



# Measure Phase

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# Agenda

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- Data Collection Plan
- SIPOC
- AP Placement Process Flow Charts
- Counselor Interview Matrix
- Pareto Charts
- Critical to Quality Characteristics
- Items for Resolution
- Next Steps



# Data Collection Plan

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- Goal

- To determine the areas of weakness and effectiveness from the faculty, student, and counselor's point of views of the new AP open access system at the Sunshine High School.

- Objective

- To gain insight on the current AP open access system process performance to identify areas of improvements.



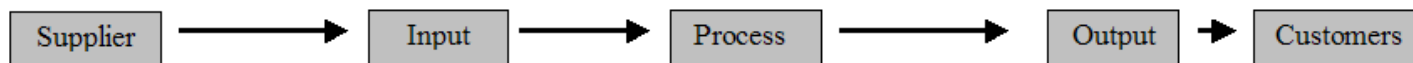
# Data Collection Plan

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- Data Collection Process

- The SHS Six Sigma team focused this study on three different groups:
  - AP faculty, AP students, and AP counselors
- AP counselors interview, 5 Counselors
- AP faculty and AP students focus group
- Data collected from the SHS database
- Data collection plan started late February and lasted for about six weeks

# SIPOC



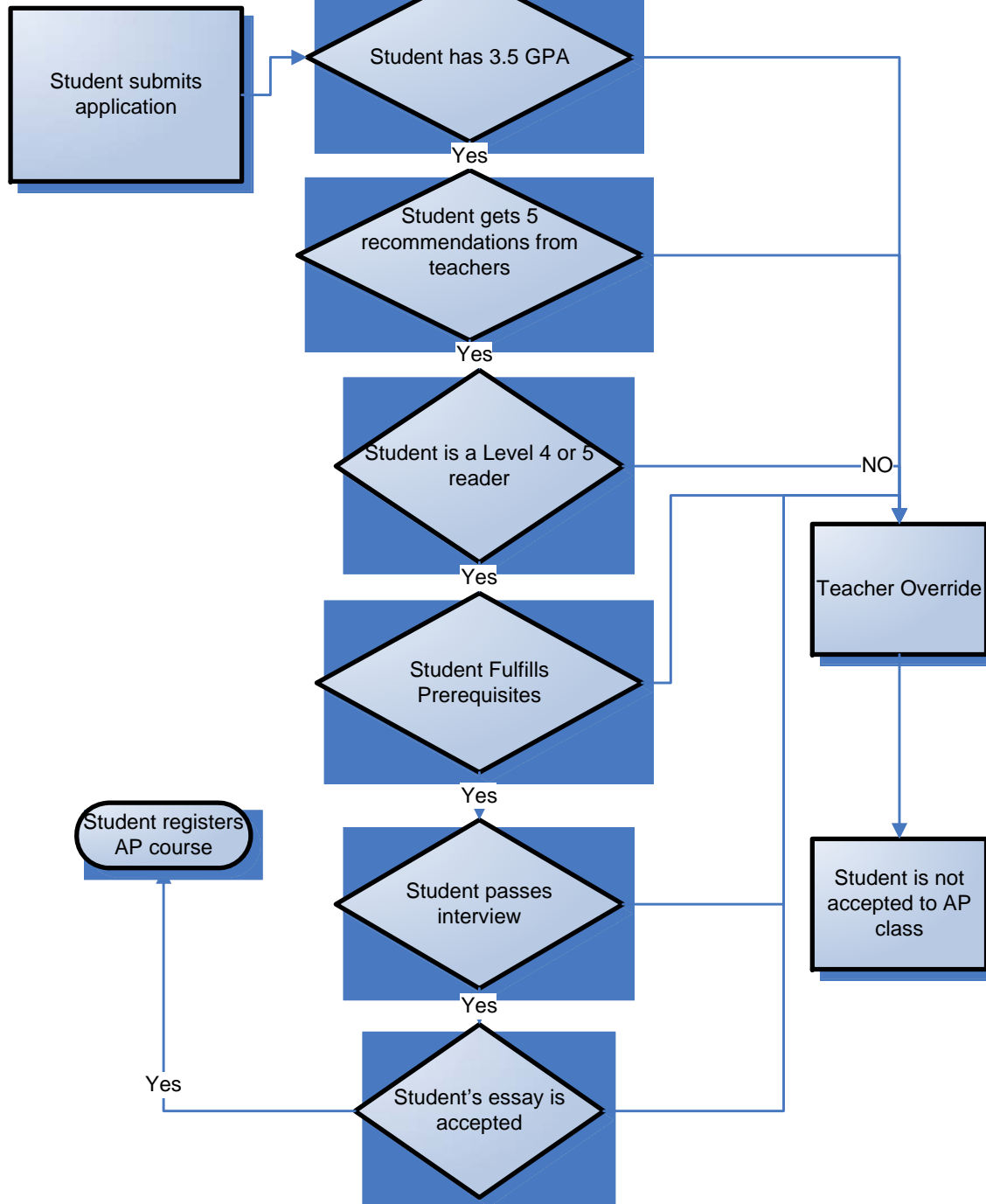
## Open Access System- AP Registration

<ul style="list-style-type: none"> <li>UHS Admin           <ul style="list-style-type: none"> <li>Advising Office</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Potential AP Student</li> <li>AP requisites</li> </ul>	<ul style="list-style-type: none"> <li>➤ Student has AP potential based on Summary of Answer Report</li> <li>➤ Potential AP Student is invited to take AP courses</li> <li>➤ Potential AP visit his/her counselor</li> <li>➤ Counselor reviews potential AP student's PSAT, GPA, FCAT scores and previous coursework</li> <li>➤ Counselor completes Academic Progression Plan</li> <li>➤ Potential AP student meets the requirements</li> <li>➤ Potential AP student is a level 3 + reader, with exceptions for level 1 and 2</li> <li>➤ Potential AP student gets advise on courses to be taken</li> <li>➤ Potential AP register AP course or courses</li> <li>➤ Counselor allows student for registration</li> <li>➤ Potential AP student register AP course or courses</li> </ul>	<ul style="list-style-type: none"> <li>Registered potential AP student in AP course or courses</li> </ul>	<ul style="list-style-type: none"> <li>Student</li> <li>Parent</li> <li>UHS Faculty</li> </ul>
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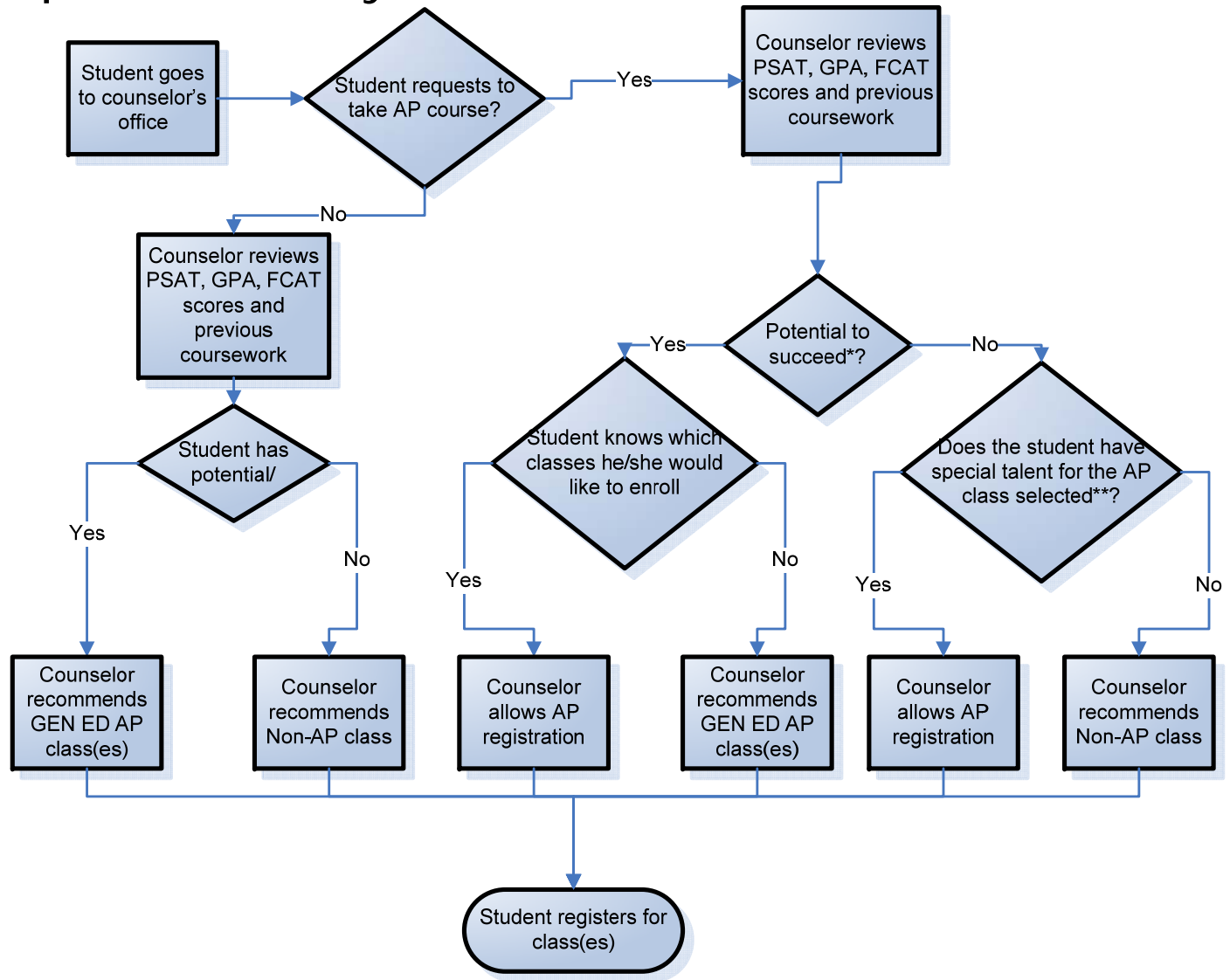
## Pre- Open Access System- AP Registration

<ul style="list-style-type: none"> <li>UHS Admin           <ul style="list-style-type: none"> <li>Advising Office</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Potential AP Student</li> <li>AP requisites</li> </ul>	<ul style="list-style-type: none"> <li>➤ Potential AP is invited to take AP courses</li> <li>➤ Potential AP visit his/her counselor</li> <li>➤ Potential AP student meets the requirements</li> <li>➤ Potential AP student has at least 3.5 GPA</li> <li>➤ Potential AP student gets 5 recommendation letter from teachers</li> <li>➤ Potential AP student is at least level 4 reader</li> <li>➤ Potential AP student fulfills pre-requisites</li> <li>➤ Potential AP student passes interview</li> <li>➤ Potential AP student writes an essay that need to be accepted</li> <li>➤ Potential AP register AP course or courses</li> </ul>	<ul style="list-style-type: none"> <li>Registered potential AP student in AP course or courses</li> </ul>	<ul style="list-style-type: none"> <li>Student</li> <li>Parent</li> <li>UHS Faculty</li> </ul>
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# Pre-Open System AP Registration Process



# Current Open Access System



\*Potential defined as student with high PSAT score and/or high GPA and/or past Pre-AP classes and/or passing FCAT score and/or Reading level greater than 2

\*\* Special talents such as Math ability, native languages, etc.



# Counselor Interview Matrix

Questions /Counselors	Counselor 1	Counselor 2	Counselor 3	Counselor 4	Counselor 5
<b>9 Grade Counselor</b>	No	Yes	No	No	No
<b>10-12 Grades Counselor</b>	Yes	No	Yes	Yes	Yes
<b>What do you look for in students when placing them into AP courses</b>	FCAT, PSAT, Transcripts	FCAT sometimes	FCAT, SAT, Classroom performance	FCAT, SAT, Classroom performance	FCAT, SAT, Classroom performance
<b>Which AP courses do you usually recommend</b>	Depending on students' talent and skills. What the student is good at	World History or Human Geography	Depending on students' talent and skills. What the student is good at	Depending on students' talent and skills. What the student is good at	Depending on students' talent and skills. What the student is good at

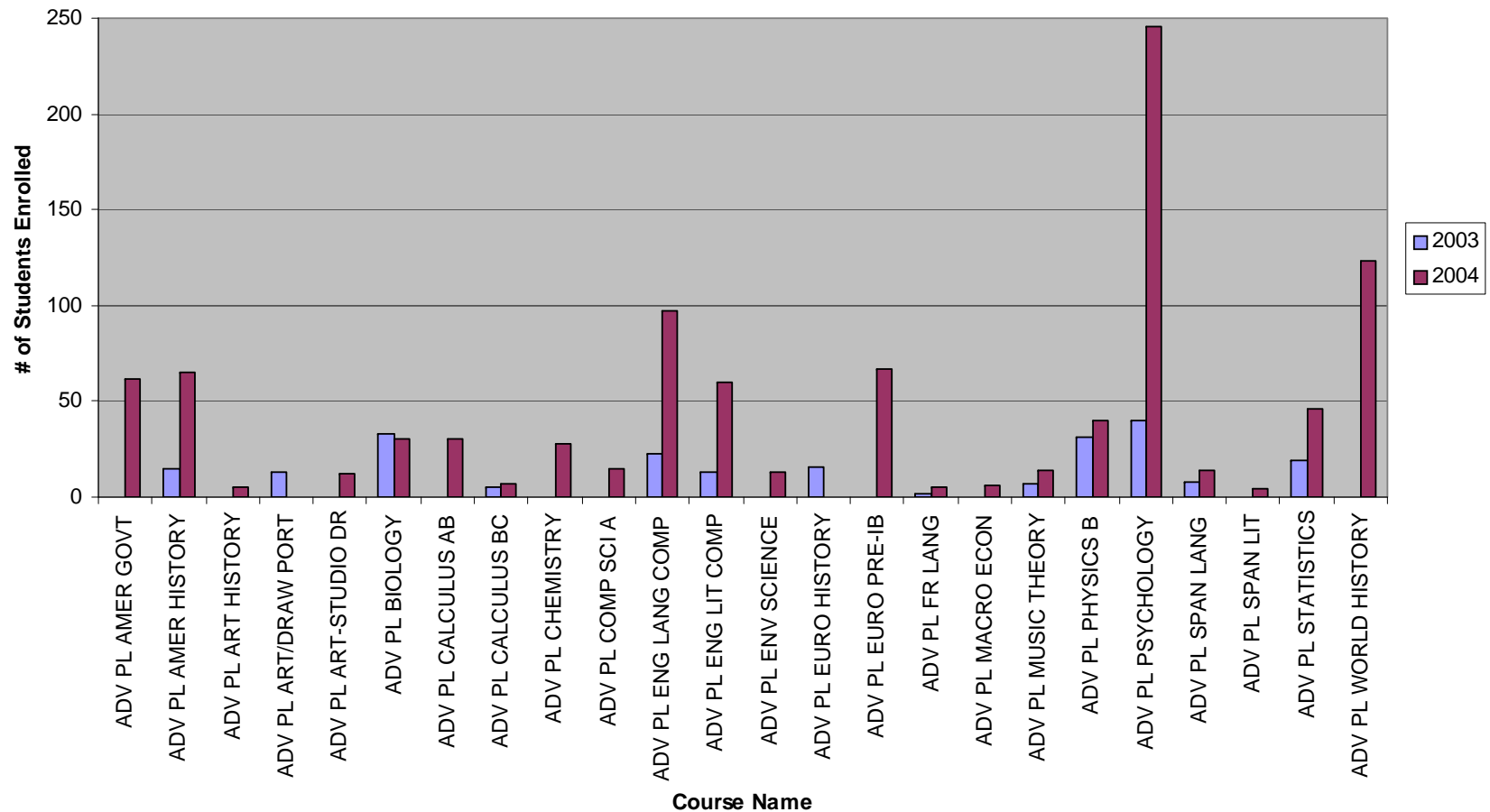


# Counselor Interview Matrix

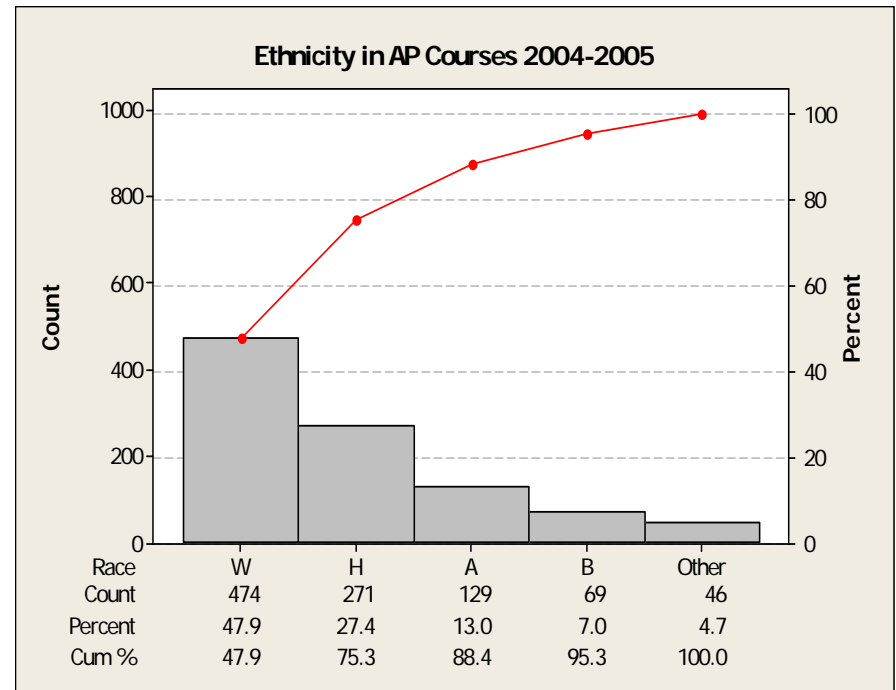
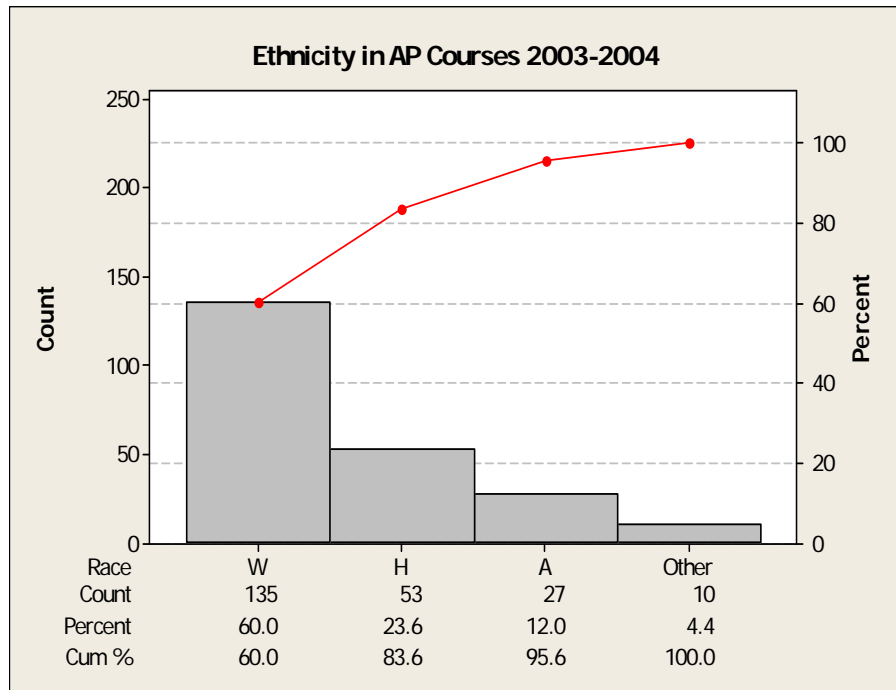
Questions/Counselors	Counselor 1	Counselor 2	Counselor 3	Counselor 4	Counselor 5
Do you look if student meets pre-requisites before placing them to AP courses	Yes	N/A	Yes	Yes	Yes
Do you recommend level 1 or 2 students take AP courses	No	Yes	No	No	No
Do you make any exceptions for level 1 or 2 students	Yes	Yes	Yes	Yes	Yes
Do you feel this is a better system for students	Yes	Yes	Yes	Yes	Yes
Who makes the last decision on taking AP courses	Student	Student	Student	Student	Student

# AP Course Enrollment

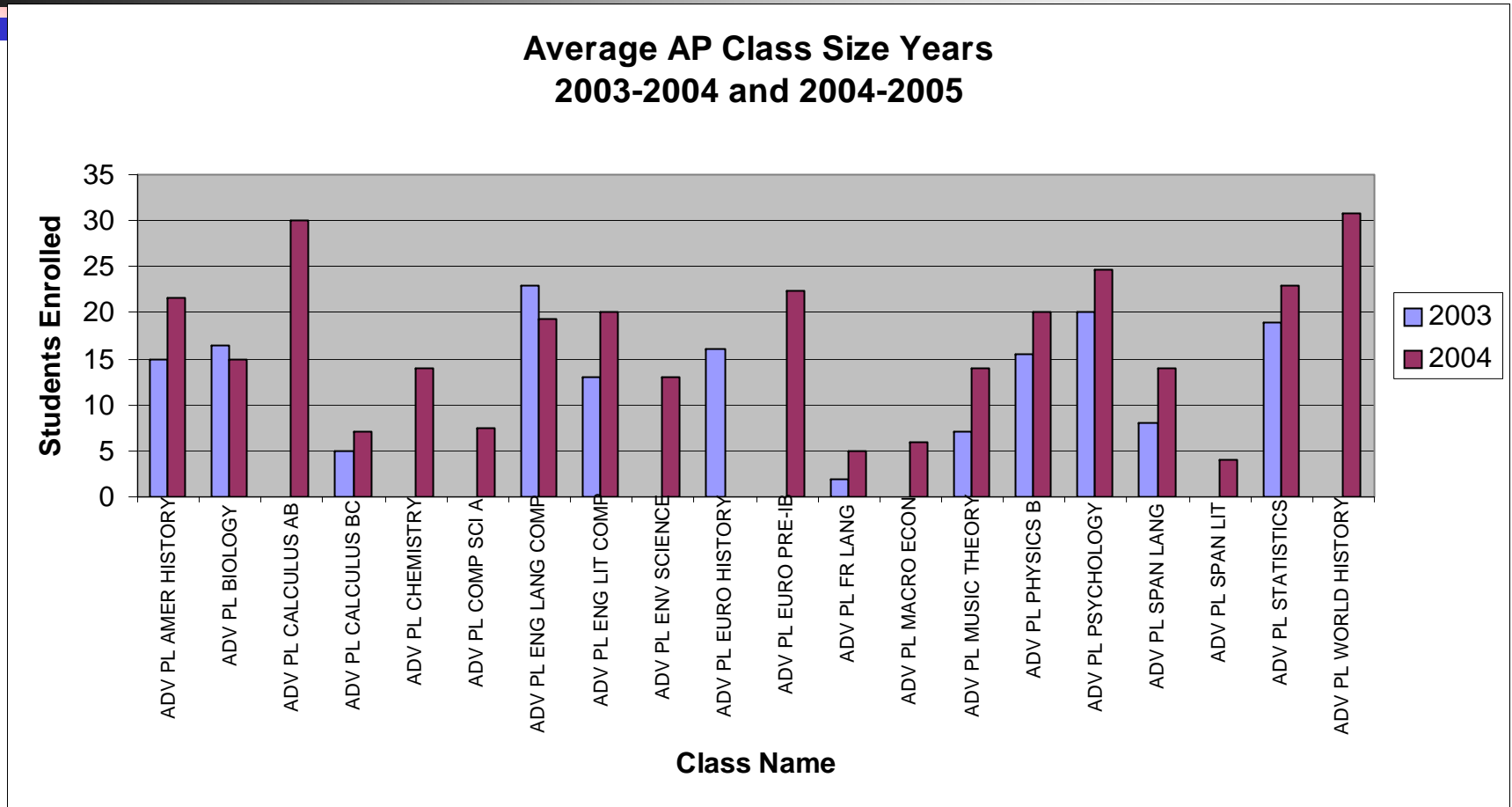
AP Courses Student Enrollment  
2003-2004 and 2004-2005



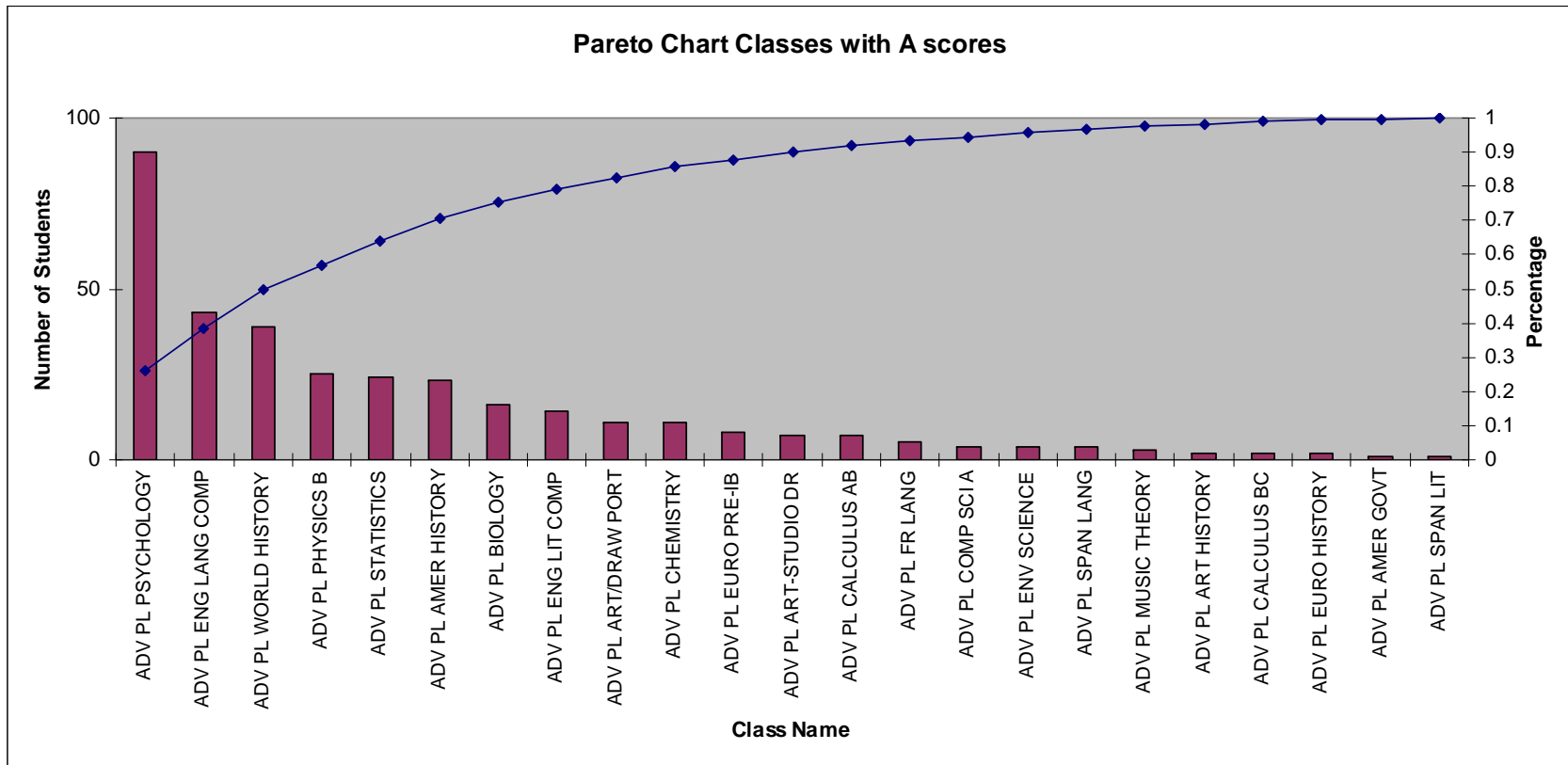
# Ethnicity in AP classes



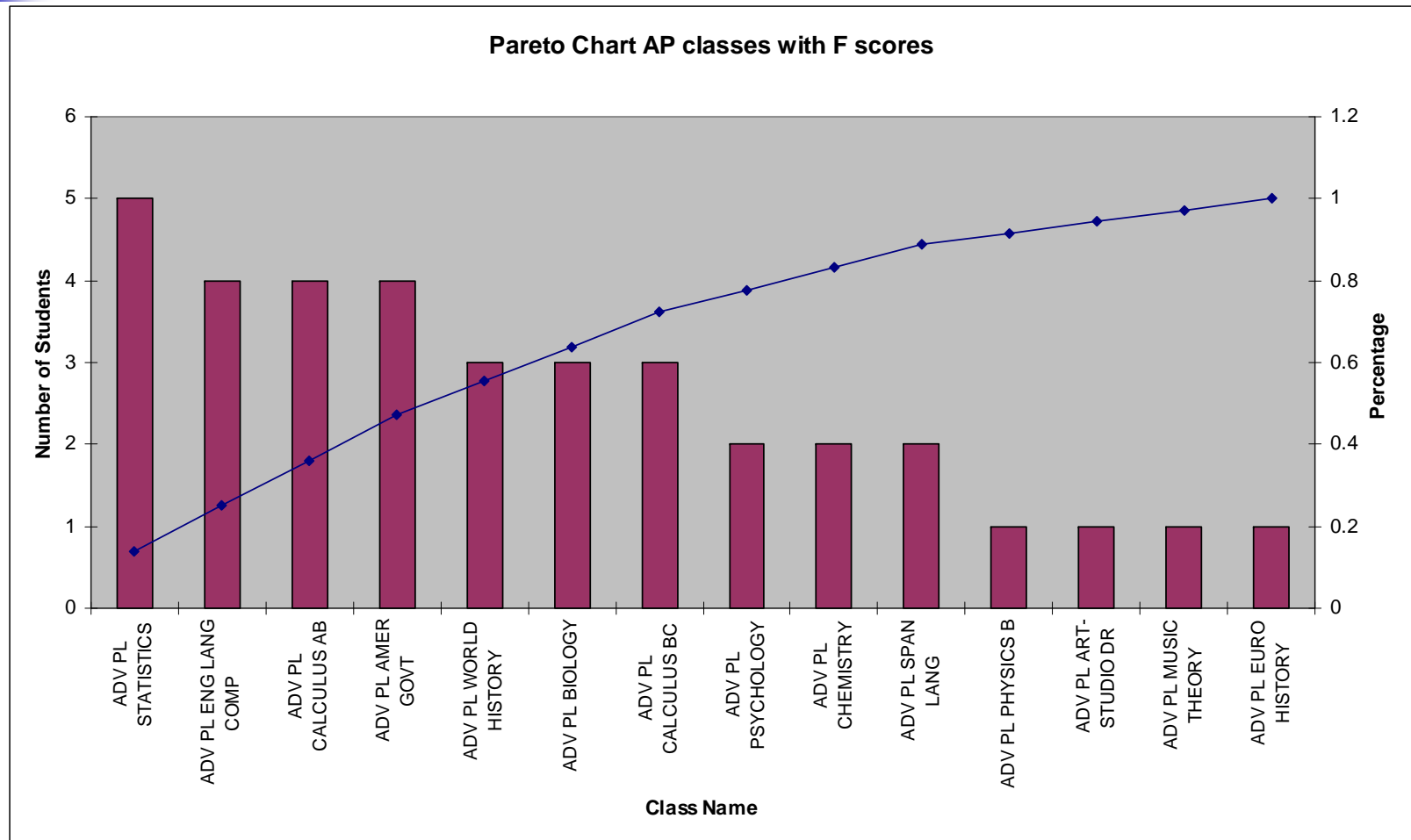
# Average AP class size



# AP classes with A scores



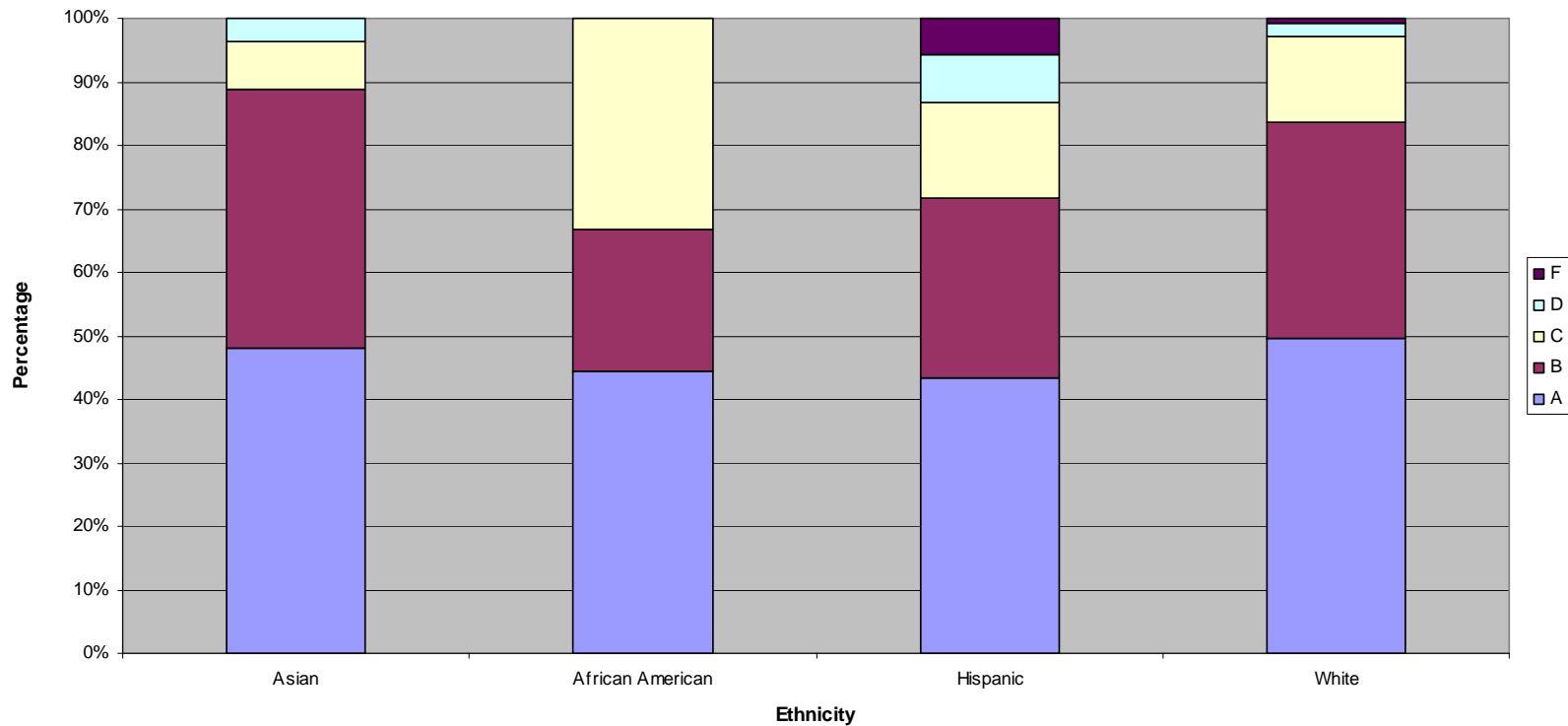
# AP classes with F scores



# Grade Distribution by Ethnicity

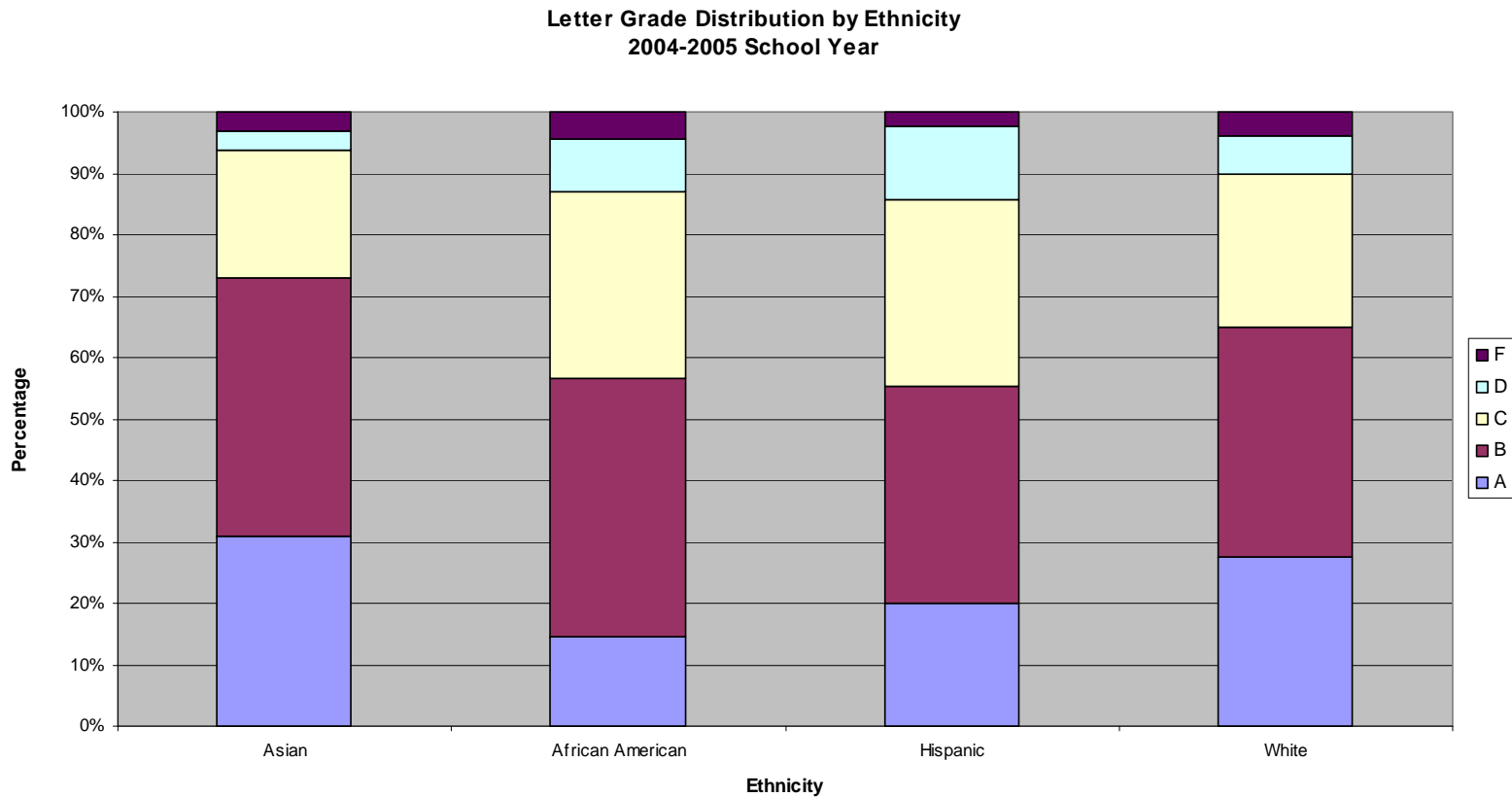
## 2003-2004 School Year

Letter Grade Distribution by Ethnicity  
2003-2004 School Year



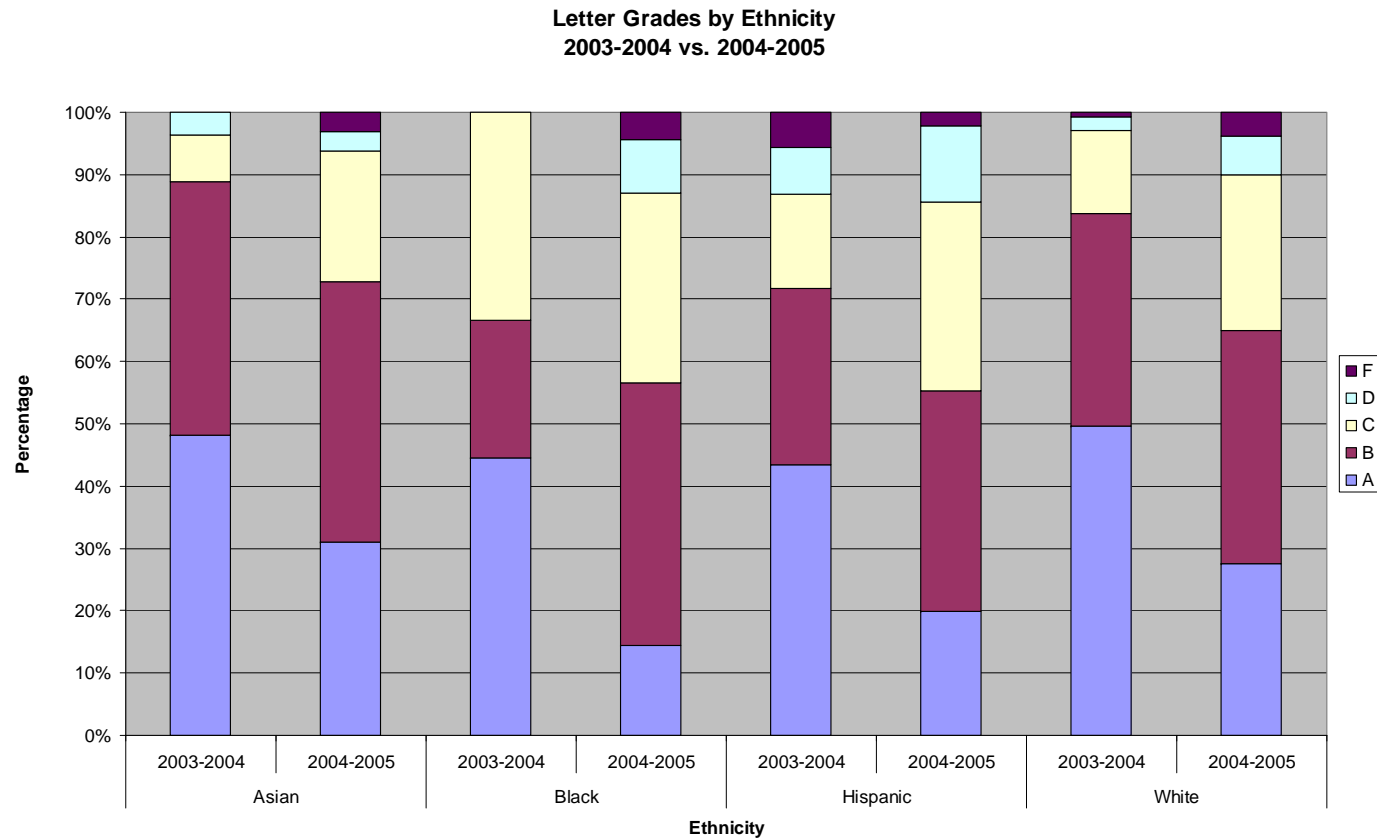
# Grade Distribution by Ethnicity

## 2004-2005 School Year



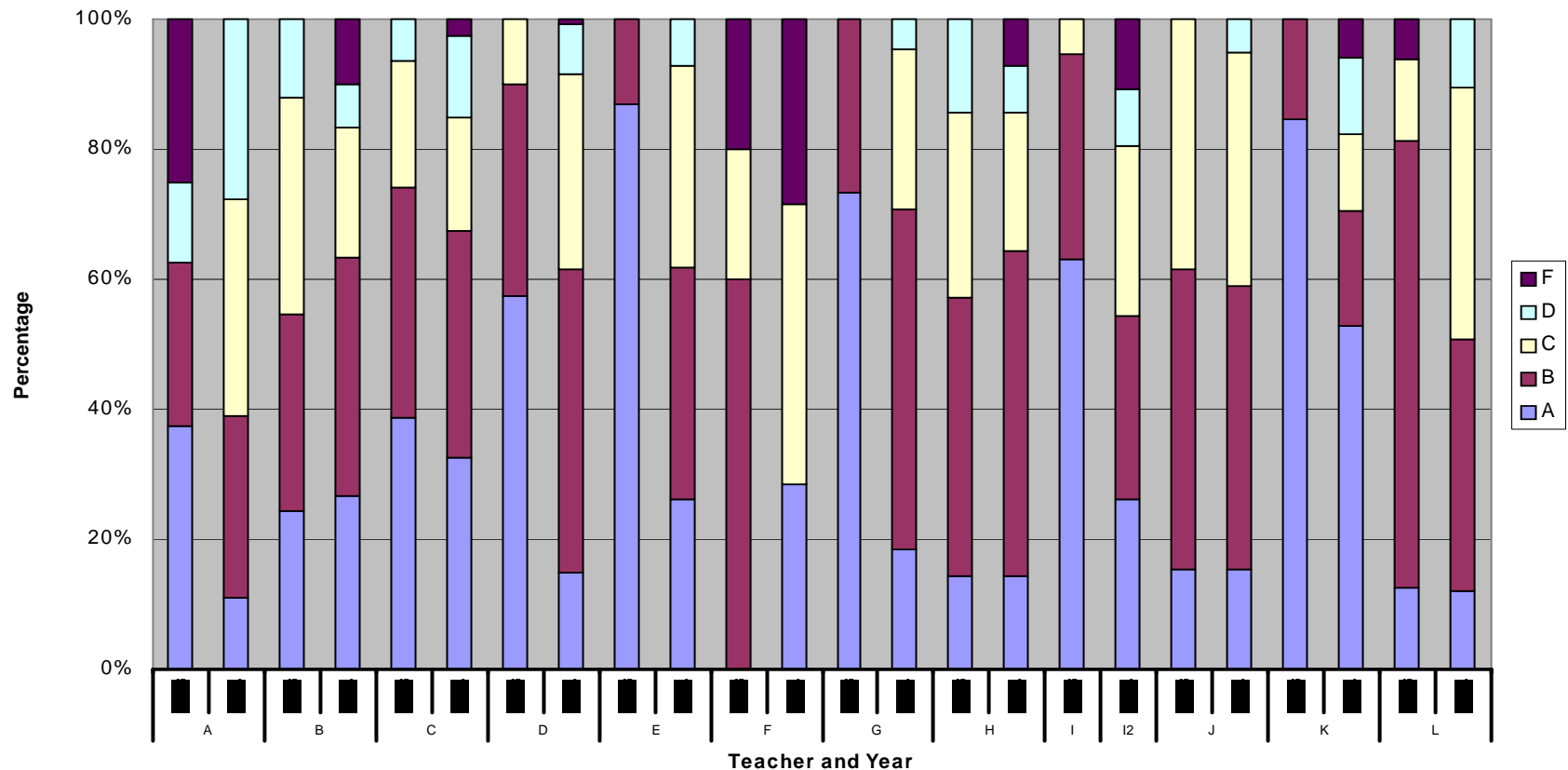


# Letter Grades by Ethnicity Pre and Post Open System



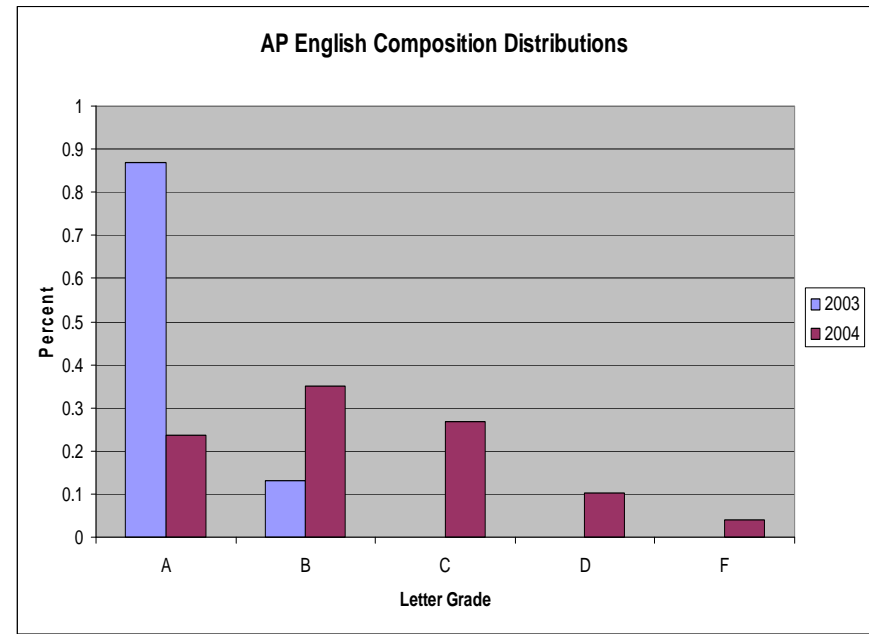
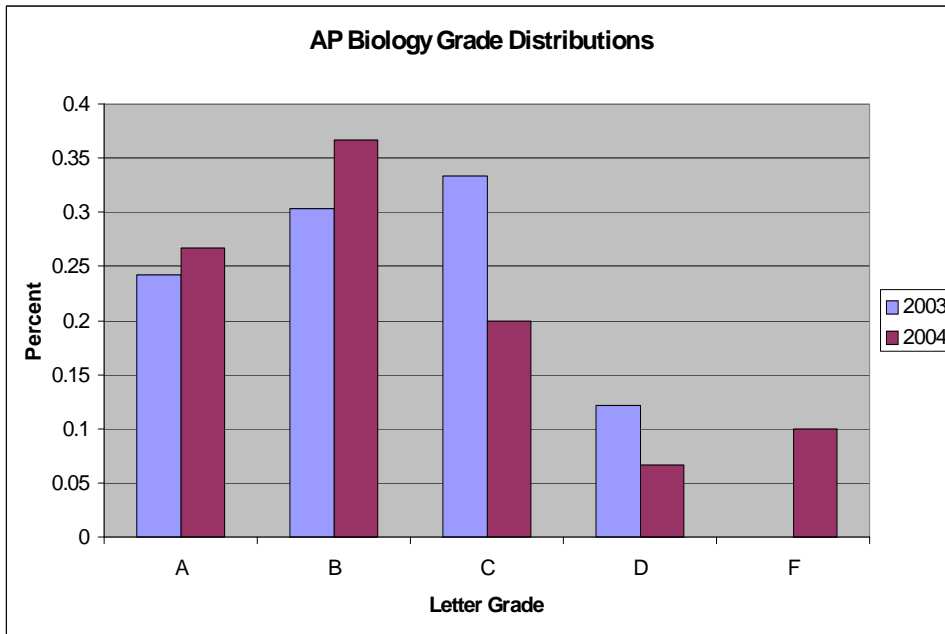
# Grade Distribution by Teacher

Grade Distribution by Teacher  
Schools Years 2003-2004 and 2004-2005



# Grade Distribution Examples

## Pre and Post Open Access



# Critical to Quality Characteristics

Critical To Quality	Key Performance Indicators	Metric	Source
Academic Performance	Cumulative GPA	Un-weighted Grade Point Average	Database
	Performance in AP courses	Grade earned in AP course	Database
	Performance on AP test	AP test score	College Board
FCAT Results	Achievement Level	Students scoring below a level 4 in reading	Database
Norm Reference Test (NRT)	Achievement Level	Students scoring below the 85 <sup>th</sup> percentile	Database
PSAT Results	Overall Scores in each subject area	AP potential	Database
Demographics	Performance of minority and low socioeconomic students in AP courses	Cumulative GPA, Grade in AP course, AP test score	Database
Quality of AP course	Teacher – student ratio	Number of students per AP class	Database
	Number of students passing the class	Percentage of students earning a grade C or better	Database
	AP Test Results	Percentage of students scoring at least a level 3	Database
Willingness to Change	Teachers Attitudes	Percentage of students earning a grade C or better before open access versus after open access	Database
		Percentage of teachers that disagree with the open access system	Focus Group



# Item for Resolution

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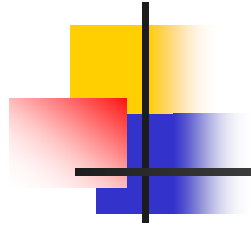
- Identify the students enrolled in AP courses in the 2004-2005 school year who were below a level four in reading on the FCAT from the previous school year (2003-2004).
- Evaluate the performance in AP courses of the students identified in the above steps (i.e. cumulative G.P.A., grade received in AP course, AP test score)
- Identify the students enrolled in AP courses in the 2004-2005 school year who had a cumulative G.P.A less than 3.0 prior to enrolling into an AP course.
- Evaluate the performance in AP courses of the students identified in the above steps (i.e. cumulative G.P.A., grade received in AP course, AP test score)
- Identify the students enrolled in AP courses in the 2004-2005 school year who were below the 85th percentile on the Norm Reference Test (NRT) from the previous school year (2003-2004).
- Evaluate the performance in AP courses of the students identified in the above steps (i.e. cumulative G.P.A., grade received in AP course, AP test score).



# Next Steps

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- Continue with the Data Collection Plan
- Conduct focus group for AP faculty and AP students
- All major functions of the analyze phase.
  - Complete a comprehensive statistical analysis of all of the data collected from surveys and SHS database.
  - Develop cause and effect Diagram. Determine and validate brainstormed root causes. Our goal is to identify all the potential causes in order to identify and select the root causes that the team will focus their improvement efforts on, throughout the remainder of the project.
  - Collect additional data if needed to validate root causes.
  - Identify and summarize all areas of possible short and long-term improvements based on the statistical data collected.



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QUESTIONS?