

The following content is provided under a Creative Commons license. Your support will help MIT OpenCourseWare continue to offer high quality, educational resources for free. To make a donation or view additional materials from hundreds of MIT courses, visit MIT OpenCourseWare at [ocw.mit.edu](http://ocw.mit.edu).

**PROFESSOR:**

We're going to talk about something we've sort of touched on, in many different contexts, but more head on this time, and that's entrepreneurship. And sort of the starting point of that, I think, there's a story that somebody once told me, which, I thought, kind of frames one side of the debate very well.

I was on the plane with a man, who was clearly sort of a rich, Indian businessman. And he was quizzing me about what I did. And I said, I study economics and poor people. And he was very much of the view.

He said, look, you know, there's all this stuff about poor people. You guys don't understand poor people. They have an entrepreneurial genius in them. You think I'm a successful entrepreneur. The way I learned entrepreneurship was from the poor.

So I was kind of saying, yeah, yeah, yeah, right. Well then he told me a story that was actually quite compelling. And mostly people-- whatever this means, it's never clear to me. So I was being slightly skeptical. But then he told me a story that was very compelling.

So he said that he had an MBA from the US. I think from Kellogg. And he went back to India after doing his MBA. And when he arrived in India, his uncle, who was a businessman in Bombay, said look, you want to be an entrepreneur. Let me show you what entrepreneurship is.

So basically, they got in his uncle's car. The uncle drove him all the way to the Bombay stock exchange. The Bombay stock exchange, well, he thought that they would just go inside the stock exchange.

But in fact, he parked his car in front of the exchange and pointed to four women who were sitting on the side of the street that goes in front of the exchange.

And he said, you know, can you figure out what those women's business model is? So he says, well, I looked and looked. And they would just get up, from time to time. They'll scrape

something off the street, then they'll come and sit down.

And then they'll be sitting and talking to each other. It's early in the morning, like 8:30 in the morning or 9:00 in the morning. Cars were driving by. People were showing up to work at the stock exchange. But what does it have anything to do with entrepreneurship?

So he kind of tried to come up with some answer, completely didn't manage, and finally told his uncle, look, I have no idea. Why don't you tell me? His uncle said, these women get up at 5:30 in the morning. They go to the beach. In the morning, the tide has receded, so there's wet sand on the beach.

They collect the wet sand and then they put it in a bag. They come to the stock exchange. This is one place where lots of cars go by. And there's a nice sidewalk to sit. Before the traffic starts, they lay the sand out on the street. And then they sit there.

And as people drive on the street, the heat from the tires dries the sand. So the sand gets heated and eventually dried by the tires. Once the sand is fully dry, they scrape off the sand and put it in a bag and take it back to the slums where they live.

Women use this dry sand as like a scrubber. To clean dishes, you use this dry sand as a scrubber for that. And so they use this dry sand to scrub off their dirty dishes. And that's all dirty-- I don't know, whatever-- cook pot and pans. And that's how these people make a living. They dry the sand, and they sell it.

So this was his example of how infinitely creative poor people are. And my reaction to that was, you know, isn't that saying much more about how creative you have to be to make a living if you are poor than how creative the poor are?

So it's the same proposition, in a sense. You could say that this shows that the poor are very creative. Or you could show that the poor have no business opportunities so they have to do this completely bizarre thing to make a living. And those are just two sides of the same coin. And I don't know.

So what I want to talk about today is a bit on this implicit and often explicit debate-- So before we get there-- on whether the poor are entrepreneurial in some meaningful sense of the word or not.

So let's start at the beginning. Who's an entrepreneur? How do you define an entrepreneur?

**AUDIENCE:** I guess I would define an entrepreneur as someone who goes about creating a new venture that often involves a greater than average amount of risk.

**PROFESSOR:** So if I am someone who works for Toyota and designs a slightly different car, am I an entrepreneur?

**AUDIENCE:** I would say not.

**PROFESSOR:** Why not? It's risk. I could fail. I would look really, really stupid to my bosses.

**AUDIENCE:** But it creates a new venture. I mean, right there, you're developing a product inside.

**PROFESSOR:** New venture? So it has to be a new, separate company. Is that the definition?

**AUDIENCE:** No, but I'd say a venture not a design, right?

**PROFESSOR:** But I haven't got what that means.

**AUDIENCE:** Like a venture in the sense that it doesn't necessarily have to be entirely its own company, but it's more than just a design. In the sense of a design, but then you're not taking into account the other things that would actually go into making it a car and then selling that. Like let's say Toyota decides to launch a new line, where they're going to do a new dealership agreement, new factory, all that, then that would be a new venture. If I was running that, then I could be classified, under my definition, as an entrepreneur.

**PROFESSOR:** OK. So you would-- OK, go ahead. No, you should go ahead.

**AUDIENCE:** I think the term, that we'd have to go into the definition. Besides just creating a new venture, it would be create a new venture that is, somehow, innovative and unique in it's own. So I think, whether not, necessarily, the business idea or the business strategy of the product, but maybe even in how the person operates the company, they can be entrepreneurs in that way.

**PROFESSOR:** So you don't think that if I have a set of taxis I'm an entrepreneur? I just bought a set of taxis. I rent them out.

**AUDIENCE:** I would imagine if you were the person who took the initiative to--

**PROFESSOR:** But this was after there had been 500,000 taxi companies in the world. If I go tomorrow, quit my job, and I start a taxi company, I would not be an entrepreneur?

**AUDIENCE:** Well, to some degree, you could that's still unique. You're starting a taxi company, in a particular city, with a particular set of drivers.

**PROFESSOR:** But then everything's unique. Once I go down that road, I don't see how anything. I can't have a taxi company which has the same set of drivers as theirs, everybody else. So this is unique by definition. Somebody else from that side, yeah?

**AUDIENCE:** I think someone was actually saying before that created a normal amount of risk. But it's like the financial risk, as well, absorbing that yourself, as opposed to being responsible for it underneath an organization.

**PROFESSOR:** Right. I think that's actually one key piece of what I would consider the definition. The fact that you a lot of the risk comes from raising capital.

The risk is a significant part of the reason why. If I work for Toyota there would not be. It could be career risk for me. But it would not be risk that is driven by my having to raise capital. So I think you're making one of the key points, which is, I think, exactly as you said. Risk is a big piece of it.

The next piece of it is the risk comes from raising capital. I would not say that it has to be a new product, because I think that's too narrow a definition. I mean you could define it. But I think that would mean no poor people are, essentially, entrepreneurs.

But I think raising capital, the financing side of it. So do you take the risk? And a lot of the risk comes from owning the asset that's generating the output. That, I think, is a key part of being an entrepreneur.

The risk comes from putting money or your own assets on the line. It's not just that you're putting your career or your name on the line. When I write a book, I also take a risk in that sense. People could say, my god, what a stupid book. That's a risk, but I wouldn't call myself an entrepreneur.

So I think that I want to emphasize that I think the poor are entrepreneurial. When we talk about somebody who is an entrepreneur, I'm going to emphasize the fact that they bear a lot of the risk, from production, and that risk is closely tied to the ownership of the asset.

So it is that they have to finance the asset and hold on to the risk generated by that asset. So they could be a farmer. They must have to own the land and then take the farming risk. Yeah?

**AUDIENCE:** But in the US, don't a lot of the people, who we think of as entrepreneurs, they get venture capital or somebody else to take on the financial risk.

**AUDIENCE:** But it kind of defers the financial risk. They're still taking on financial risk of their own.

**PROFESSOR:** But first, I think, nobody gets 100% venture capital funding. Even to get to the venture capital stage, you typically spend a fair amount of money.

And nobody gets 100% funding even then. And second, in some ways, you still take financial risk, in the sense that the upside on the venture capital is precisely your earnings in the future. So you, basically, dock your earnings.

You are an owner. You have arranged a particular form of financing, which says that I don't make any payments for the time being, on this financing. But it's exactly like any other form of financing. I have an obligation to pay you.

That obligation, in venture capital, is maybe in five years. If the company goes public, then I will pay you \$100 million. That's a venture capital contract. It's still, basically, a sharing of risk. And I'm taking ownership of the asset. It's just a different contract. Yeah.

**AUDIENCE:** It's also the opportunity cost of actually putting all of your energy into this venture to see it come to fruition, like all the earnings that you could have earned in that time working [INAUDIBLE].

**PROFESSOR:** But that's a bit like I could have spent my time consulting or I could write a book. I mean that's not that different. I think the key is that my earnings are significantly connected to the outcome of the project. I was just adding to the cost of what of entrepreneur takes on [INAUDIBLE].

**AUDIENCE:** I mean, if you wrote a book that sold 10 million copies or something, then your future earnings would be significantly.

**PROFESSOR:** Yeah, but mostly, I think the first order risk, sadly, for me is that people will just think I'm stupid. I think the risk, in my case. You could imagine everybody has a small chance of being an entrepreneur, but I think that mostly, most of my risk has something to do with my ability to convince other people that I have not lost my marbles and very little of my risk comes from money.

**AUDIENCE:** Yeah, but at the same time, there's some people who are like full-time authors. And they take

out loans. And they write this book.

**PROFESSOR:** Oh, they are entrepreneurial. I'm not saying they are not entrepreneurs. I think I am not an entrepreneur, to first approximation, because my risk is mostly reputational risk, very little of it is financial risk.

**AUDIENCE:** Even though you're sort of doing a similar thing?

**PROFESSOR:** Yes. My lifetime earnings are, essentially, with a 99% probability, are unaffected by this decision, or almost unaffected. So who is and isn't an entrepreneur? So we've sort of been talking about that.

I'm not, but who is? So clearly, Larry Page and Sergey Brin are entrepreneurs. Now let's take something less obvious. What are other forms of entrepreneurship, like in the US, less obvious ones than starting a software company?

**AUDIENCE:** I mean someone who owns and rents a foodtruck. So

**PROFESSOR:** That's an entrepreneur, sure.

**AUDIENCE:** Someone who starts a laundromat.

**PROFESSOR:** That's an entrepreneur.

**AUDIENCE:** So I kind of disagree with the fact that you've got to have some sort of earnings attached to your venture. I think if somebody starts a business that focused on community service but is very unique, entrepreneurial, I think that is still. If it is innovative in some way, I still think it should be considered as entrepreneurship.

**PROFESSOR:** I think they say, sometimes, somebody is a political entrepreneur. But I think that gets the term to be a little bit too hard to understand. I mean, I think you could make the case that you're making.

I'm going to sort of resist that a little bit. Because I think, then, I don't know what the limits are anymore. Who's not a political entrepreneur? If I go and claim that President Obama was born in Kenya, am I a political entrepreneur or not? Is that entrepreneurial? Yes, it's entrepreneurial. It's innovative. I feel like that's making it too easy.

**AUDIENCE:** So were the people collecting sand entrepreneurs?

**PROFESSOR:** Sure. They owned this enterprise. Their entire earnings was subject to that. They had financed whatever needed to be financed. They had paid for the plastic bucket. They collected the sand, the spade. They had paid the bus fare to get from the beach to the Bombay stock exchange.

They had done all of the financial investment that was involved. It just happens to a small amount of money. But that doesn't mean that they hadn't done-- they had put in 100% of the capital in there.

But another example, just to not get too stuck on it. Lawyers, for example, most lawyers are, effectively, entrepreneurs. Because most lawyers actually have a two-person, three-person partnership.

They're bearing a lot of risk. They pay for the staff. They pay for the office. They pay for the whatever, the furniture. And so, in that sense, they would, under this definition, also count.

**AUDIENCE:** I was going to say you could also say that for doctors as well.

**PROFESSOR:** Doctors the same, a lot of doctors. I think that's relevant, because the typical way-- there's no measurement of entrepreneurship in the data. Because nobody knows who's an entrepreneur, for the same reason as we were having trouble with it.

What is measured in the data is whether you describe yourself as self-employed. That's described in the data. So if you look at most countries, one of the employment categories is self-employed.

And that number, which includes lawyers, doctors, consultants, many other such people, and not just laundromat owners and Google owners, but lots of other people, that category turns out to be about 12% of the population.

So 12% of the population, under a very generous definition of entrepreneur, which is self-employed, are entrepreneurs. That's for the OECD. The OECD is like all the rich countries in the world. In the rich countries, roughly 12% of the population would call themselves self-employed.

That number is much higher among the poor in poor countries. And I'm going to show you some numbers. So here's some numbers. So self-employed in agriculture, rural population, you can see that, in many countries, over 75 to even 100%, nearly, are self-employed in

agriculture.

Take Panama or Pakistan, like 70% of these people are self-employed in agriculture. Meaning that they, basically, exactly using the equivalent definition to the one that's used in the OECD, which is that they describe themselves as self-employed.

Meaning that, typically, they are putting up the capital, usually the land and the inputs, and they're getting the returns. So they are risk taking. And they're betting a lot of risk, and they own the assets that are generating that risk.

So that's a number that's high. As you will see, that number is, in a sense, an underestimate of how many people are self-employed overall. So this is just in agriculture. This is how many people who have somebody who's self-employed in non-agricultural work.

In Brazil, rural Brazil, 60-something-percent are self-employed in non-agricultural work. So who are these people? They're like somebody who provides any services, a barber, carpenters, somebody who builds, a bricklayer. Instead of working as a part of a company, most of these people just work as single-person enterprises.

So bricklayers are bricklayers. They have a brick laying company, which is themselves. And they, typically, will do the brick laying for somebody. In many ways, this is another.

So if you have to take the fraction of people who are self-employed, either in agricultural or not, or somebody in their family is self-employed in either agriculture or outside agriculture, that's and even higher fraction. That's like 70% of most poor people have somebody in the family who is self-employed.

So this is a combination of these two sets of numbers. And some of them are both. Some of them have one family member who is self-employed in agriculture, one family member who is self-employed outside agriculture. But even if you take the average, it's quite a high number. So most poor people, in our definition, are at least self-employed.

Well, why is this? Yeah?

**AUDIENCE:** What would we consider sharecroppers, who have to bear a lot of the risk?

**PROFESSOR:** I think, here, they are considered self-employed. But that's a good question. I don't know the answer to whether they should be or not.

So why should we think there is anything interesting about this? Why would it be at all surprising if a lot of poor people were entrepreneurs? Why would it be even worth commenting on?

**AUDIENCE:** I don't understand the question?

**PROFESSOR:** I said that 12% of the people in rich countries are entrepreneurs. Maybe 70% of the poor, in poor countries, are entrepreneurs. Is that something that has anything interesting about that fact? And there I want to get you to these two questions. Is it the case that the poor have specific advantages being an entrepreneur? Do they have specific disadvantages in being entrepreneurs?

So let's start with the disadvantages. Is that clear?

**AUDIENCE:** The risk is higher, because the overall capital they have is less.

**PROFESSOR:** So risk is at least relatively higher, because they have-- I don't know where this came from, but I kind of know where it should go. So one thing that's clear is that entrepreneurship is risky. If you're at the margin of not having enough money for something really essential, then the same risk hurts you more.

Because you're really in danger of something awful happening. Like you couldn't pay for your mother's hospital stay if your business collapses. So the risk is much more important. We talked about this some few weeks ago.

Other reasons, other disadvantages?

**AUDIENCE:** It's harder to raise capital.

**PROFESSOR:** Sure. It's harder to raise capital. If you don't have a bank account, if you don't have assets that you can pledge, if you don't have contact among financials, it's harder to raise capital, surely. Yeah?

**AUDIENCE:** You have to rely on your business more, because it's harder for you to get a steady paying job at some other company.

**PROFESSOR:** Is that a disadvantage or an advantage?

**AUDIENCE:** I think it's a disadvantage, because then you bear a lot of the risk of the business.

- PROFESSOR:** I see. So you may not have skills that you would get you an alternative job, so if your business fails, then it really hurts you. I see. Yeah.
- AUDIENCE:** Particularly, if you're really poor, in a rural area or a slum, it's really hard to get the resources. I mean, I feel like in America today, we have a whole lot of resources to encourage entrepreneurship and help entrepreneurs. I would imagine, based on what I've read, that that really doesn't exist.
- PROFESSOR:** So you may not have the know-how to be an entrepreneur. You may not know what market opportunities are available, because you're not that well connected to the media. You may not know, even, what the best prices are for what you will buy and the best prices are for what you will sell, where to sell, all the information that you need. Presumably, that's correlated with being educated. And so if you are poor in a poor country, you are less likely to have all that information.
- AUDIENCE:** This is something that applies to all entrepreneurs. But I think it would affect the poor more, specifically. I was thinking about the benefits you get from working for a corporation. Sometimes you get health care, things like that. And so being an entrepreneur is like taking a risk with respect to that. And then for the poor, depending on where they live, or what atmosphere is around, it might disproportionately affect them.
- PROFESSOR:** Yeah, that's also possible that there's some additional benefits to having a steady job. That's particularly important if you have no other source of support. Yeah?
- AUDIENCE:** On the advantages side, couldn't you say--
- PROFESSOR:** Let's do the disadvantages. Hold that.
- AUDIENCE:** Wouldn't your income not be regular. It would be really uncertain.
- PROFESSOR:** Yeah. So that's related to, I think, the first point that was made.
- AUDIENCE:** Chances are, you're not going to have an original idea. You're going to be copying what other people are doing.
- PROFESSOR:** Yeah. But why would it be less true of the poor than the rich.
- AUDIENCE:** The rich might have access to educational resources that will allow them to come up with

better ideas.

**AUDIENCE:** You could also make the converse argument that since the rich have access to more stuff, they're more likely to copy other ideas.

**PROFESSOR:** Good.

**AUDIENCE:** But that would also mean they might not be as likely to make a lot of money. So those would be the bad, rich entrepreneurs.

**AUDIENCE:** Not necessarily. Microsoft copied Apple's architecture [INAUDIBLE].

**AUDIENCE:** Well, that's a different story.

**AUDIENCE:** I mean this was already said before. But just thinking about like, if you're poor, you're going to have to use-- an entrepreneur, let's say you had some savings or you had family that was helping support you. You have support system that has some sort of capital, even if it's not that much. But when you're poor, you have to use everything that you have to put into that business. And that takes away from just living, even things like that.

**PROFESSOR:** So the risk is higher, and your ability to self-finance is lower. Anything else? Yeah?

**AUDIENCE:** You could say, if other people copied your idea, it would hurt you more, because then they'd just increase the supply and decrease your overall--

**PROFESSOR:** But why would it be any different from anybody else? If I'm rich and you copy my idea, that still hurts me. It is not clear, especially in the sense if the poor use ideas that are particularly-- they've already copied from somebody. They're less hurt by copying. Yeah?

**AUDIENCE:** Perhaps, if you think about the social infrastructure, people are more able to copy ideas, because of the lack of legal support or an ability to check or to enforce that people are not copying your ideas.

**PROFESSOR:** Right, so you might think that they have less access to lawyers and things like. They may not understand the law well. So they may not be able to use the legal system to protect themselves as effectively.

What's another thing that helps an entrepreneurs other than money and ideas? What's the third thing that?

**AUDIENCE:** Sort of broadly speaking, a social safety net. In the sense that, let's say, in American, you're entrepreneur and you absolutely fail, there's still a social safety net that you could at least rely upon. And that doesn't exist in poor--

**PROFESSOR:** Right. That's true of poor countries, but not necessarily more of poor people. That's a point about poor countries, less about poor people. One other thing that I think matters a lot is contacts.

I think that, if you know somebody, if your uncle is the CEO of a company, they may be more willing to give you a try. If you're starting up, you're making widgets, somebody has to buy them. It's much easier if you know somebody than if you don't. I mean, why would anybody trust you?

So you often get your first breaks by having some connection to somebody else, who will do the buying. And I think that's a very big piece of what makes it very difficult for the poor to be effective entrepreneurs is that they actually don't know anybody. And so it's much harder for them to break in with a products. So I think contacts are a very big piece of it.

The other part of it is that it might be that, in order to be in business, for example-- take the venture capital example. Typically, the way a lot of start-ups work is that you know that you're going to lose money for a while. Because you have to build a reputation.

And the way you build a reputation is by going to someone and saying, look, you're buying from him for \$5. I'll sell it to you for \$3. And you know you lose money at \$3, but you're willing to lose money for a while, because that way he'll see that you're really good at doing it. And then, maybe, you could charge \$4 and get the market.

So a lot of way new businesses start is by actually undercutting other businesses and losing money. So if you can't lose money, effectively-- so if you're poor and you can't afford to lose money, it's often very difficult to enter a new product. Because part of the way you enter the new product is by actually selling it very cheap. And it's very difficult to sell it very cheap if you can't afford to lose money.

So those are all the disadvantages. Are there advantages? So I don't know how many of you know, but there's a very famous book called *The Fortune at the Bottom of the Pyramid*.

If you've read that book, it makes the case that there's actually lots of entrepreneurial

opportunities for the poor. And that, in some sense, they might have an advantage. What are potential advantages? Yeah?

**AUDIENCE:** Because you have access to a unique market that the rich don't even know about, like the women who sell sand.

**PROFESSOR:** So they might know about things which are underserved. So maybe the way capitalism has developed, it's better at serving the demands of the middle classes. The poor might demand certain products which are not supplied by the market. So at this point, it might be easier to find a new product to supply if you know what the poor want. That's one of the cases that's being made. We'll see to what extent that's true.

Any others? You were going to mention something?

**AUDIENCE:** Maybe it's easier to make use of some resources than it would be if you were a richer person trying to start a [INAUDIBLE]. Like, for example, the women with the sand, they can go to the beach and dig up some sand and carry it away. No one's going to say anything to them. But if someone was trying to do this on larger scale, then there would be issues.

**PROFESSOR:** That's exactly right. So it may well be that, if I'm the person who comes and-- imagine that I'm rich. Let's say, I can either take a job or I can be an entrepreneur. To compensate me for my job, I would need to be able to do the business at a particular scale. Imagine I'm in the business of sorting through garbage and finding things which are sellable. Just doing that, physically, if I started to use that much garbage, I'll need a lot of space. Whereas a poor person may be able to cover her daily wage, which is very low, by just sorting through the garbage she finds in the neighborhood or something.

Another advantage of being poor might be that you may be less considered or less easily monitored, so you may be able to bend the rules more effectively. So you might be able to make products, which somebody else would not want to do, because it would be too easy to scrutinize. So you may be involved in-- I'm not saying illegal products, but you might use techniques which are possibly less hygienic or something.

So if I setup a big factory dyeing garments, that pollutes the water supply. And the city will shut me down. If I have a very small operation inside my house, dyeing garments, nobody will notice. And I could use the city's water supply and pollute it.

This doesn't mean that I'm doing a good thing. But it means that it might be easier for me to

be an entrepreneur, the producing and dyeing garments than somebody who's richer than me. So there's some potential advantages.

Still, I think my sense is that everybody would think that, basically, it's easier for the rich to be entrepreneurs than the poor. So that's on balance. And we'll look at this a little bit, in the data, in a bit.

So then why are the poor entrepreneurs? That's the question that comes back. If we say it's easier for the rich to be entrepreneurs, but the rich are less likely to be entrepreneurs than the poor, then we have a kind of a puzzle.

Why are the poor entrepreneurs? What is it that? So one view of this is sort of Muhammad Yunus's view. Muhammad Yunus is the guy who started Grameen Bank. And he's on record saying that the poor are natural born entrepreneurs.

So there's one view, which is to say that something about the poor, which, by being poor, they learn to be entrepreneurial. They can't really survive on anything else, so they become like these women we were talking about. they become very clever at finding opportunities. They are natural entrepreneurs.

That's one way to think about it is that, when you are poor, you're just better at thinking about opportunities. Now, one way we can kind of address this is by looking at the businesses of the poor. What do you know about these businesses?

So these are people who are under \$1 a day. And if you take the business of people, who live under \$1 a day, I think the striking fact is that, in most countries for which we have data, let's say, 10%, so the average number of employees in a business is 0.15. It's one in seven businesses have an employee, a paid employee.

They took two countries where it's different, but even in those countries, they don't have one employee. They have 0.6 employees. So these are very small businesses. The first thing to note is that the businesses of the poor are kind of very, very small businesses.

This includes your unpaid employees, which is like your son or your wife or you, yourself. And that number is just over one. So the average number of employees is just over one, meaning that it's you plus somebody who works, maybe, part of the time. Or alternatively, it's you and no one or you plus one person, but not much more than that, so very few employees.

Second, what fraction of the businesses own a vehicle? Just to measure some other measure of the size of the business, it's only a vehicle. And Pakistan is the one country where many people own cycles. They might be delivering stuff, but then, all the other countries, it's really, really small, like 5%.

If you look at an even more obvious question, what fraction own machines, any machine? The answer is not 100% even there. 60% in the Ivory Coast own any machine.

What's the average machine that they own? They own a weighing scale or sort of a piece of metal for digging something, but no more than that. So it's really like these businesses have no assets whatsoever.

So the first point about the businesses of the poor, they are very small, by all of these measures. They have no employees, no machines, no vehicles.

The second, related point, I wanted to make is that the fact that they don't have any machines is telling you something quite important, which is that these are not very sophisticated businesses. You're not surprised to hear that. But it is very, very clear that the average business has very little skill involved. And to be honest, there's not a lot of diversity.

If we look at the top five businesses, they are things like tailoring, a small corner store, selling snacks on the street, embroidering or stitching clothes and selling them as a retail sale, not a tailor, but someone who retail sells garments. And I think the last one is-- I forget-- carpentry, I think.

It's like none of these businesses, except, I think, carpentry, possibly, require huge amounts of skill. So they tend to be very low skilled businesses. And this is most businesses. So these are not people who are creating very original ideas.

Indeed, the usual problem that people write about is most people, in the same neighborhood, have the same business. They're also selling snacks. They're all delivering loads. They're all tailors, rather than a lot of innovation. There's no evidence that they're very creative in what business they go into.

On the other hand, many, many people own multiple businesses. That's the other very, very common fact. This is the fraction of people who get incomes from multiple sectors.

So that's like somebody who has farming business but also has income from, let's say, he

does some bricklaying on the side. That's somebody who has multiple sources. And the striking fact is how common it is.

In most countries, it's close to 50% of the population have income from multiple sources. So in other words, they're not putting all their time, available time, into their own business. Why would they not do that? If you have a business, in your family, why aren't putting all of your effort into it? Why would we observe this fact, that most people, many people, have multiple business or multiple occupations?

**AUDIENCE:** It might be comparable, then, to [INAUDIBLE].

**PROFESSOR:** Right. So, for example, you might be only able to sell one kind of snack. And people might want snacks only, maybe, in the evening or something. In the morning, you go to work. There's no demand for snacks.

Or you might sell breakfast, and you can only sell breakfast till 10:00 AM. After that, breakfast is over. And so you have to find something to do. So one thing could be there's a natural capacity constraint. There's not much demand for the product. And so you can do it for two hours a day but not for eight hours a day. Yeah?

**AUDIENCE:** There might be seasonal variations. You might be able to a certain type of business only during certain times of the year, [INAUDIBLE].

**PROFESSOR:** Absolutely. So agriculture is one classic business, where you can work a few months of the year, but the then the rest of the time, you don't have irrigation. There's nothing to do. So you work on something else. Yeah?

**AUDIENCE:** You might diversify your portfolio as part of [INAUDIBLE].

**PROFESSOR:** Right. So you may bear less risk by having multiple businesses. Yeah?

**AUDIENCE:** It might be the return for business is so low, that even if you invested more time and energy into it, it wouldn't be worth it.

**PROFESSOR:** But why don't you take the one which is the highest return and put all your time into it?

**AUDIENCE:** Maybe I don't want to [INAUDIBLE].

**PROFESSOR:** Why?

**AUDIENCE:** Because even if that was the highest return, [INAUDIBLE].

**PROFESSOR:** But why would you ever start a second, even lower return business? If there's one business that has the highest return, why won't you put all your eggs into that basket?

**AUDIENCE:** Diversity.

**PROFESSOR:** Yeah, so that's what she said, which is that want to diversify risk. What other reason could you imagine?

**AUDIENCE:** It could also be that you might have one business that's really profitable, let's say, you're selling something in the morning for breakfast, but it might be the time--

**PROFESSOR:** Right, that's, I think, also someone brought up.

**AUDIENCE:** I think there are like some businesses which are like needlepoint, which physically hurt you if you do it too much. People like become blind.

**PROFESSOR:** Right, so maybe, just you don't want to do it for too long? Another obvious reason.

**AUDIENCE:** Didn't they say in the book that a lot of people don't like running their own businesses, and so they don't want to put time into it.

**PROFESSOR:** But why would you do three different ones? I'm Asking a simpler question than the one you're answering, which is people seem to do two or three different occupations. Why would do two or three rather than? Say I want to work eight hours. Why wouldn't I put all eight hours into one? We've gone through a bunch of reasons for that.

**AUDIENCE:** Is that the marginal returns decline, especially for this type of a business?

**PROFESSOR:** So it could be that the marginal returns on the extra piece of effort is low. Another possibility that I think is even more straightforward. Maybe some businesses require capital and others less capital. So you have a certain amount of capital. You put into the capital intensive business. And then use still don't have some time left. So you work in the other one.

For example, to do needlepoint, you'll have to buy fabric first. And you can only afford fabric that covers half your day. And you buy fabric for half your day. You work half your day on needlepoint. The rest of the half of your day, you have to find something else to do. So it may just be that you don't have enough capital to make it possible to spend your whole day working

on it.

So in any case, we do see this evidence that people don't seem to be excessively committed to any single business. That has the cost, obviously, that they're not getting a lot of benefits from specialization. They're not learning or improving very fast, because they're doing many, many things at the same.

What is striking about this picture is says, in even rural households, a lot of them have a non-agricultural business. So they'll actually, if you look at how many people have a non-agricultural business, like about a third of them have a non-agricultural business, even if they're rural.

So these are people who live in rural areas. They do farming as one of their businesses, probably. But they also have a second business, which is non-agricultural. And that's sort of striking. We think of, often, rural areas in developing countries as farmers kind of living in isolation.

In fact, most of these people are in a second business as well. So the next fact about businesses of the poor is that these businesses are very fragile.

So if you look at Mexico, in 85% of the people, the poor didn't have a business in 2002. 15% had a business. By 2005, out of those 15%, only 6% still had a business. So 60% of all businesses just closed. So they're also going in and out of business all the time.

On the other hand, many other people started new businesses. And you look at the fraction of the people who retained their existing labor force. They're just 1.8%. So most people either grow their business or shrink it or shut it down.

So businesses are very, very fragile. It's not that you set up a business and it lasts forever. It's quite a high risk outcome. And this is sort of the answer to the question, do the poor feel entrepreneurial?

And this is a survey we've done in many countries, now. We always find the say answer. You ask people, you have a child, what occupation do you hope for your child to be? And we ask it two ways.

One, we ask them, what occupation do you hope for your child? Then you might worry if you ask that question. They might be conditioning on their condition. And so they'd look, you know,

my child he'll never be able to do the right kind of business, because he doesn't have enough money or something.

So we asked them, if you won a lottery and you would invest in something, what occupation would your child want to be in? It doesn't make a difference. They always give you the same answer, which is that they don't want to be in business.

The answer is very, very clear. 18% want them to be a private firm employee, 41% to be a non-teaching government job, and 34% to be a government teacher. So that's 93% don't want them to be an entrepreneur.

So basically, the poor don't like the idea, at least, of their children being entrepreneurs. And it's consistent with everything else we see, which is that they don't seem to invest all their time in a single business. Even if they have a business, they'll put only a part of their time into it.

We saw, earlier, that they don't try very hard to save their way out of debt. We saw that when we looked at the fruit vendors, that they were not saving a lot and tried to get out of debt. So it seems like they don't seem to be hugely committed to growing their business. There's no evidence.

And we see the businesses don't grow. Many of them shrink or shut down. Very few of them actually add an employee. At best, these business are always small. They stay small or they shutdown. They rarely grow.

So there is no evidence that the poor are actually dynamic entrepreneurs, in the sense that they are looking for opportunities to grow their business all the time.

Now, that doesn't mean that there are not a million dynamic entrepreneurs among the poor. One should not confuse the statement that the average poor person is not a dynamic entrepreneur with the statement that there are no dynamic entrepreneurs among the poor.

There may be exactly the same fraction of dynamic entrepreneurs among the poor as there are among MIT students, for all I know. It's just most people are not cut out to dynamic entrepreneurs. And the poor, maybe, just like everybody else, they don't like risk. They don't like the idea of worrying about all of the problems that running business has. They like a steady job.

And then a few people really like being an entrepreneur. I don't know that this makes them any

different from anybody else. It just says that they're not. You see a huge over-representation of the poor among entrepreneurs. That doesn't mean that this is what the poor want to be.

It's not that they're entrepreneurial in some natural sense. They're not that they want to be an entrepreneur. They're an entrepreneur for some other reason we'll come to in a minute. None of this evidence seems to suggest that they're dying to be entrepreneurs and to grow their businesses.

That doesn't mean that there aren't some who are. There's this story that you saw in the microfinance movie of some woman who started as hair collector. Remember this person? And she's now a hair tycoon.

And they exist, people like that, everywhere in the world. I'm even willing to believe that there are as many genuinely entrepreneurial people among the poor as there are among anybody else.

But that's a very different sentence from saying that most poor people have businesses because they're entrepreneurial. Because they're so massively overrepresented. They're really unlikely people to be entrepreneurs. So if they are entrepreneurs, it's not because they want to be.

This is all consistent with the fact that, if you look at these businesses, they're not really attractive economically. So one place where we have detailed data, we could actually calculate how much revenues these businesses were making, calculate profits.

Now a key part of the profit calculation-- remember, almost none of these firms have employees. So you have to evaluate the time spent by the owner in running the business. Somehow, how do you price that?

So you price that at minimum wage. These businesses lose money. So if I went out and worked at minimum wage, I would make more money than if I did this business and spent all the time I'm spending in the business.

Now, I'm not necessarily working as hard in the business as I would be working in other things. But it isn't the case that I'm making lots of money. I think this is a pattern that people have noticed.

Now, here's a puzzle. I just said they don't make a lot of money. They're not very profitable,

these business. Before, I've also told you that they pay very high interest. So they must be generating an extra \$1. They must be generating at least that much. So if I'm paying 60% interest, \$1 must be generating more than \$0.60.

If I'm investing \$1 and then paying 60% interest, that \$1 must be generating more than \$0.60. How do those two facts fit with each other? I said, A, they're not very profitable.

B, the marginal \$1 must be making a high return, because otherwise they wouldn't be investing their marginal \$1. You won't borrow money at 60% unless you can cover 60%. So we know that they're making lots of money. Yeah?

**AUDIENCE:**

This talked a lot about in the book. But basically, there's two different types of return. One is marginal returns, [INAUDIBLE] where an extra \$1 spent, what's their return. The other's the total return.

For a lot of these businesses, there is a point, early on, with this very high, marginal return, and then it really levels off. So that's what you run into, where it's possible that, if you have a very small business, like the example in the book. Let's say you have a shop, but you really can't put anything on the shelves.

If you spend an extra \$20, you can actually have some candy on the shelves, then that will produce very high marginal returns. But if you spend \$300 and have a lot of inventory, you might have to hire another employee. There's risk of stuff spoiling, et cetera, et cetera.

**PROFESSOR:**

So I think that's absolutely right. But I was making an even simpler point, here, which is that think of that business. The person who set up a shop. You invest your time into the shop. And you invest the space. You invest the shelves. You invest the inventory.

Then you start selling. So in particular, your time is a fixed investment. Because you have now decided that instead of working outside, I'm going to stay in the shop. So you need to cover. To become profitable, you need to cover your own daily wage.

Let's say you make \$2 a day. Then even if you made a total of \$2 a day by selling, you would have just covered your wage. Then you recover your inventory, your capital cost, et cetera.

So unless you operate at a high enough scale, you're not going to cover your time. And so one of the problems is these people are often operating at a very small scale. So they rarely manage to cover their cost.

But then why don't these people just grow their businesses? Maybe if they're not making a lot of money, because they have to cover their fixed cost, then why not just keep investing till you make a lot of money. Your marginal returns are high, so you could invest more and make more money.

And then the answer is, your marginal are high, but not high for a very wide range. So they start falling fast as well. So this is the picture that is in the book. And it's worth, probably, understanding that picture.

So that picture, it tells a story of two technologies. There's one technology which is gives you a high return but quickly flattens off. And if that was the only technology in the world, then we would not observe any large funds. Because that's a technology which stops becoming profitable after a point, very quickly.

But there's another technology, which starts way to the right of that. And that technology is only profitable if you invest. So what that curve says is that there is two technologies. Production from technology two is lower than production for technology one until you cross a particular point.

So you need to make enough investment to make that profitable. So you're going to buy a machine which produces a lot of garments. But if you can't buy the cloth that goes with the machine, there's no point in buying the machine. You're going to lose money for sure, because you have nothing to use the machine with.

Garments need a machine and they need cloth. And you have only money for the machine, then you should not buy the machine. You should buy the machine only if you can buy the machine and buy the cloth.

So there that are more profitable technologies and less profitable technologies. But the disadvantage of the more profitable technology turns out to be that you need to invest enough in them to make money.

So the problem is that the poor are caught between a kind of a rock and a hard place, which is that they can't really get up to the level at which they would make real money. Because that technology is just too expensive for them. They don't have that much money.

The technology that they can access has very fast diminishing returns. So that one also is not

worth growing a lot. So that's the sense in which they're between a rock and a hard place.

They can't grow the technology fast enough. The one that they have, they can't grow. And the one that can grow, they can't have. And that's what this picture is about. If this is what the world looks like, then the poor are stuck at a point, like M, and the rich are stuck at point like that second ball up there.

So the poor are stuck, because the technology that has growth is not available to them. And the one that's available to them does not have growth in it. So there's no point in their putting a lot of effort into growing their technology, because they're really not going to make a lot of money either way.

That would explain why they don't really want to be entrepreneurs, because they know that they're never going to get very far in this process.

So then that leaves us with the last slide, well, actually, one slide that suggests that this picture is right. There was this experiment in Sri Lanka, where people were given, randomly, either \$250 or \$500 for investing. And this was just a gift.

The World Bank, basically, did this experiment, where it went to people and said, here's \$250. These were all small businessmen. Use it in your business or do something with it. And some people, they offered \$500.

It's kind of nice experiment to do, because you can find out what's the effect on getting money on people's investment. And strikingly, if you give \$250, you get high marginal returns. So these people who get \$250, they invest \$250, and they make about 60% a year on that. So that's pretty good returns.

On the other hand, if you give them \$500, they don't invest the second \$250. They just use it for repairing their home. So they don't believe that the second \$500 are going to grow their business that much more.

They believe that there's diminishing returns. That's why they don't invest it. So basically, the poor seem to be acting as if they also believe exactly that picture, that they have high returns on the first \$250 but not on the second \$250. Yeah?

**AUDIENCE:**

So [INAUDIBLE] they just save up enough money or take a loan out so that you can achieve or you can jump the curve and buy the technology.

**PROFESSOR:** Absolutely.

**AUDIENCE:** So it's like, technically, giving loans to small businesses should work.

**PROFESSOR:** Well, it depends on how big the loan is. I think the problem is that the jump is not at \$500. The jump is at \$10,000. So none of the loans they are being offered allow them to make that jump. That's the problem.

**AUDIENCE:** And they're still too small to go to a normal bank?

**PROFESSOR:** Yeah. that then brings us to the final question, which is, if this is all not such a great deal, why are they in business? Yeah, go ahead.

**AUDIENCE:** Because they have to be.

**PROFESSOR:** Yeah. One is that they have to be. There's a vicious cycle, here. Suppose no one can create a business that's big enough to hire employees. Then I can never be an employee in somebody else's firm.

What else can I do? I can start my own business, which can't hire anybody. So if nobody is creating businesses which have employees, then, in a sense, I'm stuck. I can't get a job, because nobody else is creating those jobs. But if nobody else is creating those jobs, then I can't really work for anybody else. But I still have to earn a living, so I go and find my own thing to do.

So I think the primary reason why you have a lot of entrepreneurs is because no entrepreneur is big enough to hire the others. So everybody's an entrepreneur, a mini-entrepreneur. Nobody gets to the scale where they can hire others. And therefore, everybody's kind of stuck.

So if I start a business that hires 10 people, then that stops 9 other people from being an entrepreneur. That's one reason. A second reason has to do with flexibility.

I think a lot of poor people don't have access to social services. So if I have to have childcare, pay for childcare, I'm never going to be able to afford my business, because childcare is too expensive.

So if I have to go out and get a job, which is 9-to-5, and I have to work all the time, who's going to provide childcare? So often, they choose businesses which are designed to work well

with childcare. Like I took a snack making business.

Why? Because I can do it at home. I make the snacks at home. And then I go out to sell for two hours. At that time, I take my child with me. And then I bring the child back. And that way, I don't ever have to deal with the childcare issue. So flexibility is a second one.

The third and most worrying one-- and microcredit makes me worry about this most-- is whether or not a lot of men are very enthusiastic for the wives to work even harder. So they feel that, you know, I'm working at a job. I would like my wife to work harder.

And the way they get their wives to work harder is by making them start a business. So I don't know whether microcredit is necessarily wonderful for all of these women.

I think that, historically, men have found it difficult to understand that women, even though they don't go out to work, actually have to work. They have like cooking and cleaning dishes and washing up. They're all hard work.

And if you think that that's a problem in the US, now, then you can imagine in a lot of developing countries, it's even more of a problem. So it may well be that a lot of men are under the illusion that their wives are idle.

And that they are very willing, therefore, to start a business for them, so they can work a little harder and add to the family pie. So I don't know how much of these businesses are a result of that, rather than any desire to start a business. Comments, questions?

So just to close this whole thing, I think the key policy question, that we don't know the answer to, is how to not get more businesses, but more businesses that hire other people. That's the key policy question we haven't managed to solve yet.

And it's an absolutely central policy question for most developing countries to figure out how to get not micro-businesses but small businesses. And this is often called the missing middle problem.

In many countries, in poor countries, you'll find that there are many micro-businesses and some large businesses, but not enough middle-sized businesses. So that's the policy problem that many, many countries are wrestling with.

And it's one that, I think, we haven't yet got a very good handle on. But it's something to think

about is how to generate those jobs. Yeah?

**AUDIENCE:** So specifically in developed countries, then, what provides the capital for the middle businesses?

**PROFESSOR:** So for one, the state does a lot. Like in the US, for example, there's a Community Reinvestment Act, which means that banks are required to provide a certain fraction of their loans to the community where they are raising the savings. So the CRA forces them, then, to finance local businesses.

And so there is a lot of intervention, even in a country as uninterventionist as the US, to help small businesses set up. This CRA is a very good example.

The Small Business Administration is huge in the US, by the way. And they provide all kinds of help to small businesses, including capital, including guarantees. They give a lot of loan guarantees. Even the US, which is one of the world's least interventionist countries, tends to be very interventionist when it comes to promoting small businesses.

That's probably the direction that policy needs to go in developing countries. But it's something we know less about. OK. Thank you.