## GREATER DES MOINES PARTNERSHIP LUNCHEON THE DES MOINES CLUB

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## Workforce Productivity and Public School Reform

Thank you for inviting me to speak here today. I'd first like to discuss economic conditions in Iowa, the Midwest, and the U.S. I'll then turn to a topic that you have asked me to address and one that I think is key to ensuring the high quality of our future workforce: reforms that improve the quality of our education system. I understand that this is a topic of much discussion here in Iowa right now.

As you know, Iowa is a part of the Seventh Federal Reserve District, the region that we cover at the Federal Reserve Bank of Chicago. The Seventh District also includes most of Illinois, Indiana, Michigan, and Wisconsin. While other states in the District are heavily dependent on manufacturing, Iowa is more diversified, with a relatively larger share of its workers employed in agriculture and financial services. In recent years, Iowa has been one of the strong performers in our region. Iowa has kept pace with the rest of the nation in terms of income growth, and its unemployment rate at 4.4 percent in February is below the national average. In contrast, other portions of the District have not performed as well; the most notable soft patch has been in Michigan, which is suffering from the problems of the Big Three automakers.

Looking beyond the Seventh District, overall, the national economy is doing well. The slow growth in GDP in the fourth quarter of 2005 appears to have been temporary, and output currently looks to be rebounding smartly. Notably, job growth has been strong in recent months, and consumer and business spending are growing at solid rates. More broadly, the economic growth we have experienced over the past few years has reduced the unemployment rate to 4.7 percent and raised manufacturing capacity utilization to a bit above its long-run average. So the bulk of our productive resources that were underutilized following the 2001 recession are now back at work. At the same time, core inflation remains contained.

And looking beyond the near-term, I'd say that the outlook is good: Sound underlying economic fundamentals are supporting self-sustaining economic growth. Importantly, the fourth quarter aside, the underlying trends in productivity are quite solid.

We at the Chicago Fed think that after a strong rebound in the first quarter of 2006, real GDP growth will average somewhat above three percent over the next couple of years. We expect that the unemployment rate will change little from its current level and that inflation will remain contained. However, inflation currently is near the upper end of the range that I feel is consistent with price stability. As such, I believe monetary policy must be vigilant. We need to make sure that increases in resource utilization or prices of energy and other commodities do not add to inflationary pressures or increase inflation expectations.

Of course, there are always uncertainties to an economic outlook. One we currently face concerns housing markets. There has been a good deal of discussion about froth in housing prices, and most forecasts of GDP that you see factor in some moderation in home price appreciation and residential investment. Indeed, the slowdown in housing should be an important factor in bringing growth back to potential. So far, housing has been moderating in a way that is broadly consistent with these forecasts. But if housing markets soften more appreciably, we could see a more significant negative effect on overall spending.

There could be upside surprises to growth as well. For example, we could see higher demand for U.S. exports due to stronger growth in foreign economies. And if growth in the U.S. was indeed much more robust, we would need to be watchful for an increase in inflationary pressures.

I'm sure you have also heard concerns expressed about our sizable fiscal and current account deficits. These are sources of uncertainty, not so much to the outlook over the next couple of years but to longer-term economic prospects. Our current account deficit means that, as a nation, consumers, firms, and governments are spending more than the total income that we earn from production in the U.S. and on net investment returns from abroad. In doing so, we are increasing our debt to foreigners. Currently, we have no difficulty servicing this debt. But to keep foreigners willing to lend to us and our debt service manageable, we eventually will have to reduce the current account deficit. Most likely, the adjustment process will be smooth, but we must be watchful for circumstances that would result in a more abrupt adjustment.

Our fiscal deficits—how much government spending exceeds tax revenues—are a concern because growing medical costs and rapidly changing demographics will at some point put an enormous strain on our ability to fund our entitlement programs. We will eventually be forced to make some tough decisions on how we'll operate and pay for these programs. A large and growing public debt could also eventually put upward pressure on interest rates and crowd out private investment.

Still, while these factors add uncertainty to the outlook, they do not change the overall picture that the prospects for the U.S. economy over the next couple of years are good. But they also highlight that, over the longer-term, if we want to keep improving our standard of living, we must make sure that productivity growth remains robust. Faster productivity growth generates faster GDP growth. This boosts our well-being. It also helps make the adjustments to the current account and fiscal deficits a much smoother process than if we were facing them from a base of lower GDP growth.

An important factor driving productivity growth is worker quality, which includes the education and the experience of the workforce. In the late 1980s and early 1990s, improvements in worker skills were adding four-tenths of a percentage point per year to the growth of output. By the end of the 1990s, this had fallen to less than two-tenths of a percentage point. And we could see a decline to one-twentieth of a percentage point by 2010, as the highly experienced workers of the baby boom generation retire in increasing numbers. Gains in education and other workforce skills by new entrants, and skill improvements by remaining workers, could offset much of this decline. But if we consider recent education trends, I'd say we have our work cut out for us on this.

In the quarter century after World War II, the expansion of secondary and postsecondary education caused labor quality growth to average nearly 1 percent per year, as younger, more highly educated workers replaced retirees with less educational attainment. But since that time, the educational attainment of retirees and new entrants has converged.

For postsecondary education, the picture is more promising. College graduation rates are growing, as families have noted the very high and climbing economic returns to education. The unemployment rate for college graduates is currently under 2.5 percent, but it's about 7 percent for high school dropouts. Furthermore, the gap in wages between educated and less-educated workers in the U.S. economy has widened dramatically since the late 1970s. Research shows that each additional year of education tends to raise hourly earnings by about 10 percent. And these are only the returns that go directly to the individual. Researchers are finding that the increased skills of educated workers also raise the productivity of their coworkers. Furthermore, communities with highly educated citizens experience lower crime and more public involvement in civic activities and the political process.

Our investment in education is already enormous. We currently spend almost one-half trillion dollars on elementary and secondary schools in the public sector, or about 4 percent of GDP. The United States has nearly the highest spending per pupil in the world. Yet there is a great deal of dissatisfaction with the results. This is not only true in the outcomes generated by many of our big city schools, but it also extends to suburban and rural schools. There is a growing recognition that we must spend the money more wisely and achieve a substantially greater return on our investment.

This has driven the spate of interest in experimentation and systemic reform to improve our schools, especially for those students from disadvantaged backgrounds who have limited choices and opportunities in our current system. Many school reforms have been tried in the Midwest—from Milwaukee's full-fledged voucher program, to the extensive charter program in Michigan, to Chicago's central authority with the mayor having substantial executive power. And Iowa has a long history of leadership in public education.

Personally, I believe that the consumers of education—parents and students—have a good idea of what they want from their schools. Given a choice, they will gravitate to those schools that provide it. And when that choice is available, market mechanisms work relentlessly in most instances to deliver the right services to customers. So I think that choice and competition should be considered carefully in these reform efforts.

## Improving teaching effectiveness

When discussing reform in education, a good place to start is where the "rubber meets the road," that is, where our teachers interact and deliver services to their students.

Now, teaching is a very difficult job. I know—having been a high school English and history teacher myself many years ago. Our schools are extremely fortunate to have many excellent and dedicated teachers. But we clearly need more. Teacher quality matters greatly for student achievement. Several carefully designed research studies from across the country show that teacher quality varies significantly, even within the same school. To give you some idea of the magnitude, Dan Aaronson and Lisa Barrow of our staff found that the test score gains for an average student in the Chicago Public Schools would increase by at least 20 percent if that student were reassigned from a classroom with an average quality math teacher to a classroom in the same school with a math teacher ranked at the 95th percentile of their quality distribution.

So what can we do to improve our teacher corps? One approach is to identify those teachers who are ineffective and replace them with more productive ones. We know that it's possible to identify ineffective teachers. However, in our current system it's not easy to make them better or to replace them.

Surprisingly, Aaronson and Barrow also found that the typical credentials that determine compensation in our schools today—advanced degrees in education, certification, years of teaching experience—do not help much in identifying effective teachers. Their research shows that these factors account for only about 3 percent of the variation in teacher quality.

Can we substantially improve the effectiveness of our teachers through enhanced training? While we know that teachers matter, we know less about programs that could improve the quality of our teachers. Research shows that having a math or science degree is helpful for teaching those subjects. Specific skills do matter. But since the general education credentials seem to matter little, traditional teacher training programs—including those college curriculums specializing in education—apparently don't do the job. There are, however, heroic efforts and exemplary program models underway to improve teacher preparation throughout the nation. These include better recruiting strategies, mentoring, and enhanced training academies. In many cases, these programs have been generously funded by the business and philanthropic community. Still, they do not reach the majority of our teaching corps.

Of course, teacher pay is an important element of the reform process. In my opinion, we must be careful about simply raising teacher salaries across the board. This would attract and keep better teachers, but it would also encourage many poorly performing teachers to remain on the job even longer—in other words, such a policy would be a slow and expensive way to raise average teacher quality. And even with higher overall salaries, excellent teachers will find themselves tied to rigid pay scales that do not compensate them for their excellence. Nor will they be able to advance their careers without leaving the classroom. So I believe that merit-based pay incentives deserve full consideration. And I'm glad to see such proposals gaining visibility, such as the Hamilton Project that is being led by former Treasury Secretary Robert Rubin and economists Thomas Kane from Harvard and Douglas Staiger from Dartmouth.

Indeed, one important finding from studies of teacher quality and student outcomes is that high-quality teacher performance tends to persist from year to year. This means that we can predict good teachers from their past performance. So through observation and timely assessment of data on student achievement, a motivated and empowered school principal could accurately identify high-quality teachers and reward them accordingly.

Therefore, a number of efforts geared toward building a higher quality teacher workforce are possible. These would include more selective hiring, a lengthy apprenticeship with comprehensive evaluation, and regular, rigorous personnel evaluations with pay-for-performance rewards. In addition, in subject areas where it is more difficult to find qualified instructors, such as math and science, it would make sense to increase teacher pay.

So far, so good. But what kind of systemic changes can actually bring about such personnel policies—indeed, ones that are taken for granted in many other professions and businesses? Unfortunately, public education has many elements of a monopoly—a publicly owned and operated monopoly. And consumers are served far better in just about any market when there is competition by many as opposed to having just one provider.

So I believe that systemic change in public education would be encouraged and accelerated by the infusion of market incentives. Choice and competition have the power to lead us to better educational outcomes by spurring both new and existing schools to innovate, keep costs low, and better serve the students.

In competitive environments, successful firms and organizations discover their customers' needs. They make strong and innovative efforts to tailor their services to meet those needs at a reasonable cost. When doing so, they adopt pay for performance and other types of personnel and compensation practices that we should be aspiring to in the education profession.

## Chicago's reform efforts

In Chicago, the business community has a long tradition of working with the city and civic institutions on important policy issues. As a member of that community, I have witnessed the many attempts to improve elementary and secondary education at the Chicago Public Schools. CPS is an example of a school system that has taken a series of steps that are beginning to bring about a modest amount of choice and competition. It has, however, been a winding path, preceded by several other attempted reforms.

I want to emphasize at the outset that Chicago's efforts have been targeted specifically to address the problems in Chicago, which has a very large school system with over 600 schools and 425,000 students. Conditions in school districts obviously vary widely, and what is needed in Chicago may not necessarily be appropriate in other districts.

In the late 1980s, the then secretary of education William Bennett called the Chicago public school system the worst in the nation. Correct or not, Chicago's school system was characteristic of older large city school systems across the Northeast and Midwest. Flight from the city in both its economic base and middle-class population during the 1960s and 1970s left behind a school system that was poorly suited for the daunting job of ameliorating poverty.

A series of reforms began in 1988, when the state legislature passed a bill to diminish the authority of the Chicago Board of Education and push some decision making down to local school councils at the individual school and community level. Initial hopes were high, and many neighborhoods effectively managed and improved their local schools. Many continue to do so today. At too many school sites, however, the local school councils could not effectively grapple with the entrenched power of the system, the political influence of the teacher's union, and the vagaries of community politics. Some councils were never able to organize effectively to make the necessary improvements.

By 1995, Chicago school reform shifted toward a different approach: strong central control vested in the office of the mayor. The Illinois state legislature passed a new education reform bill that generally redistributed power from local school councils to the city government. This new strong central authority has been modestly effective in raising student performance. As measured by the state's school achievement test, both reading and math scores have risen at the 3rd, 5th, and 8th grade levels since 1999. These gains have been realized in high-poverty schools as well as selective-enrollment schools.

However, holding on to these gains in the high school years has proven to be more difficult. In fact, we have not seen gains in test scores at the high school level. And even for the lower grades, achievement gains have tapered off over the last couple of years.

It is perhaps for these reasons that the mayor, the public schools, the business leadership, and community groups have come to the realization that further reforms are necessary. New and superior schools, employing innovation and creativity, must be created to replace nonfunctional schools in high poverty neighborhoods.

Renaissance 2010 is a recent product of this effort. This bold program aims to create 100 excellent new schools—charter schools, contract schools, and performance schools—with more independent and entrepreneurial leadership. These schools have more freedom to innovate because they are less encumbered by the historical layers of rules and procedures. In some instances, schools will exercise greater latitude to recruit and choose their own staff and to evaluate and reward their performance. Such an environment should attract teachers with desire, drive, talent, and commitment.

As they have elsewhere, charter schools are an important part of education reform in Illinois. The majority of the new Renaissance 2010 schools this year and those planned for next year are charters.

At the beginning of this academic year, eighteen Renaissance 2010 schools were opened to replace schools that were closed due to declining enrollment and deteriorating facilities. Thirteen additional Renaissance 2010 schools are slated to start operating this fall. The business community and family foundations provided start-up funds for these new schools. The objective, of course, is not only to improve the education of the students enrolled in the new schools but also to provide incentives for traditional public schools to improve.

Renaissance 2010 schools will stay in operation only as long as they "deliver the goods" to their deserving customers. They will be held accountable in two ways. First, Renaissance schools can expect close scrutiny and rigid assessment by the Chicago Public Schools administration—not of their pedagogy and procedures, but of how well their students perform. Second, parents will be able to review their options and, if they choose, move their children to another school—just as many suburban parents now do when selecting the community in which to live.

Looking forward, the problems inherent in raising educational attainment for our most disadvantaged students are not easy. Too often, the hurdles to student achievement involve family background, resources, neighborhood, and environment. To overcome these obstacles, the local school cannot be "average" in performance or design. Rather, it must be highly innovative and focused on the particular circumstances that hold back disadvantaged children.

Such innovation tends to arise in other environments characterized by choice and competition. Competition makes service providers attentive to the particular needs of their customers. In the case of education, this can help generate a sense of understanding and mutual responsibility between the schools and the families they serve.

In bringing about needed changes in Chicago, we have found that partnerships and persistence can make a difference. The disadvantages that many of our students face were not created overnight—nor were the institutions and governance structures that we are attempting to refashion. And determined resistance to reforms, such as those inherent in Renaissance 2010, continues every step of the way. But change is coming, even if it is not coming about through sudden upheaval. Gains are not coming in profound leaps, but real gains are being achieved.

Excellence in public education has always been high on the agenda in Iowa, and you now have a number of reform proposals under consideration. We all wish you well in these efforts. The experience in other parts of the Midwest, some of which I described today, may or may not be relevant to Iowa. Only you can make that decision. But we all recognize the need to have a well-educated citizenry and productive workforce. Not only does it raise our standard of living, but it provides us with well-informed, active participants in our communities and the democratic process. Thank you.