Some reflections on professional development for secondary math teachers

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Professional development works

- US has the finest system of graduate education in the world
- US has become home for very many of the world’s finest mathematician
Why?

• We have time to do mathematics

• We educate each other—we see our students as ourselves

• Professional esteem is based on mathematics
Components of lifelong professional development for university faculty

- We continue to learn and generate new mathematics
- We analyze our own work and that of our peers and colleagues
- Through research and exposition, we become a resource for students, colleagues and the profession
Politics made this possible!

• After the Second World War, Sputnik, society became convinced that they needed advanced mathematics and were willing to pay for it

• The profession and our enablers (university administrations) took advantage of that perceived need
Professional development for mathematics teachers

- Continue to learn/do mathematics
- Continue to analyze teaching practice
- Become a teaching resource for students, colleagues and the profession
USA cable network: “We know drama”

IAS/Park City Mathematics Institute: “We know professional development*”

(*for school mathematics teacher-leaders)
We learned that:

• Teachers learn to become quite good at educating each other.

• Teachers do mathematics with other teachers better than we can.

• Teachers will analyze their own practice and that of other teachers

• Teachers can develop resources for their peers
Politics now makes this possible!

• Enter the Common Core—society seems to be convinced of a need (NAGBE, Achieve, 33 States)

• Do the profession (teachers) and its enablers (us) take advantage of that perceived need?
There are some challenges…

- Common Core norms must be interpreted differently for different student constituencies
- Common Core norms must be adapted differently to different schools, districts and regions
There are some challenges...

We don’t know how to do that...

…but we have some expertise and experience that says that...

…teachers themselves need to be the professional developers...

…with support from us.
Invitation to plan

Come visit PCMI next July

Plan to help teachers, the professionals, become the professional developers who guide their professional peers toward the implementation of the Common Core