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**RESEARCH CORPORATION FOR SCIENCE ADVANCEMENT ANNOUNCES  
A NEW BOOK BY SHEILA TOBIAS AND ANNE BAFFERT, ENTITLED  
*SCIENCE TEACHING AS A PROFESSION: WHY IT ISN'T, HOW IT COULD BE***

**The Book Explores Attrition Among Science Teachers in the United States  
and What Can Be Done About It**

**Tucson, AZ – May 6, 2009** – Research Corporation for Science Advancement announced today the publication of a new book by noted education writer Sheila Tobias and veteran science teacher Anne Baffert, entitled *Science Teaching as a Profession: Why It Isn't, How It Could Be*. Based upon their communications with nearly 500 science teachers across the United States over the past two years, the book explores what is needed to reduce attrition by high-school science teachers at a time when the United States is facing increasing competition in the sciences from other nations.

The United States is facing two major science education gaps: a shortage of science teachers and a gap in student performance in science compared with competitor nations. The U.S. government is seeking to address these gaps in large part by producing more science teachers. *Science Teaching as a Profession* looks at the other side of the equation: what can be done about attrition among science teachers.

To explore that issue, the authors communicated with high-school science teachers throughout the nation over an 18-month period (through January 2009). About 400 of the science teachers communicated through an interactive website, following email outreach through science education associations. Approximately another 100 science teachers participated in face-to-face interviews.

What the authors learned was surprising: attrition was not primarily a function of money. More pressing were concerns about loss of autonomy, control, and stature.

- Autonomy
  - Science teachers want more autonomy over how and what they teach, including the sequencing of specific topic areas and the selection of textbooks. Great teaching is intensely personal; the less the teaching can be personalized the less impactful it is.

- Control
  - Science teachers want more control in terms of the extent to which they are allowed to teach in their own area of specialty (biology vs. physics, for instance) and are able to influence school policy by participating in policy deliberations.
  - They are also concerned about the loss of control over student assessment. Such assessment used to be the prerogative of teachers; increasingly it is too much determined by student performance in “high-stakes testing.”
- Stature
  - Science teachers want to be considered professionals – appreciated for their expertise; trusted for their judgment; valued by school administrators and society more broadly.

“Regaining the sense of professionalism, and the trust of judgment inherent in it, emerged as a high priority in our interactions with science teachers,” said co-author Sheila Tobias.

Recommendations for action that also emerged include the following:

- Provide science teachers with greater autonomy and hold them accountable for their overall performance on multiple measures, not just their students’ one-time evaluation on high-stakes tests. That’s what’s expected of professionals in other fields.
- Don’t link a teacher’s performance only to student performance on standardized tests. There’s more to a great teacher than that.
- Include science teachers or chairs of science departments in school and district decision-making.
- Link high-school science teachers with working scientists, including college-level science professors, through summer jobs in research labs and other connections. Those linkages enhance the sense of professionalism, while providing additional experience, learning, and income as well.

“As a science teacher and department chair, I know that attrition among science teachers can and must be reduced,” said co-author Anne Baffert. “This research points the way and should open the door to active discussion among educators across the country.”

Sheila Tobias is the well-known author of 10 previous books, including three published by Research Corporation: *Rethinking Science as a Career: Perceptions and Realities in the Physical Sciences*; *Revitalizing Undergraduate Science: Why Some Things Work and Most Don’t*; and, *They’re Not Dumb, They’re Different: Stalking the Second Tier*. Anne Baffert is a chemistry teacher and chair of science at Salpointe Catholic High School in Tucson. She has been a high school science teacher for 17 years.

*Science Teaching as a Profession* is available for downloading free of charge at [www.rescorp.org](http://www.rescorp.org). A printed edition will be available for purchase in the fall.

For additional information and to arrange interviews, please contact Carly Jansen at Goodman Media International, 212-576-2700 x250 or [cjansen@goodmanmedia.com](mailto:cjansen@goodmanmedia.com).

**About Research Corporation for Science Advancement (RCSA)**

Founded in 1912, Research Corporation for Science Advancement ([www.rescorp.org](http://www.rescorp.org)) – formerly known as Research Corporation – is the second-oldest foundation in the United States (after the Carnegie Corporation) and the oldest foundation for science advancement. RCSA is a leading advocate for the sciences and a major funder of scientific innovation and of research in America’s colleges and universities.

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