I have been asked to offer a few remarks this morning on "Teachers as Professionals". I want to revise that slightly, and talk about "Teaching as a Profession", as I think this more appropriately draws our attention to the body of knowledge, practice and expertise that furthers learning.

Before I start, I want to note that there are a number of people among us here today who are working to ensure that teachers' voices are at the table when important decisions are made, and to support us through efforts to ensure that the rollout of the new Common Core standards is something done by teachers, not something done to teachers. They are to be thanked for their vision and leadership, and I want to take this opportunity to thank John Ewing of Math for America, and Herb Clemens of the Park City Math Institute. The task before us, then, is to take the charge from these people, and to commit ourselves to defining through our actions, the profession of teaching.

I am going to talk about three aspects of this: teachers as classroom practitioners, teachers of mathematics as mathematicians, and teachers as professionals charged with the care of young people. I will conclude by remarking on the context in which these roles are realized.

The first thing we need to think about is what happens after teachers finish pre-service training and get into the classroom. What kinds of support need to be offered to early-career teachers? How can more experienced teachers take the lead in providing this? Peer support of new teachers has the power to nurture them in a context free from fear and threat, but it will be able to do so far more effectively if it is truly organized and led by other teachers.

A more controversial question we also need to ask is what sort of classroom support is appropriate in the case of experienced teachers. Why do more teachers not welcome colleagues into their classrooms and seek their feedback? Why do more teachers not use video of themselves teaching to reflect on their practice? Some do, but it is far from a generally accepted part of professional practice nationwide. Teachers worry about being subjected to judgment by their colleagues, and even worry that seeking or accepting coaching would make them look incompetent.

Here's the thing: Elite athletes have coaches, elite singers have coaches. Yet a classroom is a vastly more complex and challenging setting than a baseball diamond or an opera stage, and the payoff from improved practice is infinitely greater. I would submit that the idea of continuous career-long refinement of practice is not only consistent with a culture of high professionalism, but is essential to it. Again, however, teachers themselves need to take the lead in defining the role of coaches in the classroom - a true coach works for the person being coached - the relationship cannot be imposed from above.

One important side-effect of experienced teachers undertaking continuous improvement in this way, is that we will serve as role models for newer teachers, and perhaps even more hesitant peers, and

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1 For the development of this point, I am indebted to Atul Gawande's excellent article "Personal Best - Should Everyone Have a Coach?" in the October 3, 2011 issue of The New Yorker magazine.
will begin to debunk the myth that “teacher improvement” is a temporary intervention intended to fix defective teachers, or to demonstrate *pro forma* due diligence before firing them. If we buy into that myth, we risk letting the anti-teacher forces abroad in the land define this crucial aspect of the profession for us.

My next point is that we need to think about professional development not only as ongoing refinement of our classroom practice, but also as continued engagement with mathematics. We would have serious questions about an English teacher who had not read a book in five or ten years, but we think nothing of a math teacher not having explored a novel math problem or theorem in much longer.

The Common Core demands that we engage our students in habits of mathematical practice. What better way to think about what this can look like in our classrooms than to do it ourselves, and to get excited ourselves about math as something intellectually alive? This doesn't have to involve mind-bendingly hard or technical exercises. There are profound, beautiful and surprising things underlying every level of the Common Core curriculum, many of which would be accessible to an interested generalist.

Programs like PROMYS, the Park City Mathematics Institute, and Math for America, generously offer opportunities for groups of teachers, especially middle and secondary school teachers, to engage in this work, but for most teachers nationwide, particularly elementary teachers of mathematics, this sort of activity remains too difficult and costly, not only in terms of the work required to seek it out, and the travel time to participate in it, but also in terms of the emotional risk of approaching something challenging and unfamiliar in the company of colleagues. There has been a lot of work done around mathematical knowledge for teaching, but one hopes that this is largely a pre-service question. We need more awareness of, and commitment to, the need for ongoing experience of mathematical process as an element of professional practice - we need to be the lifelong learners that we want our students to become.

Finally, I have to share a perspective that I gathered from a colleague whom I respect a great deal when I mentioned that I had been asked to speak on teachers as professionals. He said that he thought the math teachers he knew were generally strong on the material, but did not always fully appreciate that the profession also involves nurturing young people. In the Common Core, I believe that the Standards for Mathematical Practice explicitly call on us to take responsibility for our students' emotional and social development - in the first standard, where we are asked to teach children to persevere in solving problem, and in the third where we are asked to teach them to critique one another's reasoning.

We need to think more about what the ability to teach these things looks like as a professional competence, and to identify and disseminate best practices.

I have been talking about these things as if it is entirely within our power to make them happen. In many respects it is, but there are other respects in which we need to think about the broader context in which we work, and the kinds of assistance we need.

We need help from college math faculties to develop the sort of rich activities that will allow people with limited time and mathematical background to engage with deep mathematics.
If we are to make intervisitation of classrooms an integral part of our professional practice, we need to learn more about how to observe teaching, and about adult learning.

Moreover, it needs to be said that, even more than diminished resources, the climate of fear that prevails in many districts makes it far more difficult than it should be to build the level of trust between teachers, and between teachers and administrators, required to realize many of these things as a community. It is incumbent upon other players in the power structure in which we are enmeshed not to create an environment of fear by enacting mandates, without a clear plan and vision of how to empower and support teachers and administrators in fulfilling those mandates.

Beyond adjusting the political climate, there are other policy initiatives that could help to create an environment in which these sorts of teacher initiatives would take root more readily, and become institutionalized. Before I close, I would like to take a bit of a risk by proposing one.

This idea of tying teacher pay to "performance," whatever that means, has always bothered me, not only because it seems based on the assumption that I went into this profession for the money, but also because of the implicit assumption that I am not already doing everything I know how to help my students succeed. A version of the idea that appeals to me a bit more, however, is paying financial bonuses to teams of teachers for reaching goals that they set in collaboration with administration and districts. This, I think, has the potential to shift incentives for teachers towards seeing teaching as a profession, of which they are a part, rather than just seeing oneself as a professional, and worrying about whether anyone else recognizes it. Teachers crave control - it goes with the territory - and we often have difficulty switching gears to collaborative work across grades and departments, even when it seems appealing in the abstract. It is silly to try to coerce people into working well together, but a financial sweetener might be just the thing to get teachers to prioritize something that they are basically open to doing, but that is difficult and uncomfortable to actually undertake.

Nonetheless, no amount of support or good-will from above, or any kind of media coverage that we might wish for, can make teaching more or less of a profession. It is we, the teachers, who can do this. If we do not define for ourselves what the teaching profession is, others will try to do it for us. They may try anyway, but we must provide vision of our own, and I hope that today I have contributed to articulating one.