

# The jobs machine

## Start-ups founded by immigrants are creating jobs all over America

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ON APRIL 19th Jack Markell, the governor of Delaware, is due to visit a new factory being built in his state by Bloom Energy, a start-up based in Silicon Valley. Bloom makes clean power-generation systems using a novel fuel-cell technology. It is investing over \$40m in its facility in Newark and plans to hire hundreds of people. Some will be carworkers who lost their jobs in 2008 when Chrysler shuttered a factory that once stood on the same site. Gary Convis, Bloom's chief operations officer, says that the company has already hired over 100 former carworkers at its existing site in Silicon Valley. They used to work at a Toyota factory in the Bay Area, which closed in 2010.

K.R. Sridhar, Bloom's boss, says auto workers make good hires. His firm's products have some systems in them similar to ones found in car engines. Bloom is also hiring military veterans used to tinkering with motors. "We are creating the next generation of jobs for middle-class Americans," says Mr Sridhar, an immigrant from India who was an academic and an adviser to NASA before co-founding Bloom.

Like many other entrepreneurs who have come to America and gone on to found businesses, Bloom's boss is worried that the country's immigration policies are hurting its prospects. Other tech moguls are also concerned. Mark Zuckerberg, the boss of Facebook, and a bunch of other Silicon Valley types are planning to launch a well-funded political-advocacy group to lobby for more visas for skilled immigrants. Applications for this year's quota of 65,000 "H-1B" visas for such workers began on April 1st. In less than a week they were oversubscribed.

Congress is working to reform immigration laws. Tech folk hope it will open America's doors to the legions of brainy foreigners clamouring to come in. But the final reform may be less bold. Many voters believe that newcomers steal jobs from natives. Companies are doing little to refute this myth, despite ample evidence.

Some 40% of *Fortune* 500 firms were founded by immigrants or their children, according to the Partnership for a New American Economy, a pressure group. So were the firms behind seven of the ten most valuable brands in the world. Although the foreign-born are only an eighth of America's population, a quarter of high-tech start-ups have an immigrant founder (see left-hand chart).

New firms have an impact across America. "We haven't told enough stories about high-tech job creation inspired by young firms," says Michael McGeary of Engine, an advocacy group for start-ups. Last year Engine sponsored a study that showed high-tech employment growing fastest in places you might not associate with bits and bytes (see right-hand chart). Many start from a low base. But it is clear that high-tech jobs are spreading beyond Silicon Valley and New York.

Some are being created by start-ups local to the area. Others are being offered by firms such as ZocDoc, a New York start-up that helps people find doctors and dentists, and lets them make appointments online. In March the company opened an office near Phoenix, where it plans to add 650 staff over the

next three years. Oliver Kharraz, a German who is one of ZocDoc's co-founders, says the firm, which employs some 400 people, needed a presence out west to help it serve customers there and drive new sales. It also wanted to ensure that business would keep ticking over even if New York were to be hit by a hurricane again.

Other companies in tech hubs have opened faraway offices to tap new pools of skilled labour. Appirio, which advises companies on cloud-computing strategies, has opened an office in Indianapolis. "Lots of talented students are hungry for tech jobs, which are rare there," says Narinder Singh, one of the company's co-founders, whose parents came to America from India. RingCentral, a Silicon Valley firm that supplies cloud-based phone systems to businesses, has hired 74 staff in an office in Denver that opened in 2011. Vlad Shmunis, the firm's Ukraine-born founder, says it wanted to be near another big university that could be a source of smart employees.

Soaring salaries and extortionate rents in big tech centres encourage start-ups to hire elsewhere. Gild, a young San Francisco firm applying "big data" techniques to the recruitment of software engineers, is planning to open an office in Salt Lake City, where the tussle for talent is less ferocious. "It wouldn't surprise me if the Salt Lake office becomes bigger than the San Francisco one in future," says Sheeroy Desai, a co-founder of Gild who came to America from Pakistan in the 1980s to study.

Logistics matter, too. Bloom Energy decided to open a factory in Delaware to make it easier to get its fuel cells, which are the size of a small car, to customers on the east coast. And View, another immigrant-founded Californian start-up, has opened its only factory in Mississippi, where it employs some 150 people to produce smart windows that change tint to alter the amount of heat and light entering a building without obscuring the view for those inside it. The firm chose a site near Memphis because it is a good place from which to ship stuff to the rest of America.

High-tech jobs matter not just to software engineers, scientists and the folk working in factories such as Bloom's and View's. They also have a broader impact on employment. Engine's report estimates that for every job created in the high-tech sector, another 4.3 jobs emerge over time in the local economy. That is more than three times the local "multiplier" for manufacturing jobs. Well-paid techies shop a lot and hire others to iron their shirts (if they wear shirts, that is).

High-tech firms such as Google (whose co-founder Sergey Brin moved to America from Russia as a child) haven't just created jobs for their own workers. They have also inspired the creation of entirely new categories of job. A few years ago no one earned a living as a mobile-app developer. Now they are everywhere. It is not just full-time workers who benefit: firms such as oDesk, a Silicon Valley outfit founded by two Greeks, are nurturing an online freelance economy that is in its infancy. Last year Americans using oDesk's platform found over 2m hours of freelance work.

Given all this, it is worrying that the proportion of start-ups in Silicon Valley founded by immigrants has fallen from 52% to 44% since 2005, according to the Kauffman Foundation, a think-tank. In America as a whole, the proportion has stopped climbing for the first time in decades. Vivek Wadhwa, the author of "The Immigrant Exodus", suspects this is because the government has made it so much harder for immigrants to obtain permanent residency. Without a green card, brainy foreigners who quit their day jobs to start new companies risk deportation.

Immigrant entrepreneurs seldom make their own case well in public. Having spent so long trying to fit in, they are often reluctant to draw attention to the fact that they were born elsewhere, observes Scott Sandell of NEA Associates, a venture-capital firm that has backed many of them.

The stakes are high. America has benefited enormously from immigrants' resourcefulness and penchant for risk-taking, says Mr Sridhar. But it lets in only 225,000 foreigners with special skills a year. This amounts to less than 0.1% of the total labour force. Proportionally, some of the country's rivals let in more. America's job-generating machine cannot run at full throttle for long if it is starved of fuel.

<http://www.economist.com/news/business/21576101-start-ups-founded-immigrants-are-creating-jobs-all-over-america-jobs-machine>