

ECONOMIST SPOTLIGHT

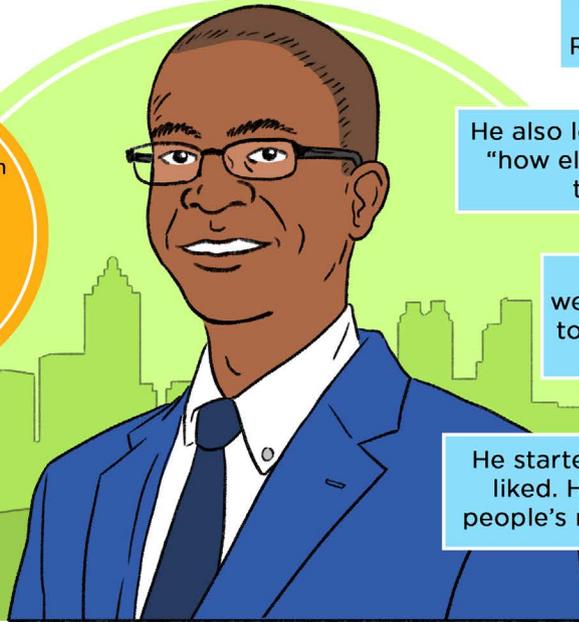
Dr. Raphael W. Bostic

Building an Economy That Works for All of Us

NAME:
Dr. Raphael William
Bostic

BORN:
New York, NY 1966

OCCUPATION:
Economist



Growing up in Delran, New Jersey, Raphael Bostic loved solving puzzles.

He also loved chemistry and studying “how elements fit together to form the world we live in.”¹

After graduating from high school, Raphael went to college at Harvard University. He wanted to be a chemical engineer, but a small explosion in the lab made him change his mind.

He started taking other types of classes to see what he liked. He was interested in psychology (the study of people’s minds and behavior) and decided to major in it.

Then, he took a class in
ECONOMICS

...the study of people’s choices and decisions.

“I got in there and I just fell in love with it.

It was interesting. It was intuitive.
It was relevant for the real world.”²

In 1987, Raphael graduated with a combined major of psychology and economics. These two subjects together helped explain so much about why and how people do what they do.³

Raphael earned his Ph.D. in economics from Stanford University in 1995.

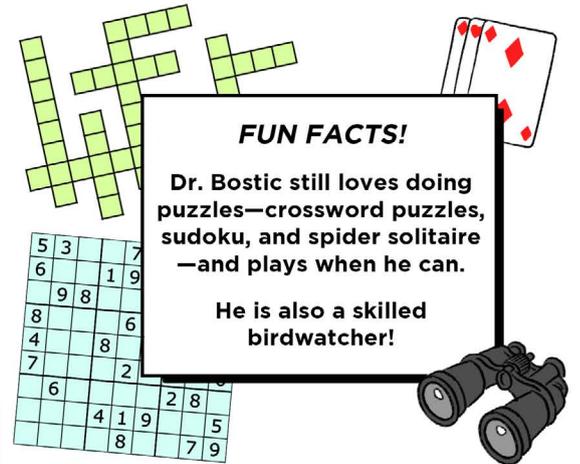
Since earning his Ph.D., Dr. Raphael Bostic has worked as an economist for the Federal Reserve* and as a university professor. He also worked on housing policy development and research for the U.S. government.

Today, Dr. Bostic is the President and CEO of the Federal Reserve Bank of Atlanta. He is the first African American and openly gay person to be president of a Federal Reserve Bank.

FUN FACTS!

Dr. Bostic still loves doing puzzles—crossword puzzles, sudoku, and spider solitaire—and plays when he can.

He is also a skilled birdwatcher!



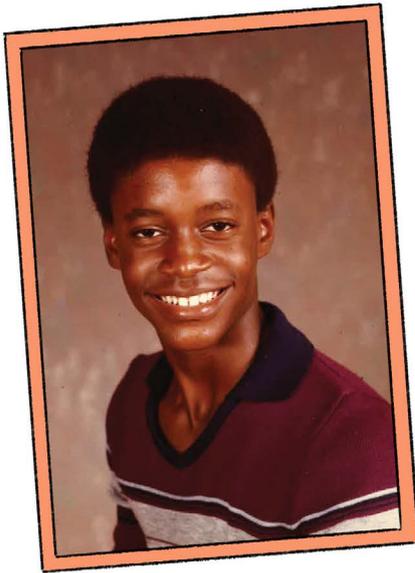
Dr. Bostic studies patterns to solve puzzles and economic problems. He says, “If you don’t really understand the pattern, then you won’t really know what to do to fix the problem.”

*What is the Federal Reserve? To find out, read “The Story of the Federal Reserve System,” a comic book available in [English](#) and [Spanish](#).



ECONOMISTS LOOK FOR PATTERNS!

Accomplished economist **Dr. Raphael Bostic** discovered uneven **patterns** in data...

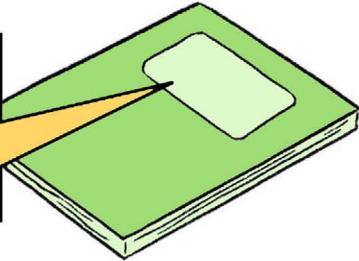


A young Raphael Bostic. Photo courtesy of the Federal Reserve Bank of Atlanta, reproduced with the permission of Delran Middle School.

In his dissertation,*
Dr. Bostic identified **patterns**
that held the **BIG ANSWERS**
he was looking for.

What's a **pattern**? A **pattern** is something that happens in a regular and repeated way. Economists, problem-solvers, and observers of all kinds (like birdwatchers!) look for **patterns** to learn about the world.

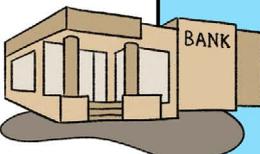
DISSERTATION TITLE:
"Essays on
Urban Growth
and Development"



Dr. Bostic's dissertation focused on how cities grow. And in the last two chapters, he studied data on home loans.

To buy a home, people often apply for a home loan. This kind of loan allows people to borrow a large amount of money from a bank, buy a home, and then pay the borrowed money back slowly over time, with interest.

Lenders, or those loaning money from a bank, must decide who will receive loans. To make their decisions, lenders often ask the people who want to borrow money questions, like:

 Do you have a steady source of income? How much money do you have saved in the bank? What's your credit history—have you paid your bills? Have you paid back the loans you've gotten in the past? 

The answers to these questions can tell lenders a lot about how likely a person is to pay back their loan.

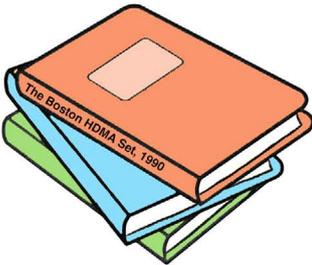
But what if lenders used other information, like the color of someone's skin, to decide whether or not to lend them money?

The research Dr. Bostic studied for his dissertation said that lenders were influenced by the borrowers' skin color when making decisions about home loans. But Dr. Bostic thought the research didn't show enough evidence.⁴

Dr. Bostic wondered:
When asking banks for **home loans**, are people being **treated differently** based on the **color of their skin**?
If people *are* being **treated differently**, where in the loan process is this **discrimination** happening?

To find the answer to his **BIG QUESTIONS**, he studied the data.

Using mathematical tools, Dr. Bostic created an equation to help him find hidden **patterns** within it.



*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. Bostic did.

Dr. Bostic's equation revealed **NEW** patterns in the data:

The **patterns** showed that discrimination, or unfair treatment, was happening in home loan lending, and helped Dr. Bostic identify exactly *who* was being treated unfairly.

ONE pattern showed that lenders treated all home loan borrowers with strong credit histories, or lots of money, the same way.

ANOTHER pattern showed that lenders treated home loan borrowers with weaker credit histories, or less money, differently depending on their skin color. In these cases, lenders were more likely to decide *not* to lend money to Black people and people of color than white people.

With knowledge of the **patterns** of discrimination, Dr. Bostic explains, we can work to build a fairer system and create a stronger economy for everyone.⁵

Dr. Bostic continues to use **patterns** to study data as the President of the Federal Reserve Bank of Atlanta. He directs research, influences housing policy, and helps make sure that banks offering home loans "operate in safe and sound ways...and are not discriminating against people."⁶

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

2. Circle the drawing (A, B, or C) that best completes the **pattern** below.

Five boxes containing a sequence of circles: a large green circle and a small blue circle, a small green circle and a large blue circle, a large green circle and a small blue circle, a small green circle and a large blue circle, and a question mark. To the right are three options: A. a large green circle and a large blue circle; B. a large green circle and a small blue circle; C. a small green circle and a small blue circle.

3. Where do you see or use **patterns** in your daily life? Write (or draw!) your answers below.



What is a **BIG PROBLEM** that you think studying **patterns** could help solve? How?

A series of yellow dots forming a grid for writing the answer.

Dr. Bostic's advice for students: "Listen to your passion...and don't take...the first 'no' or the second 'no' or the third 'no' for an answer."⁷



Dr. Raphael Bostic, President of the Federal Reserve Bank of Atlanta.
Photograph courtesy of the Federal Reserve Bank of Atlanta.

To learn more about Dr. Bostic's work at the Atlanta Fed, visit <https://www.atlantafed.org/>

Want to learn more about home lending patterns with Dr. Bostic? Read his article "A Test of Cultural Affinity in Home Mortgage Lending," [here](#).

And, if you want to take a look at some housing data, the U.S. Department of Housing and Urban Development's [website](#) is a great place to start.

1. Raphael Bostic, notes from interview by Dr. Mary Suiter, Federal Reserve Bank of St. Louis, 2021.
2. Raphael Bostic, "Exploring Careers in Economics: The Making of an Economist." Interview by Julie Kornegay and Amy Hennessy. Maximum Employment Matters webinar, Federal Reserve Bank of Atlanta, September 28, 2017. Video recording, 1:58.
3. Bostic, Suiter interview notes, 2021.
4. Raphael Bostic, "Essays on Urban Growth and Development" (Ph.D. dissertation, Stanford University, 1995), ProQuest Dissertations & Theses Global.
5. Raphael Bostic, "Using Finance to Create Racial Equity: A Call for Change." Interview by Dr. Markus Brunnermeier. Conference on Racial Justice and Finance, Federal Reserve Bank of Atlanta and Princeton University's Bendheim Center for Finance, September 18, 2020. Video Recording, 23:05.
6. Richard Levick and Dr. George T. French Jr., "The View from the Federal Reserve with Dr. Raphael Bostic." The Innovators: A Clark Atlanta University Podcast. Podcast audio, March 25, 2021, 2:08.
7. Raphael Bostic, "[How Diverse Perspectives Improve Economics](#)." Interview by Dr. Mary Suiter. Race in Economics series, Federal Reserve Education, November 18, 2020. Video recording, 20:00.

THANK YOU to Dr. Raphael Bostic 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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