

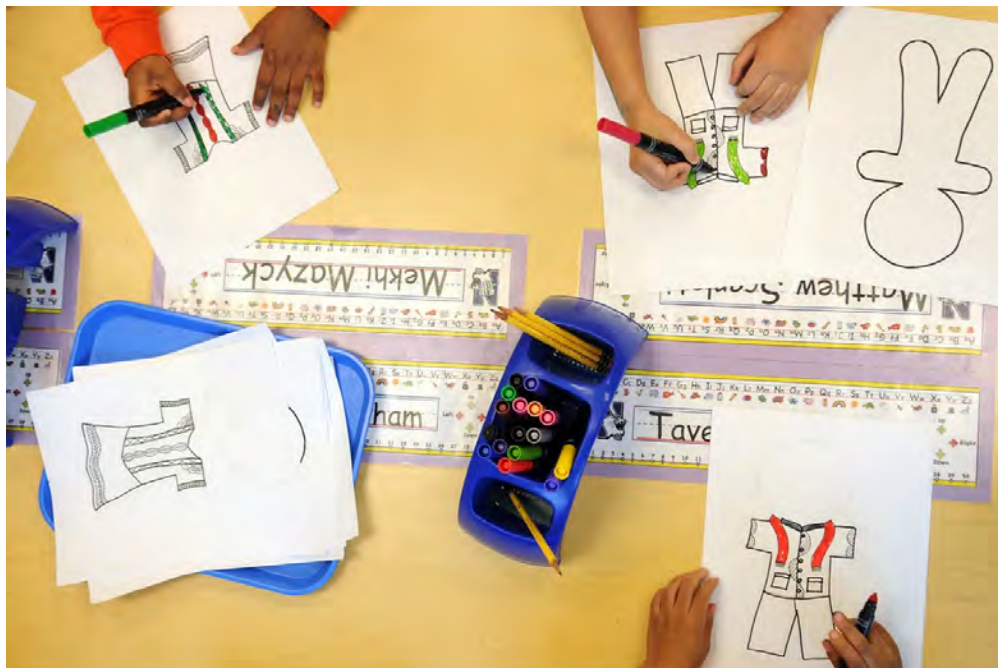
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## Of course pre-K and cash help kids ... right?

What one study finding pre-K harms kids, and another finding cash can change their brains, can tell us about public policy.

By Dylan Matthews | [dylan@vox.com](mailto:dylan@vox.com) | Jan 30, 2022, 6:30am EST



Prekindergarten children color worksheets in class. | Astrid Riecken for the Washington Post via Getty Images



*Finding the best ways to do good.*

A team of neuroscientists and social scientists released **a study** on Monday finding that monthly cash payments of \$333 to parents changed their infant children's brain development. **I wrote positively about it**, as did the great **Jason DeParle at the New York Times**.

The main response I saw to the story on Twitter was some combination of “duh” and “we shouldn't need this.” One science journalist **sneered**, “I think the NYT just discovered social determinants.” A historian **wrote**, “Something's seriously wrong when we need brain scans to argue that moms and their kids shouldn't live in poverty.”

Then I saw **another study** released around the same time, suggesting that universal pre-K in Tennessee led to worse academic outcomes and increased aggression and misbehavior once kids were in middle school.

The first lesson from these two studies is that very few questions in social science have obvious answers. Running a neurological experiment on the effects of cash isn't inherently disrespectful to poor mothers or a waste of energy; it can uncover useful, surprising information.

My other takeaway is that child development is especially tricky to research, and focusing on just one study (which is something I and other journalists have certainly been guilty of) can lead you astray.

### **What the hell happened with Tennessee pre-K?**

The **pre-K study** was conducted by researchers at Vanderbilt University and looks at **Tennessee Voluntary Pre-K**, or TN-VPK, which has existed in some form since 1996 and offers many 3- and 4-year-olds free access to pre-K services. The actual pre-K sites were often oversubscribed, and had to resort to random lotteries to pick enrollees. The researchers exploited that feature to track students who were randomly able to enroll in pre-K in 2009 and 2010, and compare them to students who, by random chance, couldn't enroll.

In **prior work**, summarized **here**, the same authors found that kids who got into pre-K outperformed ones who didn't on **intelligence tests** — when they were 5. By the end of kindergarten, however, the benefits seemed to evaporate and by third grade, the pre-K kids were actually doing worse, with lower test scores in math and science.

The **new study** follows the same children through sixth grade, adding three more years of data. The upshot? the results just keep getting worse. Reading, writing, and science scores in sixth grade were all lower among pre-K kids than other kids, and the gap has grown since third grade. The researchers also found that pre-K kids were likelier to skip school or get into disciplinary trouble as they got older.

Why? They don't really know. The answer might depend on what the students who weren't in the pre-K program were doing. The authors report that 63 percent were at home with a parent, relative, or other caretakers, and 34 percent were in private day care or Head Start. So you can read the study as suggesting that being home with a parent, grandparent, or nanny is better than going to pre-K; or maybe what's going on is that Head Start and private care are better for kids than the Tennessee program. It's hard to say.

But this isn't just one study. Research into Quebec's day care program found **long-run negative effects on kids' behavior**, including increased crime. The idea that certain forms of pre-K or child care can harm kids has significant empirical support.

### **This stuff is complicated!**

So, what's my point? It's not that we should just abandon pre-K as a concept. As **Kelsey Piper has written for Future Perfect**, you have to weigh any effects on kids alongside benefits for parents, who are less stressed and more able to work with pre-K. **Several studies**, including ones on the **Quebec program** that had negative effects on kids, find that pre-K and child care programs make mothers likelier to return to the workforce.

And less stressed, working parents could mean better-off kids in the very long run, even if that doesn't show up in test scores.

My point, simply, is that some center-left folks, like those I cited complaining about the baby brain study above, have a tendency to assume that spending more on nice-sounding things, like pre-K and cash transfers, is obviously good, and that we don't need any more evidence.

I think that's dangerously wrong. And I think the discussion around the baby brain study helps illustrate why. After the study's first release, commentators like Columbia statistician **Andrew Gelman**, King's College London psychologist **Stuart Ritchie**, and psychiatrist/writer **Scott Alexander** raised a number of statistical questions poking holes in the finding of an effect on brain waves. Brain imaging is often noisy, Alexander noted, which can lead to spurious findings of effects. Some of the effects on specific brain waves weren't statistically significant, Ritchie noted. It's possible that brain scans will show some effect due to random chance even if there is no underlying effect, as Gelman illustrated with randomized simulations.

One possible response to these critiques is to stick your fingers in your ears and declare that the effect *has* to be there — or that the policy goal, in these cases of alleviating some of the effects of poverty, is so important that it's a waste of time to keep looking for evidence. But I think the best response is to take the critiques seriously and allow them to inform your view on the science and the policy.

My own view is that the brain study itself slightly increased my confidence that cash transfers can help child brain development. The critiques reduced my confidence in turn, but the other effects of cash, like **lower poverty** and **potentially lower hunger**, are important enough that I still strongly support giving cash to parents. That kind of holistic analysis, I think, is healthy. Denial of evidence pointing against your viewpoint isn't.

Similarly, the research on pre-K helps me think about how Democrats should prioritize **Joe Biden's universal pre-K proposal** versus reviving the expanded child tax credit. The evidence that giving cash to parents helps them and their children seems stronger than the evidence that funding pre-K does — so if we have limited funds, the former seems like better policy (especially because the cash can be used for day care or pre-K, **potentially getting more Republican support** than just subsidizing the latter). Even without drawing an extreme conclusion like “pre-K is bad for kids in all cases,” the research helps us think through difficult policy problems.

The question of how to help young kids and their parents is really, really hard. Doing more research isn't repeating the obvious; it's a necessary and vital part of getting basic questions on how to help kids right.

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