

CONOMISTS STUDY RELATIONSH

Accomplished economist Dr. Belinda Archibong found new relationships in data...



from Columbia University, 2015. Photo courtesy of Dr. Archibong.

In her dissertation,** Dr. Archibong studied relationships to help her answer her BIG QUESTION.

DISSERTATION TITLE: "Essays on the Impacts of Geography and Institutions on Access to Energy and Public Infrastructure Services"



Although some economists study relationships between people, the relationships we're talking about here are different. Economists like Dr. Archibong study relationships in data—a collection of facts.



Economists look at data to better understand how different things might be connected. Like a rainy day connecting to the sale of umbrellas, economists study how one thing (or several things) happening in the world can be **related** to other things.

NIGERIA

Dr. Archibong at her doctoral graduation

In her dissertation, Dr. Archibong studied the access students in Nigeria had to public services in their schools, like water and electricity.⁴

Without public services in their schools, Dr. Archibong knew that students could be sitting in hot, dark classrooms without computers or bathrooms that worked. She wanted to learn about the relationship that lack of access to services could have to future events in the students' lives and the country.

Looking at studies done by social scientists (including other economists!), Dr. Archibong understood that they had already found many strong relationships:



are more likely to do poorly on their tests. When they leave school, students then have a harder time finding jobs. Without jobs, they're more likely to participate in violent activities and levels of violent activity go up.

After learning about these relationships, Dr. Archibong wondered:

"Could a lack of access to public services in a school have a *direct relationship* to violent activity in the area later?" Or, "Could there be a connection between schools without electricity and clean water and future violence in a community?"



**A dissertation (dis-er-tay-shun) is a long essay on a specific topic. It includes original research you conduct to find answers to questions about your topic. You write a dissertation to earn your doctoral degree, or Ph.D., and to add the "Dr." before your name, just like Dr. Archibong did.

***Violent activity includes, but is not limited to robberies, burglaries, gun violence, and gang-like activity.

To find her answer, Dr. Archibong used survey data and mathematics. This revealed a NEW relationship:



Dr. Archibong's discovery of this relationship can help leaders make BIG DECISIONS. Economists can help leaders understand how one type of change—like improving public services in schools—may also make people's lives better in other, unexpected ways—like reducing violence in communities.

1. Why do you think Dr. Archibong's study is an important one?

2. Look at page 2 to fill in the blanks below and show how Dr. Archibong reached her BIG QUESTION.







Dr. Belinda Archibong. Photograph courtesy of Dr. Archibong.

To learn more about Dr. Archibong and her work, check out her personal website here: https://sites.google.com/view/belinda-archibong.

Interested in looking for some **relationships** in data collected in your county? On the United States Census Bureau's website you can view and compare data on lots of different topics, collected from every county in the United States: https://data.census.gov/cedsci.

1. Belinda Archibong, "Harmattan Winds, Disease and Gender Gaps in Human Capital Investment: Evidence from Niger's 1986 Meningitis Epidemic." Paper presented at Think Development—Think WIDER Conference, United Nations University World Institute for Development Economics, September 15, 2018, Helsinki, Finland. Video Recording, 17:09. https://www.youtube.com/watch?v=nDhvPF3mx-M.

2. U.S. Congress Joint Economic Committee, "Vaccinations and the Economic Recovery." Remote Hearing, April 14, 2021. Video Recording, 36:26. https://www.jec.senate.gov/public/index.cfm/2021/4/hearing-vaccinations-and-the-economic-recovery.

3. National Economic Association, "Impacts of Climate Change." Moderated Discussion, September 22, 2021. Video Recording, 58:28. https://www.youtube.com/watch?v=RJqW_41FjQI.

4. Belinda Archibong, "Essays on the Impacts of Geography and Institutions on Access to Energy and Public Infrastructure Services" (Ph.D. dissertation, Columbia University, 2015), ProQuest Dissertations & Theses Global.

THANK YOU to Dr. Belinda Archibong for participating in the Economist Spotlight series!

For more information about the New York Fed's Economic Education, visit: nyfed.org/econ-ed

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