Physics Regents Results 2011

Prepared by Lorren Hotaling Sunday, June 19, 2011

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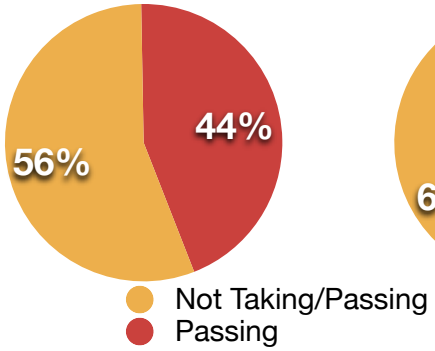
Passing Results 2007-2011

The data below shows the percentage of students taking and passing the Physics Regents Examination as a proportion of the entire Junior class population each year.

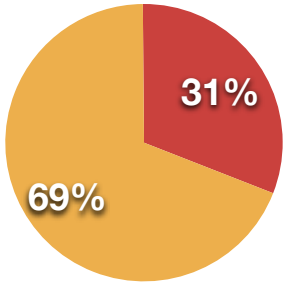
	Not Taking/ Passing	Passing
%	0.557	0.443

2011 Dobbs Ferry Physics



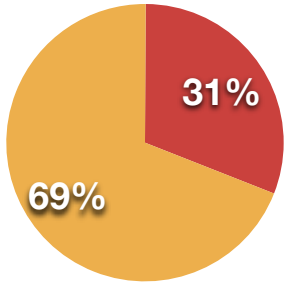
	Not Taking/ Passing	Passing
%	0.69	0.31

2010 Dobbs Ferry Physics



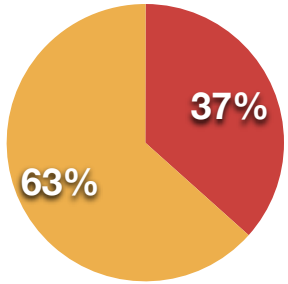
	Not Taking/ Passing	Passing
%	0.69	0.31

2009 Dobbs Ferry Physics



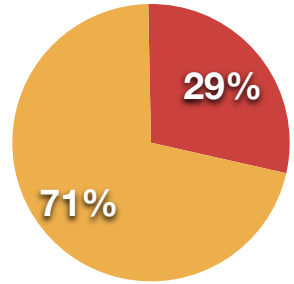
	Not Taking/ Passing	Passing
%	0.63	0.37

2008 Dobbs Ferry Physics



	Not Taking/ Passing	Passing
%	0.71	0.29

2007 Dobbs Ferry Physics



Observations:

1) Overall historical enrollment and passing rates have been around 30%, with an anomaly in 2008.
2) The highest % of the junior class achieving success on the Physics Regents was in 2011, 7% more than the next highest year and 12% higher than the average of the previous 4 years.
3) The increase in success is a 37% increase in the % of the junior class taking and passing the Physics Regents Exam.
4) **The results in 2011 indicate success in the district's mission to increase access and success to college gateway courses like physics.**

Goals:

1) Maintain enrollment and success levels.
2) Increase success rate within current enrolled population.
2) Increase the enrolled population.

Passing/Mastery Results 2007-2011

The data below shows the percentage of students taking and passing the Physics Regents Examination as a proportion of the entire Junior class population each year.

	%	Count
Mastery	0.226	26
Pass 65-84	0.217	25
Not taking/ passing	0.557	64

2011 Dobbs Physics

	%	Count
Mastery	0.19	20
Pass 65-84	0.12	12
Not taking/ passing	0.69	71

2010 Dobbs Physics

	%	Count
Mastery	0.21	26
Pass 65-84	0.10	12
Not taking/ passing	0.69	85

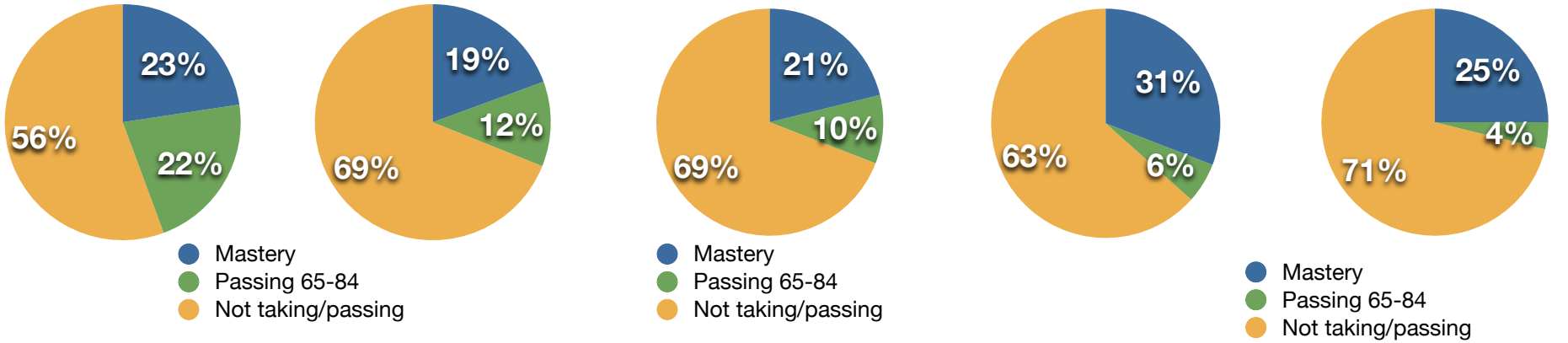
2009 Dobbs Physics

	%	Count
Mastery	0.31	38
Pass 65-84	0.06	7
Not taking/ passing	0.63	78

2008 Dobbs Physics

	%	Count
Mastery	0.25	26
Pass 65-84	0.04	4
Not taking/ passing	0.71	74

2007 Dobbs Physics



Observations:

1) Overall historical mastery rates have been around 22%, with an anomaly in 2008. 23% in 2011 is not statistically significant.
2) The highest % of the junior class achieving success on the Physics Regents was in 2011, 7% more than the next highest year and 12% higher than the average of the previous 4 years.
3) The increase in success is a 37% increase in the % of the junior class taking and passing the Physics Regents Exam.
4) **The results in 2011 indicate success in the district's mission to increase access and success to college gateway courses like physics.**

Goals:

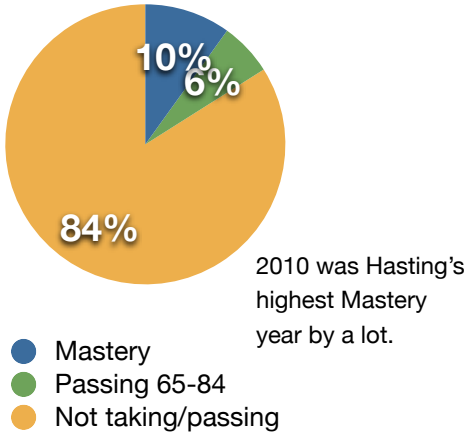
1) Maintain enrollment and success levels.
2) Increase success rate within current enrolled population.
3) Increase the mastery rate to 25% or higher.

Passing/Mastery Results Quad Village Comparison 2010-2011

The data below shows the percentage of students taking and passing the Physics Regents Examination as a proportion of the entire Junior class population each year.

	%	Count
Mastery	0.10	13
Pass 65-84	0.06	8
Not taking/ passing	0.84	110

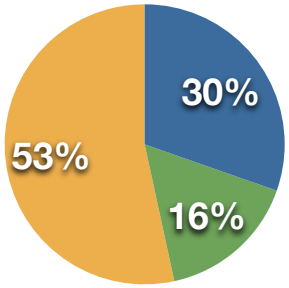
2010 Hastings Regents Physics



2010 was Hasting's highest Mastery year by a lot.

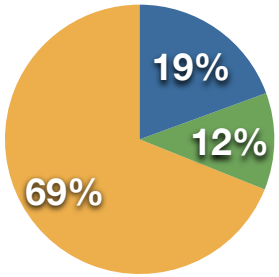
	%	Count
Mastery	0.30	58
Pass 65-84	0.16	31
Not taking/ passing	0.53	102

2010 Ardsley Regents Physics



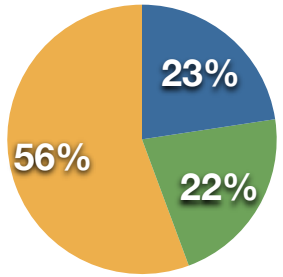
	%	Count
Mastery	0.19	20
Pass 65-84	0.12	12
Not taking/ passing	0.69	71

2010 Dobbs Ferry Physics



	%	Count
Mastery	0.226	26
Pass 65-84	0.217	25
Not taking/ passing	0.557	64

2011 Dobbs Ferry Physics



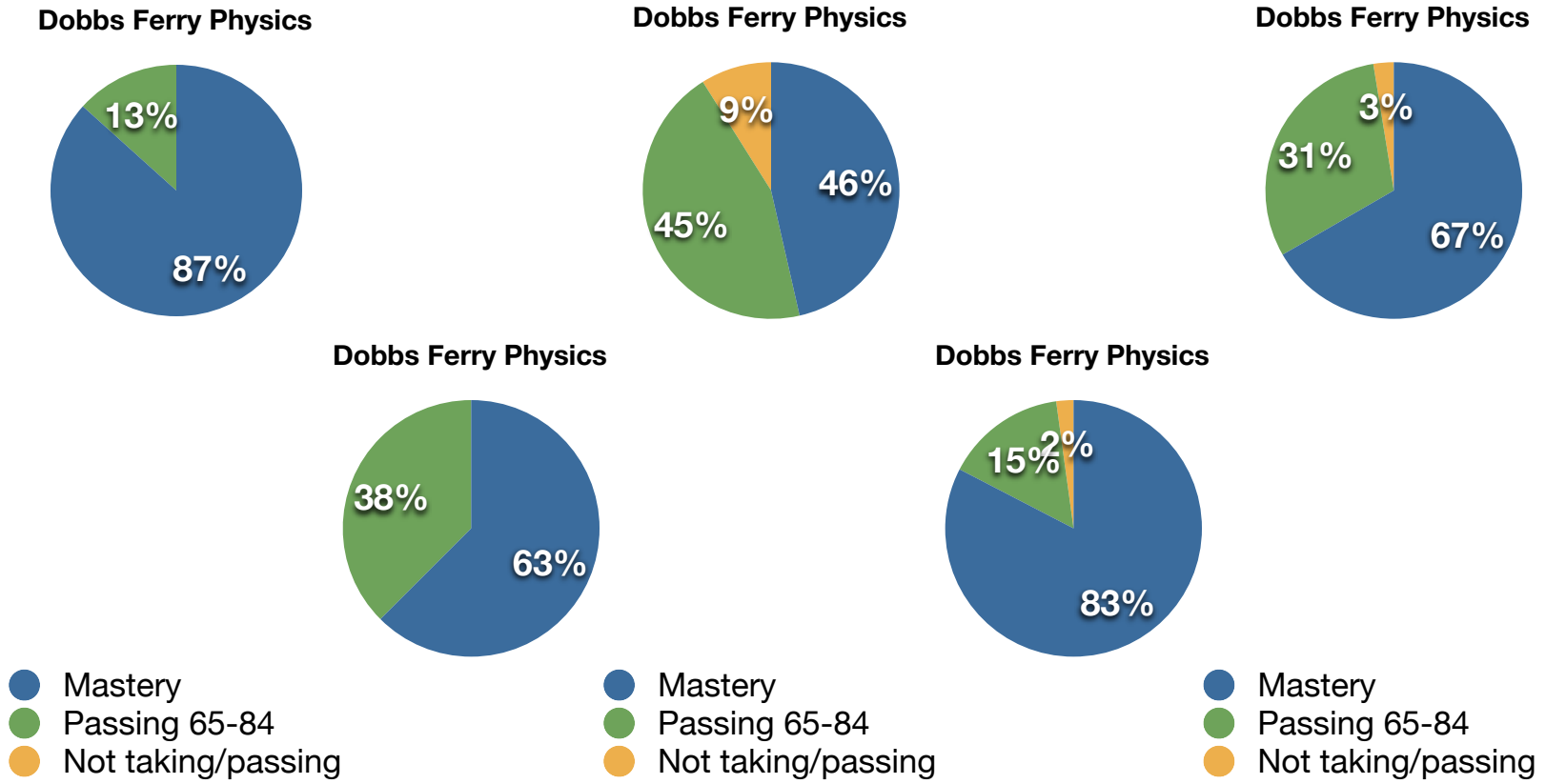
Observations:

1) Irvington does not offer Regents Physics, so no comparison can be made in that regard.
2) Hastings has a very low participation rate in Regents Physics. This may because of a weak program and enrollment, or that students either take AP Physics B or Regents Physics (or some other course) in the senior year instead of physics.
3) Ardsley leads the Quad village schools in Physics Regents participation, with 46% passing and 30% mastery. Historically, Dobbs has lagged far behind Ardsley in both measures. In 2011 the Ardsley - Dobbs gap closed significantly to 46 and 45% passing respectively and 30 and 23% mastery respectively.
4) **The results in 2011 indicate success in the district's mission to increase access and success to college gateway courses like physics AND close the gap on the top school.**

Passing Results: Which year is best?

Each graph represents one of the last 5 years of Physics Results. The results are the % of students in each category calculated from the number of students taking the exam. E.g. a mastery rate of 100% means that 100% of the students who took the exam earned an 85 or higher. A Not taking/passing percentage of 9% means that 9% of the students who took the exam scored below 65% on the exam.

From among the 5 graphs below, select the graph which you believe demonstrates the best results.
Then select the one which you believe shows the worst results.



Old/Misleading Results

The exercise above and what you will see on the next page illustrate, is that the traditional representation of results, i.e. passing, mastery, failing, tell us absolutely nothing about the quality of teaching or learning — or the actual results achieved on the exam.

The above results are the product of and encourage the following unsound practices:

1) Guidance counselors preselecting students out of Physics
2) Teachers sorting students out and encouraging them to drop the course early on
3) Teachers encouraging/preventing students from becoming eligible to sit for the Regents Exam through the laboratory requirement

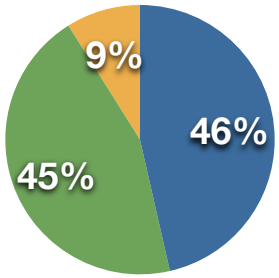
In the end, the above method of presenting and reporting results ONLY tells us how effective the above 3 practices are at excluding students who might not be successful from taking a course and sitting for the exam.

It is not a measure of how effective the above practices are at predicting who will or can be successful.

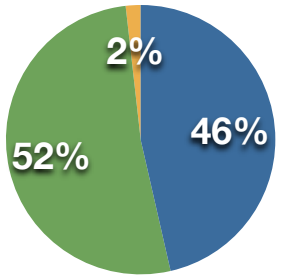
In June 2011, we encouraged, and made eligible to take the Regents Exam, 4 of the 5 students who failed the exam — even though we knew there was virtually no chance they could pass the exam. The difference in results is below.

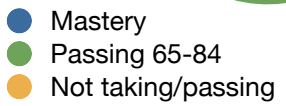
	%	Count
Mastery	0.46	26
Passing 65-84	0.45	25
Not taking/passing	0.09	5

2011 Dobbs Ferry Physics



2011 Dobbs Ferry Physics





	%	Count
Mastery	0.50	26
Passing 65-84	0.56	29
Not taking/passing	0.02	1