Where Worker Productivity Really Comes From

During my day with Eric Hanushek, he repeatedly asked me, "If rising worker productivity doesn't come from education, where does it come from?" Good question. In the pre-modern world, workers got little education and had low productivity. In the modern world, workers get much education and have high productivity. Productivity (and education!) keep going up. If formal academic training isn't the main reason, what is?

The safe answer is, "I don't know. But whatever the answer is, it's not education." However, safe answers are not my style. While I'm not sure, I think I've got a pretty good guess. Or to be more precise, two pretty good guesses. To what does the modern worker owe his high productivity?

- 1. *Practice.* Modern workers get really good at modern tasks by practicing modern tasks, under the tutelage of other workers who have already mastered them. Modern programmers get good at programming by practicing programming, under the tutelage of skilled programmers. Modern offshore oil drillers get good at offshore oil drilling by practicing offshore oil drilling, under the tutelage of skilled drillers. In the pre-modern world, these practice opportunities were simply unavailable. Now they're everywhere. Whenever a new industry arises, people get new practice and new tutelage. The same holds whenever an existing industry innovates: people get new practice and new tutelage.
- 2. Management. Production is a team sport, and the coaches are called managers. Even if all the team members are great at their jobs, productivity will be low unless these managers expertly lead and direct their skills. This is crucial because good management does not come naturally to human beings. Forging an effective production team isn't quite as hard as herding cats, but it's in the same ballpark. In the Third World, management practices are plain bad; common-sense policies like "Show up on time," "Pay for performance," and "Count the inventory and the money" are widely violated. And remember, the whole world used to be the Third World! What changed? Common-sense slowly caught on though as Alex Tabarrok reminds us, even First World businesses have ample room for improvement.

So that's my story. The foundation of the modern economy is not teachers, but craftsmen and bosses. Not book learning, but experience and leadership. Not studying, but doing and directing. As a professor, this doesn't do much for my ego. But why should everything be about me?