



## Does the Timing of SNAP Benefits Affect Kids' Performance on Tests?

March 2017 podcast episode transcript

Featuring [Anna Gassman-Pines](#),

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Hosted by Dave Chancellor

Chancellor Hello and thanks for joining us for the Poverty Research and Policy Podcast from the Institute for Research on Poverty at the University of Wisconsin–Madison. I'm Dave Chancellor.

This is our March 2017 episode. We're going to hear from Anna Gassman-Pines of Duke's Sanford School of Public Policy. She'll be talking about a study she did on whether the timing of SNAP benefits might affect kids' performance on tests. Although most people listening to this podcast know something about SNAP or food stamps, I asked Professor Gassman-Pines if she could give us a quick refresher on the structure of the program.

Gassman-Pines The Supplemental Nutrition Assistance Program or SNAP, which used to be called Food Stamps is the largest nutrition assistance program in the United States, serving about 45 million people including approximately one quarter of all children in the United States. And, the way that SNAP works is that benefits are transferred to families once a month on an electronic benefits transfer card which is basically like a debit card that you can swipe at the convenience store or the grocery store. And the dollars on that electronic benefits card can only be used for the purchase of food. And so, the amount of money that goes on that card is based on your family's income and also the number of people in our household.

Chancellor Gassman-Pines says there is a connection between the timing of SNAP benefit receipt and related spending that may have nutritional consequences.

Gassman-Pines So, families get that benefit from SNAP once a month and there's substantial evidence that in households with children, the vast majority of SNAP recipients are spending all of those SNAP dollars in the first two weeks. So, nearly half of SNAP households with children have spent all of their SNAP benefits in the first two weeks after that transfer and about 27% have spent over three quarters of their total SNAP just in that first two weeks. The bulk of the research has focused on variability in nutrition and food intake as a result of this kind of bumpy spending of SNAP dollars and so for example, other researchers have found that at the end of the benefit cycle, SNAP recipients spend less money on food, actually consume fewer calories and eat less healthy food, such as fewer fruits and vegetables than they do in the beginning right after they've gotten that transfer. And, there's actually a really interesting recent study that shows that actually hospital admissions for hypoglycemia which is low blood sugar are higher at the end of the SNAP month than the beginning. So, a lot of the research has focused on how families' food intake has varied over the SNAP benefit cycle.

Chancellor Professor Gassman-Pines notes that this variation in food intake can have big consequences for kids.

Gassman-Pines Nutrition for kids is obviously extremely important as children are growing, physically, they're still growing and have really high levels of nutritional needs and we also know that nutrition and the quality of nutrition is related to kids' behavior so their ability to focus and pay attention for example, those are really critical

- Gassman-Pines, continued skills for doing well in school. And also, nutrition in children and adults is linked to cognitive performance and cognitive functioning. So, nutrition is really crucial for children's functioning.
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- Chancellor Knowing that many SNAP households with children use most of their SNAP benefit early in the month, Professor Gassman-Pines wanted to find out if the amount of time that has passed since a household receives their monthly SNAP benefit can affect performance on end-of-grade reading and math tests for kids in third to eighth grade, so about 9 to 14 years old.
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- Gassman-Pines In North Carolina, SNAP benefits are distributed throughout the month on odd days between the 3rd and 21st. So, within any given school, when children sit down to take that end of grade academic achievement test, some children are in families that just got their benefits and other children are in families that got their SNAP almost a whole month ago. So, really, what we're doing is comparing the performance of kids at different points in their SNAP benefit cycle. Well, my original hypothesis was that students' performance on these end of grade tests would be highest pretty soon after the SNAP transfer, maybe not right away, but fairly soon after — and it would be lowest at the end of the month. Surprisingly, what I found was that students' performance on these tests is actually highest in the third week following transfer. It's lowest immediately following the SNAP transfer and also pretty low at the end of the month, as you would expect.
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- Chancellor To dig into this a little further, Gassman-Pines looked at whether there might be differences by students' race, gender, and by whether the student had a young sibling at home.
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- Gassman-Pines So, we actually didn't find any differences for black and white students which was somewhat surprising because we know that even among poor households, black families have lower income, fewer assets, lower levels of wealth, so are generally less able to buffer economic instability than even poor white families. So, we actually thought we would find more racial differences and were surprised that the pattern looks quite similar for black and white students. When we compared boys and girls, we actually found stronger effects on girls than on boys. And we're not entirely sure what's driving those. It could be that girls are more involved in food preparation or shopping and so are more aware of this kind of fluctuation within the month about the availability and accessibility of food. It could be that parents are more worried about vulnerable boys and are maybe working harder to buffer their boys and kind of shield them from this variability — we don't really know. But the effects do appear to be stronger for girls. And when we looked at differences by the presence of a young sibling, what we found is no effect on kids who have a sibling under the age of two and that's really important because in SNAP recipient households where there is a young child, those households are very likely to also be receiving nutritional support from the WIC program. And so, that appears to be evidence that that additional nutritional assistance is buffering those families from this within month variability related to SNAP. For the group of students who don't have a young sibling, that's where we see the stronger pattern of findings.
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- Chancellor Gassman-Pines says that another way to look at this, instead of using the average test scores, is to look at whether children's performance on that test gets them to the point of begin considered grade level proficient in a subject.
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- Gassman-Pines And so when we looked at it that way and we ask what's the probability of a student being considered grade level proficient in reading or math, we found the same pattern so that the probability of being considered grade level proficient in reading is the highest 16 days after SNAP transfer. And it's slightly lower at the beginning of the month and it's also lower at the end of the SNAP month. Now, the effect size is not large. It's just about a 1% increase in probability of being grade level proficient in reading. And a similar size for math although not as precisely measured and so not reaching statistical significance. But if you think about what it means in terms of how teachers and administrators treat students who meet that important proficiency standard or not, for kids who are right around the cutoff whose ability is putting them right at the margin for being able to meet that proficiency standard or not, it could really make a difference — how many days have passed since their family got SNAP.
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- Chancellor Given that Gassman-Pines expected test scores to be highest soon after the transfer, I asked her what she thought

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might be behind students performing better later in the benefit cycle rather than right after the transfer.

Gassman-Pines What the mechanisms are that link the timing of SNAP benefits to these test score outcomes is really the big unanswered question. So, I have some data that I've collected myself that shows some preliminary evidence that family stress appears to be part of the puzzle, I don't think it's only mechanism that's important, but I do think that when this variability leads to family stress, we know that family stress can disrupt parent child interaction, it can lead to more negative family functioning in general which can also be linked to kids' performance on these achievement tests. So, I have some preliminary evidence showing that family stress does seem to be playing a role here. It's suggestive — it's not definitely a mechanism — but what I find when I ask parents every day for a whole month, how worried are you today about having enough to eat, about having the kind of food you want. Have you skipped a meal today? And I put those answers together.

What I find is that in the first two weeks following reports of that kind of daily worrying about food is pretty low. And then in the second half of the month, their daily worry about food increases quite rapidly so by the end of the month, parents are feeling quite worried about the availability and accessibility of food. And so, if you put those things together, it appears to be the case that for children in SNAP recipient households, their test performance is the highest when it immediately follows that two-week period of relatively low stress which is also, probably, a two-week period of having more access to food. So, it's probably not only family stress, it's probably a combination of having access to more food in the home and then also a lower stress environment that seems to be connected and leading to better performance immediately following that period of low stress and more food access.

Chancellor Gassman-Pines says that although the effect sizes of their results are fairly small, the SNAP benefit cycle happens every month. And, when you consider the cumulative effect of even only a few days a month of reduced focus or cognitive functioning, there's the potential that this could be driving some of the difference in academic achievement between low-income kids and high-income kids. So, I asked Professor Gassman-Pines what sort of policy options might be useful here.

Gassman-Pines We need to think about how to help improve SNAP. And there's no doubt that SNAP is a crucial component of the social safety net and is a very consistent income source for families that rely on it. At the same time, we see — my evidence as well as other people's research that for many SNAP recipient households, the size of the benefit is not enough and it is leading to this kind of within-month variability and important outcomes for children and families that we care about. There are a number of different policy approaches that we might consider. Taking this body of evidence as a whole, one thing to think about would be — would it help families to distribute SNAP benefits twice a month rather than once a month? So, the same total benefit amount, but spread out over two payments instead of only one each month. Another possibility is that the size of the benefit should be increased or increased for some families. So, perhaps for families with, for example, adolescents who are going through this rapid phase of growth and development. We have WIC that provides additional nutritional assistance for families with young children who are also going through a very rapid phase of growth and development, but for families with adolescents where those children are also having increased nutritional demands, we might think about also increasing the benefit. Not necessarily for every single SNAP recipient household but for some targeted groups including families with adolescents who might have increased nutritional needs.

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