

# RESET WORK

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## What research says about how to make hybrid work succeed



Surveys show clearly that [a large majority of office workers](#) is in favor of hybrid work approaches post pandemic, meaning they'll work part-time from the office and part-time remotely. Most organizations now seem to be heading in that direction as well.

What do we know about the best way to organize it? For answers, I reached out to [Nicholas Bloom](#), a professor of economics at Stanford, who has for years been studying remote work and has recently been consulting with organizations about their return to workplace plans. (Business Insider

recently called him "[America's best work-from-home expert](#).”)

Here is a transcript of our conversation, edited lightly for clarity:

### **What does research tell us about the advantages and disadvantages of hybrid workplaces?**

Hybrid seems to be the best of both worlds. I've been advocating this since June 2020; I wrote a blog piece before then, actually. It seems pretty obviously the best. I would say 80% to 90% of firms are going for hybrid. It's like paying health insurance—not everyone pays health insurance, but most employers do. And the reasons are that it trades off two tensions. The advantages of coming into the

office are that it's useful for creativity, though the research on that is thin. There's one piece I saw from Microsoft where they did a difference in differences, and looked at teams that had always been remote as well as those that shifted from in-person to remote. And they used the ones always around as a control group, because obviously communication's changed because of the pandemic.

Their findings were that teams that became remote had significantly more communication within the team and less outside the team. The story was that it's easy to Zoom with people within your team, actually. But you don't tend to have those spontaneous meetings in the canteen when you chat to other people. And that doesn't seem remotely surprising. So the one big story is that communication, innovation, and creativity, are hard remotely. That will change, by the way. Everything I say may be different in 20 years and we'll be wearing Star Wars headsets, but for now that's true. The other thing people talk a lot about is maintaining company culture, which is a bit more intangible, but that's a some-distant-way secondary. Those are the upsides of in-person.

One upside of remote work is you can concentrate better, and there I've done [a large randomized control trial](#). As far as I know it's still an iconic research piece. It was at CTrip, and it was in many ways a very simple experiment—we just asked people in this large multinational, 'Who wants to work from home?' Five hundred of them volunteered, and 250 we thought were legitimate, as in they had their own broadband and they could work in a room that was not their bedroom. Which now seems kind of funny, but that was the requirement. And then we randomized by even and odd birthdays, and half went home and half stayed in the office. So it was pure treatment versus control. There's no selection effect. From that, we found astoundingly that they were 13% more productive at home. The big drivers of that were from two benefits. They were more efficient per minute—3.5% more efficient per minute, noting that these folks are basically making telephone calls and doing bookings. So efficiency here is very short run. Then the remaining 9.5% was because they actually worked more minutes now. In the case of CTrip that's because they started and stopped work on time and took fewer breaks, but at most graduate firms there are possibly people that also would work some of their commute. In our surveys, we asked people what they did with their saved commute time and roughly 40% said they'd spent it working for their current employer.

The two benefits of remote work: It's quiet, so for non-innovative, individualistic type activities, you'll probably be more efficient. To be clear, that's post Covid.

But the other benefit is you just save a lot of time. The average American commutes almost an hour a day. So it's a heck of a lot of time saved.

### **So hybrid works because it combines the best of in-person and remote?**

Yeah. There are trade-offs. So just to start off with point one: there are advantages to in-person, which are creativity and innovation. There are advantages to remote, which are efficiency on individualistic tasks and saving commute time. And you say that there's a trade-off there, but the answer is that hybrid, if it's well organized, doesn't make any sacrifices. It gets the best of both worlds. The reason is if we think about the typical person's working week, and break it up into actually tasks—what are you doing? Minute by minute, most people are probably spending 50-60% of the minutes in a typical week in group activities: meeting with colleagues, clients, doing presentations, having meaningful lunches. The remaining 30-40% are individual activities like answering emails, doing expenses, reading, preparing presentations, etc.

Most of the second category isn't so urgent that it can't wait one day. Hybrid is where the entire team, everyone you'd ever want to meet, comes in say Monday, Tuesday, and Thursday, and we all work at home Wednesday and Friday. Under that scenario, you have the best of both worlds because all your interpersonal stuff is all done face-to-face in those three days. They're kind of exhausting, so it's not perfect. But it's better off doing that. Then the two days you have enough quiet work to do that you just work from home; you Zoom, and things like that. Some of those two days can have individual one-on-one meetings, because they work really well over video calls. That's the sense in which hybrid is the best of both worlds. Since 40% of your time is individual, you get the pick up in productivity and you save on the commute. And for the 60% face-to-face, there's no loss.

### **You said hybrid, 'if it's well-organized', is the best of both worlds. What are the keys to being well-organized and what are the pitfalls?**

I've just done a huge amount of consulting with firms—it's like going down a decision tree. So step one: establish that hybrid's probably the way to go. Eighty percent of firms are at that point already, the other 20% is undecided, or maybe you want something else. Fine. So you're at the 80% point then the tree splits and two-thirds again align with my current advice, and one-third has a different view. There's two broad schemes on this. One is choice and the other is centralization. In economics, by the way, this is the debate that goes back to Hayek—free markets

versus communism. There's a huge debate about centralized versus decentralized. I have papers on this.

In survey data I've collected, there's incredible variation in how many days people want to work from home. Of people that can work from home, the average number of days they say they want to work from home post-pandemic is 2.5, almost exactly 50%. But it's almost a uniform distribution from 20% at zero days up to 20% at five days a week. It's a huge spread. So you think, why not let people choose? It's the free market—if you like beer and I like wine, you drink a lot of beer and I drink a lot of wine. That's one view.

The alternative view is you don't choose—you centralize it, which is my current advice. I used to think, go down the choose route. The reason I changed my mind is there are two problems with the choice thing. One is what's called mixed mode. Anytime you have a meeting with some people on Zoom and some in person, now that's a real pain and doesn't work. Then firms say, 'Aha, we've solved it! We're going to have everyone connected from a laptop!' But that still has its problems. As soon as the laptop goes down, everyone at work stands up and wanders to get a coffee together and chat. So mixed mode is very hard to fix. There's an in-group and an out-group.

The other problem that's much more pernicious is what I would call the diversity issue. We need two other facts to get this. Fact one is if you look at who is choosing to work from home five days a week, it's not random. If you look at college graduates with kids under the age of 12, which is almost half the workforce actually, then women have almost 50% higher preference to work from home five days a week than men. You can imagine the outlook of disabled people, people that live far away, and so on. That's what it is in the survey. I'm sure that will happen if you let people choose.

Fact two is if you look at our CTrip example, people that were randomized to work from home after 21 months had almost half the promotion rate of people that are in the office. They're otherwise identical. There's no difference in anything except one group's working from home. And in fact, they're performing better—that's that 13% number. But despite the fact that they're performing better, they're getting promoted less.

When we interviewed them, and I've talked to firms, there are two reasons for that promotion penalty for working from home. One is effectively what you could call discrimination, the out-of-sight, out-of-mind effect. That's theoretically

fixable—you can probably train to fix a lot of that. The other is very hard to fix, which is by working from home all that short-run increase in productivity, those more minutes I work, much of it comes out of fewer coffees and lunches with colleagues. Some of that activity is actually effectively long-run training and culture building and human capital building that makes you a better manager, just to know who your peers are and what's going on in the firm.

If you add all of that together, the problem with choice is it's pretty clear where this will lead. What this will lead to is—five to 10 years from now, you'll have a much higher promotion rate of single young men than married women with young kids. And for any other trait where people are split down on preferences, the people living far away from the office won't get promoted. Whether they know that or not, it's still going to happen. They may say that we're aware of this, but still go ahead and work from home more days. For the firm both legally, because there's a legal time bomb in this, and also for diversity objectives, it's problematic.

**And the answer is that you just say that everyone needs to come in three days a week?**

Exactly right. You remove two degrees of choice. You allow—well, then it gets even more complicated about what you decide. Let's go for just a simple version, if we're not caring about office space. The simple version is that each team decides, however you do it, either you make the decision or you just sit down and vote, you're going to be allowed to decide how many days they come into the office. Let's say I make you do it within three or four days a week, and you may all vote to do three. You've also got to decide which days and all stick to it. So team by team, you decide it. Then there's no choice of a number of days or which days, which is also important.

That's one simple version of it. A slightly more complicated version is that you as a firm, Delaney Inc., is concerned about office space and you have 30 teams and you say, 'Everyone comes in.' Everyone's going to vote to take the day off Friday and Monday. But you can't do that because we can't make office savings. So now what we're going to do is every team has one day we'll pick for them, or one day they choose, or something like that.

**I've heard of one company that had teams come in on different days to optimize use of their space—but what they found is that any project that involved teams that didn't see each other in the office actually suffered as a result of that.**

That's totally true. This is why I would go for centralization. Imagine teams come in again—my first bet, the safe bet. There's lots of cool things that may happen in the long run. I keep advising firms do something safe and low risk in the short run and learn from other company's mistakes. There are plenty of companies out there that are doing wild experiments. Some of them might get it horribly wrong. This is like a Pandora's box; once that box is open, it's very hard to get back in.

In the short run, I would centralize it and I'd sit down and think about which teams do I want to overlap more? Which teams do I want to overlap less? If every team is in three days a week, every team has to have at a minimum one day overlap. On average, it's going to be two. You can go from there. There are some teams where it's irrelevant and others—it's still a complicated matrix. I get that. But universities do teaching curricula, there's all kinds of problems. This comes out with airlines and bookings, etc. It's an algorithm and you just figure out what the overlap is and go from there.

**So your advice is to adopt a centralized hybrid approach to see how things shake out? Because if you from the outset say employees can work from anywhere and the 9-5 workday is dead, and then there are unintended problems, it's probably hard to roll that back...**

I've been looking at Zillow data on transactions and also United States postal service change of address, temporary and permanent, for businesses and residents. And just looking at large data sets is very clear in this: both households and businesses are moving out of the center of big cities. You can see huge movements out. A lot of that is permanent. Both cases you can either do temporary and you can rent, temporarily change your address, or you can do it permanently. And there's a lot of permanent moves. So the problem for firms, and why it's a Pandora's box, is if I announced we're going to be remote first, 'You're going to be digital nomads, blah, blah, blah'—and then nine months later, it turns into a fiasco, then good luck trying to haul in all those employees who have moved to Hawaii or Alaska back to the office.

You're going to lose a third of them. So I would do the reverse. Tell them, 'Great news! You can work from home two days a week, post-pandemic.' I don't know

what their expectation is, but it's a heck of a lot better than pre-pandemic. You want some backup, like GE with their targets. You want to push it down to the managers, check whether they like it, go up and down and up. We did that with the teaching matrix at Stanford. It's this process. You'd say, 'Kevin, you should come in Monday, Tuesday, Thursday—what do you think about that?' And you write back. But once you've got that plan set, leave it for six months to a year and learn.

This thing is a revolution, and revolutions are not quick. They take time. Most firms I spoke to are saying—I did some amazing thing two weeks ago, I spoke at the Business Council. All these amazing people were speaking. I got to talk for 10 minutes and then they spoke, and then there was open Q&A. It was a who's who of the CEOs of America.

One of the topics that came up was when to return to the office. And by far the broad consensus was Labor Day. Most people are talking about Labor Day, with some variety of opinions, which can't be cited due to Chatham House rules, but the topics aren't that sensitive. Actually there were five or six other people I spoke with, and no one disagreed with hybrid. No one really disagreed about returning to the office to start in fall and the process hopefully, maybe, is done by next spring. A year from now, I think the migration back to the office will be complete, but there'll be still massive experimentation. I think even two years from now, there'll still be huge turbulence as people are chopping and changing.

Topics that were interesting, by the way, were whether they should mandate vaccination or other things like that. Another interesting topic is where the office is. Skyscrapers are in trouble, and it's much more suburbs and industrial estate types of offices. Skyscrapers are cursed by subway and elevators, because of the pandemic public health concerns. We've been surveying 5,000 Americans a month. And one thing that repeatedly comes up is people are still really nervous about density, even post pandemic. I mean, you saw the news today: the CDC announced there's 5,000 infections of people with the vaccine, of which 80 of them have died. Personally, when I'm vaccinated I'm not that stressed about it—I mean, the flu was around before and people used to die.

But it's clear that I'm in a minority. So most people say that post-vaccine, they'd still get nervous of subways and elevators. Filling those skyscraper buildings is going to be really challenging. So three days a week, for firms with high-rises... those buildings are still empty. It's going to be a struggle to get people. It's very different if you're a tech firm, you've got a campus. Fine, people can drive in.

Those skyscrapers will end up just never going up beyond about 80% pre-Covid capacity.

### **Is it fair to say that September will be pretty chaotic?**

I don't think much is going to happen between now and September. There'll be a few pioneers that will be going back to the office. I spoke to a few retail investment firms, firms that own commercial property, and now of course they're trying to persuade their tenants to go in. But apart from them, pretty much nobody I speak to is in the office. Very rarely, occasionally—now a little bit more, but I think nothing much happens in September. Then it's going to be voluntary and by lottery, early on, because it looks like people want to work in the office on average 2.5 days a week.

It seems a weird concept, but at the beginning people are going to be keen so there will be an over-demand for returning the office. So in the short run, there'd be some lottery or sharing system to let people go back for one day a week and then maybe two. And at some point, maybe in the spring, you'll hit three days, at which point you'll be at equilibrium. Then I would do it in a structured way whereby it's centralized, and then see where we are.

### **You're saying that everyone might be ready to go back a few days a week in September, but companies will limit their return?**

Initially. It's very disruptive to suddenly massively change everyone's working pattern. There's no science particularly behind this. It's just thinking logically. If I was a company, if everyone's been working from home for 18 months, I may say the week of September 3rd, why doesn't team one come back just on the Monday, team two just come in on the Tuesday, and take it by that. And we'll run that for a month. I don't think they'll go from zero to full, initially.

It's disruptive, much as it was disruptive for sending people home, and there we had no choice. It will be disruptive suddenly moving back into the office, and there's going to be pinch points and issues. You're going to get back and find that all the equipment's broken—there'll be so much stuff. We haven't been in that for a year and a half. It may take a three month transition; personally, I wouldn't do it all at once.



**The economy is ramping up, and labor will be tight by the summer in some areas. And we know that some significant percentage of workers have been miserable over the last year and, given a chance to do so, will change jobs. How do you think about implementing new strategies for workplaces given the backdrop of the labor market and what could be a fairly aggressive turnover of staff?**

I think it will become one of the standard perks that you think about when you're moving companies. The standard ones already are a pension plan, healthcare, food, and company cars kind of died, but another one now will be working from home. In our survey, we ask people how much of a pay increase would you value the ability to work from home for two days a week? And the average number is 8%. In fact, there's a totally different paper from us, using a completely different methodology using a randomized controlled trial on job ads, that also finds 8%. We did the survey in the UK and we got 6%. That makes sense. If I'm somewhere I can work from home two days a week, I can move a bit further out and save. Eight percent is kind of like a pension plan, or a mean healthcare plan. An employer can completely get away with not allowing anyone to work from home, but on average you'll have to compensate your employees by 8% more to avoid high attrition.

The other issue that's come up a few times is this heterogeneity issue. Twenty percent of people really want to work from home five days a week, and there's another 20% for zero—and then everything in between. In the long run, what will probably make sense and was already a bit in use before the pandemic is that firms segregate a bit on how many days a week their employees work from home. You could set yourself up as a firm where you say all our employees will work from home four days a week, but people that want to come into the office because they're single and love the dating market are just going to leave.

And people that really want to work from home four days are going to come join your firm. Now, as long as everyone in your team works from home four days a week and only comes in the office one, you don't have this mixed mode or diversity problem. Before Covid, there were already fully work-from-home firms. I know a few of them, and I'm sure you've spoken to people that do that. It wasn't so unusual when you recruit a particular type of person with different preferences. That will become more common, and the norm will be two. There'll be firms with zero and firms with five in the short run. In the long run, people are mobile. In the long run, you can have a strategy whereby you're just aiming to hire folks that want to work from home four or five days a week, or want to work

from home zero days a week. And it's not that costly. In the short run it will be pretty costly, because you've got your stock of inherited workers.

**Some bank CEOs are talking about the virtues of in-person work, including for young workers, and pronouncing remote work an aberration. What's your reaction?**

Well, there are certain activities—to start, only 50% of us employees can work from home. It depends on occupation. That's heavily correlated with education, about 100%. For example, a trader just may not be able to work from home, because you need very fast computers and server speeds. And it may be that in corporate finance, you can't work from home because the data's too sensitive. If I know my neighbor is doing deals for \$100 billion, I go burgle his house. There may be certain professions that don't work and I wouldn't be surprised if quite a lot of them actually sit in investment banking where it's just not feasible to have people work from home. If instead you were thinking about activities, let's say HR, that doesn't strike me as particularly unusual versus tech.

Maybe if you're HR, maybe you can be at home one or two days a week, as long as you're there to meet people in person. There are other industries, like airline pilots, dentists. Some of them have changed actually, such as doctors. You might have said doctors pre-pandemic, but now you know that you can do telemedicine. And particularly for internal medicine patients prefer it as well. It's not just the doctor, it's both sides. So now a lot of doctors are doing two days telemedicine and three in the practice.

**Have you seen any technologies that exist or are being developed that actually seem to meaningfully address the drawbacks of remote work?**

I've been working on remote work since 2004, and in my time of working on this, there's already two technologies that made a big change. One is Skype that came out in '03, but basically '04. It was online video—it was really big scale. Then 2010, '11, '12, Zoom and other stuff came out. And the other one was Dropbox, because you could cloud file-share. If you go back to 2000, it was really primitive. It's telephones, and you've got to carry floppy disks and piles of papers. It's pretty awful. Those two have made a huge change.

Looking ahead, I can easily see a couple of technologies that in 10 years could change stuff. If you take virtual reality, so big headsets—which are already there, because Oculus Rift is pretty good. And then add things like those avatar-type

setups with virtual areas where you can walk around—if I'm near you I can hear you, I'm far away I can't—you could easily set things up where you could vividly, effectively collaborate. Now it goes from efficiency of remote at 60% up to 90%. Fine, it's not perfect. And you worry that someone's hacking into your stream or something, but it's not a one-zero. Technology is continuing to improve, and it's not that it was zero at home interpersonally and one in the office. It's 0.7 at home. It's going to get to 0.8 or 0.9.

I have [a different paper](#) that looks at the US Patent and Trademark Office. We look at the share of patents that mention the words 'working from home,' 'tele-conference,' 'video conference.' You see from April onwards, it's just exploding. It's hardly a surprise, because the market is like 5X. So of course everyone and their dog is doing a working-from-home startup. The technology is going to rapidly improve. It already has. Teams used to have four windows back in March 2020, now went to nine in April, and 14 and on. Zoom has gotten better; there are features in Zoom that are now here that weren't there at the beginning. I have a paper with Jose Barrero and Steve Davis called "[Why Working From Home Will Stick](#)." A big reason why is that there's a technology uptake, positive reinforcement loop. That is full thrust. It's like a Star Wars movie where they've rammed the thrusting to max. Every tech firm out there is pouring every dollar of R&D they can to work on online technology. We probably haven't seen it because there are lags to hardware. We've seen a lot of software. Gather is quite cool, and there's a bunch of these things whereby your avatars are walking around. Now you have conferences and you break out and everyone goes into Gather—and it's a bit clunky, but it's not bad.

**Many of the companies that have the longest track record for remote work really stress the importance of documentation. Take a company like GitLab, where they have a team handbook that's thousands of pages long. Do you think documenting practices is important for a hybrid workplace?**

In my mind, this is the classic econ thing of the difference between correlation and causation. I suspect on this dimension, it's just the types of firms that work from home are just big into documentation. There's nothing wrong or right with documentation, but there's no reason why you wouldn't do that at work. I used to work at McKinsey and they're obsessive with every time they give a presentation, they'd have a little code and then they'd store it. Every presentation since time immemorial was in some big thing. What is very complementary with working from home is performance monitoring.

I spoke to Marissa Mayer a while back. She said that when she was at Yahoo in 2013, when she was the CEO and they canceled remote work and then reinstated it—the big issue when she took over was that the performance monitoring system was pretty dreadful. They'd been churning CEOs. So you had no idea really who was working, and who wasn't. You're falling back on input monitoring. I'm just watching what you're doing. Are you at your best typing furiously, appearing to be working, or not? Of course that's impossible to do at home, but if you get a proper performance monitoring system through good HR and good management, then I don't care what you're doing. I just only care what you produce. That's called output evaluation, and that's very easy to move home. It's turned out that working from home has exposed firms that were poor at performance monitoring, because they've really suffered and firms that are great have found it pretty straightforward. Go home and do your job as normal; there's no big deal about it in reverse. You can imagine that every firm is desperately putting in place these performance monitoring systems.

To be very clear, that's completely the reverse of surveillance systems. Surveillance systems are the working from home equivalent of input monitoring. If I can't look at your desk and see if you're typing furiously, I'm going to get a piece of software that screenshots your laptop—that's horrible. And it's a sticking plaster for bad management. The much better solution is to say, you're free to do what you want. Run your own business. As long as people are held to account on results-based work.

That's a huge kind of bifurcation between badly and well-run firms. It turns out that the performance gap between badly and well-run firms has exploded under the pandemic. For well-run firms, management can handle it, but badly run firms are disintegrating.

### **Is there a way to research that quantitatively?**

There are two different studies. There's something called the World Management Survey—it's a vast literature. There are two different surveys, one in Italy, one from some folks at the World Bank. But in both cases you basically have a pre-pandemic measure of management practices. Effectively, you have performance monitoring, you have incentive pay, and then you look at the performance of those two groups of firms and better managed firms outperform even pre-pandemic, sure, but the gap has massively exploded during the pandemic.

It's also why bigger firms have done better. The reason is they're better managed. We see that in our data over and over again, large firms tend to have more formalized performance management systems and are less reliant on management by walking around in the middle of offices. They've been able to have people work from home whereas small companies are not as well set up.

**You can watch [Bloom's 2017 TED talk](#) about remote work.**