ties such as Pennsylvania State and Columbia now offer them in many subjects. Georgia Tech has had an online-only master's degree in computer science since 2014, which it considers just as good as its campus version. Minerva, a "virtual" university based in San Francisco, offers online seminars to students who hop from city to city gaining work and cultural experience.

Even Harvard, long a digital resister, has softened a bit. From this year, its master's course in public health can be done full-time, part-time or in intense bursts. For much of it, students do not need to be present on campus, so long as they gain the required course-credits. That touches on another idea that could change the way other courses are taught, paid for and accredited: the SPOC (Small Private Online Course).

Whereas the mass-market MOOC is aimed at large numbers of people with different levels of knowledge and commitment, SPOCs are focused on particular groups of students who are qualified to take the course and ready to interact with others while learning. Harvard's Kennedy School of Government runs a popular SPOC on American security policy: alongside the campus students in Cambridge, Massachusetts, 500 more take the course online. They are required to dedicate time to it and do lots of homework, but so far they can receive no formal credit for it.

That seems odd. Robert Lue, who runs HarvardX, the university's digital arm, says that it is becoming easier to imagine prestigious universities creating SPOCs for course-credits. Mr Lue approves. "The Harvard idea for the 21st century is not to end up as the education equivalent of a heritage park," he says.

Clayton Christensen, the Harvard professor who coined the term "disruptive innovation", thinks American universities are too firmly wedded to their old costly ways to embrace the digital revolution. But Jose Ferreira, who runs Knewton, an education technology firm, predicts that as online courses proliferate and are made easily available in the (computational) cloud, students will embrace them. The present design of colleges he sighs, resembles "a 19th-century factory that builds everything on site". In the next few years, Mr Ferreira says, at least one of America's large elite institutions will break ranks and accept credits from the best online courses as part of a mainstream degree. At that point, he reckons, "the rest will quickly follow."

Freeing universities from their geographical constraints might mean that undergraduates at, say, Ohio State could collect an extra course-credit or two from Harvard. That could increase choice for students and create new revenue streams for the universities with the best digital offerings. Old-fashioned colleges that fail to offer value for money, however, may find that their lecture halls start to empty. ■

New York's best schools

Asians beware

NEW YORK

Top marks largely go to Asians. Bill de Blasio wants to change the exams

FOR the past two years, nine-year-old Harvey Jiang has been privately tutored in maths and reading after school. This allows his parents, who left their village in China two decades ago, to work long hours in their restaurant. But this is not Beijing; this is Brooklyn, where Harvey is swotting early for a controversial exam.

New York has nine specialised high schools, of which eight admit students using the city's Specialist High Schools Admissions Test (SHSAT). The education they offer rivals that of private schools that charge $40,000 a year. The high schools are free. The most popular, Stuyvesant, sends roughly 25% of its graduates to the Ivy League or other top colleges. The school's unofficial mantra is "Sleep, study, socialise: pick two." It admits 4% of test-takers, pickier than Harvard.

New York's Democratic mayor, Bill de Blasio, sends his son Dante to a specialised high school, Brooklyn Tech. Nonetheless, he thinks the SHSAT favours parents who can afford tutors. He wants to "broaden" (ie, relax) the admissions criteria, to help poorer black and Hispanic families.

The SHSAT also faces a legal challenge. The NAACP, the country's biggest civil-rights legal defence fund, joined others in 2012 to file a suit demanding changes in admissions procedures. New York City's public schools, the suit claims, are among the most racially segregated in the country.

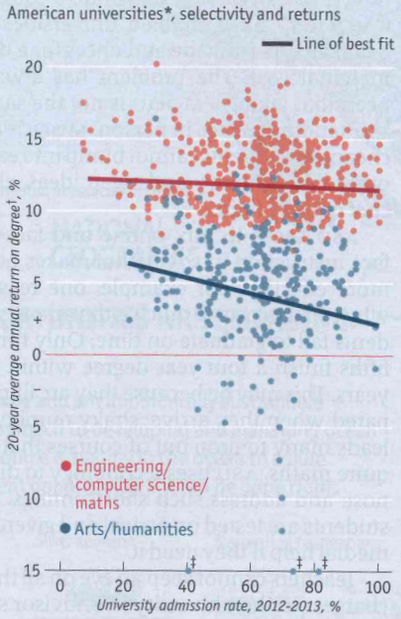
Do they have a case? Asians make up more than 70% of pupils at Stuyvesant; blacks and Hispanics combined make up 3%, and falling. White pupils took 80% of places in 1970; now it is less than 25%.

But Asian-Americans are also a minority, says Tina Jiang, Harvey's 16-year-old sister, who already goes to Stuyvesant. And many are also poor. Almost half of Stuyvesant's pupils qualify for free lunches. The difference, according to Clara Hemphill, who runs a service that reviews public schools, is the "culture of test prep" among Asians: "Even families of modest means will put their kids through that."

Moreover, looser entry criteria may merely boost white pupils. Sean Corcoran of New York University has found that offers based on state test scores, grades and attendance would increase the share of Hispanic and white students in the specialised high schools, and reduce Asians, but would not increase the proportion of blacks. Inequalities in achievement, he writes, are "baked in long before high school". Curtis Chin, who has been filming New York teenagers preparing for the SHSAT, adds that all some black and Hispanic families want "is that their kids don't get locked up in jail. It's hard to measure that against an aspiration of going to Harvard or working for Goldman Sachs." ■

It's what you learn, not where

American universities*, selectivity and returns



Sources: PayScale; National Centre for Education Statistics

*Sample of 240 institutions
†Based on 2012-2013
‡Returns of minus 15% or worse

A new report from PayScale, a research firm, calculates the returns to a college degree. Its authors compare the career earnings of graduates with the present-day cost of a degree at their alma maters, net of financial aid. College is usually worth it, but not always, it transpires. And what you study matters far more than where you study it.

Engineers and computer scientists do best, earning an impressive 20-year annualised return of 12% on their college fees (the S&P 500 yielded just 7.8%). Engineering graduates from run-of-the-mill colleges do only slightly worse than those from highly selective ones. Business and economics degrees also pay well, delivering a solid 8.7% average return. Courses in the arts or the humanities offer vast spiritual rewards, of course, but less impressive material ones. Some yield negative returns. An arts degree from the Maryland Institute College of Art had a hefty 20-year net negative return of $92,000, for example.

Interactive: Explore US degree returns across more subjects with our expanded version at **Economist.com/uspayscale**