

Radio

Abortion and Crime, Revisited (Ep. 384)

July 10, 2019 @ 11:00pm by **Stephen J. Dubner** Produced by **Zack Lapinski**







LISTEN NOW:



States with the highest abortion rates after *Roe v. Wade* experienced a 30 percent greater drop in crime by 1997 than states with the lowest rates. (Photo: Jagendorf)

The controversial theory linking *Roe v. Wade* to a massive crime drop is back in the spotlight as several states introduce abortion restrictions. Steve Levitt and John Donohue discuss their original research, the challenges to its legitimacy, and their updated analysis. Also: what this means for abortion policy, crime policy, and having intelligent conversations about contentious topics.

Listen and subscribe to our podcast at Apple Podcasts, Stitcher, or elsewhere. Below is a transcript of the episode, edited for readability. For more information on the people and ideas in the episode, see the links at the bottom of this post.

This episode features a relatively rare appearance by my *Freakonomics* friend and co-author **Steve** Levitt. If you want more Levitt, mark your calendar; on September 26th in Chicago, he'll be joining me for a Freakonomics Radio Live event on the state of counterterrorism and international risk management. For details, go to freakonomics.com/live.

When you think about unintended consequences, when you think about two stories that would seem to have nothing to do with each other, it is hard to beat the stories we're telling today. The first one, if you follow the news even a little bit, should be familiar to you: it concerns one of the most contentious issues of the day.

> ABC: New developments in the escalating battle over abortion. The last clinic in Missouri on the verge of closing today.

The battle goes back at least to 1973, when the U.S. Supreme Court took up a case called Roe v. Wade.

ABC: The Supreme Court today ruled that abortion is completely a private matter to be decided by mother and doctor in the first three months of

A few years before Roe v. Wade, abortion had been legalized in five states, including New York and California. The Supreme Court made it legal in all 50 states. But lately, several states have been pushing back, hard.

NBC: The Ohio governor signing today what critics condemn as the most restrictive abortion law in the country.

ABC: Nearly a dozen states are now imposing new restrictions this year.

An issue that appeared to be settled four-and-a-half decades ago is once again so raw that it's a prominent feature of the 2020 presidential campaign.

Jay INSLEE: I am the only candidate here who has passed a law protecting a woman's right of reproductive health and health insurance.

Amy KLOBUCHAR: I just want to say there's three women up here that have fought pretty hard for a woman's right to choose.

Meanwhile, if you go back 30 or 35 years, there was a totally different story dominating media coverage and the political conversation.

Bill CLINTON: Let us roll up our sleeves to roll back this awful tide of violence and reduce crime in our country.

Joe BIDEN: We must take back the streets.

If you weren't around then, it's hard to remember just how bleak the outlook was. Crime had begun to rise in the 1960s, continued on through the '70s and '80s, and by 1990, it seemed that everyone was scared, everywhere, all the time.

NEWS ANCHOR: Robberies, assaults, and even murder have replaced shoplifting, vandalism, and truancy.

Crime became a top priority among Democrats:

BIDEN: It doesn't matter whether or not they were deprived as a youth.

And Republicans too:

Newt GINGRICH: There are no violent offenses that are juvenile. You rape somebody, you're an adult. You shoot somebody, you're an adult.

Bob DOLE: Experts call them superpredators.

Everyone agreed that violent crime was out of hand, that the criminals were getting younger, and that the problem was only going to get worse.

ANNOUNCER: There's a tidal wave of juvenile violent crime right over the horizon.

But the problem didn't get worse. In the early 1990s, violent crime began to fall — and then it fell and fell and fell some more. In many places today, violent crime is at historic lows. Let's use New York City as an example. In 1990, there were more than 2,200 homicides. The last couple years? Fewer than 300 a year. But it wasn't just New York: with a few exceptions, crime across the U.S. has plunged. Why? What led to this unprecedented, and wildly unexpected turnaround? Everyone had their theory: better policing, the reintroduction of capital punishment, a stronger economy, the demise of the crack epidemic. Meanwhile, a pair of academic researchers came up with another theory. It was surprising, it was jarring, but it seemed to hold great explanatory power.

Steve LEVITT: And he said, "Well, I think maybe legalized abortion might have reduced crime."

If you've ever read *Freakonomics*, the namesake book of this show, you may recall this controversial link between legalized abortion and the fall of crime. Today on *Freakonomics Radio*: the story behind the research and evidence for the theory; the challenges to its legitimacy; and the results of a new, follow-up **analysis**.

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From 1991 to 2001, violent crime in the U.S. **fell** more than 30 percent, a decline not seen since the end of Prohibition.

LEVITT: I was spending most of my waking hours trying to figure out this puzzle about why was it that crime, after rising for 30 years from 1960-1990, had suddenly reversed?

That's Steve Levitt, my *Freakonomics* friend and co-author. He's an economist at the University of Chicago; he's always had an intense interest in crime.

LEVITT: I had looked into all of the usual suspects. Policing and imprisonment. The crack epidemic. But really you could not and you cannot effectively explain

the patterns of crime looking at the kinds of components that people typically talk about when they try to understand why crime goes up and down.

Levitt eventually wrote a paper called "Understanding Why Crime Fell in the 1990s: Four Factors That Explain the Decline and Six That Do Not." The six factors that, according to his analysis, did not contribute to the crime drop: a strengthening economy; the aging of the population; innovative policing strategies; gun-control laws; right-to-carry laws; and the increased use of capital punishment. While each of these, in theory, might seem to have some explanatory power, Levitt found they didn't. The relationship between violent crime and the greater economy, for instance, is very weak. Capital punishment, he found, at least as currently practiced in the U.S., simply didn't act as a deterrent against future crimes.

Then there were the factors he found did contribute: the increase in the number of police; an increase in the number of criminals imprisoned; and the decline of the crack-cocaine trade, which had been unusually violent. But these three factors could explain only a portion of the massive drop in crime — perhaps only half. It was as if there were some mysterious force that all the politicians and criminologists and journalists weren't thinking about at all.

LEVITT: I had the idea that maybe legalized abortion in the 1970s might possibly have affected crime in the 1990s.

One day, paging through the *Statistical Abstract of the United States*, which is the kind of thing that economists like Levitt do for fun, he saw a number that shocked him:

LEVITT: At the peak of U.S. abortion, there were 1.5 million abortions every year.

That was compared to roughly 4 million live births. The sheer magnitude of abortions surprised Levitt. And he wondered what sort of secondary effects it might have. He wondered, for instance, if it might somehow be connected to the huge drop in crime.

LEVITT: And I had actually gotten obsessed with the idea and had spent maybe three weeks working around the clock. And I had decided that the idea wasn't a very good one, that it didn't make sense. And I had a huge file of papers that I had put away and had moved on to another project.

Levitt, like a lot of researchers, was juggling a lot of projects, with a lot of collaborators. One of his collaborators was named **John Donohue**.

John DONOHUE: I'm a professor of law at Stanford Law School.

Donohue also had a Ph.D. in economics, so he and Levitt spoke the same language. Donohue was particularly interested in criminal-justice issues: gun policy, sentencing guidelines, things like that. For instance, he found that minorities who kill whites receive disproportionately harsher sentences in **Connecticut**; this research ultimately led to changes in that state.

DONOHUE: It clearly played a role in the initial legislative decision to curtail the death penalty in Connecticut as well as in the final Connecticut Supreme Court decision abolishing the death penalty.

Donohue had been doing a lot of thinking about the rise in crime, starting in the 1960s. He thought the drug trade was one big factor.

DONOHUE: It does seem that large, illegal markets are important contributing factors to crime. It was also a time of great flux around the Vietnam War. And of course the Vietnam War had multiple influences that contributed to social unrest. And at the same time, there was pressure going in the opposite direction to try to reduce the harshness of punishment, and perhaps pull back a little bit on elements of policing. The combination of those factors, I think, exacerbated the crime rate.

So one day, John Donohue and Steve Levitt were sitting in Levitt's office:

LEVITT: And I remember it like yesterday. John says, "You know, I have the craziest idea. I mean, it's totally absurd." And I said, "Oh, what is it?" And he said, "Well, I think maybe legalized abortion might have reduced crime in the 1990s." And I said, "That's so funny." And I reached into my filing cabinet, pulled up this huge thick thing and I slammed it down on the desk.

DONOHUE: Yeah. That's right. When I talked to Steve about it, as it is often the case, since he is such a creative mind, he said, "Oh yeah. You know, I wondered about that."

LEVITT: I said, "I had that same idea, but it's not right." And he said, "Well, what do you mean?" And I walked him through my logic, and I hadn't thought deeply enough about it. And I had been focusing on the fact that when abortion became legal, there was a reduction in the number of children born. And John said "Yeah, but what about unwantedness?" And I'm like, "What do you mean, 'unwantedness'?"

What did Donohue mean by "unwantedness"? He was referring to the expansive social-sciences literature which showed that children born to parents who didn't truly want that child, or weren't ready for that child, these children were more likely to have worse outcomes as they grew up — health and education outcomes. But also, these so-called "unwanted" kids would ultimately be more likely to engage in criminal behaviors. Donohue had begun to put the puzzle together when he attended a conference:

DONOHUE: And I heard a paper being presented at the American Bar Foundation by Rebecca Blank, who's a distinguished economist.

Today, Blank is chancellor of the University of Wisconsin, Madison. She declined our request for an interview.

DONOHUE: And she was talking about who gets abortion in the United States.

That is, after *Roe v. Wade*, what were the characteristics of the women most likely to get an abortion.

DONOHUE: And she was highlighting that it was poor, young, unmarried, innercity, minority women. And as I was looking at the elements of crime in the U.S., there was quite an overlap between the populations that were involved in this increase in crime with the group that she was identifying as the group of women who were most likely to be experiencing higher rates of abortion. That got me thinking about: could abortion actually influence crime rates?

DUBNER: Did that initial thought even make you a little uncomfortable? Because it's pretty obvious to just about anyone that that's sort of a third-rail idea, yes?

DONOHUE: I knew that this would be very, you know, electric to some individuals. But for me, I was really interested in, you know, studying the impact

on crime that we were observing at that particular moment. It didn't inhibit me at all because I thought there is an issue here and it's sort of useful to be able to figure out what the truth is.

DUBNER: How did the population of women who were having abortions change, from before Roe v. Wade — or really, from before abortion was legalized state by state — to afterwards?

DONOHUE: Yeah, that's a great question. And of course there's much that we don't know about what was happening before, because of the illegal nature of abortions in most states. But we can sort of infer from the changes that did occur, and the fact that, you know, some states legalized in 1970 and became avenues for travel to have abortions done, we can sort of piece together who was traveling to have abortions and see how things changed when then abortion became legal everywhere.

One thing that we did see is that affluent women did travel to have abortions in the period between 1970, when New York legalized, and 1973, when Roe v. Wade was decided. But it involved travel and expense, and therefore was too much of an impediment for the group of women that we are most interested in, which are the ones who are usually at the lower end of the socioeconomic scale, and did not have the opportunity and resources that would permit them to travel.

LEVITT: So then John and I just spent a little bit of time making back-of-the envelope calculations of how important this unwantedness effect could be. And it was really shocking.

Remember, the magnitude of abortion was huge: at its peak, there were 345 abortions for every 1,000 live births.

LEVITT: When you took the magnitude and you interacted with this very powerful unwantedness effect that's been documented elsewhere, it actually suggests to us that abortion could be really, really important for reducing crime 15 or 20 years later.

The mechanism was pretty simple: unwanted children were more likely than average to engage in crime as they got older; but an unwanted child who was never born would never have the opportunity to enter his criminal prime, 15 or 20 years later. Donohue and Levitt created a tidy syllogism: unwantedness leads to high crime; legalized abortion led to less unwantedness; therefore, abortion led to lower crime. But syllogisms are easy; what about evidence?

LEVITT: So it's not that easy to convince people that there's a causal impact of legalized abortion on crime, because this is certainly not a setting in which I'm ever going to be allowed to, say, run a randomized experiment in which I decide who does or doesn't get abortions. Instead, what we have to do by necessity is to look at a collage of evidence. So a bunch of different, all quite imperfect sources of variation, that allow us to get some sense of whether there might be some causality between legalized abortion and crime.

So Levitt and Donohue set out to assemble this collage of evidence.

LEVITT: The first one we look at relates to the fact that before Roe v. Wade, there were five states who had already legalized abortion in some way, shape, or form. And these were New York, California, Washington state, Alaska, and Hawaii. So unfortunately, not the states you would want to say are a representative set of states.

DUBNER: Because why?

LEVITT: Well, they're all liberal, and Alaska and Hawaii are just weird. They're not very helpful at all. New York and California are on the cutting edge. Now, one thing that's really important to stress is that the states that legalized abortion earlier didn't just get a five-year head start on the legalized version of abortion before Roe v. Wade. They actually were states that had many, many more abortions, a much higher abortion rate than the other states. So if you look at the data now, these states even today have abortion rates that are almost double the abortion rates of the rest of the U.S. Which, again points out how poor it is as a natural experiment.

Given that limitation, it wouldn't be enough to just measure the crime rate in the early-legalizing states and compare them to the rest of the states. You'd want a more precise measurement.

LEVITT: So we divide states into three equal-sized groups. The highest abortion-rate states, the medium abortion-rate states, and the lowest-abortion rate states. And then we just look at those three groups, and we track them over time. What happened to crime? We're able to look and see well, is it really true that the highest abortion states and the lowest abortion states had similar crime trends when you expected them to have similar crime trends. And it turns out in the data that that's exactly right. We found that there was roughly a 30

percent difference in what had happened to crime between the highest abortion states and the lowest abortion states by 1997.

That seemed to be firm evidence in support of the thesis. Now Donohue and Levitt looked at crime data, state by state, by age of offender.

DONOHUE: So the nice thing in the data that we had available was we could look at arrest rates by single age of individual.

LEVITT: So if I'm born in 1972 in Minnesota — well, I probably live a pretty similar life to someone who's born in 1974 in Minnesota, okay? In terms of other things like policing or drugs or other things in the environment. But the difference is that those who were born in 1974 were exposed to legalized abortion; those who were born in 1972 weren't. And we find numbers there that are completely consistent with the rest of our analysis, that those who were born just a few years apart do much less crime than those who were born in the earlier years.

DONOHUE: Because the abortion rates were rising so sharply in the '70s, these cohorts were coming into their crime ages in a stacked fashion. And we could identify which abortion rates were associated with each particular age. And the higher the abortion rate was for each age, the greater the crime drop occurring.

DUBNER: So as you're putting together this collage of evidence, what did it feel like to see the strength of this evidence of the link between legalized abortion and crime? Did it immediately suggest policy or political or healthcare follow-ups?

DONOHUE: Steve and I both had this sense of something really unusual has suddenly happened in crime in the United States. And we really just want to understand what that is. I really wasn't thinking very much about the way in which this would be received. I really just wanted to understand, is this a factor that has altered the path of crime in the United States?

Levitt and Donohue would go on to publish their **paper**, "The Impact of Legalized Abortion on Crime," in the May 2001 issue of *The Quarterly Journal of Economics*. "Legalized abortion," they wrote, "appears to account for as much as 50 percent of the recent drop in crime." But even before the paper was published, their findings hit the news.

LEVITT: I remember coming into my office and my voicemail was full.

DONOHUE: It was a whirlwind of reaction and some of it was a little unnerving, because people were reading into the study things that we certainly did not intend.

LEVITT: Everybody hated it. People who are in favor of right-to-life were upset because our argument seemed to be endorsing the idea that legalized abortion had positive effects. But many people who believed in the right to choose, they were also upset because we were kind of saying, "Well you're killing these fetuses, so they never get a chance to grow up to be criminals." The number of death threats that I got from the left was actually greater than the number of death threats I got from the right. Because the other thing that emerged out of the media coverage is that it very quickly became a question of race, even though really our paper wasn't about race at all.

DONOHUE: Some people started to say that, you know, we were trying to go back to the times where people were pushing for control of the fertility of certain groups and maybe even racial groups. And that was certainly not anything that we even considered. We were just trying to figure out when public policy had changed in this profound way, did it alter the path of crime? We certainly weren't eugenicists, as some people initially argued.

Initially, perhaps, but recently too. This past May, the U.S. Supreme Court turned down an abortion-related **appeal** from Indiana. But Justice Clarence Thomas, in an accompanying **opinion**, wrote, "Some believe that the United States is already experiencing the eugenic effects of abortion." His citation: *Freakonomics*. "Whether accurate or not," he continued, "these observations echo the views articulated by the eugenicists and by [Planned Parenthood founder Margaret] Sanger decades earlier."

LEVITT: I actually think that our paper makes really clear why this has nothing to do with eugenics. In our hypothesis, what happens is that abortion becomes legal; women are given the right to choose; and what our data suggests is that women are pretty good at choosing when they can bring kids in the world, who they can provide good environments for, okay? The mechanism by which any effects on crime have to be happening here are the women making good choices. And that's such a fundamental difference — between women making good choices and eugenics, which is about the state, say, or some other entity forcing choices upon people, almost couldn't be more different.

Still, the Donohue-Levitt argument linking abortion and crime was disputed on moral grounds, on political grounds — and on methodological grounds.

LEVITT: Very soon, there was a torrent of critiques and other academics trying to publish papers saying we were wrong.

One critique came from **Christopher Foote** and **Christopher Goetz**, two economists with the Federal Reserve Bank of Boston. They argued that Donohue and Levitt's paper contained a coding error which, when corrected, blunted their findings.

LEVITT: So in general, I don't mind challenges to my work, but I hate it when the challenges take the form of mistakes. And that is an awful, awful feeling to have made a mistake, which we did in this case.

What, exactly, was this error, and how did it happen?

LEVITT: So John Donohue and I started working on this paper probably in, I don't know, 1996. And it finally came out in 2001. And when you write an academic paper you go through a refereeing process and the refereeing process we went through was especially brutal. So, an enormous effort of time. Look, we were tired. We were burned out. And one of the last things in those referee reports said, "You should add a table to your paper that looks very specifically by single year of age." Okay?

So we initially, when we submitted our paper, had six tables in the paper. And we had thought of doing something that looked very specifically by single year of age, but we hadn't done it. But the referee suggested we do it, and it was actually a really good, sensible suggestion. What we did was, in a very tired, quick way, we added table seven to our paper, which turns out supported our paper, but we didn't try very hard. We didn't really do it right. We just threw something together and it worked.

It turned out what Foote and Goetz then were responding to was that what we said we did in table seven wasn't actually exactly what we did. We said we had included a particular set of interactions, we had actually run those regressions, just when the numbers got translated into the table, a different set of columns got put into the table.

DONOHUE: The error was almost more in the description of the paper rather than an actual mathematical error. So we had said that we had controlled for

state-year effects in our paper, which is sort of an econometric point of terminology, when it was only a state effect that we had controlled for. It did weaken the result, although did not fundamentally alter the conclusion.

LEVITT: I didn't feel like the Foote and Goetz critique was very damaging to the hypothesis. It was certainly damaging to me and my reputation because I had made those mistakes, but the hypothesis I think comes through in flying colors.

But by the time Donohue and Levitt corrected their work, and found that the correction didn't weaken their hypothesis, the headlines had already been written.

DONOHUE: People made a lot of, "Oh there's a mathematical error here." Which wasn't quite right.

LEVITT: We really in some ways lost the media battle, because we looked stupid because we had made the mistake.

The headline in *The Economist*? "Oops-onomics." In the *Wall Street Journal*? "'Freakonomics' Abortion Research Is Faulted by a Pair of Economists."

LEVITT: It was fun for people to jump on the bandwagon of attacking to us because nobody really liked the hypothesis in the first place. The silver lining on Foote and Goetz pointing out the mistake is that it actually gave us the opportunity to go back and take care of the measurement error that was in the data, and actually think sensibly about it. When we did table seven the right way, even correcting for that mistake we made in the initial paper, the results are actually stronger than ever.

To be fair, you can understand why the Levitt and Donohue argument is an uncomfortable argument, no matter where you stand on abortion or crime. It attaches a positive outcome to an inherently unhappy input; it creates an awkward pairing of an intimate, private decision with a public utilitarianism. So even while their argument was empirically strong, and their cause-and-effect mechanism plainly logical, it might be discomfiting to fully embrace it. Especially when other, more comforting theories present themselves.

Jessica REYES: My name is Jessica Wolpaw Reyes and I am a professor of economics at Amherst College, and I study the effects of environmental toxicants on social behavior.

One toxicant Reyes focused on was lead pollution.

REYES: There is a large, huge literature on how lead is toxic to humans. Lead has cognitive, health and behavioral effects. So lead is associated with reductions in IQ, it's associated with increased behavior problems in children. It also has health effects, cardiovascular effects, renal effects and— it's just really, really bad.

So bad that lead could be a causal factor in criminality. In other words, exposure to lead in childhood could lead to criminality in adulthood. Two big sources of environmental lead, in the old days, were gasoline and paint.

REYES: And the reason I was thinking about lead was I was pregnant with my son and we lived in this really old house and we needed to move, right? I knew that lead was bad, but I started thinking about, "Huh."

As with the abortion thesis, which used *Roe v. Wade* as a natural experiment, Reyes's lead idea had a similar fulcrum point.

REYES: So, yeah. Lead was taken out of gasoline under the authority of the E.P.A. under the Clean Air Act in the early 1970s.

The E.P.A. mandated a timetable.

REYES: That timetable was changed a little and delayed, but it ended up that lead was phased out of gasoline from 1975 to 1985. There are some important corporate, political dynamics. So the different companies did this differently. It wasn't driven by state policy. And that's really important, that it wasn't driven by state policy, because that helps provide a valid natural experiment. So that you have different states experiencing different time patterns of lead exposure.

Like Donohue and Levitt, Reyes was able to assemble a collage of evidence, linking the removal of lead in different places and different times with the decline of crime in each place. She published her **findings** in 2009, arguing that the removal of lead under the Clean Air Act was, "an additional

important factor in explaining the decline in crime in the 1990s." Did her paper refute the Donohue-Levitt conclusions about abortion and crime?

REYES: My paper does not refute their conclusions. To the contrary, it actually reaffirms them. I include their abortion measure in my analysis, and I find that the abortion effect is pretty much unchanged when one includes the lead effect. That the two effects are operating relatively independently, and that each one is of similar magnitude when you do or don't account for the other. So what that means is that, from my perspective, both stories are true. And we can hold both of them kind of side by side. It doesn't make sense to look for a single explanation for a decline in crime. There are lots of explanations.

LEVITT: So Jessica wrote a really interesting and careful paper that tries to look at patterns in leaded gasoline and relate them to crime.

Steve Levitt again.

LEVITT: And I'd actually distinguish between the very thoughtful, careful work that she did from some of the other work on lead which is not nearly so good. It's funny that people argue, "Oh, there can only be one cause to why crime went down. And if lead is true, then it can't be abortion." Look, the world is complex and there could be many things going on.

Indeed, this is how many academic researchers, and lots of other scientists, generally think about the world. It's called multivariate causality: that is, almost no effect has only a single cause all the time. Which is why percentages and probabilities are useful: they express the magnitude of various causes. But here's the thing: a lot of people who drive the public conversation these days — especially politicians and journalists — they don't seem very comfortable with the notion of multivariate causality. Why not? It may simply be that this-versus-that stories make for better headlines, and campaign slogans. Maybe it's because a lot of people who wind up in journalism and politics are not, shall we say, numerically inclined, to the point where percentages and probabilities are a bit intimidating. In any case: what's a layperson to do if you're trying to make sense of a debate over complex issues like this?

LEVITT: It's really hard. It's really hard for a layperson to be able to watch a scientific debate, or social-scientific debate, especially one that's being mediated through, you know, newspapers and magazines and blogs, so much being lost in translation, and figure out what's really true. It's not even easy for me as an academic. And there is a much more intelligent way to discuss social-

scientific research than is done now. So right now, maybe the most interesting way to portray an idea is to talk about the hypothesis. And then, almost absent a lot of discussion of data, ask people to make a judgment about whether the hypothesis is true.

I actually think we should flip that discussion on its head. If we want intelligent laypeople to be able to make good choices about what they believe and don't believe, then the basic premise has to start not necessarily from the hypothesis but from the data. If the way that social science was reported was to say, "Here are the five facts that are true about the world." And then what those mean are up to people to agree upon. But that's never the way that discussions happen. Maybe because it's not interesting, maybe because it's a little too complicated, maybe it takes too much time.

But I think there's actually a lot less disagreement about facts than about the interpretation of the facts. I believe that for an educated layperson, given a set of facts, they can make a better judgment about how to interpret those facts than the current way the media treats things, which is to often not talk about the facts but just to talk about the interpretations and often to focus on really extreme emphasis on minor differences.

With that in mind, Steve Levitt and John Donohue have added a new set of facts to the abortion conversation: they went back to their original abortion-crime analysis from roughly 20 years ago and plugged in the updated data.

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In 2001, the economist Steve Levitt and the economist-slash-legal scholar John Donohue published a paper arguing that the legalization of abortion in the U.S., in 1973, accounted for as much as half of the nationwide reduction in crime a generation later. Here's Levitt.

LEVITT: So the abortion hypothesis is quite unusual among typical economic ideas in that it makes really strong and quite straightforward predictions about what should happen in the future. And the reason it has that characteristic is because we knew already when we published our paper in 2001 how many abortions had been performed. And because there's a 15- to 20-year lag between performing the abortion and the impact on crime, we could already make strong predictions about what would happen to crime 15 to 20 years later. It was completely obvious to us that a sensible thing to do 20 years later would be to look in to see how the predictions had turned out.

DUBNER: Okay. So you and John Donohue did revisit the study. You just released an update to that 2001 paper, and this one's called "The Impact of Legalized Abortion on Crime Over the Last Two Decades." Did your prediction turn out to be true, false, somewhere in the middle?

LEVITT: When we revisit the exact same specifications but looking from 1997 to 2014, it turns out that a very similar pattern emerges. The states that had high abortion rates over that period, that 30-year period, have crime rates that have fallen about 60 percent more than the states that had lowest abortion rates. I mean, these are really massive changes.

DONOHUE: And lo and behold, the results were substantially stronger than they were in the 2001 paper. So that was an interesting and noteworthy finding.

LEVITT: Now the amazing thing, and the thing that really almost gives me pause is how enormous our new paper claims the impact of legalized abortion is. Because the cumulative effect over the last 30 years, if you just look at our numbers, suggests that abortion might explain something like 80 or 90 percent of the entire decline in crime. The effects implied by our data are so big that I actually think it will make people more, rather than less, skeptical about what's going on. Because it's almost mind-boggling that a factor that is so removed from the usual set of things that we think about influencing crime may have been such an enormous factor.

DUBNER: What would've happened if you'd found the opposite, that the impact of abortion on crime twenty years later, you know, had disappeared? I mean, this is your most famous research. What do you think you would've done?

LEVITT: I don't know, human nature says maybe we would have tried to hide that, like people who make bad predictions try to hide it. But I would hope that we would publish the paper anyway. Because the thing is, if we didn't publish it, someone else would have published it. One of my first rules of doing research is when you find out you're wrong, it's much better to kill your own theory than have someone kill your theory.

DUBNER: You know, a lot has changed since 1973, beyond abortion policy and abortion laws. Access to birth control and many other factors that may intersect or not with crime causal factors. So I am curious whether you feel — you know, in your new paper you do make clear that the effect is larger now — turned out to be larger — than you had predicted. Do you think it will continue to hold forth or is the world, this complex world we live in, changing enough so that the effect of abortion on crime will diminish over time?

DONOHUE: There are lots of moving parts to this story. So one moving part is that there are other technologies for terminating pregnancies other than

therapeutic abortions that may play a bigger role. So for example you can actually go online and buy, you know, pills that can induce miscarriages. You might be seeing some movement in those directions. And presumably the greatest thing that could happen in this domain is if you would eliminate unwanted pregnancies in the first place. But American policy has not been nearly as effective in achieving that goal.

A country like the Netherlands, which has really tried to reduce unwanted pregnancies, has probably had the right approach in dealing with the issues that our research at least raised. So they have much, much lower rates of abortion even though abortion is completely legal in the Netherlands. But they want to stop the unwanted pregnancies on the front end, and I think almost everyone should be able to agree that that is the preferable way to focus policy if one can.

It's worth noting that the term "unwanted pregnancy" is probably way too imprecise to describe the individual choices made by individual people. There are of course many reasons why a given woman may decide to have, or not have, a baby. So if you're thinking about policy ideas, it probably makes sense to consider all these reasons, and the nuances attached to each. That said, so-called unwanted pregnancies have been falling in the U.S.

Consider teenage pregnancies, the vast majority of which are unplanned, if not necessarily unwanted. The teen-pregnancy rate has declined by more than 60 percent over the past quarter century. The overall abortion rate has also fallen by nearly as much. At the peak, you'll recall, there were 1.5 million abortions a year compared to 4 million live births. That was in 1990. Today, with about the same number of **live births**, there are only about 640,000 **abortions**. Will those numbers fall even further? *Roe v. Wade* remains a contentious ruling and many opponents are committed to having the Supreme Court overturn it. And several states, as we noted earlier, have taken measures to limit or constrain abortion. I asked Levitt and Donohue what they might expect to happen to crime if, or as, abortion becomes less accessible.

LEVITT: So if indeed these states are making abortions much harder to get, then our study, our hypothesis, unambiguously suggests that there will be an impact on crime in the future.

DONOHUE: You can imagine that if a state were to really clamp down on abortions but neighboring states permitted abortion, you would get some of this traveling to an abortion provider. But since that would tend to have a disproportionate effect on lower socioeconomic status, you might see exactly the problem that we have identified, that the children that are most at-risk, because they're unwanted pregnancies, would be the ones most likely to be born once these restrictions are imposed.

LEVITT: On the other hand, I don't think anyone who is sensible should use our hypothesis to change their mind about how they feel about legalized abortion. So it really isn't very policy-relevant. If you're pro-life and you believe that the fetus is equivalent in moral value to a person, well then, the tradeoff is awful.

What does he mean by an "awful tradeoff"? Remember, there are still more than 600,000 abortions a year in the U.S.

LEVITT: And John Donohue and I estimate maybe that there are 5,000 or 10,000 fewer homicides because of it. But if you think that a fetus is like a person, then that's a horrible tradeoff. So ultimately I think our study is interesting because it helps us understand why crime has gone down. But in terms of policy towards abortion, you're really misguided if you use our study to base your opinion about what the right policy is towards abortion.

DUBNER: But let me ask you this. If someone wants to use this research to consider policy, you're implying that the policy that they should think about is not abortion policy but some kind of child-welfare policy. What would that be? I mean, that's obviously a much less binary and much harder question. But what kind of policy would be suggested?

LEVITT: So there are two policy domains for which this research is important. Let me start actually with the obvious one, which is crime. We spend enormous amounts of money on police and prisons and other programs. We incarcerate millions of people. And much of the justification for that comes from the idea that those are effective policies for reducing crime. So that's actually the most obvious implication of our paper. That if it's really true that most of the decline in crime is due to legalized abortion, then it brings real caution to the idea that a super-aggressive policing and incarceration policy is necessarily the right one to pursue.

But the second one really does relate to the idea that if unwantedness is such a powerful influencer on people's lives, then we should try to do things to make sure that children are wanted. You could at least begin to think about how you would create a world in which kids grow up more loved and more appreciated and with brighter futures. And you know, is that better early education? Is that, you know, permits for parents? Or training for parents? Or, you know, minimum incomes? Who knows what the answer really would be. But there's a whole set of topics I think which are not even on the table.

DUBNER: Levitt, how do you work generally, or most often? Do you have a thesis and go looking for data to support or dispute the thesis? Or do you look

for interesting data and see what hypothesis emerges?

LEVITT: It turns out in this particular case, John Donohue and I had a hypothesis and then we went to the data. But that's pretty rare in economics and social sciences. Often, either you start with the data or a set of patterns and then you build the theory back from that, or often what happens is you have a theory, you have a hypothesis, and you go to the data. And then you're wrong, but you've still looked at the data, you still have a lot of interesting patterns in the data and then you go back, and you reconstruct a new hypothesis based on what you've seen.

And actually one of the things that troubles me most about the way that academic economics happens, is that there is this complete fiction in the way we write our papers. And that economists write up our research as if we rigorously follow the scientific method, that we have a hypothesis and then we come up with a set of predictions and then we test those predictions. And then they almost always come true by the time we write the paper because you only include as your hypothesis the one that is supported, even if it turns out it's your seventh hypothesis, and your first six got rejected.

REYES: When you're doing research, you're somewhat attached to your hypothesis, but you need to try to keep it at arm's length.

That, again, is Jessica Wolpaw Reyes, who wrote about the link between crime and lead pollution.

REYES: You should be trying to figure out what is true. So I think that the complexity of what we do, the fact that we use all of these econometric techniques to figure out these complex situations, makes it suspicious to people. It's sort of this magic thing we're doing and then we come out with results. So I completely understand that. And the number of times people have said, "Well, you know, correlation is not causation." Yes we know. That's what we do. We take things, we start with the correlation, we're like, "Huh. I wonder if that's causal. How can I figure out is that causal? Where can I find some variation in something that drives the thing that I want to see if it affects?"

I still find it really difficult to explain fully what we are doing when we are separating correlation from causation. And I even find it— like my family, I can't convince them. They're like "Yeah, well, you know, whatever." I mean, they sort of buy it after a while, but it takes a long time, and it's reasonable for people to say, "I don't know what you're doing. You're doing something complicated and fancy and then you're saying you've done something that seems implausible."

LEVITT: What we should do is first just settle on the facts. I think a great approach is not to say, "Here's my hypothesis." A great approach is say, "Here's what we know about the world. Here are the seven facts."

DUBNER: I wonder if we take it away from this abortion-crime issue specifically, though, and think about any other really contentious issue. Climate change, income inequality, gun control, etc. And you see how people make very, very strident arguments often as you said not really using a fully considered set of the data. I wonder if it has to do with the fact that the issues themselves and the causal mechanisms underneath them are actually less important to people than the tribal affiliation with a position.

LEVITT: There's a lot of validity to that argument. I think that many of these contentious issues you noted, they're ultimately not so much about utilitarian arguments. And I think that's fair. Obviously, it matters a lot to know whether humans are actually responsible for climate change, because it's silly to radically change everyone's behavior if we're not responsible for it. So there is an enormously important role for science in understanding those causal mechanisms.

But in terms of the public debate and what people believe, I think you're absolutely right, that oftentimes what we believe is driven not by the exact facts but by our conception of what kind of person we are, or how we want the world to be. It's a discussion about right or wrong. And it would be useful if people remembered, and were able to put the "Okay, I'm putting my right-and-wrong hat on as I talk about this," or "I'm putting my scientific hat on as I talk about exactly how much the world is warming." And those are both very important conversations to have. Where we get lost is when we are having a conversation which confounds scientific and right-and-wrong issues or confuses them or mixes them. And it's hard for people to make that distinction.

DUBNER: I know that you pride yourself, Levitt, on not being a right-or- wrong guy. But I'm curious how being the author of this theory and paper has informed, if not changed, the way you think about the issue, particularly of children, of wantedness and unwantedness. And for the record, we should say that you have six kids, so plainly you're in the pro-kid camp and you want them. Has this entire arc of the story — the early paper, the dispute, your relitigation of it — has this changed at all your thinking about the nature of why people have children and what we do with them after we have them?

LEVITT: So, that's a pretty profound question. Let me answer a very narrow aspect of that question. So if there's one thing that comes out of our research, it is the idea that unwantedness is super-powerful. And it's affected me as a father in the sense that when I first was having kids, I didn't feel maybe so obligated to make children feel loved. And it's interesting that that now as I go

through a second round of kids, I am not trying to teach my kids very much. I'm just trying to make them feel incredibly loved. And it seems to me that that's a pretty good premise for young kids.

And look, I don't know if that is because I wrote this paper on abortion and crime. Maybe partly, maybe partly not. But it does seem to me a very powerful force, and there is something so incredibly tragic to me about the idea that there are kids out there who aren't loved and who suffer — and look, it's backed up by our data that leads them to tough things in life. I really think I've gotten very mellow in old age. I was — it was funny. I was a super-rational, calculating kind of person. And as I've gotten older, I've just gotten very soft and friendly and nice and I never would have imagined that I would be so accepting of my teenagers and their various foibles. But it's funny. You know, I am a really different person than I used to be.

DUBNER: Is this a product of just aging or something else?

LEVITT: I don't think so. I think sometimes when people get older they get mean, and sometimes they get nice and I'm not sure why I got nice instead of mean, but I somehow became more human. You know me, and I'm not exactly completely human. I'm lacking some of the basic things that many humans have. But somehow I'm growing more human traits over time, don't you think?

DUBNER: I do. I do. I definitely do. But I'm curious what's the causal mechanism, honestly.

LEVITT: Maybe it's you, Dubner. Maybe it's hanging around with you, and your great humanity has started to rub off on me.

DUBNER: I doubt it, but I'll take credit for it .

* * *

Freakonomics Radio is produced by Stitcher and Dubner Productions. This episode was produced by Zack Lapinski. Our staff includes **Alison Craiglow**, **Greg Rippin**, **Harry Huggins**, **Matt Hickey**, and **Corinne Wallace**. Our intern is **Daphne Chen**. Our theme song is "Mr. Fortune," by the Hitchhikers; all the other music was composed by **Luis Guerra**. You can subscribe to *Freakonomics Radio* on **Apple Podcasts**, **Stitcher**, or **wherever you get your podcasts**.

Here's where you can learn more about the people and ideas in this episode:

SOURCES

- Steven Levitt, Freakonomics co-author and economist and the University of Chicago.
- John Donohue, professor of law at Stanford Law School.
- Jessica Wolpaw Reyes, professor of economics at Amherst College.

RESOURCES

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TAGS: Abortion, Crime, Freakonomics, Jessica Wolpaw Reyes, John Donohue, Stephen Dubner, Steven D. Levitt, Zack Lapinski

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