

The hidden driver of the ride-sharing economy

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When Greg Buchak was a graduate student at the University of Chicago, Uber and Lyft were just beginning to spread across the country. Since he didn't own a car, he found the ride-sharing apps convenient for short and

long trips. Yet as a financial economist in training who studied borrowing and lending, Buchak began an ongoing debate with his friends: Were these new services actually good for people?

That question proved so difficult to answer that it would become the focus of Buchak's doctoral research. Now an associate professor of finance at Stanford Graduate School of Business, Buchak recently published [a paper](#) in the *Journal of Finance* that uncovers a new angle on this topic. Looking at who gains from driving for ride-share companies, he finds that access to car loans plays a crucial role in distributing benefits to low-income drivers and has been an essential ingredient in the growth of the gig economy.

Unlike traditional businesses, many gig economy companies rely on others to provide the necessary physical capital. Airbnb doesn't own apartments. Similarly, Uber and Lyft rely on car owners to furnish the cars customers hop into. "They're kind of renting your car from you in some sense," Buchak says.

That model is liberating for the companies. Instead of buying and maintaining a fleet of cars, they only have to worry about connecting customers to drivers. (Accordingly, Uber has argued that it's a tech [company](#), not a transportation company.) The onus of car ownership falls onto individual drivers, a barrier to entry that Buchak says is often overlooked.

While other researchers have studied ride-share drivers and shorter-term price fluctuations, Buchak took a wider, longer look at the growth of the gig economy and its effects on people, including those who can't afford to drive for Uber and Lyft. "Lower-income people could potentially get locked out of this if they don't have access to the capital," he says. No car, no gig.

Accelerating car sales

Buchak explored this dynamic by building a rich picture of how the arrival of Uber and Lyft in a city affected borrowing and car buying. He compiled rafts of data from loan companies, records from departments of motor vehicles in four states, and stats from the ride-share companies. Buchak says that while his research required roughly 10 different data sources, some with millions of observations, the actual number crunching got easier as he got deeper into the data.

With all this information, Buchak could see the financial effects of ride-sharing at the zip code level. For example, Uber and Lyft require that drivers' cars have four doors (so passengers can sit in the back). Looking at DMV data, Buchak found that after Uber arrived in a city, more four-door cars were purchased, particularly in low-income neighborhoods. He also found that four-door cars in these areas were driven an additional 2,000 miles a year, suggesting more residents were driving for Uber.

Then, by looking at data from loan and credit services like Equifax, Buchak found that the arrival of ride-sharing correlated with an increase in car loans to low-income people with low credit scores.

In city after city, he observed the same shifts. "There's a demand and supply story here," he says. When ride-sharing arrives in a city, demand for cars goes up as people without cars see a vehicle as an opportunity to make extra money. But to afford it, they'll need a loan. That's where the supply side comes in.

Buchak says the data suggests that ride-sharing enabled people who might not otherwise have received loans to get financing. He notes that it's a subtle effect. "I don't think if I go into the dealership and I announce, 'Hey, I'm gonna use this car to drive for Uber,' they'll be like, 'Great, you have a 2% lower interest rate on your loan,'" he says. But

dealerships did open financing to more people. And, notably, their delinquency rates did not change.

Drivers wanted

Buchak then used his model to pose two counterfactual questions. First, how did access to financing change the distribution of who becomes an Uber driver? When he shifted his model to make financing prohibitively expensive, the number of drivers dropped by 40% and prices for passengers rose by \$21 an hour, nearly doubling.

In this scenario, most of the finance-reliant drivers would be forced out. Although higher ride prices might induce some wealthier people to become drivers, they weren't enough to convince those drivers to leave their jobs and careers. This scenario would effectively prevent the ride-sharing companies from scaling up.

Next, Buchak wondered: How would different models of car ownership affect who benefited? In this scenario, lower-income drivers could participate by renting cars—a service that Uber and Lyft have provided. This would allow more drivers into the market. And with more drivers, prices for riders would decrease—though not as dramatically as they rose in the previous scenario. So while low-income drivers would be affected by the lack of access to funding, they'd also benefit from the slightly higher prices enabled by those constraints.

From these findings, Buchak concludes that expanding low-income drivers' access to cars and car loans is crucial for maintaining the equilibrium that has allowed ride-sharing apps to grow rapidly. Gig drivers benefit from the extra cash they earn, but it comes with a tradeoff since they have to absorb the cost of the additional wear and tear on their cars.

While he does not make any judgments based on his findings, Buchak stresses that his research demonstrates how much ride-sharing companies rely on low-income people being able to afford cars. "People haven't realized how important it is for the worker to supply capital for these businesses to work," he says. "The fact that the worker owns the car instead of a company owning the car actually does make a big difference."

More information: Greg Buchak, Financing the Gig Economy, *The Journal of Finance* (2023). [DOI: 10.1111/jofi.13292](https://doi.org/10.1111/jofi.13292)

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