

It will also produce lower prices for consumers, resulting in faster growth in living standards."

In terms of high technology industrial development in the USA, other recent Brookings studies have shown that the US economy is being propelled by high technology clusters, accounting for up to 40% of private non-residential investment since 1995. Although there are commonalities in the fourteen high technology regions studied, there were also significant differences that provided these regions with some important unique technologies. Also important in the economy mix is the role of both venture capital firms and "angels": Small start-up companies are being funded by private individuals "angels", and then during the next pre-IPO (initial public offer) stage of the company's development, the venture capital firms provided badly needed capital for this second stage growth.

Universities have found innovative ways to collaborate with industry, including bridging the gap between university *modus operandi* and that of industry. Universities are finding enhanced support through the increased funding from the federal level, such as through the National Science Foundation and some federal departments. However, many federal laboratories have not moved into the "new economy" style of conducting business, particularly some of those within the Department of Energy. Industry has reduced its collaboration generally with federal laboratories, while increasing collaboration with universities. This may leave some federal laboratories exposed to cuts from the new "industry friendly" Administration.

### The USA R&D Budget for 2001

In Fiscal Year (FY) 2001, total federal support of R&D exceeds **\$90 billion** for the first time, thanks to a record dollar increase of \$7.6 billion an increase of 9.1% over FY 2000. The increases are spread across the entire breadth of R&D programs in the federal portfolio. Congress allocated far more for R&D in the Department of Defence (DOD) and National Institutes of Health (NIH), the two largest R&D funding agencies, than in President Clinton's \$85.4 billion budget request.

**Non-defence R&D** increases by more than 11% to reach **\$45.3 billion**, a boost of \$4.6 billion. The largest increase of 14.6% or \$2.5 billion goes to the NIH R&D program and there are substantial increases to other non-defence agencies. R&D in the Department of Energy (DOE) increases by 12.3% to reach \$8.0 billion, including a 13.8% boost to programs in the Office of Science; National Science Foundation (NSF) R&D increases by 13.2% to \$3.2 billion, with substantial boosts to all the research directorates; and Science, Aeronautics, and Technology (SAT) R&D in the National Aeronautics and Space Administration (NASA) increases by nearly 11%.

**Defence R&D** increases by a smaller but still substantial 7.0% to **\$45.5 billion**, bringing defence and non-defence R&D near parity for the first time in 20 years. Although defence R&D has exceeded non-defence R&D every year since the defence buildup of the early 1980s, the gap has narrowed in recent years. DOD basic research