

Podcast interview: Dalton Conley

PNAS: Welcome to *Science Sessions*, the podcast of the Proceedings of the National Academy of Sciences, where we connect you with Academy members, researchers, and policymakers. Join us as we explore the stories behind the science. I'm Brian Doctrow, your host for *Science Sessions*. We recently spoke to sociologist Dalton Conley, a member of the National Academy of Sciences, at a live podcasting event during the annual meeting of the American Association for the Advancement of Science in Seattle earlier this year. Conley discussed research using the Vietnam-era Selective Service Lotteries to study long-term socioeconomic consequences of military service. The following is an excerpt from that conversation.

PNAS: Today I'm going to be speaking with Dalton Conley, a sociologist at Princeton University and a National Academy of Sciences member. So, thanks for joining me today.

Conley: Thanks for doing this, Brian.

PNAS: So, at your session this morning, you spoke about some of your recent research, which uses the Vietnam Selective Service Lotteries to explore long-term effects of military service on people. So, for the benefit of listeners who, like me, didn't grow up during the Vietnam War could you explain what these lotteries were?

Conley: Sure, but just a little, kind of, scientific/motivational background, if I may. It's rare in the social sciences that we can do an experiment and assign people—in this case to have served in the military or not served in the military, to get married or not get married, to, you know, go to college or not go to college—randomly so that we can actually conclude that whatever we're studying is really a true causal effect and not just a reflection or a proxy for some other underlying characteristics of the individuals who self-select into college, the military, marriage, whatever. And so, the Vietnam draft lotteries were a historically unique scientific moment, because even though they weren't intended as an experiment, they ended up being an experiment about the effect of military service during that period. They were initiated by President Richard Nixon in his first year of office to fulfill a campaign promise to make the Vietnam draft more fair. Because prior to that, it had been based on local draft board decisions. And, as you may guess, people who were more socioeconomically advantaged tended to get out of the draft at disproportionate rates and people who were more disadvantaged were called up more often. So, the draft lottery replaced that with a kind of random assignment, based on birth dates that were drawn from a vat or a bin, and was fairer—politically, [a] very deft move by the Nixon administration to blunt some of the criticism of the war effort. And for us social, behavioral, and health scientists, it was really the gift that keeps on giving, in a sense, because we're studying the effects of treatment or control conditions now, more than 50 years onward.

PNAS: Okay. So, people were randomly called up based on their birth date.

Conley: Exactly. I mean, the first draft on December 1st, 1969, had a little snafu in that the capsules with the birth dates weren't stirred adequately. So, if you were born later in the year, you had a slightly higher chance of being picked for service than if you were born in January, say. That was remedied for the next few drafts. But yes, it's what you guessed. It's just like the lotto. They drew capsules from a glass vat, and each capsule had a birth date in it. And, in the order they picked it, those birth dates were given the numbers one through 366 for the first draft—because that was a leap year cohort—and called up in that order up to a certain limit—I think in the first draft, it was 195. So, slightly more than half of the year was eligible to be drafted. That number was reduced in the subsequent years as we started to de-escalate in Vietnam and needed fewer troops.

PNAS: And so, by comparing people whose numbers were called from people whose numbers weren't called, since those were randomly assigned, that gives you a pretty good, I guess, estimate of the effects of service versus not having served.

Conley: Right. I mean, to be precise, the effect is the effect of being draft-eligible, because it is possible—and in fact did occur—that some individuals reacted to their draft number, good or bad, in a different way. So, for example, it's mostly the effect of serving in the military because many folks, when they got a low draft number, if they weren't conscripted, they joined in the hopes of getting a better assignment than getting sent to a combat unit in the jungle. So, it's the effect of military service—which could be in Vietnam, could have been in South Korea or Germany or Japan—where we had bases. But there's also included in that effect—[to a] much smaller degree—people who became conscientious objectors; people who fled to Canada; people who tried to get a deferral—even though deferrals were drying up at that point—for other reasons: health reasons or, you know, self-inflicted health problems, and so forth, or educational careers. But we could safely assume that any effects we're detecting are largely due to military service. And again, the beauty is that even though there's many other factors that affect whether someone was a veteran in that period, this particular treatment is randomly assigned.

PNAS: I wanted to focus particularly on the paper looking at civilian public sector employment, since that one was recently published in PNAS. So, I guess why was public sector employment something you wanted to look at?

Conley: Well, it goes back to, really, theories of the welfare state. So, it's long been theorized, back to T. H. Marshall in the 1800s, that people who serve the military, serve their country in that fashion, enjoy a claim on the resources of the state—a disproportionate claim. And in fact, according to Harvard political scientist and sociologist Theda Skocpol, the origin of the modern welfare state was, in the US case, after the Civil War; a widow's pensions became the basis and the germ that spawned the modern welfare state. And it makes sense. When you have served your country and risked your life or been wounded, or had a family member who died, you have a reciprocal expectation of being taken care of by the state and that extends, we hypothesize, to employment. Now one of the big problems of trying to study the effect of military service on transition to civilian labor sector employment is that it could be that

people who self-select into joining the military have a kind of expectation, or a level of patriotism, that they want to work for the government. So, it's not the treatment effect of having served in the military, per se. It's the preexisting characteristics of the individual who selects into military service that also makes them likely to work for the government in a civilian capacity later. But the nice thing, again, about the draft is that we can rule that out because it's randomly assigned and see what the actual socialization effect of being in the military is on your likelihood of serving the government in a later capacity. I should also say, there are explicit set-asides and preferences for veteran[s] in the federal hiring process. So, we did discover this effect. It was pretty large; it's somewhere on the order of...people treated by the draft were about 50% to almost double as likely to be working as civilian employees of the federal government 30, 40 years later.

PNAS: Okay. So, can you go into a bit of the details about how you determine which employees were in the treatment group versus in the control group?

Conley: Well, basically, my colleague Tim Johnson, who's the primary author on the paper, he did a FOIA request—a Freedom of Information Act request—to the Office of Management and Budget to get the birth dates of the entire registry of federal employees. Now, they did not give us the birth dates of each person for fear of disclosure of particular identities, but they did give us counts of men and women—and women, of course, [are] a placebo group, because they were not subject to the draft—of each birth date for about a five-year period of all federal employees, minus the Defense Department. And then we could basically see whether or not, as one would expect if there was no effect of the draft, or for women, that there was a random distribution of birth dates across the year in the birthdays that were reported to us. And that was true for women, that was true for men born in birth cohorts not subject to the draft; but in the birth cohorts that were subject to the draft, we found a disproportionate number of male birth dates that were assigned low draft numbers.

PNAS: Disproportionate compared to what you would expect if the birth dates were randomly distributed?

Conley: They are randomly distributed, but if there was no effect of the linkage between the birth date and the draft number.

PNAS: I see. And so which birth cohorts were specifically subject to the draft?

Conley: So, the 1950-52 birth cohorts both got draft numbers and were actually called up. The biggest callup was for the 1950 birth cohort. When I say 1950 birth cohort, I mean people turning 19 in 1969. And then there were subsequent draft lotteries that went through to 1975, but no one was called up. So, we were deescalating and formally left Vietnam with combat troops in 1973, so the 1973 draft lottery was the last one where people thought at least they might be called to serve. So, it acts as a really good placebo because if we were interested in the other effects, like people enrolling in school or fleeing to Canada or something like that, they still might've done that, not knowing that they didn't need to do that to escape the draft. And then 1974, '75, those people knew there was a draft lottery, but that it probably wasn't going to matter.

PNAS: Okay. And then you didn't just find an effect of treatment versus placebo. You also found, within the treatment group, a relationship between employment and draft number.

Conley: Right. So, it is true that for the draft numbers below 195 in that first year, for example, everybody was eligible. But people who had a very low draft number were more likely to have served in the military. So, we did see that effect that if your draft number was 1 or 2, you did have a higher likelihood of appearing in the federal workforce later on than if your draft number was 192 or 193.

PNAS: And do you think that's because the lower draft numbers were more likely to have actually entered the service?

Conley: Yeah. For whatever route, because they might have...it might be largely driven by enlistment; you get a draft number of one, you figure, "man, I'm going, I might as well join the Air Force or the Navy to be safe and not end up carrying an M-16 in the jungles."

PNAS: Okay. So, you found that those who have served in the military are more likely to join the federal workforce, essentially. So, what might some of the broader social implications of this be?

Conley: Well, I think that there's lots of important echoes of the Vietnam draft research today. For example, we've had an incredible mobilization with the wars in Iraq and the longest running war in our history in Afghanistan, a lot of returning veterans. So, we should expect that that's going to change the shape of the federal workforce—not to mention, we didn't examine state or local governments, but there's no reason to assume it doesn't work the same way there as well—that it really is going to change the character of the federal bureaucracy. Moreover, we're seeing the same pattern of "deaths of despair—to use the term of Anne Case and Angus Deaton, my Princeton colleagues in economics—with drug overdoses, suicides, motor vehicle accidents, and so forth. And at the most elevated rates in counties where there are the most veterans, the most people who have been sent off to war, and of course elevated rates among veterans themselves with PTSD and so forth. Now we don't have a draft lottery to study them today, but I think we can glean a lot of lessons from the draft lottery of 50 years ago to inform that this public health crisis is not just people with prior tendencies toward PTSD or other problems joining the military, that there's actually a treatment effect of war which we might expect. But that treatment effect extends well beyond things like PTSD to family living arrangements, to labor force outcomes and so forth, even political orientation.

PNAS: Having a disproportionate number of veterans in the federal workforce—what effect do you think that has on the way the federal government operates?

Conley: That's a good question. We have some analysis where we're looking at the career trajectories of the treated and non-treated, and that's an ongoing area of research. I don't want to comment because I'm not 100% sure of the results—how they'll

turn out. But one thing that's assumed—again, this is based on people self-selecting into the military—is that people in the military tend to be more conservative. But one thing we learned about the treatment effect based on the kind of experimental approach is that that's not necessarily true. For sure, the parents of the people who were drafted tended to vote more liberally back in the day in the sixties, because they wanted to end the war. People who are treated by being drafted tend to be less politically engaged in traditional measures of civic participation: voting and so forth. And other research by a student of mine, Brian Gifford, showed that actually, the effect of the military as a treatment, as opposed to something that attracts different kinds of people, is to make people more sympathetic to welfare state policies, which we traditionally associate with the Left. So, it's not an obvious answer of how it might affect the long-term outcome. And most of these, we're talking about civil servants, so they're not political appointees making decisions about programs, they're the ones executing them.

PNAS: Right. Sure. Since we don't have a draft anymore, do you think that's going to change the way those factors interact?

Conley: There's a big question about how exportable our results are to the current effect of military service, partly because yes, it is a professional or, euphemistically, a volunteer army. So that's a different group of people, it's a different environment; obviously the wars that they're serving in are different. There's been lots of research, however, that tries to get a random treatment effect—not of military service, but of combat exposure, where conditional on being in a certain type of unit, say in an infantry unit in the Army or in the Marines, whether or not you are exposed to actual violence in country. For example, whether or not an IED, an improvised explosive device, explodes in your vicinity, seems pretty random, conditional on that you're in that kind of unit doing patrols. And of course, that has shown big mental health consequences. No one to my knowledge has studied the sort of longer-term—it's still early of course—longer-term outcomes on labor market, family, health, so forth.

PNAS: Okay. Thank you very much. Once again, Dalton Conley, Princeton University sociologist. Thanks for taking the time to speak with me.

Conley: Thank you, Brian.

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