

How to Keep America Competitive

By Bill Gates

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For centuries people assumed that economic growth resulted from the interplay between capital and labor. Today we know that these elements are outweighed by a single critical factor: innovation.

Innovation is the source of U.S. economic leadership and the foundation for our competitiveness in the global economy. Government investment in research, strong intellectual property laws and efficient capital markets are among the reasons that America has for decades been best at transforming new ideas into successful businesses.

The most important factor is our workforce. Scientists and engineers trained in U.S. universities -- the world's best -- have pioneered key technologies such as the microprocessor, creating industries and generating millions of high-paying jobs.

But our status as the world's center for new ideas cannot be taken for granted. Other governments are waking up to the vital role innovation plays in competitiveness.

This is not to say that the growing economic importance of countries such as China and India is bad. On the contrary, the world benefits as more people acquire the skills needed to foster innovation. But if we are to remain competitive, we need a workforce that consists of the world's brightest minds.

Two steps are critical. First, we must demand strong schools so that young Americans enter the workforce with the math, science and problem-solving skills they need to succeed in the knowledge economy. We must also make it easier for foreign-born scientists and engineers to work for U.S. companies.

Education has always been the gateway to a better life in this country, and our primary and secondary schools were long considered the world's best. But on an international math test in 2003, U.S. high school students ranked 24th out of 29 industrialized nations surveyed.

Our schools can do better. Last year, I visited High Tech High in San Diego; it's an amazing school where educators have augmented traditional teaching methods with a rigorous, project-centered curriculum. Students there know they're expected to go on to college. This combination is working: 100 percent of High Tech High graduates are accepted into college, and 29 percent major in math or science. Contrast that with the national average of 17 percent.

To remain competitive in the global economy, we must build on the success of such schools and commit to an ambitious national agenda for education. Government and businesses can both play a role. Companies must advocate for strong education policies and work with schools to foster interest in science and mathematics and to provide an education that is

relevant to the needs of business. Government must work with educators to reform schools and improve educational excellence.

American competitiveness also requires immigration reforms that reflect the importance of highly skilled foreign-born employees. Demand for specialized technical skills has long exceeded the supply of native-born workers with advanced degrees, and scientists and engineers from other countries fill this gap.

This issue has reached a crisis point. Computer science employment is growing by nearly 100,000 jobs annually. But at the same time studies show that there is a dramatic decline in the number of students graduating with computer science degrees.

The United States provides 65,000 temporary H-1B visas each year to make up this shortfall -- not nearly enough to fill open technical positions.

Permanent residency regulations compound this problem. Temporary employees wait five years or longer for a green card. During that time they can't change jobs, which limits their opportunities to contribute to their employer's success and overall economic growth.

Last year, reform on this issue stalled as Congress struggled to address border security and undocumented immigration. As lawmakers grapple with those important issues once again, I urge them to support changes to the H-1B visa program that allow American businesses to hire foreign-born scientists and engineers when they can't find the homegrown talent they need. This program has strong wage protections for U.S. workers: Like other companies, Microsoft pays H-1B and U.S. employees the same high levels -- levels that exceed the government's prevailing wage.

Reforming the green card program to make it easier to retain highly skilled professionals is also necessary. These employees are vital to U.S. competitiveness, and we should welcome their contribution to U.S. economic growth.

We should also encourage foreign students to stay here after they graduate. Half of this country's doctoral candidates in computer science come from abroad. It's not in our national interest to educate them here but send them home when they've completed their studies.

During the past 30 years, U.S. innovation has been the catalyst for the digital information revolution. If the United States is to remain a global economic leader, we must foster an environment that enables a new generation to dream up innovations, regardless of where they were born. Talent in this country is not the problem -- the issue is political will.

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