As part of the Federal Reserve’s monetary policy mission, we regularly talk with business people from throughout the Tenth Federal Reserve District to learn about what is occurring in their specific industries and markets.

Although we continually monitor economic data, experience has taught us that a more thorough and timely understanding of current and developing economic conditions comes from talking with those involved directly in the business and industry of our District. These discussions—including meetings with our Board of Directors—may take many forms ranging from phone calls to roundtable meetings, but they are most beneficial when they happen during a site visit and we have an opportunity to observe operations first hand.

These periodic trips provide us with a wealth of information, offering a degree of insight that is not possible through other means. Standing on the factory floor, it is much easier to understand how a specific, and sometimes minor, change along the production line can greatly improve efficiency.

It is the gains in productivity we occasionally find that may be the most striking and, in many ways, the most relevant when looking more broadly at the economy. Those who regularly follow the financial media know, almost regardless of the topic or speaker, any discussion on the economic outlook makes some reference to how much more productive we are than we were at some past time, be it last quarter or a decade ago.

Although worker productivity can be measured in terms such as output per worker, relating the data to what is happening in the real world can prove difficult. Productivity growth of 1 or 2 percent is a major development for our economy. But how, in everyday terms, is it being accomplished?

Recently, I have seen a couple of impressive examples:

• During a June visit to Cody, Wyo., officials with Cody Laboratories, a bulk pharmaceuticals lab, explained how one of their chemists has developed a new way of producing active ingredients in painkillers by recovering certain byproducts. The development has made a huge impact on their operations, increasing productivity by 50 percent.

• In July, I had the opportunity to visit Union Pacific’s massive rail facilities in
North Platte, Neb. Facing increasing pressure to improve efficiency amid high energy costs, UP has begun to apply NASCAR-style principles, creating what is essentially a pit crew environment for some of the train maintenance procedures. This element from one of the nation’s most rapidly growing spectator sports has had a profound impact on the rail line founded in the 1800s. In some cases, repairs that once meant a railcar would be out of service for 12 days can now be completed in a matter of 15 minutes. Because of the nature of UP’s business, these types of gains can have far-reaching implications. A more efficient delivery of goods and materials can help to improve the efficiency and productivity of those awaiting the shipments.

In addition to these two instances, I have seen similar innovation occurring to varying degrees during recent trips to Los Alamos, N.M.; Weatherford, Okla.; Montrose, Colo.; and Salina, Kan.

Much has been said about productivity growth in recent years, especially as it relates to technology. Although the somewhat utopian 1950s vision of a high-tech future providing us with more leisure time has not occurred, developments such as cell phones and widespread Internet access have made us more productive. Those who travel regularly, for example, know that only a few years ago the first day back in the office after a lengthy business trip would likely be lost to catching up on missed reports and meetings. Today, thanks to technology that allows us to monitor e-mail virtually anywhere in the world, we are able to return to the office in “real time.”

It is important to note, however, that while technology is a vital contributor in productivity growth, the gains are not solely the result of laptop computers or the ability to connect to a Wi-Fi system while waiting for a delayed flight to arrive. The very human factor of innovation is at the core of these gains and, in the Tenth Federal Reserve District, it is something that goes on every day.