# ECONOMIST SPOTLIGHT

# Dr. Belinda Archibon

Using Economics to Help Improve People's Lives



Growing up, Belinda Archibong thought she might someday have a career in medicine. People told her to consider it because she was good at math and science and wanted to help others.

Belinda also loved reading. She enjoyed exploring different worlds in fantasy, science fiction, and comic books.\*

When she was in middle school in Ann Arbor. Michigan, Belinda observed the world and began asking questions. She wondered, "Why do I have to take two city buses to get to school?" or "Why are some of my friends dropped off in expensive cars?"

Later, as a college student, Belinda was still looking for a way to answer BIG QUESTIONS like these.

#### "What you need is

...the study of people's choices and decisions. A classmate told Belinda that she could find answers to her BIG QUESTIONS about the world by studying economics.

Belinda decided to study economics and other things, like philosophy, at Columbia University. She learned more about sustainable development — a branch of economics focused on protecting people and the environment as economies grow and change.

With economics, Belinda found that she could use her skills in math and science AND discover ways to help people. Belinda decided to become an economist!

Today, Dr. Archibong still works to improve people's lives. She teaches economics at Barnard College in New York City and researches many topics, including the impact of epidemics,1 access to resources,2 and climate change.3

#### FUN FACT!

Dr. Archibong's favorite books are The Famished Road by Ben Okri and any trilogy by N. K. Jemisin.



Dr. Archibong asks, "How do we improve well-being of people today, but also improve well-being of people in the future? This is the center of what we care about as economists."

\*Are you interested in comics, too? Check out the Federal Reserve Bank of New York's comic book series! nyfed.org/comicbooks

## ECONOMISTS STUDY RELATIONSHIPS!

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

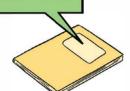


Dr. Archibong at her doctoral graduation from Columbia University, 2015. Photo courtesy of Dr. Archibong.

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.

When it's raining, how many umbrellas are sold? Would umbrellas are sold? would that number go up or down?

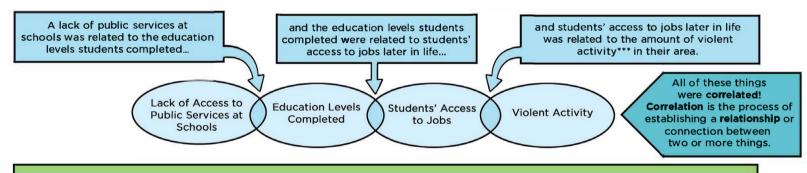
Economists look at data to better understand how different things might be connected. Like a rainy day connecting to the sale of umbrellas, economists study how one thing (or several things) happening in the world can be **related** to other things.

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

NIGERIA ... dark

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**:

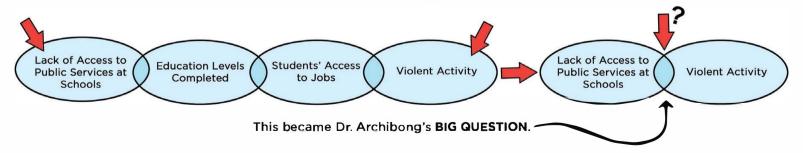


The research showed that when a school doesn't have public services, students are less likely to attend and are more likely to do poorly on their tests. When they leave school, students then have a harder time finding jobs. Without jobs, they're more likely to participate in violent activities and levels 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?"

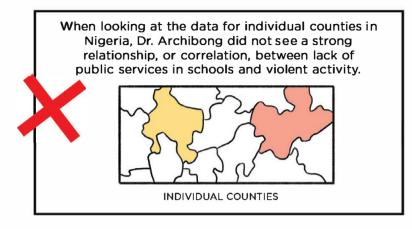
Or, "Could there be a connection between schools without electricity and clean water and future violence in a community?"



<sup>\*\*</sup>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.

<sup>\*\*\*</sup>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**:



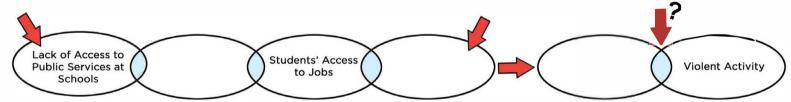
But, Dr. Archibong found that when looking at groups of counties, there was a strong relationship, or correlation, between lack of public services in schools and violent activity.

When the lack of public services at schools in a group of counties was very high, violent activity was also very high.

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.



3. What would you want to study to make people's lives better in your area?

Like an
economist,
you've thought
deeply about
relationships
in data!

What are two **BIG ISSUES** in the world that you think might be **related** to each other? How or why do you think they are connected?





Dr. Belinda Archibong, Assistant Professor of Economics, Barnard College, Columbia University. Photograph courtesy of Dr. Archibong.

To learn more about Dr. Archibong and her work, check out her Columbia Climate School staff profile here: https://people.climate.columbia.edu/users/profile/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\_41FjQl.
- 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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