

# Sustaining Ongoing Partnerships After the RET Is Over

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# Stanford's RET Program

- Since 2005, 168 Summer Fellowships involving 108 individual science teachers
- Major funders: NSF, NIH, HHMI, NASA, Stanford President's Office
- Latest alumni survey conducted July-September 2012
- 107 of 108 alumni responded or located

# Teacher Retention

- 97 of 108 alumni (90%) are still classroom teachers.
- Average annual attrition rate from teaching of 2.5% (compared with estimated 14-15% national attrition rate in 2010-11\*)

\* Based on *Teacher Attrition and Mobility: Results from the 2004-05 Teacher Follow-up Survey* by Marvel, Lyter, Peltola, Strizek and Morton, U.S. Department of Education, National Center for Education Statistics (2006) and *Who Will Teach? Experience Matters* by Carroll and Foster, National Commission on Teaching and America's Future (2010)

# How Teachers Continue the Partnership

- 98% implement their lessons and 82% use them annually.
- 53% receive materials, supplies or equipment from Stanford to use in classroom (43% more than 3 times).
- 33% use Stanford facilities or equipment during school year (17% more than 3 times).
- 30% invite mentor or PI to visit school (21% more than 3 times).
- 30% arrange for their students to visit Stanford or nominate them for summer internships.

# Changes in Instructional Practices

- 98% added new content/lessons.
- 81% added examples and illustrations to existing lessons.
- 62% increased emphasis on problem solving and/or exploring open-ended questions.
- 60% added new labs.
- 32% assigned more research projects.

# Changes in Professional Practices

- 61% create/seek more opportunities for their own professional development.
- 57% do more professional networking.
- 47% mentor/coach other teachers.
- 22% assume new leadership roles in department, school or district.
- 18% initiate a school-wide program or change.
- 14% initiate a new course.\*

*\* including biochemistry, biotechnology, organic chemistry, environmental chemistry, engineering, advanced research investigations, robotics, advanced physics/materials science, AP physics, and a summer school course in electronic circuits and microcontrollers.*

# Ongoing Partnerships

- Geological & Environmental Sciences
  - Prof. Jon Payne, teacher and 6 HS students in lab each summer, collecting & analyzing fossil body size data to track evolutionary dynamics.
  - Teacher's AP Environmental Science class continues data collection during school year & visits Stanford lab at least once.
- Lab-based lessons for hospitalized children
  - Prof. Andy Spakowitz, teacher and HS student develop a series of science labs suitable to accommodate needs of students in long-term treatment at Packard Children's Hospital
- Chemistry & AP Biology workshops developed by researchers & teachers & offered in summer by School of Education