

Home
Essays
H&P
Books
YC
Arc
Bel
Lisp
Spam
Responses
FAQs
RAQs
Quotes
RSS
Bio
Twitter

PAUL GRAHAM

NEWS FROM THE FRONT

September 2007

A few weeks ago I had a thought so heretical that it really surprised me. It may not matter all that much where you go to college.

For me, as for a lot of middle class kids, getting into a good college was more or less the meaning of life when I was growing up. What was I? A student. To do that well meant to get good grades. Why did one have to get good grades? To get into a good college. And why did one want to do that? There seemed to be several reasons: you'd learn more, get better jobs, make more money. But it didn't matter exactly what the benefits would be. College was a bottleneck through which all your future prospects passed; everything would be better if you went to a better college.

A few weeks ago I realized that somewhere along the line I had stopped believing that.

What first set me thinking about this was the new trend of worrying obsessively about what [kindergarten](#) your kids go to. It seemed to me this couldn't possibly matter. Either it won't help your kid get into Harvard, or if it does, getting into Harvard won't mean much anymore. And then I thought: how much does it mean even now?

It turns out I have a lot of data about that. My three partners and I run a seed stage investment firm called [Y Combinator](#). We invest when the company is just a couple guys and an idea. The idea doesn't matter much; it will change anyway. Most of our decision is based on the founders. The average founder is three years out of college. Many have just graduated; a few are still in school. So we're in much the same position as a graduate program, or a company hiring people right out of college. Except our choices are immediately and visibly tested. There are two possible outcomes for a startup: success or failure—and usually you know within a year which it will be.

The test applied to a startup is among the purest of real world tests. A startup succeeds or fails depending almost entirely on the efforts of the founders. Success is decided by the market: you only succeed if users like what you've built. And users don't care where you went to college.

As well as having precisely measurable results, we have a lot of them. Instead of doing a small number of large deals like a traditional venture capital fund, we do a large number of small ones. We currently fund about 40 companies a year, selected from about 900 applications representing a total of about 2000

people. [1]

Between the volume of people we judge and the rapid, unequivocal test that's applied to our choices, Y Combinator has been an unprecedented opportunity for learning how to pick winners. One of the most surprising things we've learned is how little it matters where people went to college.

I thought I'd already been cured of caring about that. There's nothing like going to grad school at Harvard to cure you of any illusions you might have about the average Harvard undergrad. And yet Y Combinator showed us we were still overestimating people who'd been to elite colleges. We'd interview people from MIT or Harvard or Stanford and sometimes find ourselves thinking: they *must* be smarter than they seem. It took us a few iterations to learn to trust our senses.

Practically everyone thinks that someone who went to MIT or Harvard or Stanford must be smart. Even people who hate you for it believe it.

But when you think about what it means to have gone to an elite college, how could this be true? We're talking about a decision made by admissions officers—basically, HR people—based on a cursory examination of a huge pile of depressingly similar applications submitted by seventeen year olds. And what do they have to go on? An easily gamed standardized test; a short essay telling you what the kid thinks you want to hear; an interview with a random alum; a high school record that's largely an index of obedience. Who would rely on such a test?

And yet a lot of companies do. A lot of companies are very much influenced by where applicants went to college. How could they be? I think I know the answer to that.

There used to be a saying in the corporate world: "No one ever got fired for buying IBM." You no longer hear this about IBM specifically, but the idea is very much alive; there is a whole category of "enterprise" software companies that exist to take advantage of it. People buying technology for large organizations don't care if they pay a fortune for mediocre software. It's not their money. They just want to buy from a supplier who seems safe—a company with an established name, confident salesmen, impressive offices, and software that conforms to all the current fashions. Not necessarily a company that will deliver so much as one that, if they do let you down, will still seem to have been a prudent choice. So companies have evolved to fill that niche.

A recruiter at a big company is in much the same position as someone buying technology for one. If someone went to Stanford and is not obviously insane, they're probably a safe bet. And a safe bet is enough. No one ever measures recruiters by the later performance of people they turn down. [2]

I'm not saying, of course, that elite colleges have evolved to prey upon the weaknesses of large organizations the way enterprise software companies have. But they work as if they had. In

addition to the power of the brand name, graduates of elite colleges have two critical qualities that plug right into the way large organizations work. They're good at doing what they're asked, since that's what it takes to please the adults who judge you at seventeen. And having been to an elite college makes them more confident.

Back in the days when people might spend their whole career at one big company, these qualities must have been very valuable. Graduates of elite colleges would have been capable, yet amenable to authority. And since individual performance is so hard to measure in large organizations, their own confidence would have been the starting point for their reputation.

Things are very different in the new world of startups. We couldn't save someone from the market's judgement even if we wanted to. And being charming and confident counts for nothing with users. All users care about is whether you make something they like. If you don't, you're dead.

Knowing that test is coming makes us work a lot harder to get the right answers than anyone would if they were merely hiring people. We can't afford to have any illusions about the predictors of success. And what we've found is that the variation between schools is so much smaller than the variation between individuals that it's negligible by comparison. We can learn more about someone in the first minute of talking to them than by knowing where they went to school.

It seems obvious when you put it that way. Look at the individual, not where they went to college. But that's a weaker statement than the idea I began with, that it doesn't matter much where a given individual goes to college. Don't you learn things at the best schools that you wouldn't learn at lesser places?

Apparently not. Obviously you can't prove this in the case of a single individual, but you can tell from aggregate evidence: you can't, without asking them, distinguish people who went to one school from those who went to another three times as far down the *US News* list. [3] Try it and see.

How can this be? Because how much you learn in college depends a lot more on you than the college. A determined party animal can get through the best school without learning anything. And someone with a real thirst for knowledge will be able to find a few smart people to learn from at a school that isn't prestigious at all.

The other students are the biggest advantage of going to an elite college; you learn more from them than the professors. But you should be able to reproduce this at most colleges if you make a conscious effort to find smart friends. At most colleges you can find at least a handful of other smart students, and most people have only a handful of close friends in college anyway. [4] The odds of finding smart professors are even better. The curve for faculty is a lot flatter than for students, especially in math and the hard sciences; you have to go pretty far down the list of colleges before you stop finding smart professors in the math

department.

So it's not surprising that we've found the relative prestige of different colleges useless in judging individuals. There's a lot of randomness in how colleges select people, and what they learn there depends much more on them than the college. Between these two sources of variation, the college someone went to doesn't mean a lot. It is to some degree a predictor of ability, but so weak that we regard it mainly as a source of error and try consciously to ignore it.

I doubt what we've discovered is an anomaly specific to startups. Probably people have always overestimated the importance of where one goes to college. We're just finally able to measure it.

The unfortunate thing is not just that people are judged by such a superficial test, but that so many judge themselves by it. A lot of people, probably the majority of people in America, have some amount of insecurity about where, or whether, they went to college. The tragedy of the situation is that by far the greatest liability of not having gone to the college you'd have liked is your own feeling that you're thereby lacking something. Colleges are a bit like exclusive clubs in this respect. There is only one real advantage to being a member of most exclusive clubs: you know you wouldn't be missing much if you weren't. When you're excluded, you can only imagine the advantages of being an insider. But invariably they're larger in your imagination than in real life.

So it is with colleges. Colleges differ, but they're nothing like the stamp of destiny so many imagine them to be. People aren't what some admissions officer decides about them at seventeen. They're what they make themselves.

Indeed, the great advantage of not caring where people went to college is not just that you can stop judging them (and yourself) by superficial measures, but that you can focus instead on what really matters. What matters is what you make of yourself. I think that's what we should tell kids. Their job isn't to get good grades so they can get into a good college, but to learn and do. And not just because that's more rewarding than worldly success. That will increasingly *be* the route to worldly success.

Notes

[1] Is what we measure worth measuring? I think so. You can get rich simply by being energetic and unscrupulous, but getting rich from a technology startup takes some amount of brains. It is just the kind of work the upper middle class values; it has about the same intellectual component as being a doctor.

[2] Actually, someone did, once. Mitch Kapor's wife Freada was in charge of HR at Lotus in the early years. (As he is at pains to

point out, they did not become romantically involved till afterward.) At one point they worried Lotus was losing its startup edge and turning into a big company. So as an experiment she sent their recruiters the resumes of the first 40 employees, with identifying details changed. These were the people who had made Lotus into the star it was. Not one got an interview.

[3] The *US News* list? Surely no one trusts that. Even if the statistics they consider are useful, how do they decide on the relative weights? The reason the *US News* list is meaningful is precisely because they are so intellectually dishonest in that respect. There is no external source they can use to calibrate the weighting of the statistics they use; if there were, we could just use that instead. What they must do is adjust the weights till the top schools are the usual suspects in about the right order. So in effect what the *US News* list tells us is what the editors think the top schools are, which is probably not far from the conventional wisdom on the matter. The amusing thing is, because some schools work hard to game the system, the editors will have to keep tweaking their algorithm to get the rankings they want.

[4] Possible doesn't mean easy, of course. A smart student at a party school will inevitably be something of an outcast, just as he or she would be in most high schools.

Thanks to Trevor Blackwell, Sarah Harlin, Jessica Livingston, Jackie McDonough, Peter Norvig, and Robert Morris for reading drafts of this.

■ [French Translation](#)
