential

[SIGN OUT](#)

Choose the grade level(s) for the students you wish to find.

[Print](#)

See important [note](#) about 9th grade data.

All

9th

10th

11th

Define the pool of potential AP students that will appear on your roster.

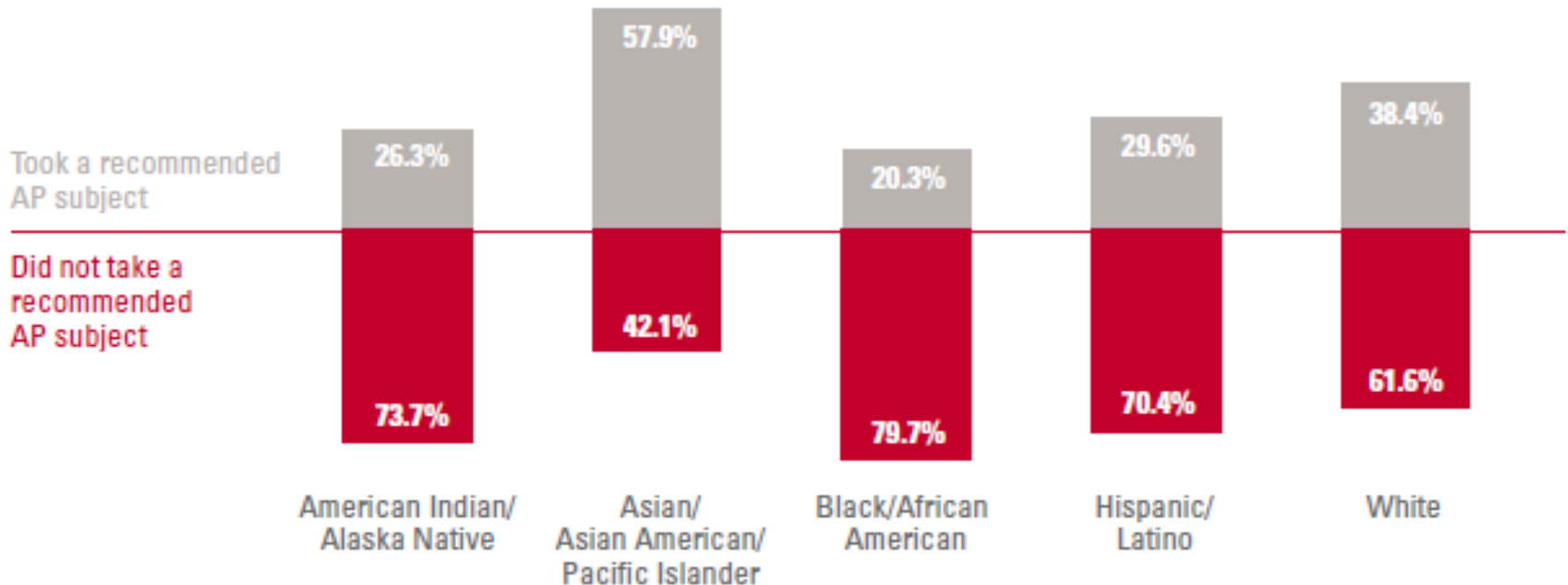
[Click for an explanation](#)

Define Pool	Subject	2004 Potential AP Students	2003 AP Exam Takers
62.8	Biology	30	15
51.2	Physics B	22	0
85.4	Microeconomics	2	0
72.8	Macroeconomics	8	69
90.4	Computer Science A	2	7
76.5	Music	22	1
49.9	Chemistry	22	0
58.2	Calculus BC	22	13
65	European History	67	22
38.2	Calculus AB	36	47
62.2	English Literature	67	121
66.5	English Language	33	103
82.7	U.S. Government & Politics	16	95
87.7	U.S. History	4	103
84.9	Psychology	33	38

[NEXT](#)

# National Data: AP Potential

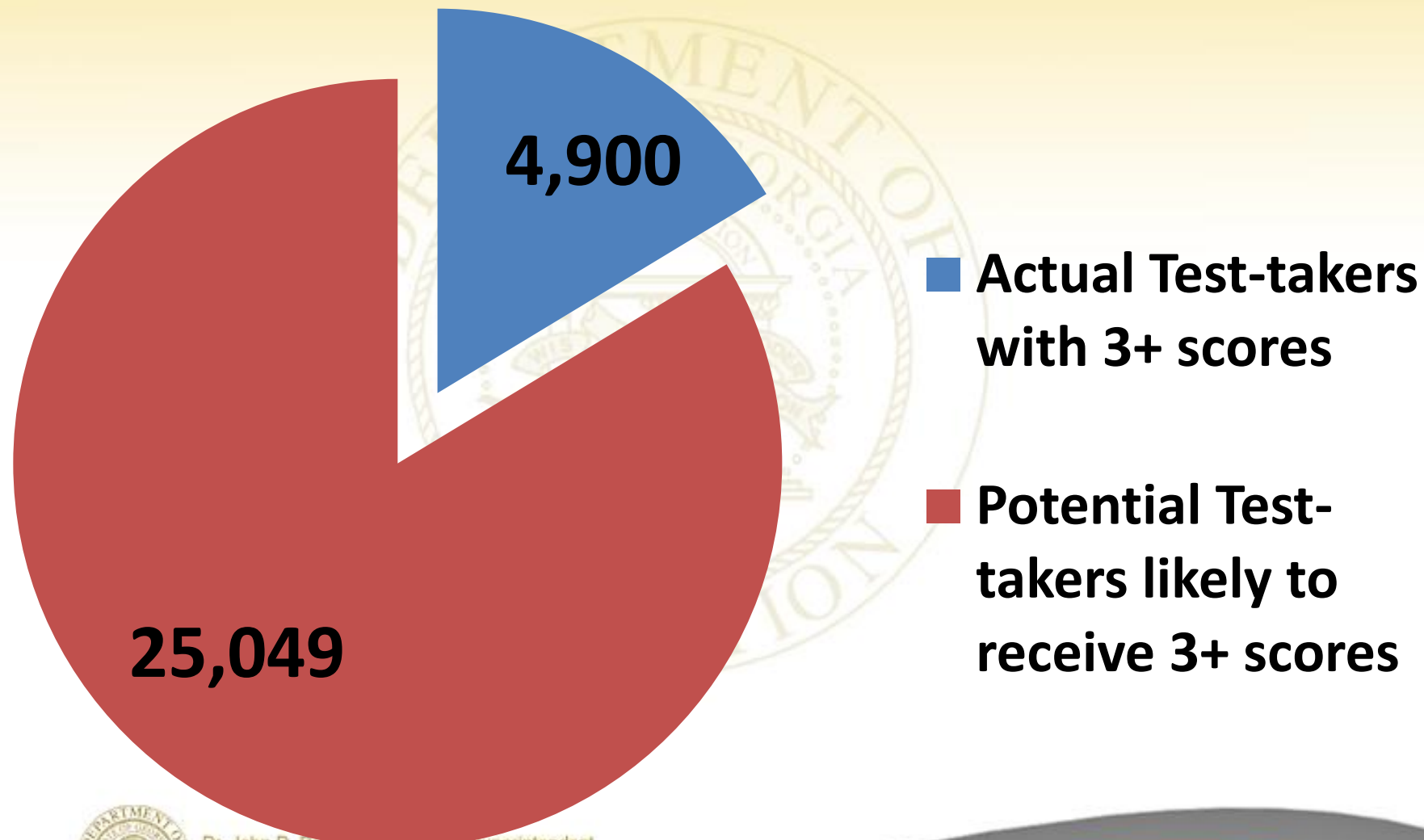
**Figure 6: Participation in recommended AP subjects by race/ethnicity of graduates with AP potential**



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# AP English Literature

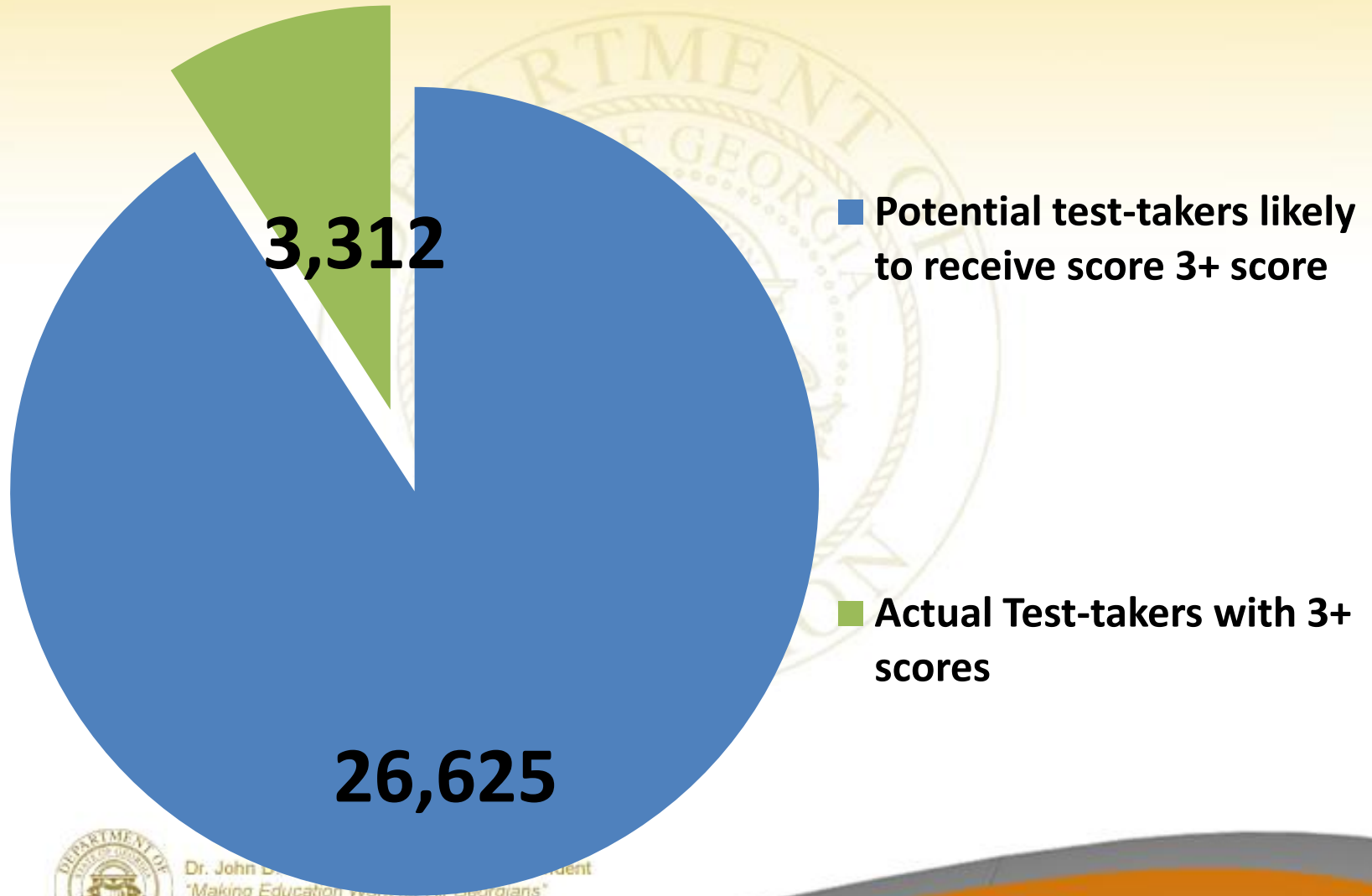
## Based on Georgia's 2012 PSAT Data Public Schools



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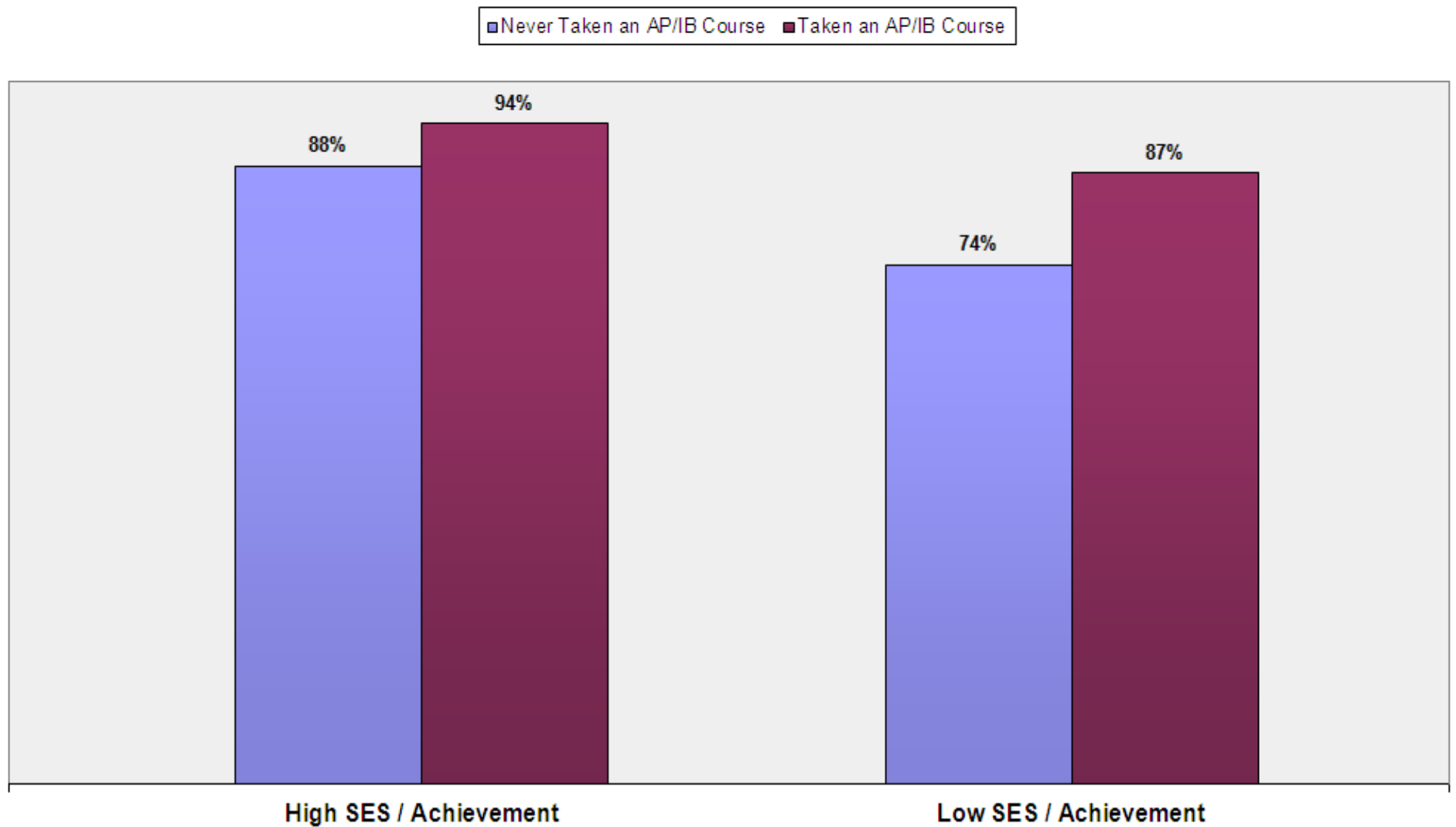


# AP CALCULUS AB BASED ON GEORGIA'S 2012 PSAT- PUBLIC SCHOOLS



Taking AP or IB courses in high school can help mitigate the effects of below average achievement and economic disadvantage on students' post-secondary success. Just by taking these high-level courses, low-income, low-achieving students improved their college persistence rates close to their high-income, high-achieving peers.

**Chart 1: College Freshmen Returning for their Sophomore Year  
In Percent**



Based on students enrolled in four-year colleges. Center for Public Education, 2012

# AP Potential

<http://www.appotential.collegeboard.com>

- Click on “About AP Potential”
- Click on “Demo”
- If you have your code, you can print reports for each grade level.



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# Recruiting Students

## Step Two

- A. Schedule an AP Night for parents.
  - Invite former AP students to speak on the benefits of a rigorous curriculum
  - Invite AP teachers to share the benefits of a rigorous course experience
- B. Invite former AP students speak to students.



# Recruiting Students

## Step Three

- Apply the lessons of Georgia's Gifted Education Reform
  - As you promote inclusion, there will be some who fear a “watered down” AP program
    - Do not lower standards
    - Increase the support systems for students and teachers

*Remember the power of an invitation to the banquet*





# Recruiting Students

## Step Four

- Select the right teachers for AP
- Select the AP courses right for your school

### Course Equivalents

- 1 semester of college

Calculus AB, Computer Science A, Environmental Science, Human Geography, Government and Politics (US and (Comparative), Macroeconomics, Microeconomics, Physics C: (electricity and magnetism), Physics C: (mechanics), Psychology, Statistics

- 1 year of college

Art History, biology, Calculus BC, Chemistry, Computer Science AB, English Language, English Literature, European History, Music theory, Physics B, Studio Art, US History, World History

- 3 years of college (5-6 semesters)

French Language, French Lit, German, Latin, Spanish Language, Spanish Lit



# Scheduling for and Paying for AP

- Use AP Potential to ensure that classes reach the size to 'pay for themselves'
- Consider local summer in-service for AP teachers
- Use the Gifted Service Model for Advanced Content...

teacher AP summer institute trained;  
teacher completes 10 hour course on  
needs of the gifted learner;

*Gifted students in class earn at 1.6586*



# AP and the 4X4

Two models being successfully used in GA

1. Semester A...partnered intro course  
Semester B...AP course

Courses must have different, state-approved course code.

2. Split 90 minute block into 2 forty-five minute segments taught by same teacher...each segment taught and graded independently

1st segment, partnered elective course

2<sup>nd</sup> segment, AP course

each segment earns .5 credit per semester



# Sustaining Quality AP

## Step One

- Require that students take the AP exam

Teachers whose students take the AP exam receive the AP Instructional Planning Report; it is a powerful resource for AP teachers and administrators serious about planning for improved student achievement



# The AP Instructional Planning Report

- Available online since July of 2010 for all teachers, building administrators and coordinators who have established an account
- Separate report for each subject; compares the performance of a school's students to the total population of students taking the exam
- Helps teacher target areas for increased attention and focus in the curriculum. Can help guide teachers in course planning and professional development
- Essential for improvement, AP course by AP course





# AP Instructional Planning Report

- Subject-specific report showing the performance of students on the multiple-choice and free-response sections and on specific topics within that AP Exam, compared to all students
- A powerful resource for AP teachers: helps teachers target areas for increased attention and focus in the curriculum. Can help guide teachers in course planning and professional development
- With the new online system, teachers now get their AP Instructional Planning Reports directly, and earlier in the summer so that they can make any curriculum adjustments in time for the new school year.





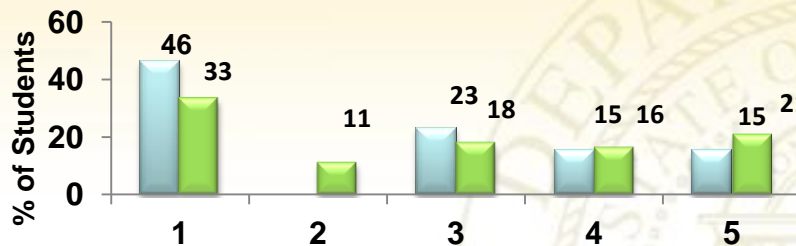
# AP Instructional Planning Report

## Calculus AB

■ Your Group Total Students: 26

■ Global Total Students: 238,262

### Overall Score Distributions



Overall Score Distributions

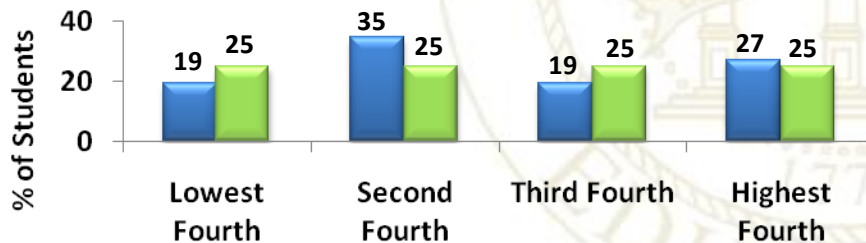
Number of Students in Your Group

■ % Students in Your Group

■ % Students Globally

	1	2	3	4	5
Number of Students in Your Group	12	0	6	4	4
% Students in Your Group	46.2	0	23.1	15.4	15.4
% Students Globally	33.3	11.3	18.1	16.4	20.9

### Multiple-Choice Section



Multiple-Choice Section

Number of Students in Your Group

■ % Students in Your Group

■ % Students Globally

	Lowest Fourth	Second Fourth	Third Fourth	Highest Fourth
Number of Students in Your Group	5	9	5	7
% Students in Your Group	19.2	34.6	19.2	26.9
% Students Globally	25.0	25.0	25.0	25.0

### Free-Response Section



Free-Response Section

Number of Students in Your Group

■ % Students in Your Group

■ % Students Globally

	Lowest Fourth	Second Fourth	Third Fourth	Highest Fourth
Number of Students in Your Group	6	10	5	5
% Students in Your Group	23.1	28.5	19.2	19.2
% Students Globally	25.0	25.0	25.0	25.0

# AP Instructional Planning Report

## Calculus AB

Performance on Multiple-Choice Section (Maximum Possible Score = 54)

				Number of Students in Your Group			
Content Area	Number of Questions	Global Mean	Group Mean	Lowest Fourth	Second Fourth	Third Fourth	Highest Fourth
Differential Calculus	29	11.3	11.0	5	10	5	6
Integral Calculus	16	6.6	5.8	8	7	6	5
Part A – No Calculator	28	10.6	9.2	11	4	5	6
Part B – With Graphing Calculator	17	7.3	7.6	5	6	8	7
Calculator Active items	6	3.1	2.9	6	11	4	5
Multiple – Choice Summary		21.4	20.1	5	9	5	7

Performance on Free-Response Section (Maximum Possible Score = 50)

				Number of Students in Your Group			
Question/Problem	Max Possible Score	Global Mean	Group Mean	Lowest Fourth	Second Fourth	Third Fourth	Highest Fourth
Modeling Rate – AB & BC	9	3.7	4.5	2	6	8	10
Model Numerically/Analytically – AB & BC	9	2.6	2.7	2	7	12	5
Model Graphically	9	2.2	1.9	4	4	16	2
Area and Volume – AB & BC	9	3.7	3.6	5	13	1	7
Graphical Analysis of G and G'	9	1.7	1.9	10	6	2	8
Diff. Eq/Tangent Line	9	3.1	2.4	10	6	5	5
Free-Response Summary		17.0	17.0	6	10	5	5

# Data Available for the AP Program (if students take the AP exam)

- # AP courses
- # students taking AP
- % students enrolled in AP classes
- Individual score reports
- School score reports
- AP course enrollments
- Historical trends
- Global results vs. school results
- Results returned to teachers



# Seeing Data by Class Section

- If your school has more than one class section or teacher for a particular AP subject, you must designate class sections on student answer sheets in order for your school to see a separate AP Instructional Planning Report and subject score roster for each class section:
  1. Assign each class section or teacher a different number.
  2. During the exam administration, fill in the oval corresponding to each student's class number in the "School Use Only" section on page 1 of the answer sheet. (This is different from the fee reduction option bubbles.)
  3. **Tell teachers which section numbers correspond to their particular sections.** They will need to indicate this when signing in to the Online Score Reports website for the first time.
- **This feature helps your school control who sees student scores when more than one teacher teaches an AP subject.**



# Accessing Online Score Reports

All authorized AP teachers, AP Coordinators, and principals need an Education Professional account to view reports.

- You should already have an Education Professional account if you have used AP Exam Ordering or AP Potential™ sites, or if you have used the AP Course Audit website since March 2010.

In addition to an Education Professional account (which is required for everyone), some users will also need an access code.

- Anyone with an authorized role in the Course Audit will not need an access code.
- AP Coordinators and principals who do not already have an AP Course Audit account will need an access code.

For more details on access, visit <http://scores.collegeboard.com>





# Sustaining Quality AP

## Step Two

- Provide monetary support for AP classes
  - purchase college texts for students
  - provide AP teachers with a budget to buy ancillary readers, if applicable
  - provide AP teachers with a budget to buy lab items, if applicable
  - provide AP teachers with a budget to purchase AP support materials from the College Board
- Apply for GaDOE AP Teacher Training Grants
- Apply for federal grants that may be offered





# Sustaining Quality AP

## Step Three

- Plan and budget for on-going professional development for AP and pre-AP teachers
  - AP workshops
  - AP Summer Institutes
  - Full-day teaching and learning conferences
  - Two-day specialty conferences
  - Special topics seminars
  - Pre-AP conferences and Summer Institutes



# AP and Title II-A

- Title II-A funds are designated for teacher development. Title II-A funds are an excellent source of funding for the on-going professional learning needed to guarantee quality AP teachers and quality AP outcomes for your students. Access your district's Title II-A funds to support your AP initiative in your school.



# AP and Title I

- Title I schools may use Title I funds to purchase AP materials for students. Care must be taken to avoid supplanting issues. Check with your local Title I administrator before designating use of Title I funds.



# Sustaining AP

## Step Four

- Provide time and support for vertical teaming within the high school to allow teachers within each discipline to align curricula and plan across grade levels
- Use the College Board Standards for College Success in all core classes
- Encourage your AP teachers to become AP Readers
- Train all teachers in Pre-AP Strategies



# Sustaining AP

## Step Five

- Link your AP teachers, your pre-AP teachers and all administrators with **AP Central**  
*the official AP web site contains:*

tips, tools and resources for teachers;

up-to-date info about exams

electronic library of publications

AP community discussion groups

<http://apcentral.collegeboard.com>





# AP Team

- Do you have an AP leadership team in your school?
- Do your AP teachers in each curriculum area orient all other teachers in their respective departments to the demands of AP?





# Sustaining AP

## Step Six

Helping students succeed in AP by  
Creating Student Support Systems

- 1) Provide summer school enrichment opportunities to increase readiness for AP courses
- 2) Assign staff before and after school to make tutoring for AP courses available
- 3) Provide mentoring for first-time AP students
- 4) Consider offering weighted GPA quality points for AP students who complete the course and take the AP exam



# What Can AP Do For Your School?

Remember:

Students in AP courses prepare for success in college by taking these college-level courses while still in high school

Students who take AP courses and the AP exam improve their chances of college admission

Students who take AP courses much more likely to be college and work ready when they graduate from high school



# Benefits, con't

- AP courses improve the quality and guarantee rigor in your curriculum
- AP courses keep students motivated and challenged
- AP courses give teachers the opportunity for advanced study in their disciplines
- AP courses provide teachers and administrators with nationally normed feedback
- AP courses keep great students in their high school classrooms..no loss of FTE due to enrollment elsewhere



# Benefits, con't

- An AP program demonstrates a school's commitment to challenging academics
- An AP program demonstrates achievement of desired outcomes to community and state
- An AP program leads to an upgrade of curriculum in the years leading up to AP
- AP programs assist in your CCRPI score



# Remember, No One Fails an AP Exam

Except school leaders who choose not to take advantage of AP as a means of guaranteeing rigor and results for their students.



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# GEORGIA: RECOGNIZING AP PROGRAMS



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# AP DAY FEBRUARY 20, 2013

Melissa H. Williams, Ph.D, Principal, Woodland High School (Bartow County)  
Ms. Heather Candela, AP Coordinator, Woodland High School (Bartow County)

**Maximum Print Area  
13.75 x 15 inches**

**Shown on a  
standard Large  
T shirt**



# Becky Chambers

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# AP Reports Online

- Available July 2013- At educators' website
- **AP Instructional Planning Report:**  
Subject-specific report showing the performance of students on the multiple-choice and free-response sections and on specific topics within that AP Exam, compared to all students
- **Subject Score Roster:**  
Roster for each AP subject listing all students and their AP scores.



- **School or District Score Roster:**

Roster showing all AP students who tested during a specific exam year, and their AP scores. This report is customizable to display these students' scores from previous years

- **Student Datafile:**

A [downloadable .csv file](#) containing student score report data for each AP student who tested this year. This information can be uploaded to other systems for internal analysis and planning.





# <http://professionals.collegeboard.com/testing/ap/scores/online-score-reporting>

- **Current Year Score Summary:**

Report listing the total numbers of each AP score (1 to 5) for each AP subject offered at a school.

- **Five-Year School Score Summary:**

Report containing five years of data at the school, state and global levels, and subject-specific summaries of total exams, scores and mean scores





# VERY IMPORTANT INFO

- Complete the AP participation material
  - Received in September

**To order AP Exams, your principal and AP Coordinator must complete these materials no later than November 15.** If you have not received AP participation materials by October, [contact AP Services](#).

- Participate in the AP Course audit  
Each AP teacher must submit copy of course syllabus  
School administrator must submit AP Course audit form

