The New York Times
nytimes.com

PRINTER-FRIENDLY FORMAT SPONSORED BY LITTLE SUNSH

August 17, 2006

ECONOMIC SCENE

What Baseball Can Teach Those Who Dream of Creating the Next Silicon Valley

By AUSTAN GOOLSBEE

THEY say that everything is bigger in Texas. Last week, the state tried to bring that attitude to academics with the announcement of a $2.5 billion initiative for science teaching and research in the University of Texas system. The hope, it seems, is to use the university system to jump-start economic development and continue to move Texas away from its traditional dependence on energy, raw materials and real estate.

A primary focus is building the research capacity at campuses away from the flagship in Austin, with much of the money going for science centers at campuses in San Antonio, El Paso and Arlington in an attempt to turn those places into the next Silicon Valley.

We have heard that argument before. And Texas, which has a bona fide technology center in Austin, is certainly not alone in wanting to create new Silicon Valleys: states all over the country are trying to turn their universities into engines of regional economic development.

If Stanford can hatch world-famous companies around Palo Alto, politicians assume, their colleges can, too. But with so many trying to spin universities away from their traditional academic focus into engines of economic development, it is worth considering whether investing in local universities can achieve that goal.

This strategy is based on the view that research done by professors can form the basis for local start-up companies and that the graduates of the university can supply the entrepreneurs and employees.

But advocates should remember an old maxim of economic development: Beware of investing in things that can move. As it turns out, graduates and research ideas both tend to move around a lot.

Subsidizing teaching is problematic as a development strategy because graduates frequently move out of state.

A study by the economists John Bound, Jeffrey Groen and Gabor Kezdi of the University of Michigan and Sarah Turner of the University of Virginia, “Trade in University Training: Cross-State Variation in the Production and Stock of College-Educated Labor,” (http://cat.inist.fr/?aModele=afficheN&cpsidt=15840383) found little evidence of people staying in places because they went to college there.

The more likely smart people are to leave, the more money their state is spending on helping another area’s economy develop. Marc Andreessen, for example, invented the Web browser while at the University of Illinois, but then founded Netscape in the actual

Silicon Valley rather than starting a new one in Urbana.

Texas may subsidize science teaching at the University of Texas, El Paso, but the chance that its graduates will stay and transform the local area into Silicon Rio Grande is remote.

So if a state's subsidies to graduates from a university will not create new Silicon Valleys, how about subsidizing the research? There is no question that academic research has hatched many of today's booming technology industries. But scientific and engineering ideas also travel quickly.

Recall the 1980's, when Japanese companies rose to prominence by producing things that had been invented in the United States, like photocopiers, computer memory chips and video recorders.

In a recent study of the determinants of the creation of high-tech firms in different locations, "Movement of Star Scientists and Engineers and High-Tech Firm Entry" (www.nber.org/papers/w12172), Professors Lynne G. Zucker and Michael R. Darby of the University of California, Los Angeles, examined the importance of what they called "disembodied discoveries."

They looked at such factors as having successful patents at universities or where highly influential science articles had originated. They found little evidence that the ideas helped local businesses any more than businesses in other areas.

For every Stanford in Silicon Valley, there seem to be several Purdues in West Lafayette, Ind., or Cornells of Ithaca, N.Y. — places filled with path-breaking discoveries but with local economies that are seldom seen as the next Silicon Valley.

The one thing the study does find to be consistently associated with high-tech start-ups is the presence of star scientists — not the ideas, which can be copied, but the scientists themselves. This seems to be the one way in which a university can be used as an engine of business growth.

Landing the best scientists in the world can start a place on the way to economic superstardom. The catch is, there are not many superstars and they mainly want to be near one another.

The study covered 1981-2004 but identified only 1,838 scientific superstars. That is about the same number of people who played in Major League Baseball over that period.

Framed that way, trying to make some town into the next Silicon Valley by attracting the best scientists is rather like trying to start a new baseball team and turn it into the New York Yankees. If dozens of sports-mad billionaire team owners can't do that, how easy would it be for the economic development office at the University of Texas, Arlington?

What is worse, it is a safe bet that as these development incentives become a primary motivation for financing higher education, the competition among universities for stars will start looking much more like today's baseball scene. Ambitious state university systems will find it easier to steal the stars of another team than to develop their own prospects. As a result, salaries will go through the roof — just as in baseball.

And while everyone pays more, only a tiny number of cities will ever win the World Series. One will increasingly hear about how the costs of college are rising everywhere and that local economies have little to show for it.

Universities are immensely important and they are filled with students and ideas. Some of those students will go on to be famous. Some of those ideas will change the world. But counting on them to make you the next Silicon Valley is, alas, more like betting on my beloved Cubs to win it all.

Austan Goolsbee is a professor of economics at the University of Chicago Graduate School of Business and a research fellow at the American Bar Foundation. E-mail: goolsbee@nytimes.com.

Copyright 2006 The New York Times Company

Privacy Policy | Search | Corrections | XML | Help | Contact Us | Work for Us | Site Map