



CPM 2012 and CSS 2013 “E&O” Study Group

Marge Bardeen, Fermilab

Dan Cronin-Hennessy, University of Minnesota



Science is essential!

Particle physics is essential!

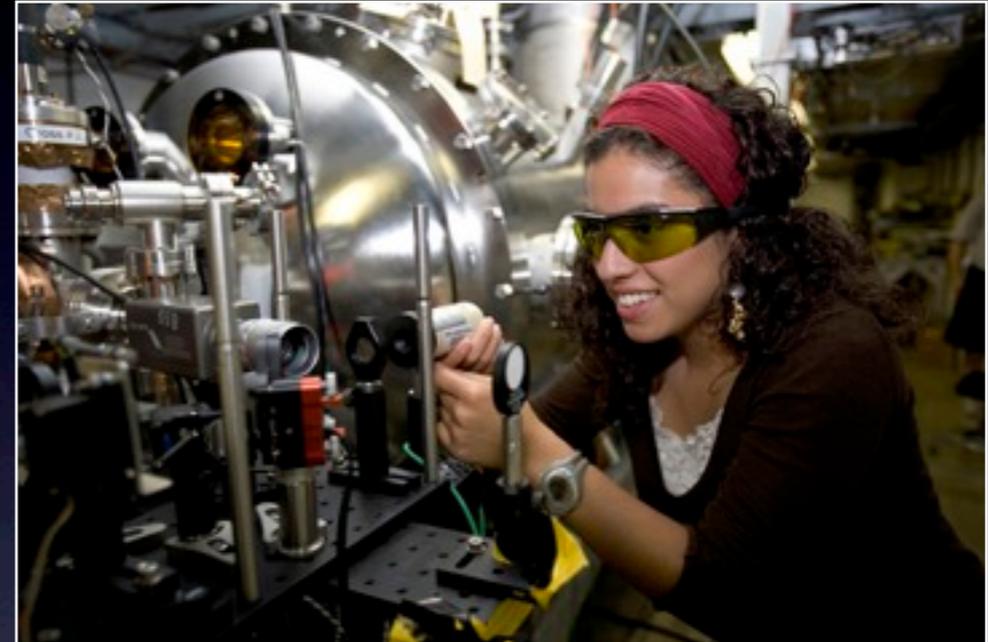
Federal funding for particle physics is essential!



Communication is essential!



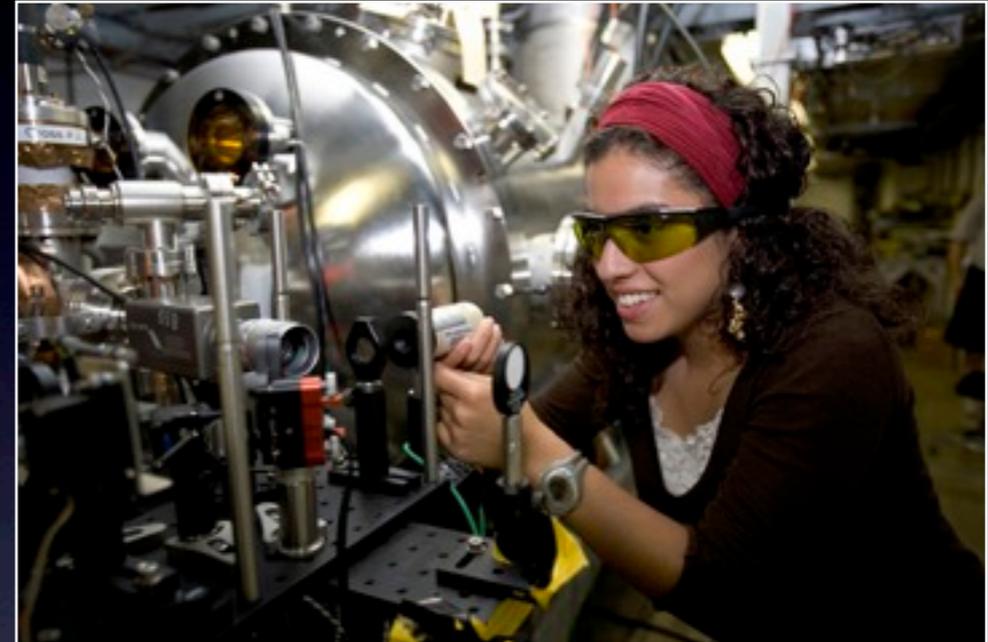
Inspiring our next generation workforce



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Convincing current & next generation voters Influencing decision makers



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An Inconvenient Fact

The majority of Americans support cutting domestic government spending in order to reduce the federal deficit (74%). National defense and scientific research are the areas they are most willing to see cut. There is a difference by ideological beliefs.

Domestic Budget Cuts - First Choice by Key Voter Groups

	#1	#2	#3
All Voters	National Defense (21%)	Scientific Research (19%)	Unemployment Benefits (9%)
Tea Party Supporters	Scientific Research (21%)	Public Education (19%)	Unemployment Benefits (14%)
GOP Primary Voters	Scientific Research (22%)	Public Education (15%)	Unemployment Benefits (10%)
Swing Voters	Scientific Research (24%)	National Defense (14%)	Unemployment Benefits (11%)
DEM Primary Voters	National Defense (34%)	Scientific Research (17%)	Unemployment Benefits (5%)

If you had to choose one, which of the following domestic programs would you be willing to cut government spending on in order to reduce the federal deficit?





An Inconvenient Fact

Voters were presented with this list of domestic programs and asked which one they would be willing to cut government spending on in order to reduce the federal deficit.

National defense	21%
Scientific research	19%
Unemployment benefits	9%
Public education	7%
Social Security	5%
Medicare	5%
Roads, bridges, and other infrastructure	4%
Veterans benefits	2%
Medical research	2%
Would you not support spending reductions in any of these programs?	26%



GREENBERG QUINLAN ROSNER RESEARCH

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Tough Questions

What has particle physics done for me?

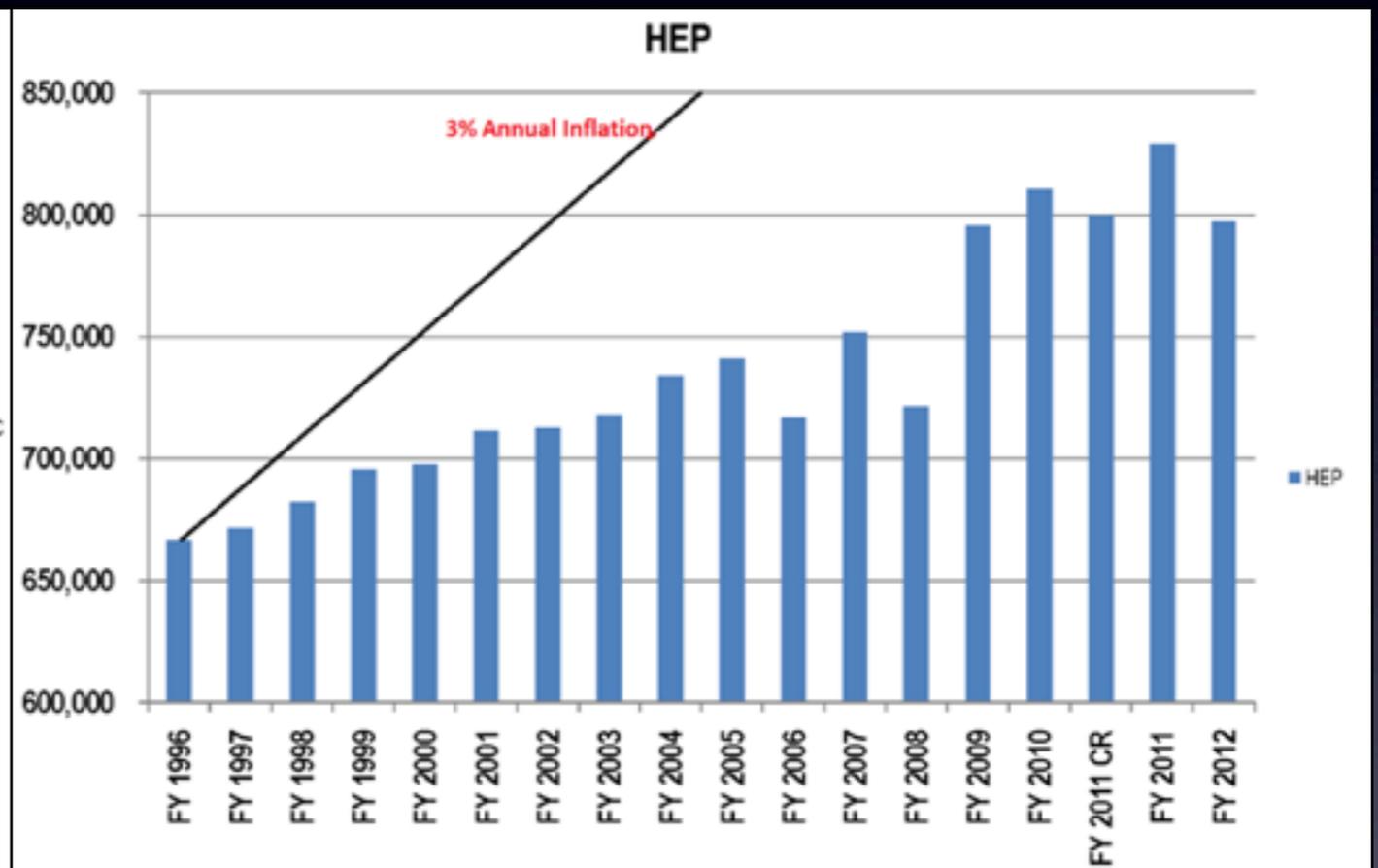
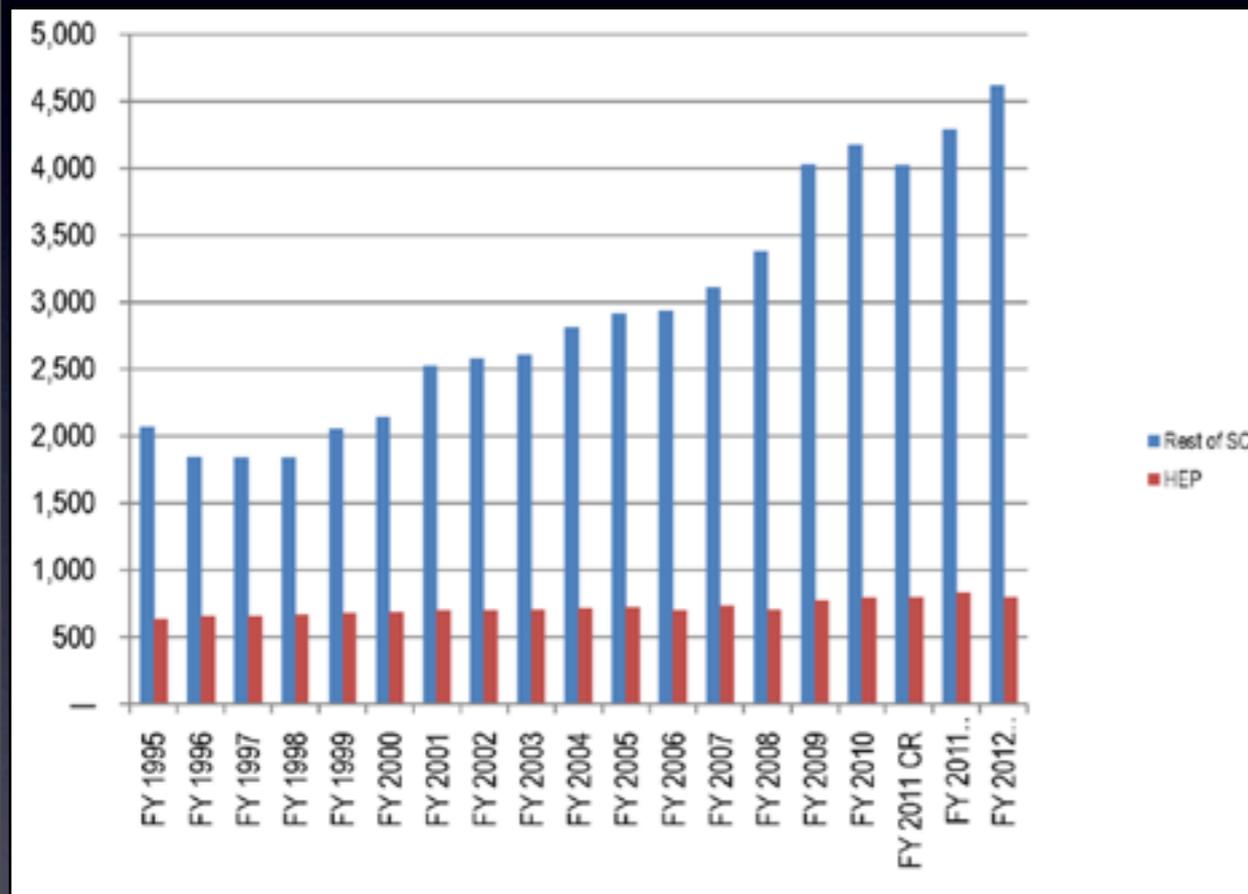
Why should funding go for particle physics when funding for --- is being cut?

Why are we planning multibillion-dollar projects that won't be built for decades?

How does the U.S. benefit from big off-shore projects?



The Problem We Have to Solve



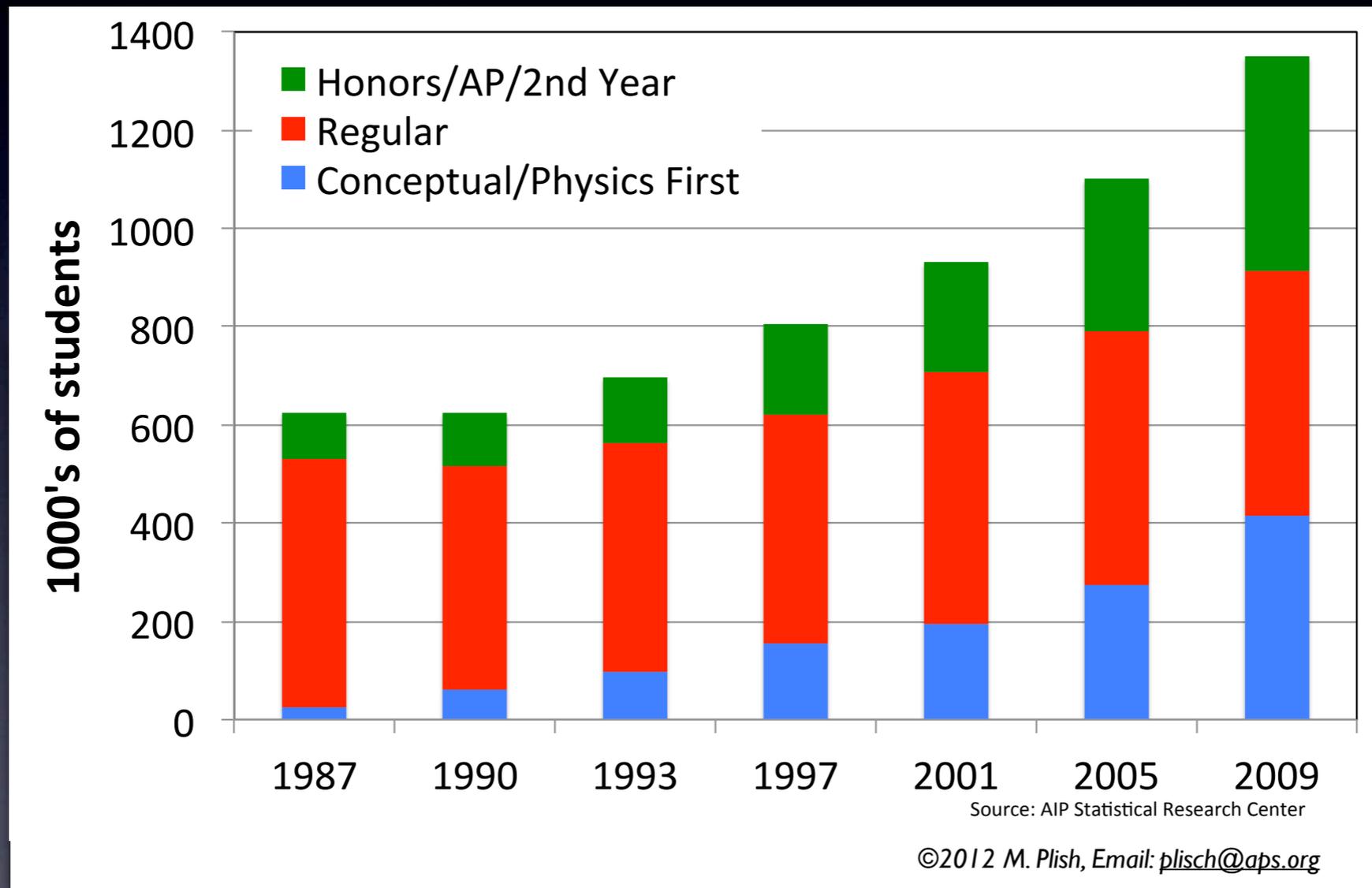
Office of Science & HEP Funding

HEP Funding vs. Inflation



Good News

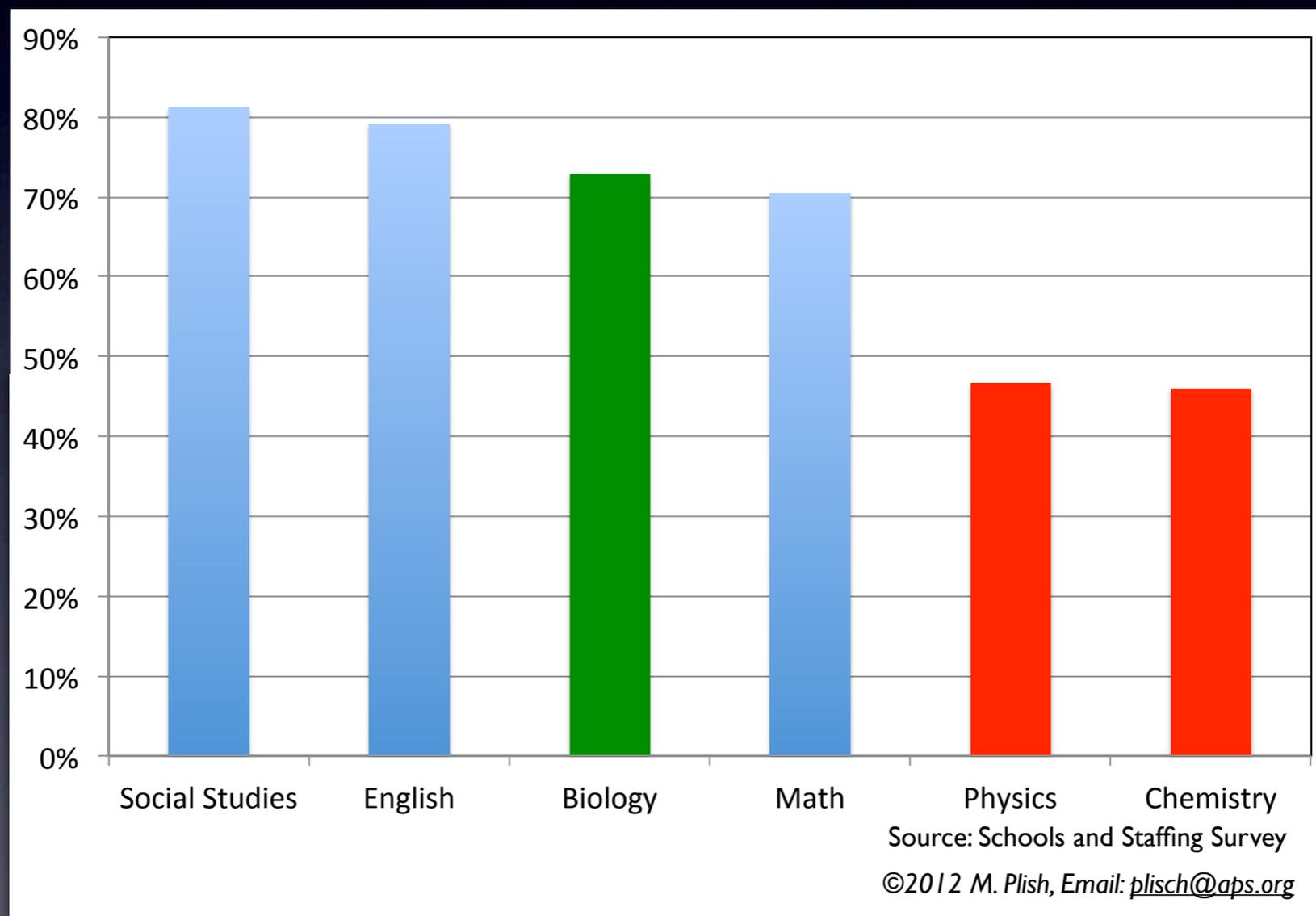
High school physics enrollment





Not-So-Good News

High school classes taught by teacher with degree in field





...or APS-Identified College-Level Challenges

Threatened closure of college-level physics programs

Building thriving physics programs

Taking action to increase diversity



Communication is essential!

The Science of Science Communication

May 21-22, 2012



http://www.nasonline.org/programs/sackler-colloquia/completed_colloquia/science-communication.html

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The Science of Science Communication

Deliver a variety of simple, clear messages, repeated often by trusted sources.

Collect audience data.

Develop trust, our most important asset:

Familiarity —> liking —> trust

Arthur M. Sackler Colloquium at the National Academy of Sciences

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The Science of Science Communication

Coordinate internally and externally.

Work as a team:

Content specialists

Social & decision science experts

Communication experts

Evaluate with an important, scholarly approach as a priority.

Arthur M. Sackler Colloquium at the National Academy of Sciences

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E&O Study Group Charge

How to build support for & develop understanding of particle physics

- Summarize current status of particle physics E&O programming.
- Identify promising future opportunities.



E&O Study Subgroups & Pre-Meetings

March 16-17 with APS Meeting

Teachers - grades 5-16

Students - grades 5-16

April 12-13 with APS Meeting

The General Public

Policy Makers and Opinion Leaders

The Science Community



E&O Friday Parallel Sessions Racetrack, WH7XO

9:30 - 10:30 - The General Public

10:45 - 11:45 - Policy Makers and Opinion Leaders

12:00 - 13:00 - The Science Community

13:15 - 14:15 - Teachers & Students - grades 5-16