Mr. Ingersoll. Thank you, Mr. Chairman, and Members of the committee for inviting me. Over the last few years I have been doing a great deal of research on problems with the quality and qualifications of our elementary and secondary teaching work force. Today I would like to just very briefly summarize what I have found concerning a very crucial issue, but one which, has been widely misunderstood. That is the phenomenon known as out-of-field teaching, teachers teaching subjects for which they have little education or background.

My interest in this stems from my former experience as a high school teacher. I was a social studies teacher, but it seems like there was hardly a year that went by that I wasn't, in addition to social studies, assigned to teach other subjects, math, special Ed, English, for which I had little background. Needless to say, I found it very challenging to teach things that I did not know. I began to wonder, is this a widespread thing, does this phenomenon go on in other schools? If so, why?

Ultimately, I quit high school teaching and went and got a Ph.D. and got the opportunity to answer these same questions in a large-scale research project using a new large national survey of teachers which has been recently completed by the U.S. Department of Education. My objective in my research was to figure out how many teachers at the high school level and in the core academic subjects do not have even a minimal content subject background in the subject they are assigned to teach. I define minimal as a college minor, which is not a whole lot.

My presumption was that few parents would want their teenagers taking, let us say, 11th grade trigonometry taught by a teacher that didn't have at least a minor and hopefully major in mathematics. It turns out, unfortunately, that indeed millions of our high school students are in this very predicament every year. So for instance, almost a third of high school mathematics teachers do not have a minor or a major in mathematics or related subjects, engineering, physics or even math education. Well over 50 percent of high school history teachers in the country do not have a minor or major in history. Not unexpectedly the media has widely recorded these findings over the last year and a half, but at the same time this problem has been widely misunderstood. The misunderstandings all surround the crucial question of why. Why are so many high school teachers teaching subjects for which they have little background?

The conventional wisdom tells us that there are one or two reasons for this problem. The first is that, well, there is a lack of training or education on the part of teachers. Of course the obvious antidote is to upgrade the education and training requirements to become a teacher. The second explanation we hear again and again is that teacher shortages are to blame here. Schools simply often cannot find qualified people to fill their positions so they have to make do. They have to reassign someone from social studies to teach math or have to hire someone underqualified. An antidote to this view usually suggests that we
enhance recruitment. But the data clearly suggests that both these views are only partly correct. The data clearly shows that almost all of our teachers in this country have a basic education. Almost all of them have a four-year college degree. Almost all of them have a regular State-approved teaching certificate and indeed almost half of our teachers have a graduate degree, usually a Master's Degree. The source of out-of-field teaching does not lie in a lack of education in the training on the part of teachers. It lies in a lack of fit between what they are trained to do and what they are assigned to do. The lack of fit, the data tell us, is often the result of schools having difficulty filling their--finding suitable people to fill their positions. But these staffing problems are not due to teacher shortages in the conventional sense that there is a lack of willing and able bodies out there to fill positions. No. Rather, the data tells us that the staffing problems are more often due to too many teachers prematurely leaving the occupation. In any given year the vast majority of hiring that goes on is simply to replace people who have left their positions, and the data tells us that most teachers move from or leave their positions for one of two reasons. Either they are dissatisfied with teaching or they would like to pursue another career.

These findings have very important implications for policy. If we want to ensure that all our classrooms have adequately qualified teachers, we need to do more than simply recruit thousands of new teachers and give them all kinds of new training. In plain terms, recruiting thousands of people, giving them a lot of training, while very worthwhile things to do, will not solve the problem if then a lot of those teachers are assigned to teach things other than what they are trained in or if a lot of those teachers leave within a few years.

My main point here is that if we want to ensure that all the classrooms in the country have qualified teachers, we need to recruit, we need to train, but we also need to support adequately managed, properly managed and retain our existing teachers.