# “An Exit Interview With U.S. Chief Data Scientist DJ Patil” Excerpt Transcript

*Excerpt from December 9, 2016 episode of Science Friday.*

**IRA FLATOW:** This is Science Friday. I'm Ira Flatow. The world is full of data. You have metrocard swipes, police dispatch calls, blood pressure numbers, facial recognition. All of which can be used to solve a number of important issues.

And to that end, in 2015, President Obama tapped data scientist DJ Patil to be the first Deputy Chief Technology Officer for data policy at the White House. And over the next two years, Patil worked on programs that used big data to solve big issues in areas like criminal justice and health care.

But now as the Obama administration starts to wind down, what legacy will these big data projects leave behind? Were they successful? What's the future looking like for big data in government? Well DJ Patil is here to talk with us about it. Welcome to Science Friday.

**DJ PATIL:** It's great to be here.

**FLATOW:** When you were first named back in 2015, what was the vision you had for big data at The White House?

**PATIL:** Well, we sat down, actually, with the president and we came up with a mission statement. And the mission statement is to responsibly unleash the power of data to benefit all Americans. And the big two, kind of components of that are responsibly, and that is just because we can, doesn't always mean we should.

And how do you make sure it benefits all Americans? We have this talk about technology being radical and revolutionary. And our assertion is that a technology is neither radical nor revolutionary, unless it benefits every single person.

**FLATOW:** Let's talk about civil rights. How did you help craft or use big data in civil rights?

**PATIL:** Well one of the big things that we have been looking at is where should you be thinking about the opportunities for data to help on civil rights? And also, where could it be used to impede civil rights?

Things like in policing, and the president after Ferguson-- all the incidents in Ferguson and the shootings, he commissioned a task force-- a task force on 21st century policing. A number of the recommendations were all data and technology related.

Some good. How do we use body cameras? How do we think about using data and all sorts of different elements? And I can talk more at length about that.

But the other is, the concerns, also. So if somebody is coming up with the idea of predictive policing, well how do we have the ability to have transparency into how those algorithms are chosen or what data goes into that? So it's not just some artificial justification of stop and frisk.

**FLATOW:** So the data could be biased, the algorithm could be biased, if you're not careful.

**PATIL:** Absolutely. In fact, what we're finding is biased data all over the place. And so you have to be constantly asking the questions. And we're seeing this from basic science all the way at the genomic layer of testing, all the way through other types of activities.

The one place that is really important to call out, also, what we're trying to do is make sure that we're getting this data out there so everyone can evaluate it. Just like you were talking about with Feynman, somebody is able to reproduce the results. In our case, we want everyone to reproduce the results.

So people often talk, well the data is just biased in climate. Well, in the climate-- the data is so overwhelming clear, and anybody can download the data, and look at it, and evaluate, and ask questions, it's just obvious at this point that climate change is happening.

And so we go through that rigor and we eliminate that saying yes, this is a case of-- this is scientifically rigorous.

**FLATOW:** So your job is over January 20.

**PATIL:** That's right.

**FLATOW:** Do you know where you'll be going and what you're going to be doing yet?

**PATIL:** I'm going home and I'm going to take a long nap. But the problems-- the most important thing that I've taken away from this, I tell people is, we always focus on the data. It's more important to actually focus on the people. And the data provides a solution to get there.

Some of the problems that I am extremely excited about continuing working on is not only the type of precision medicine and cancer moonshot programs of how do we enable new data sets to ask really phenomenal questions, but is on the policing side. And how do we also address our criminal justice system?

Because we have-- just to give a sense of numbers for the audience out there-- the numbers are crazy. We have more than 11 million people around-- roughly 11.4 people going through 3,100 jails every year. And when I say jails, I mean your local jail. They stay there, on average, 23 days. 95% of them never go on to prison. So we have this cycle that people are just going around and around and around in.

Those are incredible dollars. They are going and preventing your local city from paying for a teacher, an officer, a park. So how do you deal with it?

Well, it turns out cities have figured out if you take your data from your criminal justice system and say who are these people you keep cycling? And you write them on a list-- you can think of it just like a spreadsheet-- and you hand that over to the health care system, the hospitals, and they say, have you seen these people? And they can say, yes. We see these people a lot.

In Camden, New Jersey, 70% of all the medical costs come for 10% of the population.

So when you look at that, now you have the privacy measures because of the health ecosystem and you can say to dispatch, hey, instead of taking that person to jail, let's get them into the right medical treatment. Let's get them into the right opioid treatment plan. And-- I know you're going to talk about 21st century cures later-- these are why these dollars for these things are important.

Miami-Dade, Florida. They trained all their people up in this idea of crisis intervention. Cost about a million in the first year. But as a result, in the first year alone, they saved more than $10 million. And more importantly, they were able to close a full jail. That's the power when data comes together with public policy.

**FLATOW:** Thank you DJ.

**PATIL:** My pleasure. Thank you.

**FLATOW:** DJ Patil, US Chief Data Scientist at the White House Office of Science and Technology Policy. Good luck wherever you're going.