

Louisville Rotary
September 7, 2005

I want to talk with you today about improving Kentucky's high schools. (If my own grown kids were here they would call this "dad's eat your broccoli speech.")

But I want to start with a little background.

I think we all tend to have in our minds a "golden age" of education. That was usually about the same time we were in school.

That's the case with my mother, who's 90 years old, so her golden age in the 1930s. She said to me once — "What's gone wrong? When I was in school everybody graduated from high school."

Well, mother, not exactly. What you mean is that all the people you "knew" were graduating from high school!

But in reality, in 1930 less than 10% of Kentuckians had high school diplomas compared to about 82% today. Only about 1.5% has college degrees compared to 21% today. Even in 1960, thirty years later, when I graduated in Louisville, still only 27% of all Kentuckians had high school diplomas.

Those “golden ages” were actually the times of “Thank God for Mississippi.” That was the older generation.

And those were the days people joked about when they said, for example, that education was so bad that Kentucky circuit judges had to travel in “3’s” — “one who could read, one who could write, and one to watch out for the intellectuals.”

Times have changed a lot. Thank goodness. Those days are just gone.

It’s probably not politically correct to say this — in these days when there’s all this talk about the “crisis” in our schools — but today’s generation

of young people (those 25-35 years old) is the best educated in Kentucky history.

- About 85% have high school diplomas compared to about 50% 20 years ago — and our increase here leads the nation.
- About 21% have four-year college degrees compared to 11% twenty years ago.
- And more are going on to postsecondary education. Kentucky's college-going rate has increased faster than almost any other state in the nation.
- And — on almost any national measure of academic achievement our youngsters — particularly elementary students — outscore children who came before them. Our children now have achievement scores comparable to states north of us — and that's where we want to compete.

I am not saying in any manner that we are now in a “golden age.” But I am saying that for a state that was once famously at the bottom, Kentucky has made remarkable improvement.

So — if that’s the case — why are we still harping on improving schools — particularly high schools?

The simple answer is that these results aren’t good enough.

They aren’t good enough in absolute terms and aren’t good enough compared to the world around us — which is being dramatically reshaped by a global competition for talent.

The level of education people needed even a few years ago just isn’t going to be good enough for our children. And it’s not going to be good enough to prepare our children or Kentucky to compete in the global economy.

Times have changed dramatically. And high schools need to accomplish something that we have never even attempted — teaching every student so they succeed. Again — we’ve never even attempted this. (mention: “sorting.”)

You’ve probably either read or heard about this in the writing of Thomas Friedman and his new book *The World is Flat* or Richard Florida writing on the “Creative Class.” Friedman and Florida forecast a new level of international competition — fueled by brainpower and ideas and creativity and competition for talent — is the most serious threat to this country’s economic dominance ever.

What’s happening is that countries like India, China, Korea, and Japan that have been taking our low-skilled jobs and been manufacturing our products cheaper, are ready now to take off to a new level, because they’re beating us in the brain race. Add to those countries Ireland, New Zealand, and several Scandinavian countries and it’s a very competitive environment.

A CEO who recently returned from China told a friend of mine “I’ve seen the future and it’s not here.”

Now these countries are creating and inventing products and that will be much more profitable than call centers and assembling cheap electronics. They will do this with a highly educated young population of scientists and engineers and a consuming passion, and a competitive drive, to be just like we have been — the great middle class.

Because of their emphasis on education, particularly in science and math, because of their big-time investments in research and development, and because the U.S. made it harder for us to import this talent following 9-11, our long-standing economic advantages are decaying.

Read Florida’s *The Flight of the Creative Class* for this full picture. He shows that for 30 years the United States has prospered hugely because bright people from around the world came here and invented the products that made this country one of the wealthiest ever. These are people, for instance, who

have started and led huge U.S. companies (59 Silicon Valley founders and C.E.O.'s are from India).

They have also populated our best graduate schools and laboratories. In Kentucky, for example, fully one-half of all science and math graduate students are here on temporary visas. (“We’ve been cheating” one economist said.)

But now this flow of talent coming in is stopping. Now those people can stay home and have the same kind of success they could only find in the U.S. a few years ago.

We are told that within about 10 years 90% of all the world’s engineers and scientists will be in India, China and Korea. These people will be inventing products — working in places like Microsoft’s lab in Beijing — and they then will make the profits, not just the wages, that American workers have been making by doing the same thing for years.

So — in a terrible abbreviated fashion — this is the challenge.

I want to talk about what it means for high schools and education — but education isn't by any means the only thing we need to deal with. For instance, our nation hasn't invested in scientific research like the Chinese. Our infrastructure isn't competitive — we've dropped to 16th in the world in broadband connectivity, for instance.

But education is also a big part of it. Educational achievement has become a form of patriotism and national honor in places like China and India. Young people and their families glorify their countries by working hard to get good educations, particularly in science and math. It's a matter of huge national importance there. This is not the case here — and this is our challenge.

Friedman sums it up this way: “In China today, Bill Gates is Britney Spears. In America today, Britney Spears is Britney Spears — and that is our problem,” he says.

The challenge shows up in international educational comparisons and in the performance of schools closer to home. American high school students — even the best — don't do well in international comparisons. We rank 23rd in the math achievement of our best students — right behind Poland and right in front of Spain.

About 70% of the students who start 9th grade in Kentucky graduate four years later. The good news is that this has improved from the 1980s — and Kentucky moved up to about the national average. The bad news is that we (and other states) have been stuck for ten years at 30% not completing high school (and it's much worse — 50% or less — for minority and poor kids).

The U.S. has one of the highest dropout rates in the industrial world. Totally unacceptable.

And far too many young people who do graduate and who go on to postsecondary education are not successful. About 29% who enter four-year colleges need some kind of remediation. Too few get degrees at all.

There are real personal costs here — not just statistics. A college graduate on average will earn a million dollars more a work life than a high school grad; a high school grad will earn \$300,000 more than a high school dropout. Each year's class of dropouts costs our country \$200 billion in lost wages and taxes.

The pipeline to postsecondary education looks like this. Of 100 young people who start 9th grade, 70 graduate; of those 70, 37 go on to college; of those 37 about 15 will get bachelors degrees six years later.

This is not the way to win a brain race — not the way to strengthen our human capital.

So let's look at the problem with high schools specifically. High schools, says Bill Gates and others, are “obsolete.” They are stuck in the past. “If Rip Van Winkle woke up today he would be most comfortable in an American high school,” a speaker told us.

The modern high school was invented in the 1880s and they haven't changed much since. As the high schools boomed in the 1950s the idea then was to sort kids — about one-third would go on to postsecondary education; about one-third would drop out; about one-third would go to work. This was what the economy needed.

But this won't work any more — we can't afford to sort kids into winners or losers any more. We can't afford throw away kids.

The high school's purpose has to be to prepare all students to succeed and to make a contribution. And I'll repeat — high schools have never even tried to do this before.

So let's talk about what we need to do.

First, I need to start with one point. High schools are not islands — they deal with the students who come to them — however well or poorly prepared those young people are. To be successful students have to arrive ready to handle high school work.

So we won't have high achieving high schools unless we have high achieving elementary and middle schools. That means we have to press on with the reforms that Kentucky and other states started years ago and we have to invest enough financial resources to reach the high expectations we've set for all our Kentucky schools.

This is getting tougher and tougher, our education investments are sinking like a rock compared to what's needed.

Second, high schools are at a huge disadvantage because they have to work against the very powerful commercial culture that surrounds today's teenagers. And this commercial and entertainment culture does not encourage academic achievement or hard work in school. This is not an excuse, but it is an obstacle in the road. "Britney Spears is Britney Spears."

But, that said, there are things that we can do and must do.

The challenge — by the way — isn't finding the right policy directions it's finding the public and political will to do what's needed. There's widespread consensus on what can be done. But convincing the public and parents that there's a problem and that things have to change is the bigger challenge.

So what do we do?

Our task force on high achieving high schools was made up of business people and parent-volunteer members of the Prichard Committee and a few educators. Let me briefly tell you what they recommended.

They said we should increase the academic rigor or the “level” of the courses that all students are expected to take — and they mean all, whether going to postsecondary education or to work. Four years of math, for instance, Algebra II and Pre-calculus. This would be phased in over time, of course. (Benefits — 80% chance of degree if you took calculus; 40% if you took Algebra II; 8% is only Algebra I.)

We believe young people will respond to high expectations. We think they can all handle more demanding challenges if they're prepared and if they have good teaching.

In opinion polls young people say unequivocally that they would rather be challenged than bored. Most kids who drop out say it's because the work is too boring and too easy, not that it's too hard. And there's also research showing that schools where minorities have done the best require rigorous "academic track" not watered-down courses where students might, for instance, make posters as their book reports instead of writing them.

For employers and families, there's a practical and a human pay off from higher level courses. People coming out of high school who are going to work — not postsecondary education — need pretty much the same course work as those going to college. For example, the reading level of the Microsoft Word manual is about the same as a college business textbook. To get a certificate as an auto mechanic you have three computer courses and college Algebra.

Having a more relevant and demanding curriculum will also mean we need blow-up the academic wasteland that's called the senior year and start over. The senior year should include serious and exciting academic experiences — not coasting — math, for instance, so students won't be unprepared or rusty when college starts — or other exciting learning activities like senior projects and internships and cooperative education and independent study and community service or college courses.

Along with a rigorous curriculum for all students, we also need “competency” or “end-of-course” exams. These would be uniformed tests administered statewide to all students taking a course (for e.g., Algebra I), to promote consistent, high standards for each course and to show whether a student has mastered a particular subject. (All courses with the same name aren't alike.)

Students also need vastly expanded opportunities for taking postsecondary courses while they're in high school. Students should constantly be going back and forth, and I don't just mean high-achieving students — Daviess County good experience with low achievers.

Another thing we need to do — and this will be difficult to get through the legislature — is to reform the requirements for getting a KEES scholarship (or Kentucky Educational Excellence Scholarship). This scholarship which is based on a student's grade point average, has the unintended result of discouraging taking challenging courses because only their GPA counts for the scholarship, not the courses that make up the GPA. It pays to take easy courses — this has to change. The people administering this program want this reform too.

Then there's teaching quality. We can't raise the standard for students — requiring higher level courses for all students — without highly-qualified and well-prepared teachers who can teach them.

Kentucky does not have enough teachers who are qualified to teach the higher-level courses we recommend (physics example).

To change this we have to do many difficult things, but I believe a key is reforming the teacher compensation system to encourage and reward good

teaching. And we need incentives that will attract talented people into high school teaching, particularly in high-demand areas such as physics, mathematics, the sciences and special education and in schools where the best teachers are needed the most. In short, we need to make teaching attractive to the most talented people we can find — and to do this we have to pay smarter not just pay more.

Next, we have to make schools more flexible. Kentucky should establish and expand pilot programs that award credit to students based on proven proficiency not just seat time in a particular class. If there was an absolute idea it's measuring learning by how much time one spends in a course.

At the same time, high schools need to be reorganized so they're exciting places to learn, filled with interesting and relevant learning experiences — independent study, service learning, internships, exposure to teaching that inspires. Or we could break down huge high schools into smaller ones. So every student has at least one adult who cares about him or her personally.

Finally, if we're going to improve high schools we need to keep accountability standards high — which they are now. Don't lower testing expectations when we need them most (and there is a constant push to lower standards). We need to keep using tests that measure school and student achievement and that show schools where they need to improve; keep our academic testing rigorous not watered-down.

Finally, there's the challenge of parents and teachers.

Everyone I know who is thinking about improved high schools is worried about convincing parents that their children need to do, and can do, more demanding academic work. We also know that teachers have their doubts. Just look at the easy senior year if you want evidence.

So our task force — made up of many parents — believes that it's crucial to explain to other parents why higher expectations will help their children. No matter how hard, the value of working now — as teenagers — for future gain has to come from the home.

There's much more, see our report at www.prichardcommittee.org or call (859) 233-9849 for a copy.

Conclusion

So I'll conclude with a couple of final observations. There are some posters here — there's lots going on. The Prichard Committee is not alone in this. Lots of high schools are already moving in the direction we suggest. People are working on this all over the country. The state department of education is hard at work on this. Governor Fletcher is talking about this challenge. And the business community is renewing its interest. I was very pleased with the report from the Business Forum on Kentucky Education — which was announced last week — it includes many of the same high school recommendations I mentioned today.

And the good news in Kentucky is that the importance of higher academic expectations in elementary and secondary education has caught on. We're not totally successful yet, but we're moving in the right direction.

The bad news is that we don't want to pay it. We saw recently in *Governing Magazine* that Kentucky has dropped to 50th among the states in its education investment as a percentage of personal income. This is a pathetic level of effort – especially compared to states like West Virginia — another poor state — but they invest \$1,400 per student more than we do and they rank 7th in the measure where we rank 50th.

Anyone who thinks we'll make progress this way is fooling themselves — or trying to fool other people.

We have to do better — especially with high schools. Global competition is, for the first time in our lives, presenting a genuine challenge to our country's economic dominance.

This is the first time our country has been pushed.

But we should shrink from this challenge. We need to seize this as an opportunity to launch an all-out, no-holds-barred campaign to compete internationally through education and research.

As a nation we have launched huge efforts like this before.

We did it when we created our world renowned research universities.

We did it through the GI Bill after World War II — which created the modern middle class — a whole generation of college-educated, home-owning, wage earners.

We did it when the Russians launched Sputnik in the 1950s and we responded with the National Defense Education Act — when I was in high school here in Louisville.

We need to do something like this again. We need an all out push — with the combined resources of our state and federal governments and our political and business leadership — to guarantee that every student has a high school experience that prepares them to be successful and make a contribution in this new age.

We need this for the next generation. We need it for our economic and social well-being.

And we need it for our nation and our state and our communities.