Data-Based Decision Making: The Road to AP Equity

Kelcey Edwards & Odette Duggan

AP Annual Conference 2012

July 20, 2012

CollegeBoard

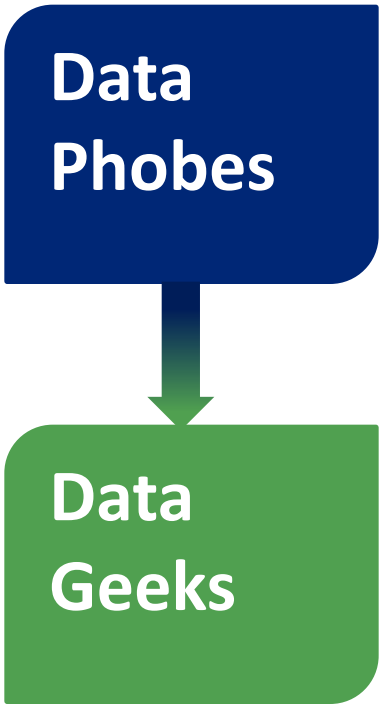
AP

Audience?

Access this presentation online at
http://professionals.collegeboard.com/data-reports-research/cb/presentations

- AP Coordinators
- Principals
- Teachers
- Counselors
- Researchers
- Equity & Access Colloquium attendees

How comfortable are you with data?



Allergic
to all things numeric

Afraid
to utilize information

Abandon
the challenge

Excited
by all things numeric

Empowered
to harness the potential

Embrace
the ~~challenge~~ opportunity

Desired Outcomes

- Answers vs Tools
  - Answers depend on context
- Define and measure equity
  - How you think about equity
  - How you think about using data to evaluate equity
- Evaluate data
  - What is needed
  - How to find it
  - How to analyze it

Equity Framework – AP and R&D

- Equity as a philosophy
  - A value held by the community
  - A guiding principle in decision making
  - A state of mind
- Equity as a statistic
  - A measurement
  - A mathematical comparison
  - A means for developing strategic interventions
  - A tool for evaluating progress

The AP Perspective

Defining ‘Equity’

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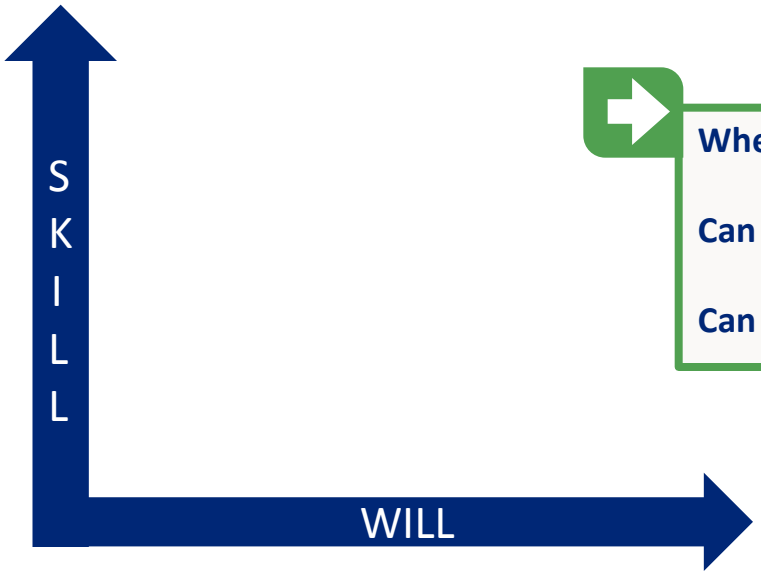
Equity and Access Policy

http://professionals.collegeboard.com/k-12/assessment/ap/equity

- We strongly encourage educators to make equitable access a guiding principle for their AP programs by giving **all willing and academically prepared** students the opportunity to participate in AP.



Where is the threshold for success?

Can motivation compensate for lack of preparation?

Can low motivation negate high skill?

Equity and Access Policy

http://professionals.collegeboard.com/k-12/assessment/ap/equity

- We encourage educators to:
  - **Eliminate barriers** that restrict access to AP for students from ethnic, racial and socioeconomic groups that have been traditionally underserved.
  - Make every effort to ensure their AP classes **reflect the diversity** of their student population.
  - Provide all students with access to academically challenging course work **before** they enroll in AP classes.

Equity and Access Policy

http://professionals.collegeboard.com/k-12/assessment/ap/equity

Only through a commitment to equitable preparation and access can true equity and excellence be achieved.

Clarifying Terms

- What does **equity in education** mean?
  - ***All*** students receive the support they need to reach and exceed a common standard.

- What do we mean by **access**?
  - An institution's ability to provide ***all*** students with academically challenging course work

Equity and Access Initiatives

sponsored by The College Board

- National AP Equity Colloquium
- AP Fellows
- AP Spotlight on Success Stories
- Organizational Strategies for Maximizing Equity & Access in K-12 Schools and A Self Assessment for Maximizing Equity & Access in K-12 Schools

(*continued on next page*)

Equity and Access Initiatives

sponsored by The College Board

- Diversity Conferences:
  - Dream Deferred
  - Preparate
  - Native American Student Achievement Initiative
- The College Keys Compact
  - Call to action to member-school districts, colleges and universities, state education agencies, and nonprofit organizations. We're determined to make college access and success a reality for all students, including those from low-income backgrounds.
- National Office for School Counselor Advocacy (NOSCA)
  - Promoting the value of school counselors as leaders in advancing school reform and student achievement.

The R&D Perspective

Defining 'Equity'

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Curiouser and curiouser!

Findings from the 2010 AP Participation Survey

- The majority of public schools (60%) were not using data to identify inequities.
  - 6% indicated that they use data to evaluate inequities AND their school had achieved equity in participation and performance
- Are public schools developing and implementing strategies to address inequitable AP participation or performance?
  - Good → ~20% claimed to have achieved equity
  - Promising → ~50% were taking steps to address
  - Troubling → ~30% were not planning to address

Curiouser and curiouser!

Findings from the 2010 AP Participation Survey

- The vast majority of schools indicating that they had or were in the process of developing and implementing strategies to address equity gaps **did** compare AP and school enrollment data.
- The vast majority of schools indicating that they had achieved equity in both participation and performance did **not** compare AP and school enrollment data to identify inequities.
  - How did they know they'd achieved equity?!?!

Curiouser and curiouser!

Findings from the 2010 AP Participation Survey

- If you don't know what you're working toward…
  - How will you know what interventions to focus on?
  - How will you know if interventions are effective?
  - How will you know if you've achieved your goal(s)?

Key Concepts

- AP student vs AP examinee
- Cohort vs Admin(istration)
- Participation (Access) vs Performance (Success)
- APRN = AP Report to the Nation
- WICHE = Western Interstate Commission for Higher Education

Key Concepts

- Expanding the focus beyond race/ethnicity
  - Low-income, Gender, English Language Learners, etc.
  - We would love to!
    - Data limitations restrict state and national analyses
- Can you apply these concepts and approaches within your schools to different populations of interest?

AP Report to the Nation

http://apreport.collegeboard.org/

- Cohort
  - Most recent graduating class (retrospective snapshot)
  - AP experiences across past four test administrations
- Public
  - Race/ethnicity only available for public schools (WICHE)
- Metrics
  - Proportion of graduates that receive both preparation for and access to a successful AP experience
    - Taking an AP exam at any point during high school
    - Scoring 3 or higher on an AP exam at any point during high school
- State and National Perspective
  - 2-year lag in district and school-level enrollment (NCES)

AP Report to the Nation

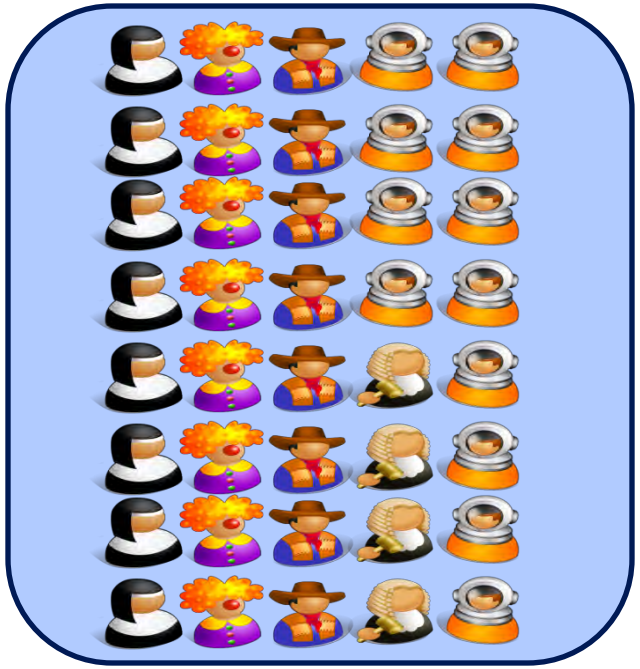
True equity is not achieved until the demographics both of AP classrooms and of the successful AP student population mirror the demographics of the state and nation.

- Make every effort to ensure AP classes, examinees, and successful examinees **reflect the diversity** of the student population.

APRN Equity – Comparing Groups

Successful AP Group

Graduating Class



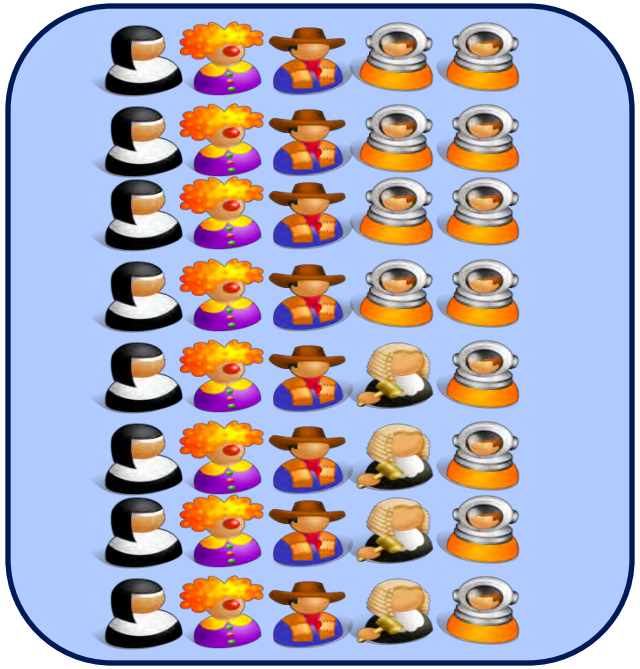
★Scored 3 or higher on an exam during high school

APRN Equity – Achieved

Successful AP Group

20% of those who scored 3 or higher on an AP exam were nuns

Graduating Class



20% of graduates were nuns

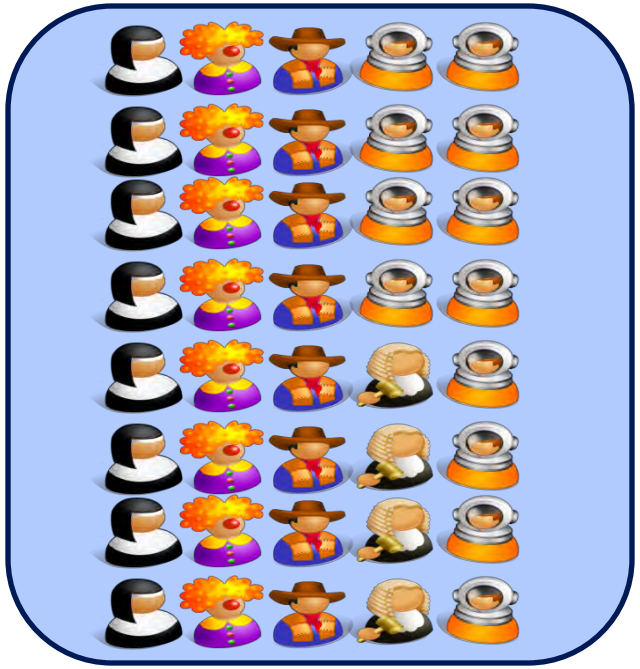
APRN Equity – Achieved

(Over-Representation)

Successful AP Group

20% of those who scored 3 or higher on an AP exam were judges

Graduating Class



10% of graduates were judges

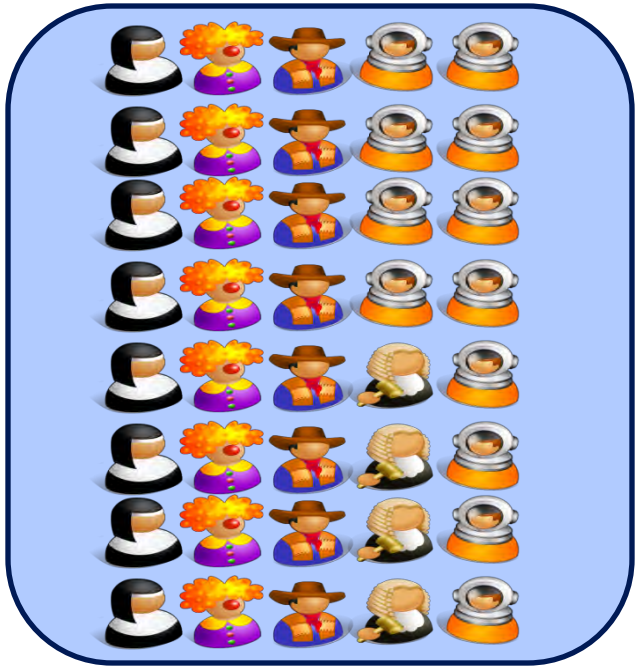
APRN Equity – Not Achieved

(Under-Representation)

Successful AP Group

20% of those who scored 3 or higher on an AP exam were astronauts

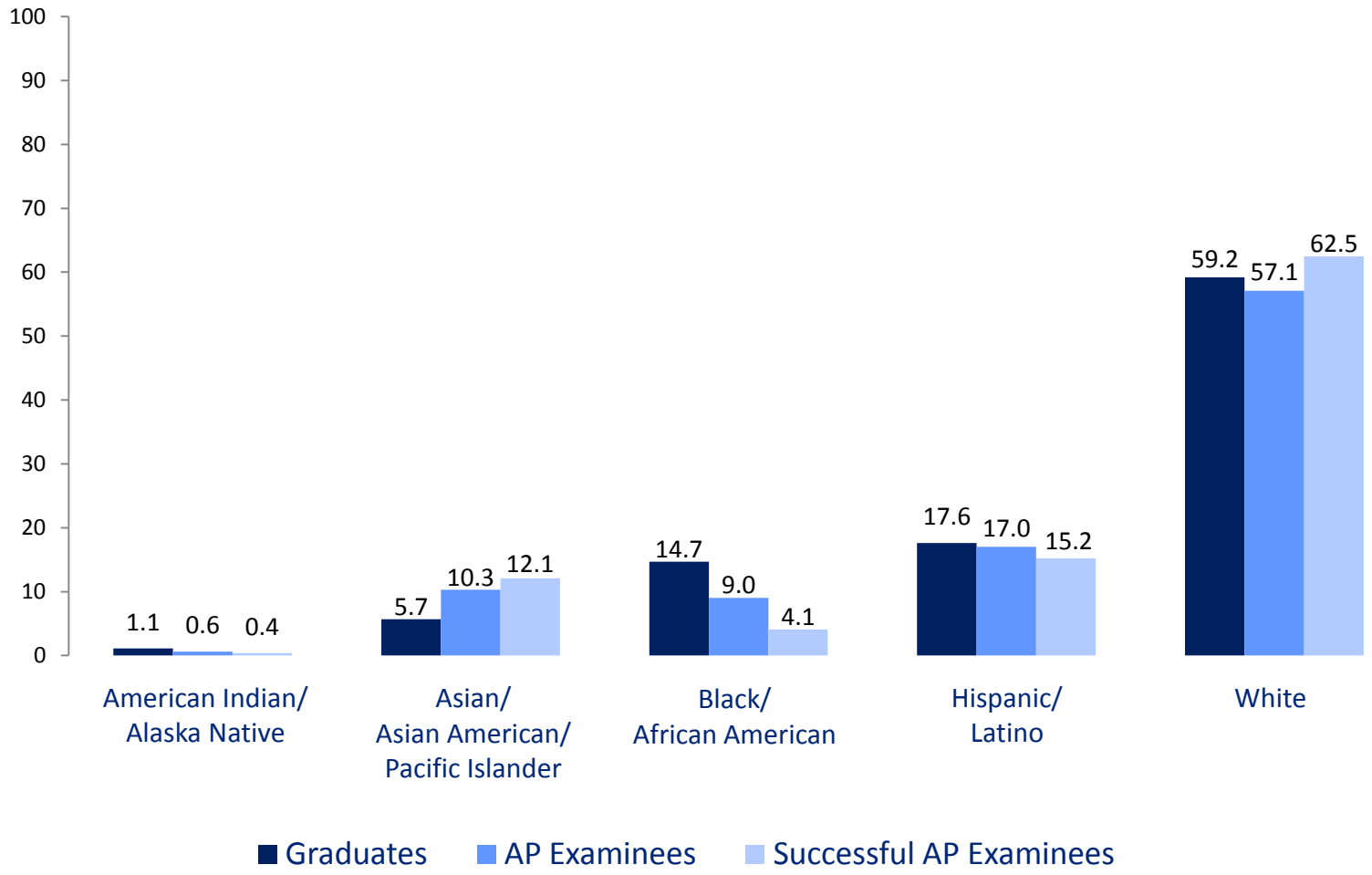
Graduating Class



30% of graduates were astronauts

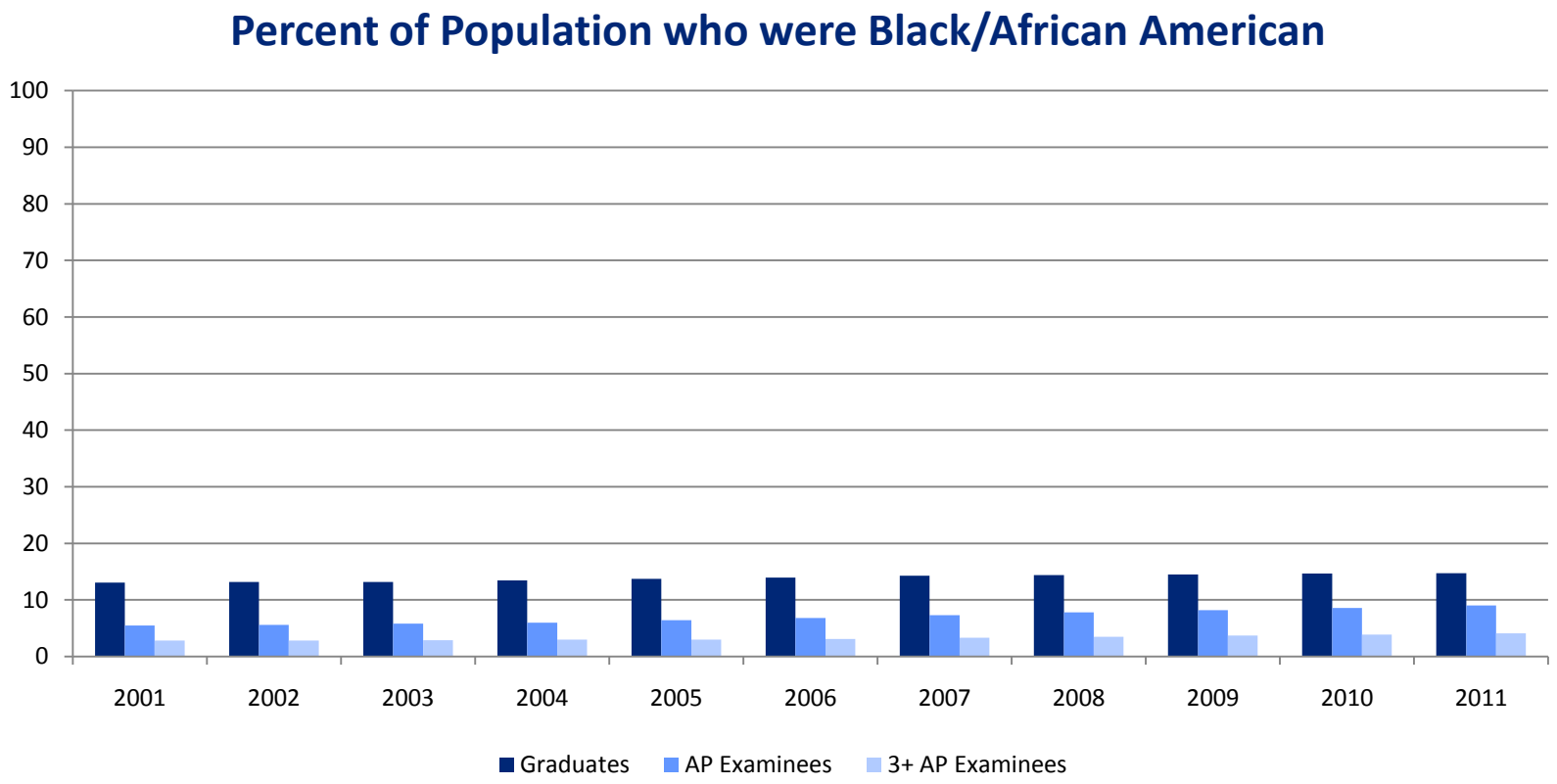
APRN Demographics – Class of 2011

US Public Schools



APRN – Demographic Trends

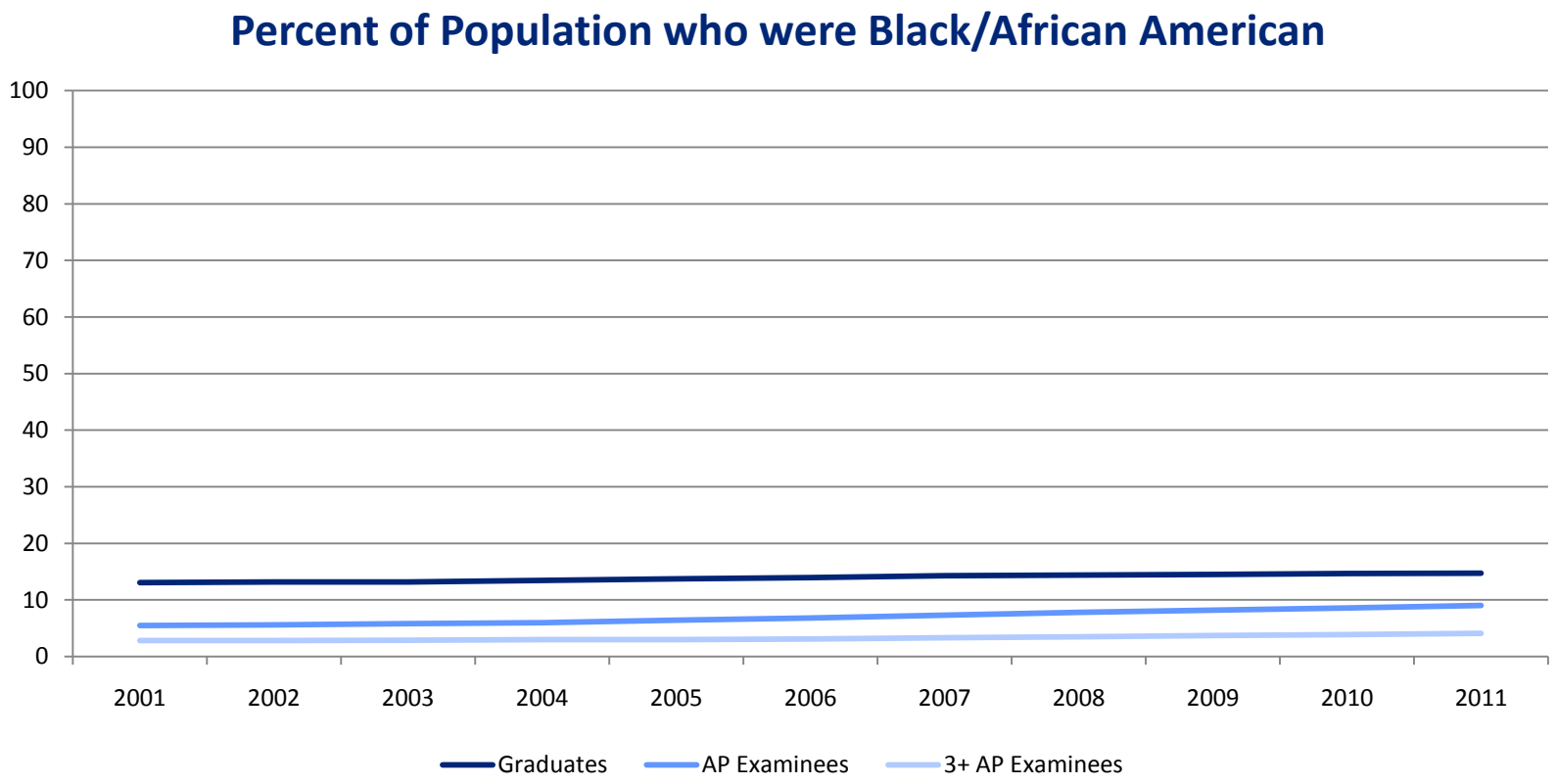
US Public Schools – 2001-2011 Graduating Cohorts



- Persistent participation and performance gaps

APRN – Demographic Trends

US Public Schools – 2001-2011 Graduating Cohorts



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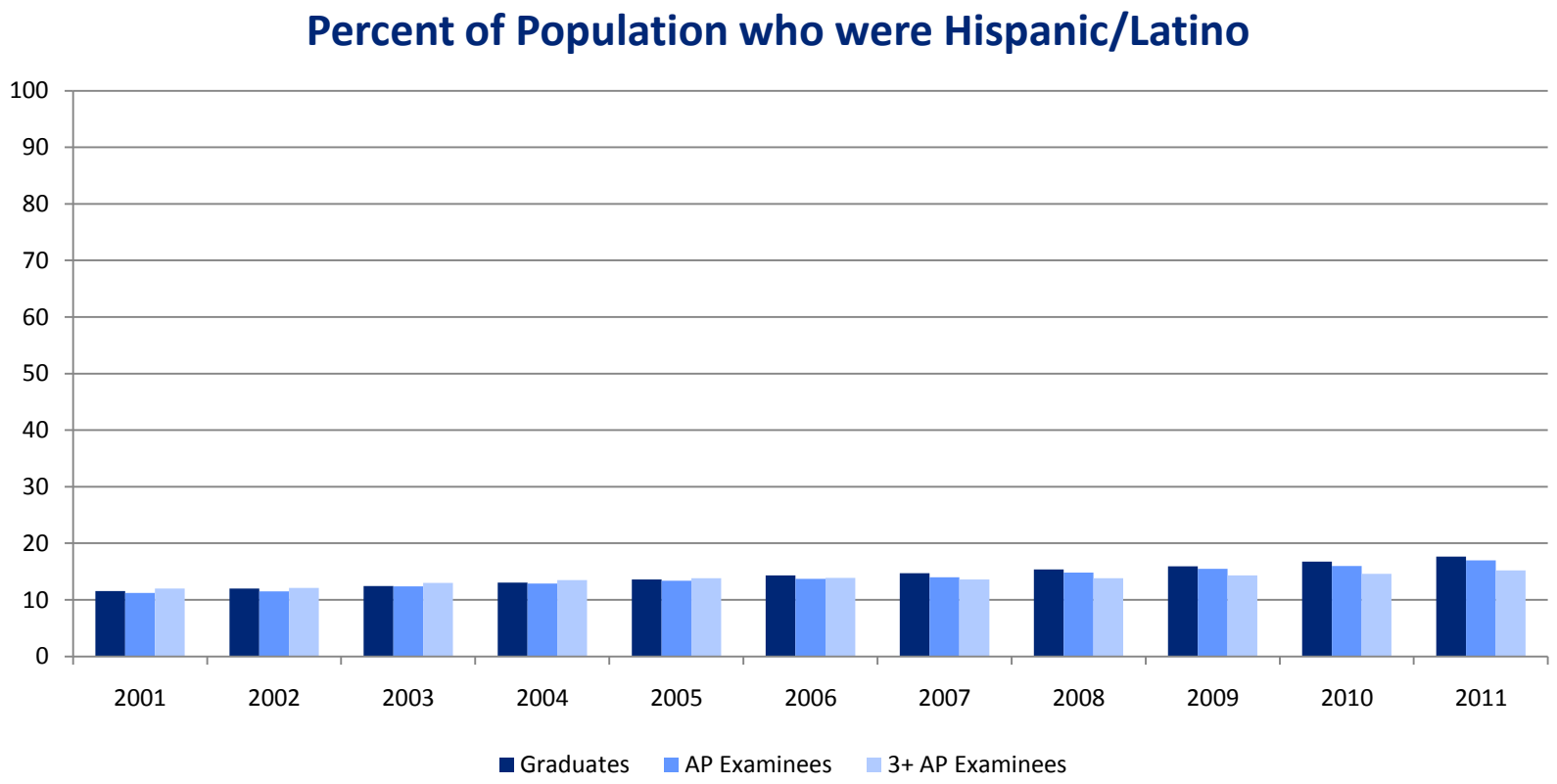
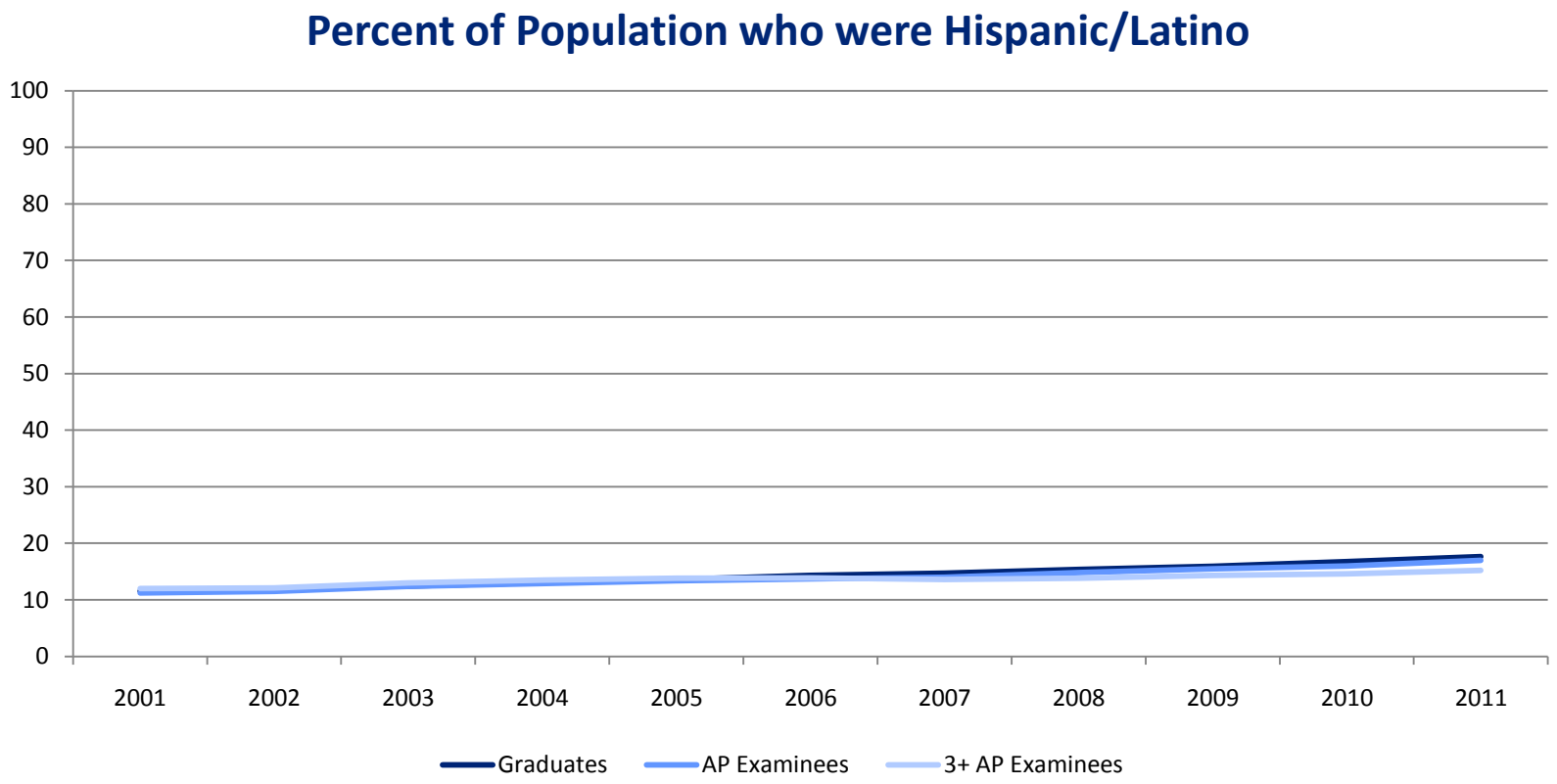


- Small, emerging participation and performance gaps

APRN – Demographic Trends

US Public Schools – 2001-2011 Graduating Cohorts



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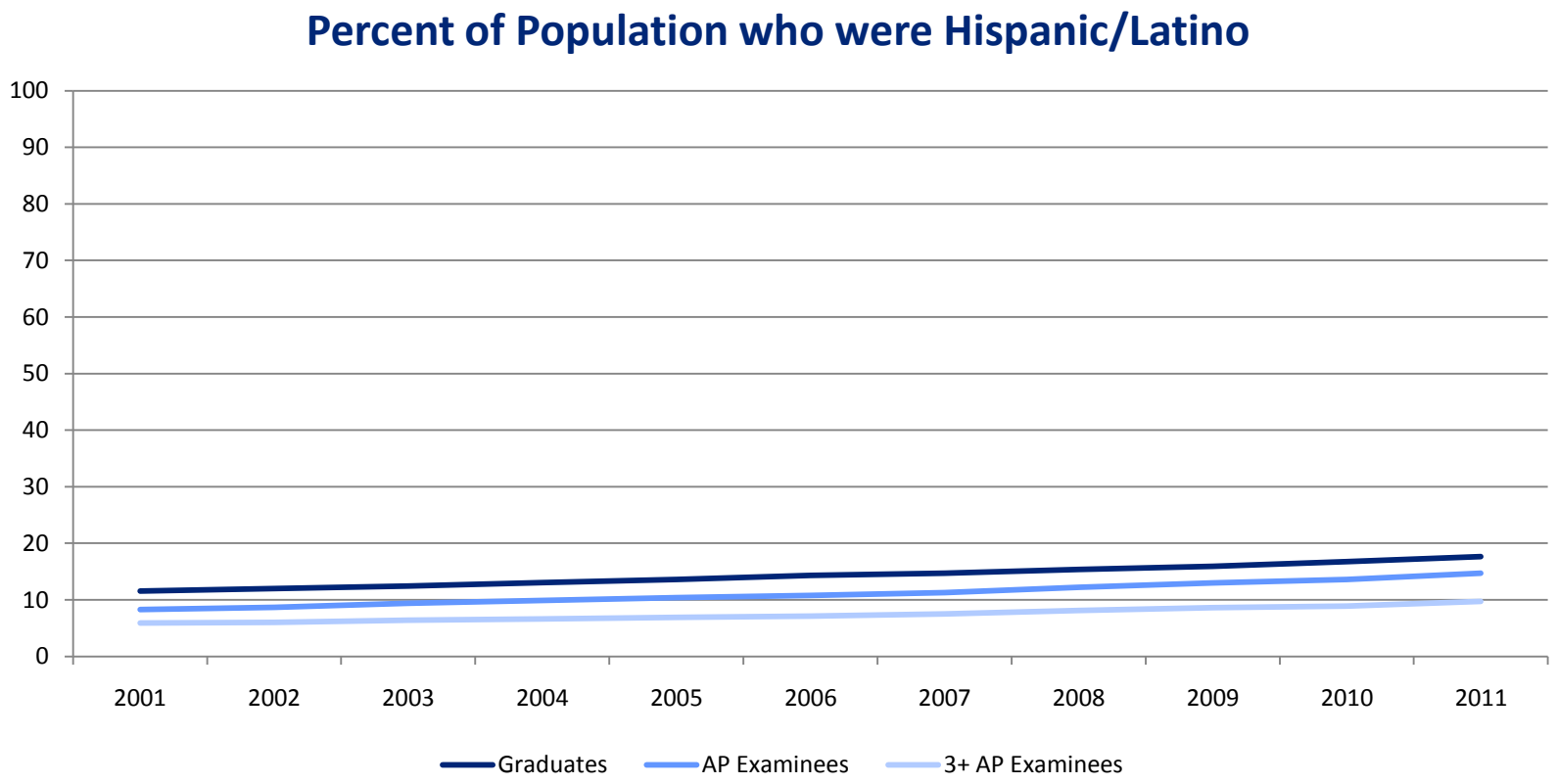
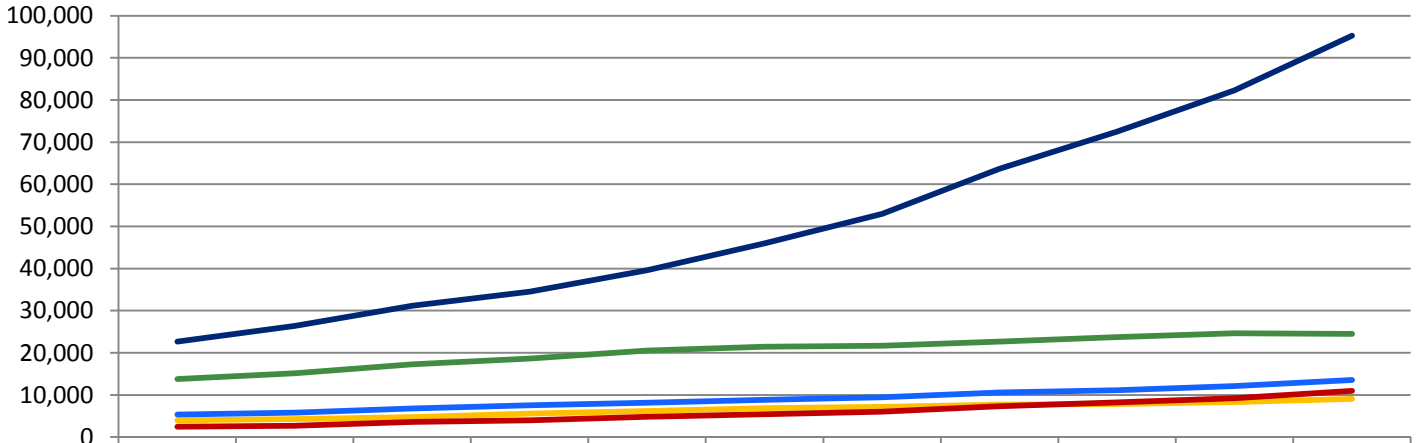


- After removing Spanish Language…..

APRN – Demographic Trends

Significant increase in number NOT taking AP Spanish Language

Hispanic AP Examinees: 2001-2011 US Public School Cohorts



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Spanish Language Only	13,812	15,179	17,266	18,632	20,547	21,471	21,693	22,676	23,756	24,659	24,499
Gateway	3,977	4,306	4,732	5,579	6,224	6,851	7,180	7,724	7,886	8,301	9,092
Concurrent	5,330	5,798	6,826	7,531	8,166	8,882	9,429	10,562	11,142	12,087	13,550
Anti-Gateway	2,437	2,686	3,573	3,996	4,857	5,392	6,037	7,329	8,247	9,258	10,986
No Spanish Language	22,687	26,395	31,163	34,531	39,594	45,981	52,961	63,684	72,488	82,275	95,280

Definitions:

Spanish Language Only - Student's only AP exam was AP Spanish Language

Gateway - Student took AP Spanish as first AP exam, followed by other exams in subsequent administrations

Concurrent - Student took AP Spanish in addition to one or more exams in first or only administration

Anti-Gateway - Student took other exam as first AP exam, followed by Spanish Language (with or without other exams)

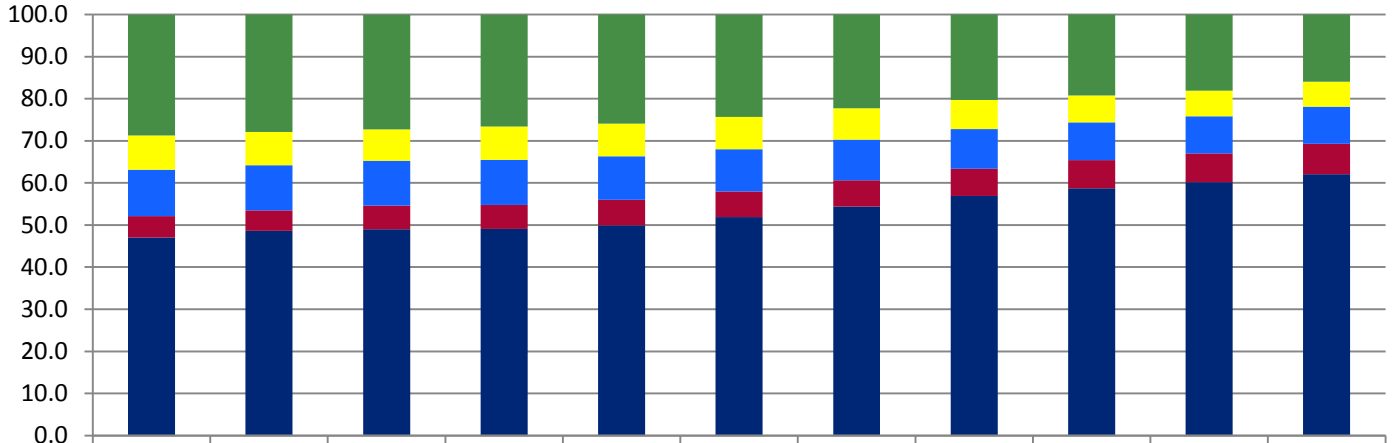
No Spanish Language - Student never took AP Spanish language

*The 2011 Public Schools list was used for all years.

APRN – Demographic Trends

Significant decrease in percentage taking AP Spanish Language

Hispanic AP Examinees: 2001-2011 US Public School Cohorts



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Spanish Language Only	28.6	27.9	27.2	26.5	25.9	24.2	22.3	20.3	19.2	18.1	16.0
Gateway	8.2	7.9	7.4	7.9	7.8	7.7	7.4	6.9	6.4	6.1	5.9
Concurrent	11.0	10.7	10.7	10.7	10.3	10.0	9.7	9.4	9.0	8.8	8.8
Anti-Gateway	5.1	4.9	5.6	5.7	6.1	6.1	6.2	6.5	6.7	6.8	7.2
No Spanish Language	47.0	48.6	49.0	49.1	49.9	51.9	54.4	56.9	58.7	60.2	62.1

Definitions:

Spanish Language Only - Student's only AP exam was AP Spanish Language

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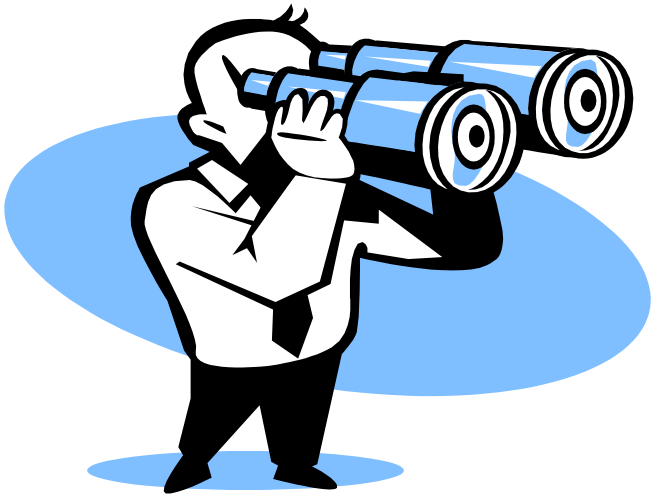
Can we close the equity gaps?

APRN

retroactive snapshot

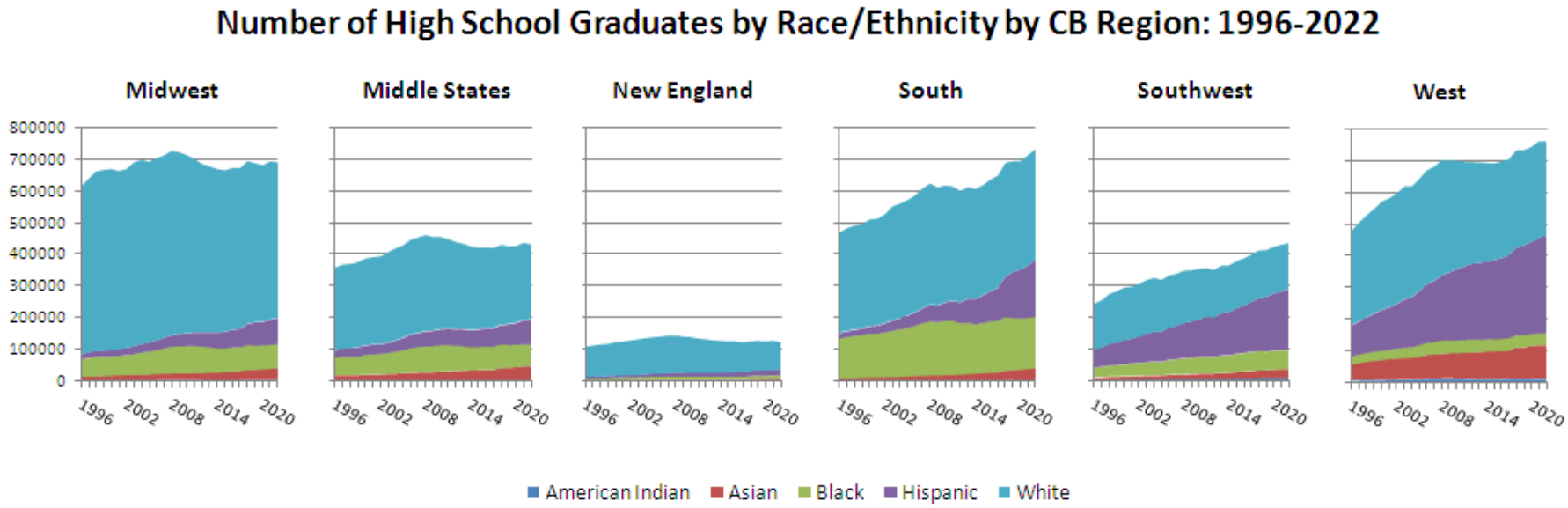
WICHE

proactive perspective



The Demographic Wave

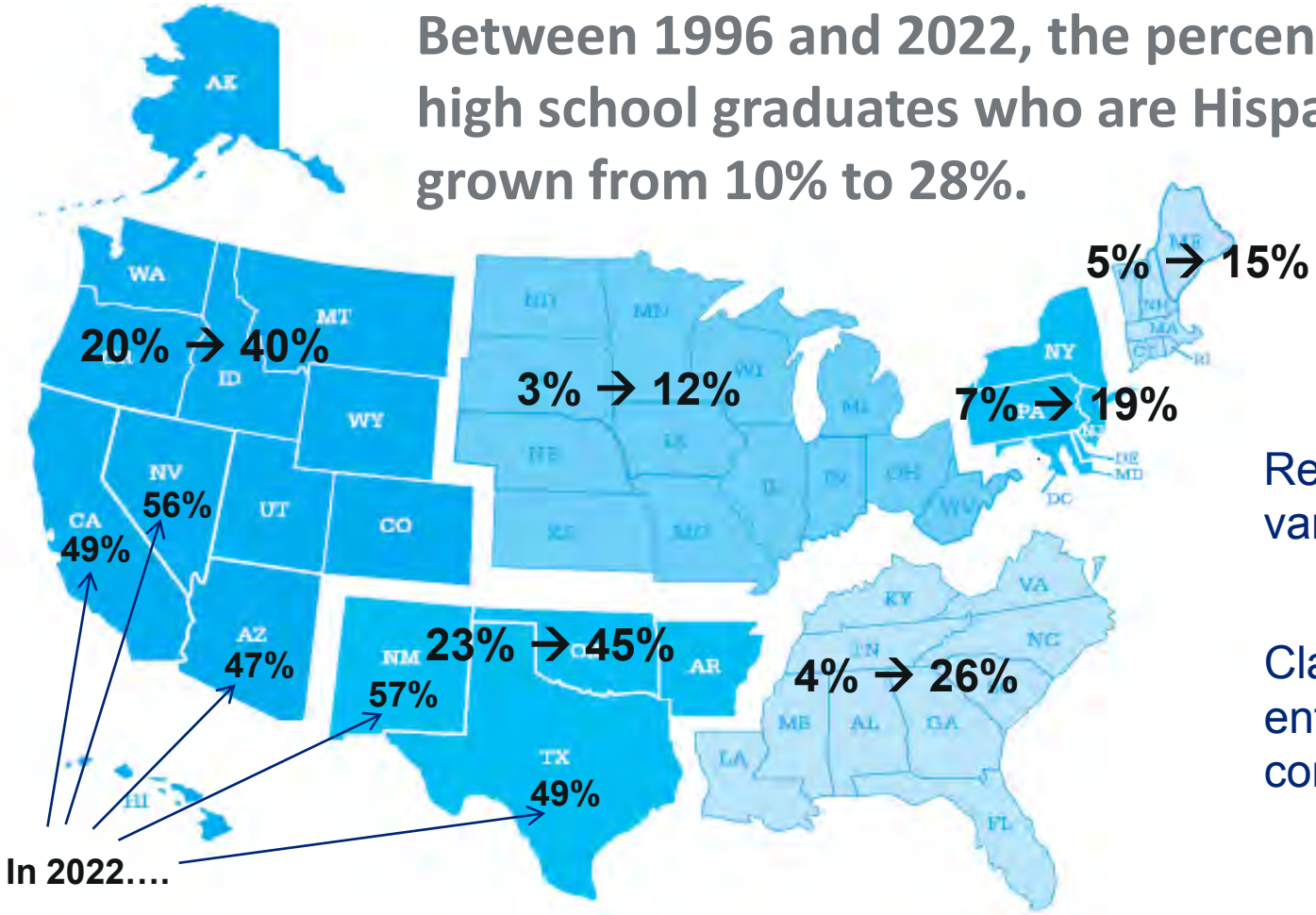
http://www.wiche.edu/knocking



- Rapid expansion and diversification of graduates
  - Source: Western Interstate Commission for Higher Education (WICHE), *Knocking at the College Door*, March 2008

The Demographic Wave

Between 1996 and 2022, the percent of US public high school graduates who are Hispanic will have grown from 10% to 28%.

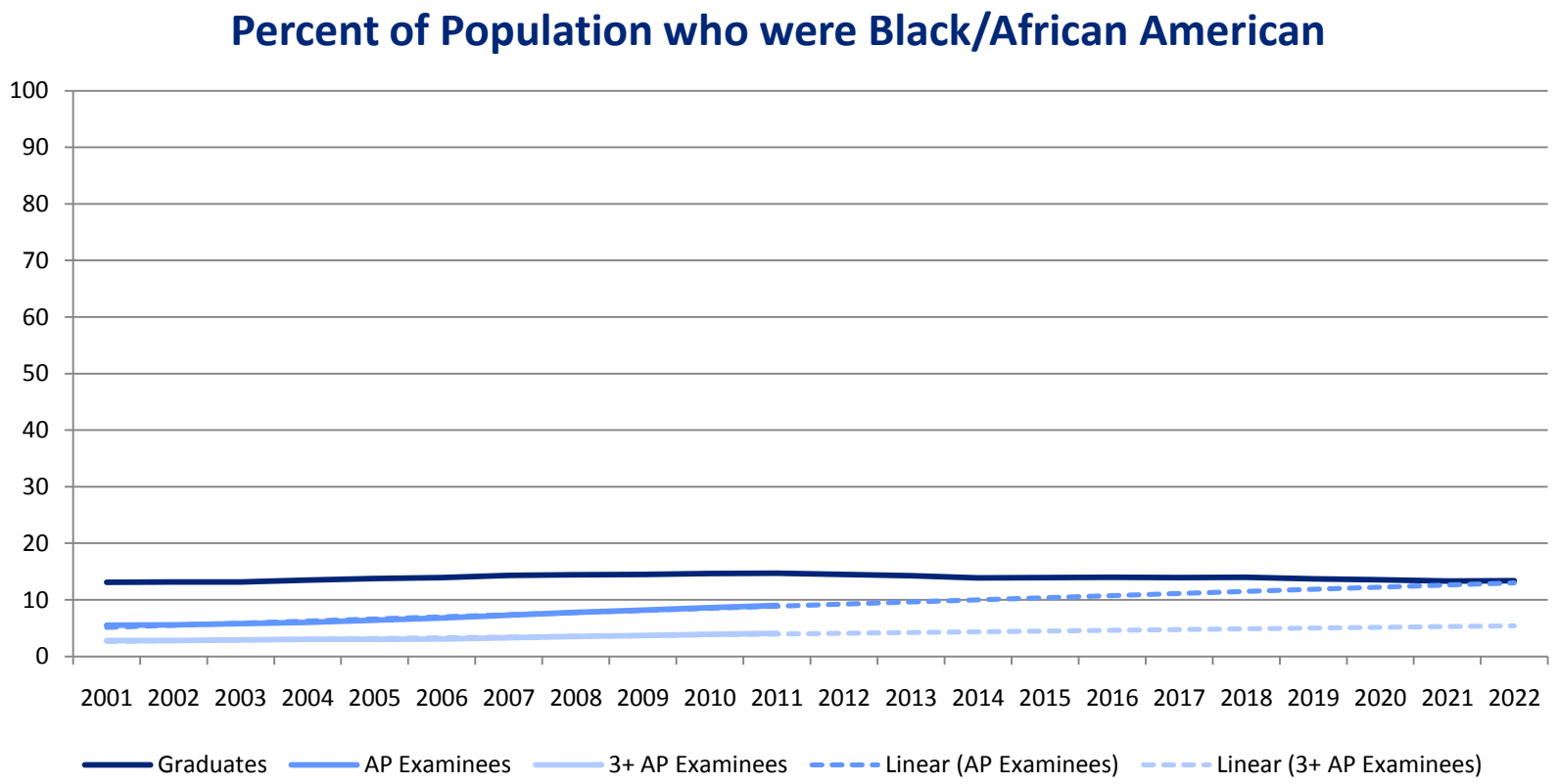


Regional and state variation in growth

Class of 2022 will enter 3rd grade this coming fall

APRN –Demographic Trends

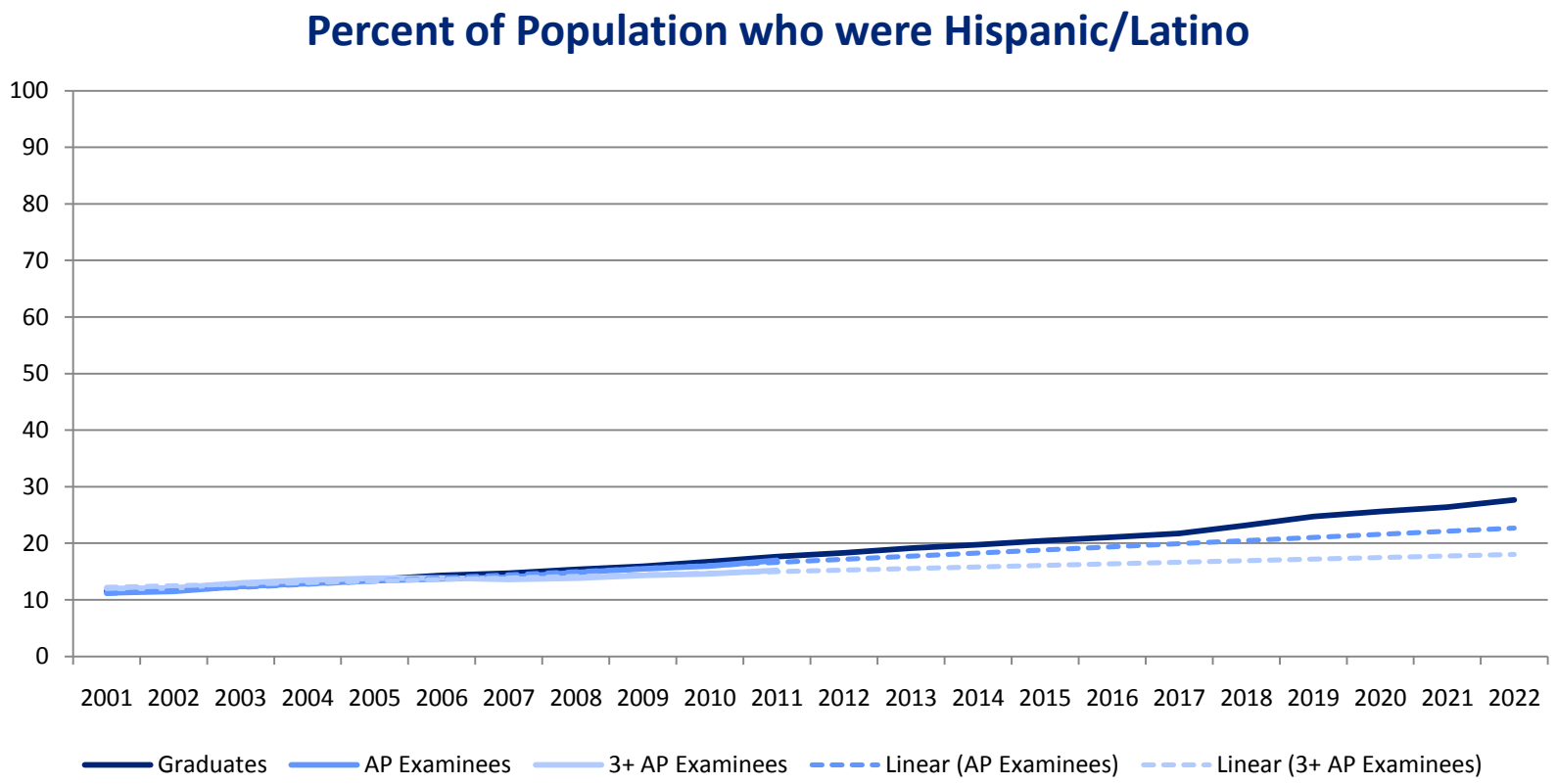
US Public Schools – 2001-2022 Graduating Cohorts



- What will it take to achieve equity by 2022?

APRN –Demographic Trends

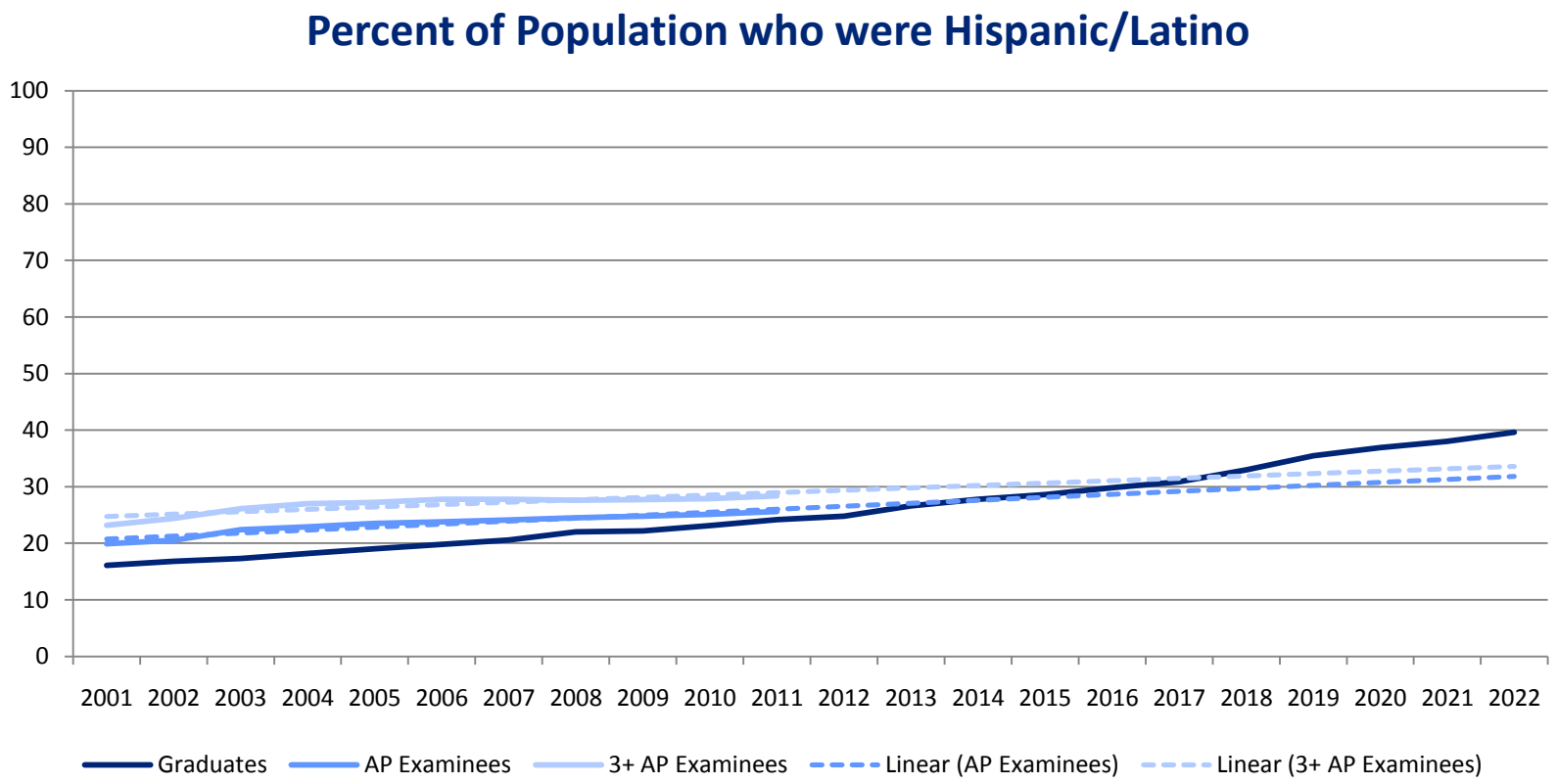
US Public Schools – 2001-2022 Graduating Cohorts



- What will it take to achieve equity by 2022?

APRN –Demographic Trends

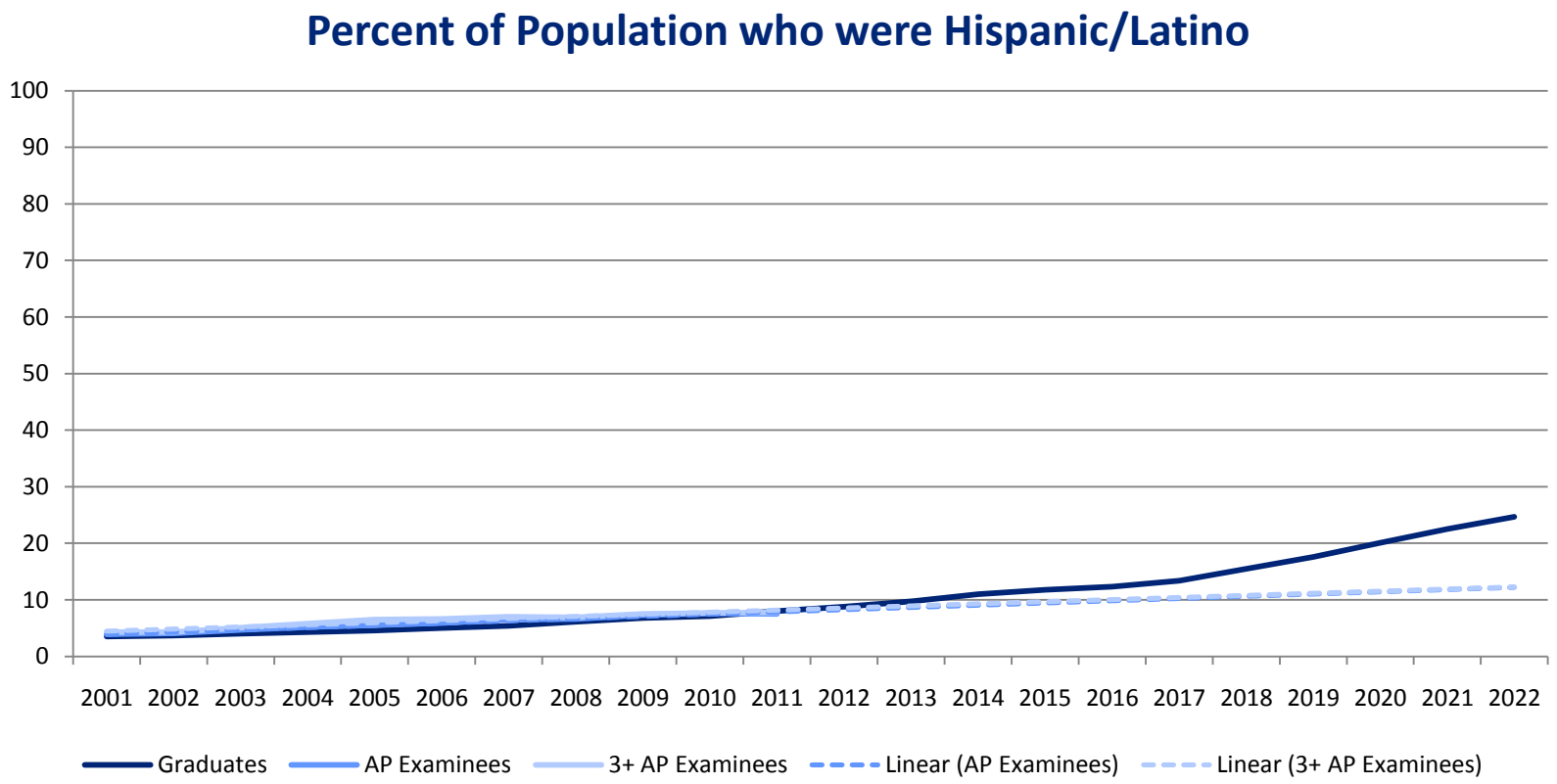
Florida Public Schools – 2001-2022 Graduating Cohorts



- Will growth in AP keep pace with growth in graduates?

APRN –Demographic Trends

Maryland Public Schools – 2001-2022 Graduating Cohorts



- Will growth in AP keep pace with growth in graduates?

Planning your attack

Just because you *can* calculate something doesn't mean you *should*

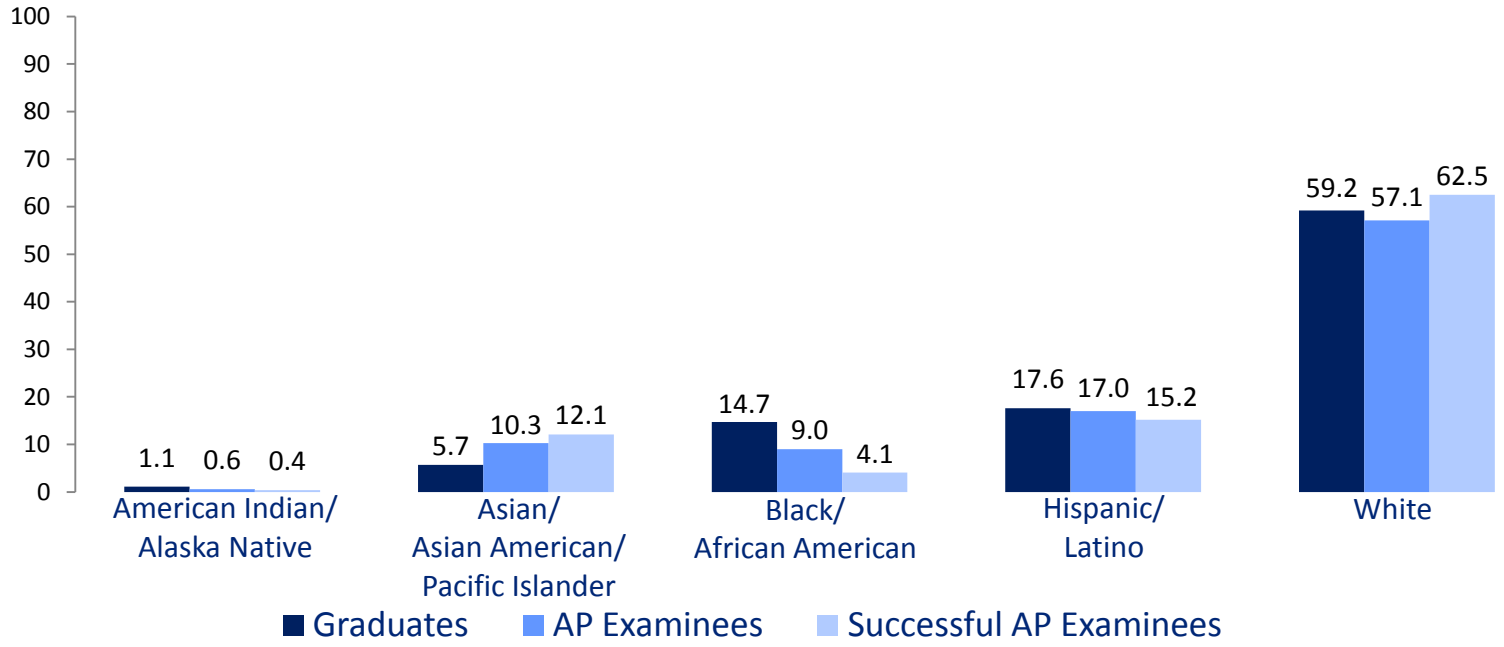
- What are you comparing?
  - Within group, across time; Across groups, within time; Across populations (e.g., graduates vs examinees vs 3+ examinees); etc.
- What is the optimal outcome?
  - If that's not clear, is it a useful metric?
- What is the implicit/explicit value judgment?
  - The gap between the current and desired state (e.g., more is better)
- Are there any interpretation challenges?
  - Are there any confounding factors? (e.g., raw numbers vs percents)
- What are the potential behavioral consequences?
  - If you set goals based on a particular metric, can it be 'gamed'?

Identify Potential Data Points

- Potential Numerators and Denominators
  - What elements do you have at your disposal?
    - What you have is likely far beyond what we have
  - Broken down by race/ethnicity, gender, SES, etc.
    - AP Students
    - AP Examinees
    - 3+ AP Examinees
    - School Enrollment
- Potential combinations of these values

Example – Racial/Ethnic Composition

The percent of each category by race/ethnicity



- What are you comparing?
  - Numerator: Graduates, AP Examinees, or those scoring 3 or higher, by race/ethnicity
  - Denominator: Graduates, AP Examinees, or those scoring 3 or higher
  - Differences within race/ethnicity – WICHE vs AP

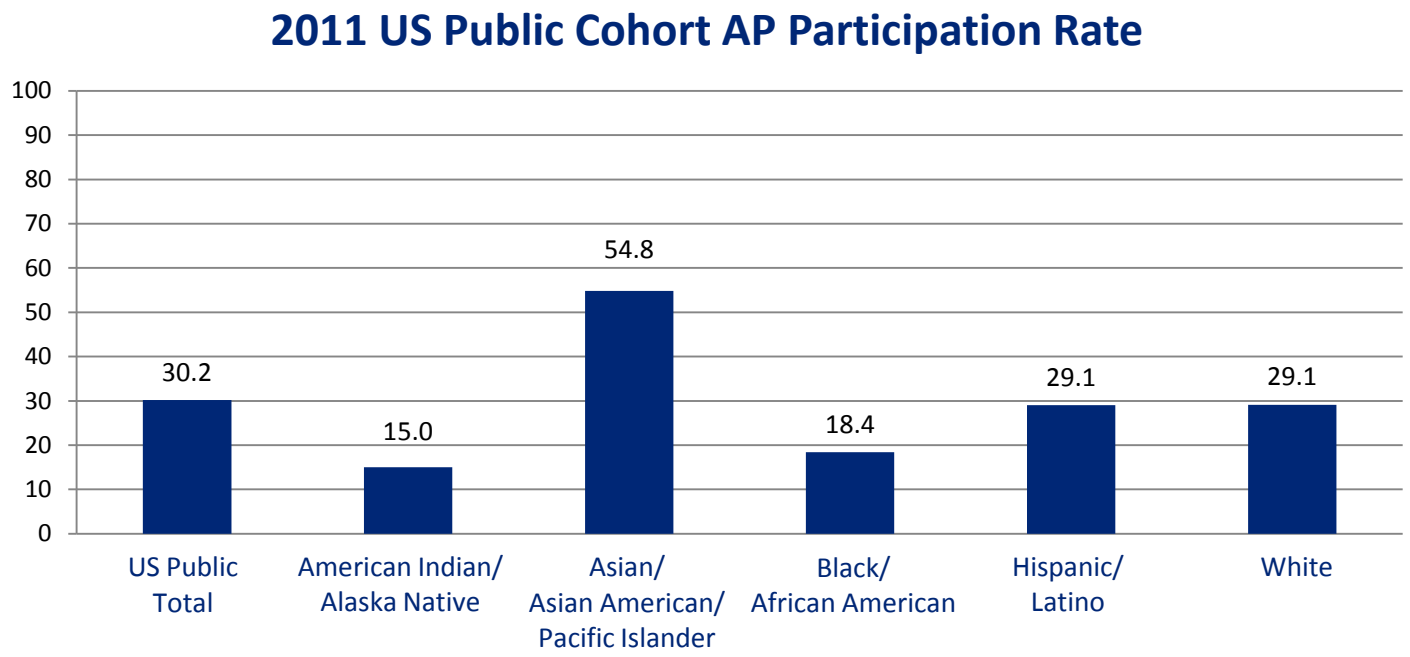
Example – Racial/Ethnic Composition

The percent of each population by race/ethnicity

- What is the optimal outcome?
  - The AP percents are greater or equal to WICHE percent.
- What is the implicit/explicit value judgment?
  - The distribution should naturally reflect the distribution of the school/district/state/nation.
- Are there any interpretation challenges?
  - Hispanic 3+ percent greatly influenced by Spanish Language
- What are the potential behavioral consequences?
  - Increased interest in closing equity gaps.

Example – Participation Rate

The percent of graduates who took an AP exam during high school



- What are you comparing?
  - Numerator: AP Examinees in Cohort, by race/ethnicity
  - Denominator: WICHE Graduates, by race/ethnicity
  - Differences by race/ethnicity

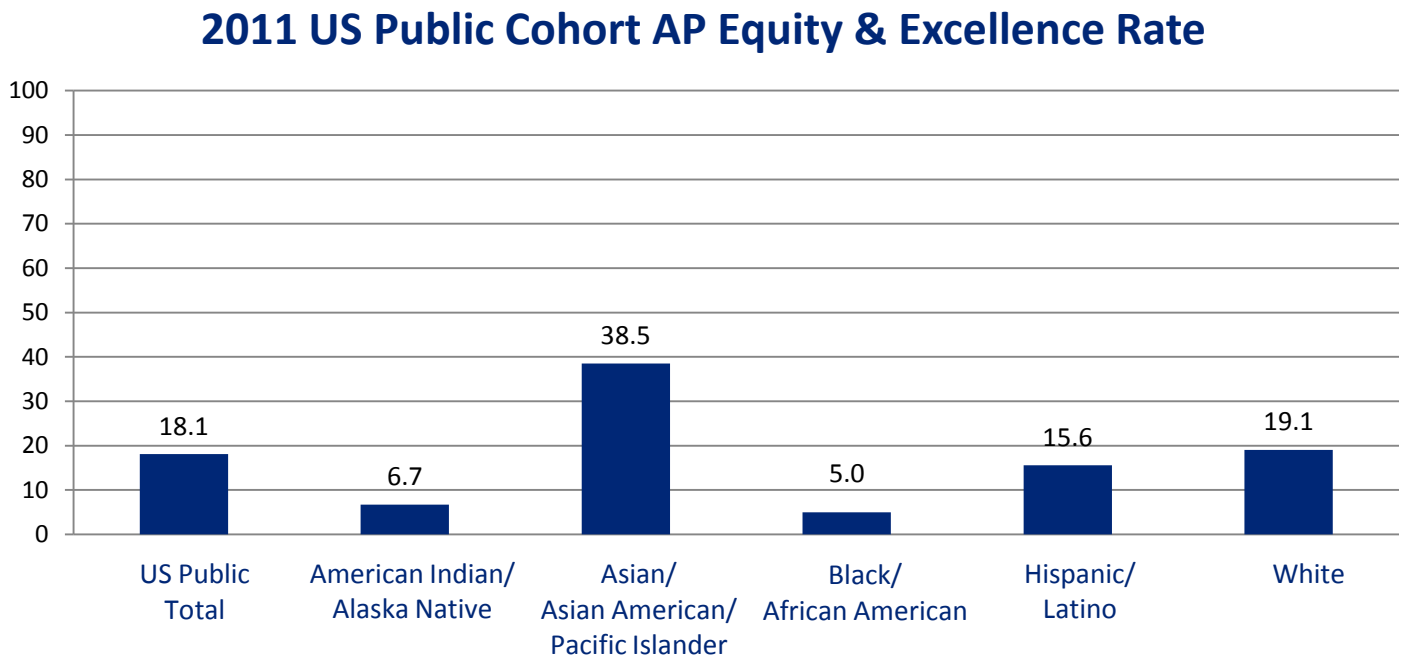
Example – Participation Rate

The percent of graduates who took an AP exam during high school

- What is the optimal outcome?
  - Less disparity between racial/ethnic groups
- What is the implicit/explicit value judgment?
  - More is better
  - There should be equal levels across racial/ethnic groups
- Are there any interpretation challenges?
  - Small numbers = volatile percents (if trying to compare over time)
  - Denominator includes more than 'willing and prepared'
- What are the potential behavioral consequences?
  - Only the numerator can be manipulated
    - Increasing the number of examinees is only ideal if they are willing and academically prepared

Example – Equity & Excellence Rate

The percent of graduates who scored 3 or higher on AP exam during high school



- What are you comparing?
  - Numerator: AP Examinees scoring 3 or higher, by race/ethnicity
  - Denominator: WICHE Graduates, by race/ethnicity
  - Differences by race/ethnicity

Example – Equity & Excellence Rate

The percent of graduates who scored 3 or higher on AP exam during high school

- What is the optimal outcome?
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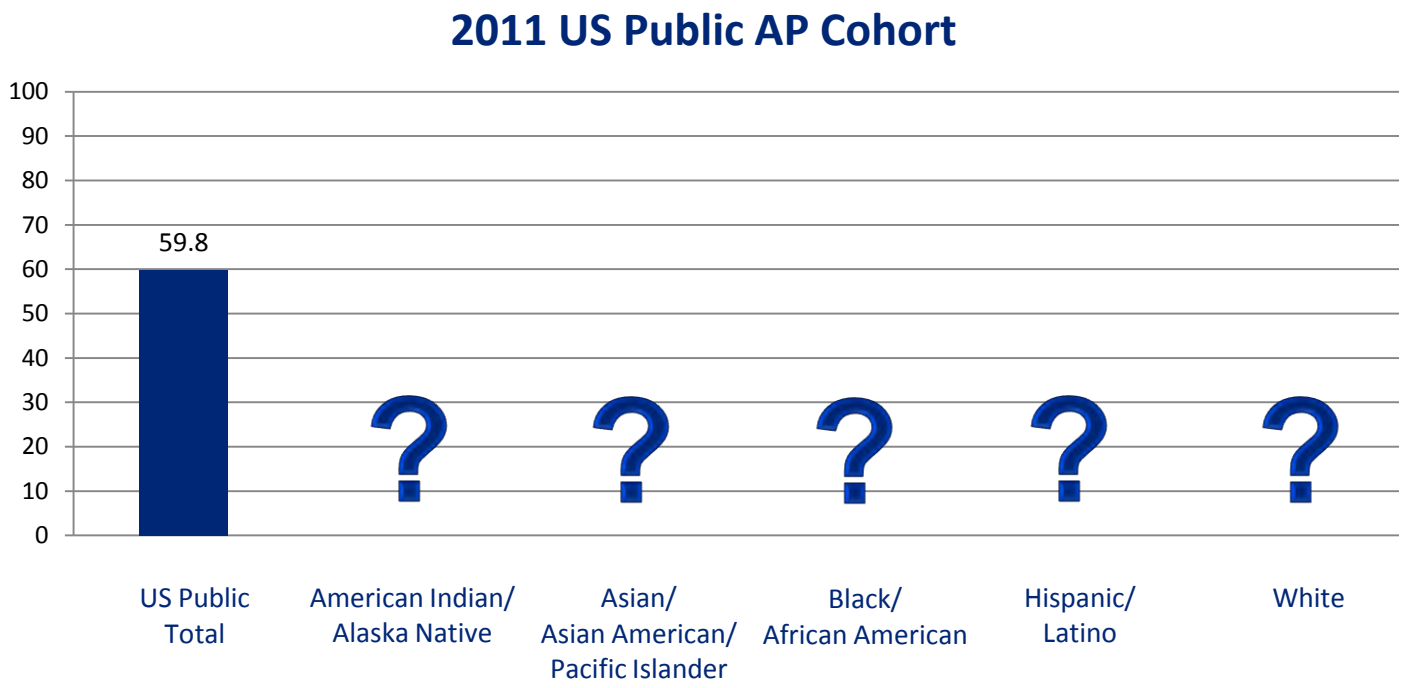
- Are there any interpretation challenges?
  - Small numbers = volatile percents (if trying to compare over time)
  - Denominator includes more than 'willing and prepared'
- What are the potential behavioral consequences?
  - Only the numerator can be manipulated
  - Drives change that benefit students as well as teachers
    - Increased academic preparation and support for AP students
    - Enhanced professional development

Example – "Pass" Rate

The percent of examinees who scored 3 or higher on AP exam during high school



- What are you comparing?
  - Numerator: AP Examinees scoring 3 or higher, by race/ethnicity
  - Denominator: AP Examinees, by race/ethnicity
  - Differences by race/ethnicity

Example – "Pass" Rate

The percent of examinees who scored 3 or higher on AP exam during high school

- What is the optimal outcome?
  - Less disparity between racial/ethnic groups?
    - Is this fair given inequities in academic preparation/resources?
- What is the implicit/explicit value judgment?
  - More is better
  - There should be equal levels across racial/ethnic groups
- Are there any interpretation challenges?
  - Small numbers = volatile percents (if trying to compare over time)
  - Hispanic rate greatly influenced by Spanish Language
  - School policies vary as to whether students must take an exam
  - Policies vary as to who pays for the exam

Example – "Pass" Rate

The percent of examinees who scored 3 or higher on AP exam during high school

- It's not that we don't want to talk about it or aren't concerned about students who aren't successful…
  - It's that it's difficult to interpret.
    - At least on a national and state level, as it reflects vastly different school/district policies as to who gets into AP, who takes the exam, and how well those student were prepared both prior to and during AP.
  - School/Districts naturally want to compare their outcomes to something else
    - But is it fair or meaningful to compare?
    - It is only appropriate if you have apples to apples

Example – "Pass" Rate

The percent of examinees who scored 3 or higher on AP exam during high school

- What are the potential behavioral consequences?
  - The *denominator* can be manipulated

The easiest way to increase pass rates is to build barriers to entry, as opposed to doing the hard work of making sure that students and teachers have the tools to succeed.

It is more efficient/cheaper to decrease the denominator than it is to increase the numerator.

Is that good for students?

Example – "Pass" Rate

The percent of examinees who scored 3 or higher on AP exam during high school

- Does this mean you shouldn't *ever* look at this?
  - Not necessarily.
  - But you must consider the context and implications.
  - For example, it is reasonable for you to look at this within your own school
    - To shed light on differential performance across course sections
    - To compare outcomes before and after a policy change

What data do you use to examine equity in AP?

Responses from APAC 2011

- Attendance at AP recruitment events
- Parent/student requests to enroll in AP courses
- Teacher referrals to AP
- AP Potential
- AP course enrollment
- Grades/Transcripts
- AP Exam participation
- AP Exam results

- **Assessing the issue at multiple levels will help you identify the point(s) where inequities arise**
- **Align your strategies to address these points**
- **Do you see equitable conversion between certain points but not others?**

What data sources illuminate equity in AP?

Responses from APAC 2011

- AP Online Score Reports
  - Student Datafile (replaced scores on CD as of 2011)
  - AP Equity and Excellence Report
  - Five-Year School Score Summary (by subject with comparable groups)
  - School/District Summary by Student Demographics (New in 2012)
  - School/District Summary with Comparable Groups (New in 2011)
  - District Summary by School (New in 2011)
  - Current Year Score Summary (by subject)
  - Subject Score Rosters
  - School/District Score Roster
  - School Scholar Roster
  - Student Score Report
  - Instructional Planning Reports
  - College and University Totals
- AP Potential
- SOAS reports/data
- Student information management system
- District office
- State tests

•Is sufficient time set aside to evaluate the wealth of information?

•Who will benefit from which information? How do you strategically disseminate information?

Examples of how schools use data

Responses from APAC 2011

- Longitudinal analysis to determine progress of open access policy
- Compare course requests with actual class enrollment
- Analyzing the gap between students taking and passing AP courses
- Setting targets for number of boys in AP
- Guidance & administration look for students who should be placed in rigorous classes but are not
- Analyze data from AP Potential to recommend more AP courses for diverse populations
- Analyze data from AP Potential to expand AP course offerings
- Analyze AP course rosters and score reports - demographic breakdowns by subject
- Our data revealed that we needed to do more in middle school to get underserved populations ready for AP

Strategies - Promoting Equity

- Evaluate past graduates (within grade, across time)
- Current HS enrollment (within time, across grades)
- Using future to project….future
  - Project demographics of incoming 9th graders before they arrive by looking at distribution of 8th graders from feeder schools.
- Identify potential numerators and denominators
- Determine which calculations are of most use/interest (and to what audience)
  - Stats are rarely informative in isolation. Compare!
- Pick a target – focus on one future cohort

Strategies - Promoting Equity

- Evaluate your assumptions
  - Will the number of AP courses/sections remain stable?
  - Will the number of AP students remain stable?
  - Will the racial/ethnic composition of students change?
  - What behavior will data/analyses intentionally or unintentionally encourage?
- Use Excel to visualize your data
  - Be mindful of scale (e.g., always set y-axis to range from 0 to 100)
- Mine publically available data sources
  - WICHE (http://www.wiche.edu/knocking)
  - NCES Common Core Data (http://nces.ed.gov/ccd/)
    - School-level enrollment by race/ethnicity and grade level for all public schools in the country

Strategies - Promoting Equity

- Offer emotional and academic support to students through targeted peer mentoring, counseling, tutoring, and summer transition programs.
- Use AP Potential to identify minority and low-income students at your school who are likely to succeed in AP.
- Use AP Potential results to invite students and parents from particular underserved backgrounds to targeted sessions of your school's AP night that highlight your school's course offerings. Have older students from similar backgrounds who have had successful AP experiences speak at these sessions.

Additional issues

The demographic wave is not happening in a vacuum.

- AP Course Redesign – 2011/12AY - 2013/14AY
  - Challenges and opportunities
    - For teachers
    - For students
- The Retirement Wave
  - Babyboomers account for a large portion of AP teachers
  - The impact of the economy on these trends
    - Short term = delaying retirement
    - What if the economy turns around?
  - This turnover will present great challenges and new opportunities for schools.

Will your school be *reactive* or *proactive*?

- Are there any barriers that restrict access to AP for students from traditionally underserved ethnic, racial and socioeconomic groups?
- What strategies or programs are in place to ensure that all students have access to academically challenging course work *before they enroll in AP classes?*
- What strategies or programs are in place to ensure that all students have the necessary support to succeed once enrolled in AP classes?
- Will these strategies or programs need change in light of future demographic shifts?

Gaston Caperton Inspiration Awards

Recognizing and Honoring the Most Improved Schools in America

http://professionals.collegeboard.com/k-12/awards/inspiration

- If your school has greatly improved AP participation, graduation rates, and college attendance…
  - APPLY! APPLY! APPLY!
- If your school is just beginning to improve…..
  - aspire to APPLY!
- What could your school do with $25,000?

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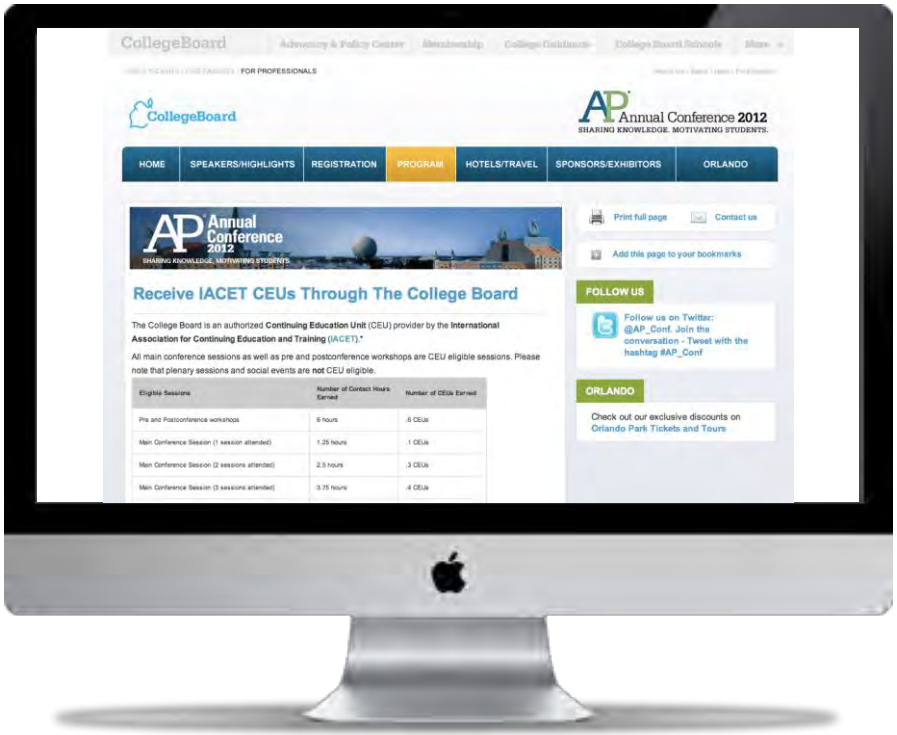

Questions?

Please forward questions, comments, and suggestions to:

- Kelcey Edwards – kedwards@collegeboard.org
- Odette Duggan – oduggan@collegeboard.org

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Thank You

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