What Happens Next in 6 Minutes – February 27, 2022
Limitations of Scaling a Business or Idea & Ivermectin
John List Q&A

Larry Bernstein:

Your research focuses on using data to make good public policy decisions, tell us about your work in public education and why current education reforms fail?

John List:

We used our classrooms only to teach our children and not to teach us what works and why. What are the best inputs and how do those inputs map to outputs? So, inputs like better teacher quality, small size classrooms, better parental inputs, tutors, online versus offline, et cetera. We have some small-scale studies on that, but will it ever have a chance to scale?

I started a pre-school in Chicago Heights and it's a great preschool, but can it scale to all of Illinois or all of America? And I think by and large our public education system should have been run from the very beginning is one large field experiment where we can figure out what works and why it works. And the fact that we haven't done it like that leads us ignorance and confidence, success is assured, Mark Twain said that once. And that's exactly where we are in public education because we haven't used our classrooms to teach ourselves.

Larry Bernstein:

Let's talk about experimental design next. In your book you highlight the work of the statistician Ronald Fisher. I think one of your key points is that it is important to have data, but you need proper experimental design otherwise you have garbage in and garbage out. In David Salsburg's book The Lady Tasting Tea, the author describes how Fisher's first job was to evaluate the farming techniques in England and they provide him with mountains of data, and he throws it away and decides to do new seed field experiments to control for weather, water, and soil by making a random collection of plots. How would you apply experimental design to solve public policy questions?

John List:

(laughs)

Even though I'm a field experimentalist, I think Fisher probably threw out valuable data. When I start working with firms or governments, I always ask them, can I see your data? Because in many cases correlations can be helpful. Now you can overdo correlations and you can misinterpret correlations. So, you have to be super careful.

Larry Bernstein:

Do you mean that you need some knowledge about how the world works to develop the experiment to test the right assumptions?

John List:

I think any kind of data is useful to help give you a glimpse of what's happening in that market or environment. What are the outcome variables that people care about? What are potential inputs? In Fisher's case maybe seed was easy, but in public education this is a multidimensional input case. And a lot of times the correlations can help us think about and learn, what levers we can pull.

It's very difficult to envision a case where the naturally occurring data that they're going to have in those big books can be as informative as a well-designed experiment. You need randomization and a few other assumptions to say something causal about two variables. And those assumptions tend not to be as difficult to swallow as assumptions that you need to make when you have books of data. When you have the gold standard of experimentation, it's called the gold standard because it's pretty simple to see how you can make a causal estimate from your data.

Having mound and mounds of data doesn't give you the right to say something causal. You still need an identification plan. The identification plan using experimentation is, I randomly put some people in treatment and some in control. And that allows me to make a very strong statement about causality. And that's something that we do a little bit in public education, but not nearly enough.

Larry Bernstein:

Use Head Start as an example.

John List:

Head Start is the poster child for program drift. Head Start looks great when you send wonderful home visitors, when you have families that are in tune and signed up for what's going on and receptive of the pill, and in the Petri dish, it looks great. But when you scale and start hiring lower quality program administrators, lower quality home visitors, families that are less in tuned with receiving the program, three crying kids around and a nagging mother-in-law, whereas before they could focus fully on their kid and the administrator. And that's exactly what happened.

It ended up being a different program and it eroded the quality of the program that the recipients were receiving. Now, the control group was receiving different kinds of treatment as well. And what I mean by that is, if you weren't getting Head Start over time, your alternatives were getting better. So, you always have to measure your program against what is the control group receiving? And that's the difference that we're always after.

Larry Bernstein:

In your book, you introduce the term non-negotiable to an experiment or a scalable product, what does it mean and why is it important?

John List:

A non-negotiable is something in your original experiment, if you take it away, it will cause a very large voltage drop. It's a non-negotiable to the successful performance of my idea. Very rarely do we figure out during our experiment what are the non-negotiables. Typically, what we do as social scientists is we give our theory its best shot. We then find a good result, we publish it, and then we move on to our next efficacy test.

In medicine they sort of have that dialed in. Because you have an efficacy test, you have phase one, phase two, phase three. But in the social sciences we tend to forget it's the first study, it's an efficacy test. Those explorations do not give us the non-negotiables. So, what you're asking is why in the world would you ever test something that you wouldn't explore the non-negotiables? Because you don't know them in, in many cases. And secondly, because the system is set up for you to show a very strong result. So why would you want to take your own idea out from its very beginning?

You want to get a publication and get further grant funding, get on the Larry Bernstein show, et cetera. All the incentives are in place for you to report very large treatment effect. Look at Chicago Heights. The way I did Chicago Heights was I hired 30 teachers exactly like the Chicago Heights school district would hire them. I thought that was a good thing. And it is good for horizontal scaling. What I mean by that is what I found was the teacher mattered. You need to have good teachers. So, if I wanted a horizontally scale, say I found a great result in Chicago Heights, can I scale to Denver, LA, Phoenix, et cetera? That's horizontal scaling. That's fine, my program will do that. But what if I wanted to vertically scale? And what I mean by that is I want to hire all kinds of teachers around Chicago land. And that's scaling in the same input market. So now I have to hire 40,000 teachers within the same input market. That's all together a different proposition than hiring 30 in an input market. If teachers are non-negotiable, what I should have done from the beginning in that example is hire a bunch of teachers that I could have hired when I scale, right? So that's going to be a bunch of marginal teachers now, isn't it? So, I want to hire a bunch of marginal teachers, but I also want to explore with average teachers and good teachers to see if our teachers a non-negotiable. If they are, and if I try to scale when I'm going to have a short supply of teachers, I need to change my curriculum, right? I don't want to try to scale something that I'm not going to have the non-negotiables at scale.

I'm talking about changing from a world of evidence-based policy, which is what we do now, to policy-based evidence. I want to look at scale and see the constraints. And I want to bring those constraints back to the Petri dish and see, does my idea still have voltage with those constraints in place? Policy based evidence.

Larry Bernstein:

You are the former chief economist at UBER and the current chief economist at Lyft. Tell us how you can design experiments within the organization and test it out and learn from it. And how is Uber and Lyft scalable?

John List:

Because it satisfies my five vital signs. Uber and Lyft have a product or service that has voltage. It has broad appeal. It scales well. Because what you're doing now is you're scaling in the fixed cost. And what I mean by that is as the market place grows you get shorter ETA times and drivers end up being able to take advantage of the rider base as well.

Everyone needs to get around, especially in urban areas. I think as soon as Rideshare gets figured out, it's going to help with the congestion problem too.

Larry Bernstein:

I hear that UBER has made congestion worse because there are all these empty cars driving in circles.

John List:

There are studies that show both ways. You're going to have to leverage multiple people in a vehicle. You have safer driving at bar time and there's less drunk driving.

Larry Bernstein:

Everybody's interested in the economics of UBER. Can you discuss the work you have done on labor supply of drivers, and what happens when you increase payouts to drivers?

John List:

In that case, you feel bad because drivers they're driving around with empty cars more often. That's what the new equilibrium was and that the same thing happened when we rolled out tipping. So my group was responsible for rolling out tipping because remember back in 2017, Uber didn't have the right to tip in the app. My team Uber Nomics rolled out tipping. Tipping increases wages, but drivers, labor supply shifts out and exactly enough to offset the tip effect on wages. They're earning the exact same amount per hour. They're driving around empty more often.

That's why Uber doesn't like it and society shouldn't like it. You want that to be a 100%. So anytime you develop ideas or programs that you're trying to increase somebody’s wages, but it ends up leading to lower utilization. Utilization is a measure of efficiency of the market, right? That's why you feel bad about it. You're trying to match supply and demand for full efficiency. Idle resource is not an efficiency.

Larry Bernstein:

Tipping is our next topic. We consumers sometimes make behavioral finance errors. We view cash as different in changing circumstances.

John List:

Yeah.

Larry Bernstein:

I'm willing to spend 15 bucks for a meal. And service is already included. And then that very attractive waitress asks, "Would you like to gimme an additional tip?" And here's the machine? We're no heroes. None of us are.

John List:

Good luck with that choice Larry. (laughs)

Larry Bernstein:

I mean I've already paid 18% service charge, and then I am offered no thanks, 15% or 20%, I mean what am I supposed to do?

John List:

I love that. And that's exactly why at Uber we separated the tipping choice in space and time.

Now let me be clear. I'm not an Uber shell. I used to be the chief economist at Uber. I am currently the chief economist at Lyft, okay. When Travis agreed to do tipping, he said, "This is fine, Jon, but I want you to design a system whereby only 10 to 15% of people will tip because I don't want it to be a tax." He said, "Restaurant tipping right now is a tax." And, it's a tax for a few reasons. You mentioned some of them, your shame. The social norm is so strong that you want to help them out. You feel like a jackass if you don't. You're put in this position of, I wish I would've never been asked to do it, but now that I'm asked to do it, I mean, they're going to say no and be a jackass or I'm going to say, yes, what I really don't want to give.
And now let's go back to Uber. We decided to separate the decision to make a tip. We separated it both in space. That means you have to leave the vehicle. And in time you cannot evaluate the driver or give the tip until after the driver gives you, your rating. We wanted all of that removed. The driver can't track the tip back to you.

You make the tip in private and lo and behold, what we found was about 15% of trips are tipped and other kind of interesting fact in the data is that three out of five people never, ever tip, three out of five, never tip. You'll never get that in restaurants. In fact, we juxtapose those data, where you have to tip face to face and there you get 90, 95% of people tipping.

Only 1% of people tip every time. It tells you a lot about social norms when you're acting in public versus when you're acting in private and those features are important when you think about designing incentives?

Larry Bernstein:

I'm part of that 1% of always tipping, but I assumed everyone else was doing it. I didn't mean to set a new standard for tipping.

John List:

(laughs) A lot of times people ask me, what's the easiest way to join the 1%. And I say, tip your Uber driver every time. (laughs)

Larry Bernstein:

You quit as Chief Economist at Uber on a Friday and started work as Chief Economist at Lyft the next Monday. The State of California has limited enforceability of non-compete agreements. And this is a real challenge for UBER to protect its IP from its biggest competitor. How do you think about the economic effect of this legal right?

John List:

Yeah. It's good for question. I think in this particular case, it serves competition. If you just look within Uber and Lyft, people are going back and forth quite a bit. And you see it in all firms in Silicon Valley.

They said, "You can go to Lyft, but you need to leave your brain at Uber. All of the know-how and knowledge you need to leave at Uber, but you can go to Lyft." That's a difficult proposition, isn't it?

Now as a firm, mobility versus the non-compete in other states, I think it would certainly lead you down a different path of both how you're going to invest in people, share ideas.

I was doing a fair amount of strategy in the flying car division at Uber. There was futuristic stuff going on.

Larry Bernstein:

Uber and Lyft allow drivers to work on both platforms. As a public policy matter, at the junior level we want to allow employees to have job mobility.

John List:

Occasionally we do give drivers tips about where to drive and how to drive. If you would call that IP, then drivers have intellectual property as well. I'll put that out there because drivers are getting a play book from us.

Larry Bernstein:

Public policy would want encourage hamburger flippers to move easily between McDonald's and Burger King because from an efficiency standpoint, we all benefit from maximal employment if IP is unaffected. Sure, there are things you can learn from McDonald's as a junior employee about production, logistics, and aesthetics, but not much. But you were the chief economist at UBER and had access to the most important intellectual property and trade secrets and that's what we're trying to protect. If I were your employer and could not prevent you from joining Lyft, I would have to deny you access to critical information and limit you to need to know matters only. That will reduce your productivity, reduce your compensation and make the firm less efficient.

John List:

Yeah, it's more like we have to understand the production function. When we put that constraint in place, how much productivity does it hinder versus how much added utility do you give to workers, giving them the right to move? It's a good question.

Where they do have strong protections is with recruitment of workers. When I left Uber, they were very strict on me not recruiting my team from Uber to Lyft.

Larry Bernstein:

Membership has its privileges is our next topic. You helped design the Lyft membership program. And as I read about your process, you seemed to prey on customers weaknesses. The behavioral finance error of buy one get one free, when you don't really need the second. Are memberships unfair to consumers?

John List:

Anytime we can make the features as salient as possible, we should. We should minimize this idea about being covert. When I think about the behavioral checks, that I'm proud of, it's when it increases total surplus on both the driver and rider side, for example, in rideshare. With memberships, I don't see anything per se, bad in there for consumers. What we looked at with the early Lyft pink membership program was, you paid a fee, say $25 a month and you received 15% off all trips. And then we varied the fee and varied the 10, 15, 25% off. That kind of membership program is fraught with danger for the firm.

You have one group of people who will take the membership program and not increase their number of trips. These are what I call the NoGoods because they're getting the same number of trips at a lower price. Lyft, would've been better off not having that type at all, but the consumer's better off. Now the people who buy the membership and they end up taking more trips because of the membership program. Those are what I call the JoGoods. Now you need a certain fraction of the JoGoods versus the NoGoods to make your membership program good for you and good for everyone else.

Now as it to turns out the NoGoods were like three to one, the JoGoods in our experiments. So, we were literally giving away cash because we were not inducing people into saying no to Uber. They were not enough people increasing their number of rides to make that kind of membership program valuable to Lyft.

It's almost like a total surplus giveaway, right? It's the opposite of what you just said. (laughs) This is Lyft giving away trips for cheaper than they otherwise would have.

Larry Bernstein:

Sam Walton called the Kmart Blue Light Special the greatest marketing invention of all time. Why is that?

John List:

First, it's entertaining. Oh my God. They're giving something away. Notice the words giving something away.

I still remember the Blue Light Special. Go to Kmart and mill around just waiting for the Blue Light Special. So, they received both anticipatory utility it's coming up soon. And It was a loss leader in part because they were overstocked or they have to give it away anyway. It was a police officer's light in Indiana where it started out in 1965. Sam Walton called it the greatest marketing gimmick of mankind ever produced even better than PT Barnham because of the enthusiasm that it generated. I can still remember my days in the 70s and 80s with my mom and dad, we shopped at Kmart in part, because you never know Johnny what the Blue Light Special is going to be when we go there.

I'm going to get a new kickball. It's a little bit of people getting excited, running and grabbing it. Do they occasionally buy something they're never going to use probably, but it's utility enhancer in the end, gives a great experience along with the shopping?

Sort of an idea that you can see the win-win on both sides of the market.

Larry Bernstein:

Do corporate accounts have agency costs with membership programs?

John List:

Business accounts at Lyft were less price sensitive than individual accounts. That's how United and American and Delta can make it go because they're both bringing in new customers, they're bringing in loyal customers and they're getting people to be less price sensitive. That's certainly all true. Is there an agency problem in there? Absolutely. Anytime you have somebody not bearing the full economic cost of something that they buying or invested in.

Larry Bernstein:

Why is Amazon Prime viewed as the greatest marketing program of all time?

John List:

I think it's a great marketing tool when it's paired with a great service delivering a great product, then you put that with delivery, that people are over exaggerating the importance of. A lot of times, when you include shipping upfront, you can make shipping salient. I think this turns out to be a big hit, only because it has a Mack truck behind it. If Sears would have done Prime, nobody would have cared because nobody wanted to shop at Sears. You have to have both. You have to have a good product or service coupled with a good idea. Then it becomes great.

Larry Bernstein:

In my house, we order from Amazon every day. Amazon Prime is worth thousands of dollars to my family, and they only charge $140. I was with a friend when Amazon announced the Prime price increase from $120 to $140. And I said to my friend, "Well, I guess you're going have to cancel." He's said, "Are you out of your mind? There's no chance. Prime is incredibly valuable to me, $20 are you serious?"

Amazon is not taking advantage of its most active clients to price discriminate. Why is Amazon letting its bigger customers reap most of the benefits of Amazon Prime?

John List:

I interviewed with Jeff Bezos around 2008 for the Chief Economist position at Amazon. And we talked about price discrimination, and back in 2004, a guy goes on and searches for a book, he then deletes some cookies in his computer and goes back and searches for the same book, and he gets a different price. The press went nuts. Back then. What they were doing is they were price discriminating, based on search. Any firm that has pricing power will consider this, right? (laughs) Because price discrimination is a very valuable tool for firms. Now, at that point, we talked about ways to price discriminate, he goes, "We just don't do that."

And it's a matter of reputation, and upholding a level of trust amongst your customer base that one size fits all isn't right in nearly every market. But after you add morality and equity, and every other term you can think of, it becomes the only solution, in many cases. And this is clearly one of them.

Larry Bernstein:

New topic is quitting. Quitting your job, your marriage, anything? Should we quit more often?

John List:

Quitting is probably the most repugnant word in the English language. When people hear you quit something, you are the new pariah in the neighborhood. Where I was raised, in Wisconsin, Vince Lombardi famously said, "Winners never quit, and quitters never win." And society has really tricked us into believing, when you quit something, it's terrible, and you're a terrible person if you do it, right? Just go online and type in quitting posters or sayings about quitting.

People getting headlines for wasting their entire lives going down a dry hole. I've never read that article. Oh my God. Johnny was brilliant as a student. And then Johnny got on this terrible idea, but Johnny didn't quit and Johnny kept it going. Lo and behold, Johnny just died, didn't accomplish a damn thing. I've never seen that story Larry, do you? There are millions of stories like that that don't get celebrated. So on the one hand we're told not to quit. It's repugnant. We're told we're a loser if we quit, that's a social norm or if we would just have called it a pivot or an audible, right? Think about Peyton Manning at the line of scrimmage, he'll forever be known as Omaha, Omaha, Omaha, calling off a bad play into a good one. He's brilliant for doing that. But if we would say, "Peyton, you just quit that play. You're bad for quitting." He'd laugh you out of the room. He'd be like, "Yeah, I quit that play because it was a loser play. I got our offense into something that's a winner. I called an audible." Point number two about quitting; We have this really bad tendency to neglect opportunity cost of time. And we tend not to think that way because just ask people, why'd you quit your job? 99 out of a 100 -times, they say, "My boss didn't appreciate me. I didn't get the promotion. I didn't get the pay raise. I got crossed with a coworker." It's always my current lot in life got soiled so I started to look. We're parochial in the sense that we just look at what's happening around us and we have blinders around what could happen, our opportunity cost. We should be moving just as often when our opportunity set gets better. We should look periodically around and say, "Wow, if I keep on this job, I'm missing out in that new opportunity out there." And that should get me to move or the relationship, whatever.

So put those two together and we're in a world where we know we don't quit enough. We don't pivot enough. We don't call enough audibles. Steve Levitt and I put together this experiment on Freakonomics. When you induce people to quit, who are considering it, in six months they're happier than the people who are in the control group who don't quit.

How do you know when it's time to quit? Because, you know, I, I'm convinced that we don't quit enough. It's all about your opportunity set. When you see something out there and it's much better than you have, take it because you're going to be much happier. There'll be some regret occasionally, but the dice will be in your corner when you move as long as that opportunity is real and it's a legit job or apartment or whatever that's when you know you should move.

Larry Bernstein:

John, you played college golf, and you went to a golf tournament and you recognized that you were not going to be able to play professionally, so you quit. Then you got a Phd at the University of Wyoming in Economics and you applied for an economics academic job at 150 universities and you got one offer from the University of Central Florida. Why didn't you quit economics with that information?

Some occupations there are only a very few individuals who can make a great living. There are 100 golfers that can earn great money. There might be 150 academic economist jobs that pay well and have prestige. Why not go to Wall Street where thousands of half-wits can make a fortune. You would have crushed it there, why didn't you set your eyes on that?

John List:

For me it was about what is my opportunity set. When I was a freshman in college and I came to grips with, you will never be good enough.

What that meant was I could end up being a club pro and I would've been in the winters down at Fort Myers Legends Country Club. And in the summer back at Madison, Wisconsin at Cherokee Country Club, whatever. And that would've been okay. That, nothing wrong with that life. I thought I was good at something. And when I'm looking at my opportunity set, it ends up, economics now presents, let's be clear when you say 50 or a 100 can make it-

Larry Bernstein:

There are 12 world-class research institutions in the United States and there may be 50 to 150 tenured positions in your age cohort available at these prestigious schools. I'm saying Sunset Community College lacks an economics department that provides either cash or prestige compensation.

John List:

I take that point. I think the gradient in the economics world is less severe than the gradient saying that winner takes all economy of professional golf. And it sounds like it's even less severe in wealth management (laughs) because I would've been perfectly happy at UCF my whole career, because I could have worked on research that I was excited about. I could have taught. My inputs wouldn't be as productive. And what I mean by my inputs. as my colleagues, my students my research budget, I wouldn't be the chief economist at Lyft and have all those opportunities if I was at UCF. But to me that fall wasn't as extreme as what it looked like in golf. But, the main point is I didn't have any other legitimate opportunities coming out of the University of Wyoming that I could have pivoted to.

Larry Bernstein:

No chance. With your brains, you would've made it on Wall Street in two minutes.

John List:

It might have been truck drive actually.

Larry Bernstein:

I think it was a lack of imagination on your part and your inability to see your competitive advantage.

John List:

(laughs)

Larry Bernstein:

As a matter of fact, I still think you're making a mistake.

John List:

Maybe so, (laughs) I appreciate that. They weren't knocking at my door and, and you're right. Look, the family that I was raised in, I'm a first gen college kid. I didn't even hear about the top schools when I was in grade school or high school. Harvard or Princeton or God forbid, University of Chicago Economics, those words would've never even been spoken in my world. My world was we're in the shadows of the University of Wisconsin. Nobody goes there from my group. My group becomes Walmart clerks, managers and truckers. Like my brother is, like my dad is, like my grandpa was. Even going to Wyoming, it was never really talked about what the opportunities outside of the academy or outside regulatory bodies might be.
John List:

I want to be an academic, use the world as my lab, learn about how economics can be applied to the real world. It was UCF or the highway really. (laughs) Let's face it. I still have the 149 rejection letters.

Larry Bernstein:

I end this episode on a note of optimism. What are you optimistic about?

John List:

I have to speak about our economy. I've worried a little bit about inflation. I'm very optimistic about our economy. I'm getting more optimistic about using science to change the world. And if we can begin to think about from the very beginning scaling. I want every organization to have a scaling unit.

Dick and Cass have a great book called Nudge and now organizations are popping up nudge units. That's great. I want scale units in every organization, every private and public firm should be looking at each idea, each approach with a scaling lens then we can be serious about making change.

Larry Bernstein:

Why do you think the BLS still shows six million fewer workers today than pre-pandemic with so much labor demand?

John List:

We're seeing it at Lyft. The economy's strong, the labor market is very strong and I think it will continue to be strong on the wage side. Now the stimulus checks going away are going to help.

It will get people back in the workforce.

The government stepped in and that's great and now it's time to step out. Our economy is rolling. I personally think we have a lot more entrepreneurs because of COVID than we ever dreamed we're going to have.

Larry Bernstein:

You did a consulting assignment for the Dominican Republic. You were given the task of raising tax revenues by either threatening jail time or publicly shaming non-compliant taxpayers. Shame is something that our society has moved away from.

I had Lawrence Friedman who is a legal historian at Stanford, and he mentioned that he was very unhappy with the current state of affairs of the penitentiary. I asked him, "back in the day, when we couldn't afford to put people away for a long period of time, we would do is we would shame them." Think the scarlet letter or the stockade.

Should society use shame instead of the penitentiary to encourage tax compliance or other public policy objectives?

John List:

I think you're right to make the point that shame is a very important non pecuniary incentive.

When it comes to the DR, they did allow us to use shame. That was one of the approaches that worked. The DR, they have problems with tax compliance. Both their firms, large and small and individuals do not pay their taxes. One problem in developing economies is if you don't have a tax base, it's difficult to build the infrastructure you need. They send reminder letters, you should pay. And they said, "These are our best reminder letters." And we said, "Let us take a shot at them." And one of them was shame. One of them was potential jail time.

We raised a 100 million more dollars in taxes than they raised in the control group in the same sizes. That ended up being like 0.01% of their GDP. So, you're right, shame worked. Now, why did it work? We don't know. These individuals that didn't want to lose their reputations with their friends or their wife or their families, whatever, but it works. How far do you want to push this? If the objective is simply to raise more money, and I don't care about mental health or anything else, then you're right. But in the broader view, there might be not only the tax consideration, but maybe it has other effects that you should take account of before you roll out the stockade (laughs). And they will forever be known as the tax cheat. That might get a few people not to cheat the first time, it might mess up their lives a little bit, might ruin a few marriages. It might ruin their futures, but you did raise more money-

I think it's a tool to tastefully use and not use recklessly. If it's tasteful, I think it's just fine. If it's reckless, I don't think it's fine. People do make mistakes and you'd hate to take someone for their entire lives over one mistake.