

**Transcript of Teacher Town Hall
February 6, 2019**

PRINCETON WILLIAMS. Thank you for joining us here in Washington, D.C. this evening for a conversation with Federal Reserve Chairman Jerome H. Powell as he takes questions from teachers about the Federal Reserve and the economy.

My name is Princeton Williams. I am the senior outreach program manager in Public Affairs at the Federal Reserve Bank of Atlanta, and the outgoing chair of the System's Economic Education Group. I look forward to moderating tonight's session along with Ms. Beulah Willis-Brown, a local teacher of economics and personal finance at T.C. Williams High School in Alexandria, Virginia. We share a passion about the role of educators in the lives of their students.

BEULAH WILLIS-BROWN. Thank you, Princeton. Here in the boardroom of the Federal Reserve we are pleased to host 60 educators who teach economics and history to young adults. We are also joined by a live stream by educators from all over the country who are participating in local event at their regional reserve bank and branch offices. And we also have many who are viewing this exchange by webcast.

PRINCETON WILLIAMS. Prior to his appointment to the Board, Mr. Powell was a visiting scholar at the Bipartisan Policy Center in Washington, D.C. where he focused on federal and state fiscal issues. From 1997 through 2005, Mr. Powell was a partner at the Carlyle Group. He served as an assistant secretary and as undersecretary of the treasury under President George H. W. Bush. Prior to joining the administration, he worked as a lawyer and an investment banker in New York City. He also serves on the boards of charitable and educational institutions. He received an AB in politics from Princeton University in 1975, and earned a law degree from Georgetown University in 1979. While at Georgetown, he was editor in chief of the Georgetown Law Journal. Thank you for joining us today, Chairman Powell.

[Applause]

CHAIRMAN POWELL. Thank you, Princeton, and thank you, Beulah. And thanks to all of you for being here in the Board of Governors. I have some remarks, and then I look forward to sitting down

and we can talk about questions. So, again, thanks to be here, and thanks to those of you who are joining us online. So I will talk, but I promise to be brief since this is, in fact, a school night.

So I'm here today, and the Fed has organized this event because of the importance of economics' education. Some of your students may go on to become professional economists, but all of them, I hope, will apply the valuable lessons and skills that they've gained from economics in other careers and other aspects of their lives.

Studying economics can benefit students in multiple ways. The lessons of economics are valuable in a wide variety of vocations. Moreover, the knowledge gained will empower students as consumers, managers of their own finances and as informed citizens. Economics has consistently been useful to me or my career in law, finance and in government service. It is, of course, central to my current role as a monetary policy maker and financial regulator here at Board of Governors.

In government, economic analysis is one of the principal tools we use in making policy decisions. Among other things, economics is an essential facet of the science of public policy. What policies actually work? Which ones sound good, but don't work or are actually counterproductive? Economics gives us the tools to answer those questions, and to help us make the best decisions on behalf of the public. Of course, economics is not only the basis for judgments and decisions made by the Fed and other government agencies. It also underpins the countless decisions by consumers, businesses and investors to drive economic activity. The concepts that you teach and apply in the classroom guide those decisions, and even help explain human behavior outside of the workings of the economy. For example, to continue to grow and succeed, any business owner should understand the difference between fixed and variable cost, between average cost and marginal cost. Businesses and investors need to understand present or discounted value, and so does any parent or grandparent starting a college fund. Economics teaches us about the power of incentives, which are central to thinking about and understanding regulatory and tax policy. But incentives also motivate people in a variety of other settings, such as encouraging students to do their best in school, helping to reduce traffic jams, or even nudging someone to save more or to

exercise regularly. Economics is a practical and powerful tool for understanding how we relate to each other.

And that's why what you do for your students is so important. Like all teachers, you are helping prepare them for success in life. The knowledge you impart, and the intellect and talents you help develop, are tools that your students can use to achieve that success. Economics teaches analytical and critical thinking skills useful to anyone. Part of your students' success is their economic success as capable, creative and productive members of the workforce, and as consumers adept at managing their finances.

Your students benefit from this education, and so does everyone else in society. We all benefit when better-educated citizens support economic policies that help our nation prosper. We all benefit from the capability, the creativity and the productivity of our workforce, because nothing is more important to a healthy and growing economy. Responsible consumers skilled in managing their finances are better prepared to weather bad times, and stronger household finances overall can help sustain economic growth and mitigate a downturn.

Stabilizing growth and mitigating a downturn, of course, are aspects of the Federal Reserve's mission. Monetary policy can be a powerful tool to achieve these ends. But in truth, its powers are dwarfed by larger forces, such as the productivity of the American people and the strength of their finances. By educating students and supporting their future contributions to the economy as workers and consumers, all teachers, especially economics' teachers, are furthering our goals at the Fed. So let me offer my further thanks for making our job easier.

To help support your work as teachers, the Federal Reserve Board and the 12 reserve banks conduct programs, organize events and publish books to spread knowledge of economics, financial literacy and the role of the Fed in promoting a healthy economy and financial system. You can find some of those resources at our websites, federalreserve.gov and federalreserveeducation.org.

Each of the reserve banks has community outreach and educational initiatives. And the outreach to economics' teachers is coordinated by the System Economic Education Group chaired by Princeton Williams.

At the Board of Governors, for some years, we have operated a program called FedEd, which sends Board employees into high schools throughout the Washington D.C. area. This outreach depends on a few dozen volunteers from our staff who are, typically, recent college grads, who help teach about the Fed, economics and finance, and answer questions about work opportunities here at the Board. The Federal Reserve is dedicated to promoting diversity in our ranks and in the economics' profession. And FedEd and other programs here at the Federal Reserve and in the system have helped advance that goal by reaching many schools with significant numbers of minority students.

So I'll leave it right there. And thank you, again. And very much look forward to our conversation. Thank you.

[APPLAUSE]

PRINCETON WILLIAMS. I'm going to start the conversation this evening with a question from Shanita here in the boardroom.

SHANITA GLASPIE. Good evening. My name is Shanita Glaspie, and I teach at Surry County High School. And I want to first thank you for inviting us to this town hall meeting. My question is, can you describe your role at the Federal Reserve?

CHAIRMAN POWELL. Sure. Thank you. Let me say, first, I feel like I'm back in the third grade here with not just one teacher, but hundreds here. I'm really on the spot.

So let me -- maybe I'll just start with talking a little bit about the Fed. So this is the Board of Governors here in Washington. And the members of the Board of Governors are nominated by the president and confirmed by the Senate. We serve long terms, which are not co-extensive with election cycles. We also have the 12 reserve banks around the country, and they have their own independent economic staffs, and they have their own presidents, who are chosen by some of the directors with

oversight by the Board. And the idea is that we have institutionalized diversity of perspectives around this table. It's a very positive thing that we're always going to have different perspectives.

And that's what the American people wanted in a central bank. There were two failed attempts at a central bank, the first and second central banks of the United States, as you probably know as economics' teachers. And they failed, really, because they didn't have that feature that it was really just one central bank, you know, actually in Philadelphia, but in an eastern city. And I think that people were more comfortable with the sharing of economic power around the country.

So let me get to your question. So we do a couple of things here. We conduct monetary policy to achieve maximum employment and stable prices. We move interest rates around. We also supervise and regulate financial institutions. And we do that in a professional strictly non-political way for the benefit of all Americans.

Here at the Board of Governors, there are seven offices on this hall. They are actually five governors right now. And we split up the work of the Board of Governors into a series of committees. And before I became chair, I chaired all of those committees at one time or another but one. So those have things like oversight over reserve bank operations, oversight over the payment system and policy for the payment system, oversight over the Board and its supervision and regulation. So that's what I did as a governor. It was be on those committees with other governors, and sort of conduct the work under the supervision of Janet Yellen, and before her, Ben Bernanke.

So now I find, one year into my job, it's a very different job. So I do have, of course, now oversight over all those other committees, but I find myself as chair focusing on a few particular things that I'll name. First, is public communications and public relations. So public speeches, events like this are very important. Public communications is a critical aspect of this job. In addition, I do a great deal of outreach to Congress. I was up there today. I'll be up there tomorrow. I'll be up there Friday. And part of it is that in our system of government, we have precious independence from political concerns. As I mentioned, we do things on a non-political basis. We serve long terms. And we're directed to carry out our work in a non-political way. So the other side of that has to be, in a democracy, accountability to the

public. And our accountability to the public runs through Congress. So we have twice annual hearings that I testify in in the Senate and the House. So that's a big part of what I do. I also have relationships with the senior -- by long tradition, with the senior economic officials in the administration.

I'll talk about the two policy areas quickly. So I oversee that -- I chair the Federal Open Market Committee, which sits around this table, and sets interest rate policy in our eight-times-a-year meetings. This is very important work. Monetary policy affects the economy strongly over time, and it's important to all Americans. And we try to explain it in a way that any interested person can understand. It's very important that we do that. That's our obligation to the public. And we also do financial regulation, and supervision of large financial institutions, and small ones, too. And we do that -- that work is carried on up and down this hall.

If I could say one overarching thing that is really my job, and all of our jobs here, it is to try to earn and deserve the trust of the American people for our institution, that we're here working on their behalf in a non-political way to support the economy, and use our tools to achieve maximum employment and stable prices. That's really the essence of this job. And that involves transparency, it involves doing our job as best we can, explaining ourselves clearly.

It's a world where surveys show that all over the world people are losing faith in large institutions. So were paddling against the current in trying to sustain public faith in the Fed. And we paddle hard at that every day. So there's my answer to your first question.

BEULAH WILLIS-BROWN. And now we have an online question from Frances Seery at Cordova High School. And Frances asks, given that actions by the Fed affect various parts of the economy, do you prioritize where you focus your actions?

CHAIRMAN POWELL. So our -- when we do -- monetary policy, of course, affects the whole economy. And it doesn't target one industry or other industry. If that's the question. So we -- interest -- when we change interest rates, they change for everyone. We change the federal funds rate and other short-term interest rates in the economy move. Other long-term interest rates in the economy move, and that has an effect over time. We don't target particular segments of the economy. We don't have that tool.

We have a -- monetary policy is a blunt, but powerful instrument. So we don't actually have the ability or the job of saying let's help this industry or that industry. That's really not our job.

I'll say this, one of the things -- we have a very specific mission from Congress, as I mentioned. And we have this brand of independence, which is rare, appropriately rare in democracy. You know, important decisions should, generally, be made by people who are elected, who people vote -- we're not elected. Congress is chosen to delegate to us this power to make decisions about stable prices and maximum employment. And other advanced economies, other democracies have made exactly the same choice. We think it's a wise choice. But that -- that -- it's not -- we're not -- we're not supposed to -- we shouldn't wander into other areas. And I think targeting particular industries to help and things like that would be something that we really -- we don't do and we shouldn't do.

PRINCETON WILLIAMS. Very good. Now we'll take a question from the Phoenix branch.

KATHLEEN SZCZEPANIAK. Hello. My name is Kathleen Szczepaniak, and I'm a teacher at Deer Valley High School and Deer Valley Academy Charter School. And I would like to know, what do you personally think is most important for teachers to teach their students about the Fed?

CHAIRMAN POWELL. Interesting question. So I guess the first thing I would -- if I could send a note to my teenage self about the Fed, it would start with something like this. First, the idea of public service -- I spent most of my life in the private sector, but I've been lucky enough to do public service. And I would just say public service has enormous rewards. It's very interesting and challenging work, and it's tremendously rewarding. The sense of mission that we have here at the Fed is -- doing our jobs in a non-political way for the benefit of all Americans is -- it's a great thing.

So public service in general, I think, if people could -- if high school kids can see that as -- see the value and worth in that. It's not for everybody. One feature of the American system is that people go back and forth. In many countries, you're either in public service your whole life or you're not. In the United States, people like me have been in and out. And I think it's a benefit to be able to experience the private sector, too.

A second thing about the Fed, is just what we do. You know, that I would want to say, again, that we -- you know, we serve the American public, all Americans, and we do it in a non-political way, and we try to do it as professionally as we can without considering partisan or political differences.

The third thing I would say it's just that, you know, again, speaking to my high school self, was this stuff is really interesting. It's extremely interesting. And once you get into it -- and you will see this with your students, some of them get interested in it, and it actually is quite compelling and important. You know, it's economics -- you pick up economic skills, and you can apply them. It's not just the knowledge, it's the skills that you get, the analytical skills. And you can use those to, you know, throughout your life in trying to evaluate things, like the difference between things that sound good and things that work. I mean, economics is the science that allows you to assess those things. Those are some of the things I would want to teach about the Fed, but I could go on on that though.

PRINCETON WILLIAMS. Okay. Now we'll take a question from in the room from Janice.

JANICE CARTER. Real short. Hello, Mr. Chairman. How are you?

CHAIRMAN POWELL. Hi, Janice.

JANICE CARTER. My name is -- hello. My name is Janice Carter. I teach at Hermitage High School in Henrico County, Virginia. And my question to you is, how do you determine when interest rates need to be raised?

CHAIRMAN POWELL. Good question. There are all good questions. Let me talk a little bit about the FOMC, the Federal Open Market Committee process. All 12 reserve bank presidents, and all of the governors, of which there now five, and can be as many as seven, are participants in the FOMC, and come to all eight FOMC meetings that we have around this table every year. So there's 17 FOMC participants.

And we just had an FOMC meeting a week or so ago. We'll have another one in March. And the preparations for the one in March all are already ongoing. We know the things we're going to be looking at doing. The staff is working on analysis and memos. We're all tracking the path of the economy really carefully. In a few weeks, we'll be sending out documents to all FOMC participants and staff at all 12

reserve banks. And here, individual governors and staff will start working on that meeting. And then we'll do -- I talk to every participant before every meeting. So a great deal of work goes into thinking through. And a lot of it happens before the meeting. You know, there are conversations and memos back and forth.

So what do we think about with interest rates? You know, we consider -- our mandate is maximum employment and stable prices. So in the labor market, we look at, I mean, just countless indications of the health of the labor market. It's the unemployment rate. It is the employment rate. It is the participation rate. Really importantly in the United States, participation just means what percent of working age adults are actually either employed or looking actively for a job. This is a very important statistic, and it's one that the United States used to lead in, and now lags in. We lag almost to all other, you know, advanced democracy, well-off countries in labor force participation. So this is a really serious concern. Anyway, we look at that.

We look at wages, different measures of wages, benefits, compensation. We look at surveys that say is this a good time to find a job, and we track that for many years. So right now surveys are saying this is a good time to find a job if you're a worker. And the surveys, if you're a business, it says this is -- that labor is hard to find. So you've got scarcity on the part of businesses, and you've got, you know, a good time to find a job on the part of people. That's why wages are going up. And this is a sign of a very healthy labor market.

On the second part of the, so the labor market, we look at that. The second part is price stability or inflation. And, you know, we look at all kinds of different assessments and projections of inflation, and how to think about inflation. It's a surprisingly deep and tricky set of questions. So we do all of that.

And then we come here. And starting on a Tuesday morning, we'll have a presentation from staff, and go around this table, and then everyone sort of says what they think about the economy. We probably have a special topic. And then everybody says what they think about monetary policy, what we should do with rates. So all of those things go into a decision about whether to -- what is, ultimately, a decision to leave the interest rate the same, raise it or lower it. You know, it's really just those three choices. It sounds kind of simple if you put it that way. But a lot of work and a lot of care goes into it.

And then comes communicating it. You know, we communicate what we decide and why. We also communicate about the future, about what -- about how we're thinking about the future. Really, you know, policy is -- it's future oriented. You're really -- you are looking at how economic developments and rate changes affect the outlook for the economy, really. It's not the review mirror, it's the windshield. So a ton of work and debate and discussion.

And then the last stages, afterward we all go out, and all participants, generally, not every single cycle, but we'll go out and explain ourselves to the public and to Congress and to the media. And all of that is meant to get the public to understand what we did and why we did it. And that's the whole -- that's kind of the whole story. So it's -- you know, that's the modern practice.

The older practice was to be very mysterious, not so long ago. You know, 40 or 30 years ago, central banks didn't want to be transparent. And then there was a bunch of research, 20 plus years ago that said actually monetary policy will work better if the public understands what you're doing and why you're doing it. Because then an event happens which is likely to cause the Fed to, let's say, cut rates, rates will go down because the public understands what the Fed would do. So we try to be as transparent as we can. Thank you.

BEULAH WILLIS-BROWN. And now we have a question from fellow T.C. Williams High School teacher, Andrew Orzel. And Andrew asks, we continue to see significant disparities in the number of underrepresented minorities who pursue degrees and careers in the field of economics. Is the Federal Reserve Board taking any steps to increase diversity within the Federal Reserve System and the field of economics?

CHAIRMAN POWELL. The answer to that is very much yes. So we have a real commitment, a very strong commitment here to diversity. And not least because I believe, and we all believe here, that diversity leads to better outcomes. When you have diverse perspectives around the table, you're going to hear -- you're going to come to a better answer. So to do that, you have to have a culture that values and promotes diverse perspectives, where it's safe to speak, where diverse perspectives are welcome or encouraged or not punished. And we try to do that.

We also -- we work very hard in attracting, recruiting diverse talent. And then, once we have people here, to invest in them, to give them opportunities, to give them feedback, to help them grow, to help them advance in their careers. We do all of those things. And I've seen -- you know, I worked in a variety of walks of life, and I've really seen, in large business organizations and government organizations over the past 25 years, this has become a high-priority objective for, basically, all well-managed organizations. And it's because you do get -- you get better people if you recruit this way, if you run -- and it's also just the right thing to do. It's the right thing to do for the country. We are a public institution. We should reflect the full diversity of the American people. That's an ideal. We're not there yet, but I think we're -- we've clearly made progress. And it's a highest-level commitment for me personally and for us at the Fed. So.

PRINCETON WILLIAMS. Very good. Now we have a question that was submitted by a teacher at the Denver branch of the Kansas City Federal Reserve, but, unfortunately, Denver is snowed in. So they had to cancel their in-person event. So I'm going to read a question from Jennifer Steele. She's a teacher in Jefferson County Public Schools in Golden, Colorado. Recognizing that precise language is vital for clear communication, how does the Fed determine the words you use to ensure your messages are interpreted as intended, especially due to the fact that communications from the Fed can both positively and negatively influence both domestic and global markets?

CHAIRMAN POWELL. It's an interesting world. So we release, after each FOMC meeting, a statement, which is now three paragraphs long. And every word in that statement, and the punctuation, are the subject of extensive discussion. And the reason for that is that there's a history here. And so people who read these things carefully, largely people in the finance industry, will read them very carefully. And they will know that when we use that term or that phrase in that order in that setting, it meant something before. So we know all of that. And so we try to massage that very carefully. That's a particular form of specialized communication that we have to do well. You know, our interest rates work through affecting financial conditions. And so it's important that we be clear, and communicate clearly to financial markets

through this particular channel. And, again, that's a pretty specialized audience, and it's something that we spend a lot of time trying to get right.

More broadly, though, you know, as I mentioned, the Federal Reserve policy affects everyone. And we need to work hard, and we do work hard, at trying to communicate in a way that doesn't lapse into economic jargon, and so it can be understood by the interested public, by anyone who's interested. And it can be done. The English language is more than adequate to provide us ways to explain what we're doing and why we're doing it in a way that someone who's interested can understand.

And I work hard -- in my speeches, I try to deal with the most challenging and most important economic issues without using jargon, and in a way that can be understood, again, by the interested public, and without dumbing anything down. You can do that. The English language is not complex, and you don't have to leave things out. You just have to say it in a way that it's more accessible. And I just think that's very important. That's not so important to the financial audience, but the general audience, the public whom we serve, it's very important, and, frankly, to the people who oversee us in Congress. You know, they need to -- it's up to us to present ourselves in a way that's accessible to the people who have oversight responsibility over us. And so we work really hard at that. And, you know, you're never going to see perfection. It's complicated, the things we're doing are complicated, but it's very, very important that we do that so. We work hard at it.

BEULAH WILLIS-BROWN. Okay. We have another online question from Shane Foster at Goshen High School. And Shane asks, what precautions are in place to keep another financial crisis from happening?

CHAIRMAN POWELL. So when the financial crisis happened, we, and other agencies and the general public and experts all around the United States and around the world, looked at what happened, and said okay, what broke -- one way to think about the financial crisis was there was an event, there was a shock to the system. And the system wasn't strong enough to stand up to that shock. So this was the losses on subprime mortgages, and the sudden realization that there were these big, big losses coming, and that a lot of mortgages and loans had been made that shouldn't have been made, with no standards

and no documentation. You know, why wasn't -- okay, that should -- there were going to be some losses, but the whole financial system should've been robust enough to take that kind of a shock, and it wasn't.

So things broke along the way. And we and other agencies of the government and Congress, on behalf of the American people, had to step in in a kind of emergency way and put things back and hold things together. That was a successful effort. But it was a real challenge. So what did we do?

We went back. And we thought okay, these are the things we've done. We spent ten years addressing what went wrong, and what could go wrong. So much more highly capitalized banks, banks that -- particularly, the big ones, have much more loss-absorbing capacity. So if there are losses now, they'll still have plenty of capital to be able to keep doing their business. They'll have enough capital so that people won't, shouldn't, you know, challenge or come to be concerned about their ability to resolve it. That's effectively what the stress test do.

The same thing with liquidity. It's one thing to have capital, it's another thing to have liquid assets to make payments when and as due, the same thing. The banks have so much more liquidity. I mentioned stress testing. Now they're not -- it's not just a static measure of capital liquidity. We actually throw a new and different stress scenario at the larger banks every year. We just released a -- I guess, yesterday or even this morning, released this year's scenario. And so they have to then react to it. They've got to run it through their P&L, profit and loss statement. And so we do that. And I think we've made a great deal of progress.

There are also -- there were other aspects. There were things like -- very inside things like the repo market, the tri-party repo market and the money market funds, which also broke and they became dysfunctional during the crisis. So we've gone back and we fixed those. We've done lots and lots of things, so many more things I could talk about. So that's the real answer to that question is we spent ten years doing this.

Now, the issue, of course, is that life is unlikely to throw the exact same pitch the next time. So, you know, we need to -- we need to continue to be flexible, and kind of imagine what the next thing could be, a cyberattack or something else like that. So, you know, I think we're very attune to testing the

resilience and, you know, the strength of the financial system to different kinds of shocks. You know, you don't have perfect foresight for these things, but we're very focused on this. And we're focused on not backsliding, you know, at all in terms of the things we require these institutions to do, and, you know, the progress that we've made.

So, you know, we've have had some -- you know, we've had some sell-offs in the markets and things like that, some surprises, some big event surprises like Brexit. And so far, you know, the system has held very strong. So I feel like we've done a lot of work there, but, you know, no one is ever going to say that -- no one 's ever going to say mission accomplished on that. We're going to keep focused, and keep alert to the way things change, because they will change.

PRINCETON WILLIAMS. Very good, good. Now we're going to turn to the Charlotte branch of the Richmond Fed for a question from Donna Jones. Are we [inaudible]. Donna, we see you.

[Inaudible Speaker]

[Laughter]

There we go. Donna, on your behalf, I'm going to speak for you while you're speaking there in Charlotte. She'd like to ask, what are your major concerns regarding the U.S. economics for the next ten years?

CHAIRMAN POWELL. All right. So let me just say, the U.S. economy is now in a good place at the moment. Unemployment is low, prices are near 2 percent inflation. So we're in a good place now. So this is about, really, one of the things to think about over the next ten years.

And one really important thing that I think about, which is not really the Fed's job, is just if you think about what is economic growth, how fast can the economy grow, and what are the things that we can do as a country, what are the policies we can adopt, and what are the challenges in getting as much growth as we can, because, you know, for a long time, generation upon generation, there were really significant increases in per capita income, really significant. So if you go back to -- you know, John D. Rockefeller, he was the richest, you know, person in the history of the country. You know, in terms of his life expectancy and the medical care that he got and all that kind of thing, he would have -- almost any American would have had a better situation in that. So we do, in fact, make progress over time. However,

in the last, you know, 40 years or so, the rate of increase in per capita income for people in the middle and the bottom end of the income specter has really decreased.

So I would say a couple things. First of all, growth, we should be focusing on those things that increase the level of growth, the amount of growth. And that really boils down to keeping people in the labor force working, which makes the labor force grow, and makes their lives better. And part of that -- it all comes -- part of that comes down the educational system. You know, training people for the needs of the workplace of the future. So part of its labor force participation. We need policies that encourage labor force participation, and that train Americans to be productive members of the labor force in a world where technology matters more and more.

The other part of it is just productivity. You know, over time per capita incomes can only go up to the extent output-per-hour work goes up. And that means productivity. That's a function of technology. And it's very hard to predict. But, you know, countries can do what they can to maximize productivity over time by encouraging investment, by training workers -- and, again, training workers. So productivity and labor force participation should help us to grow.

I would also say that we need -- we have some work to do to make sure that prosperity that we do achieve is widely spread. And also that -- so we have from -- what's happened is, as I mentioned, median and lower levels of income have grown, but much more slowly. And growth at the top has been very strong. So we want prosperity to be widely shared. And it comes down to we need policies where that will -- to make that happen. Again, education. Education always comes up.

The final piece of this, though, is also mobility. You know, we pride ourselves on being a country where you can go from the bottom to the top. And there are plenty of examples of that that have been happening. But if you actually look at the numbers, and look at what are the chances that someone can go from the bottom quintile to the top quintile, the U.S. lags now in mobility. And that's not our self-image as a country, nor is it where we want to be. So I think that there are there are policies we need to be working on. This isn't really the Fed's work, but the policies that we need to do, that everyone should be able to agree on, that will enhance mobility, improve people's chances in life, and enable people better to

take part in the workforce of the future where, you know, technology is going to be a bigger and better factor. And that's going to require, you know, advanced skills in technology.

PRINCETON WILLIAMS. All right. We'll turn to it an in-room -- a question here in the boardroom from Laura from Hermitage High School.

LAURA GRAHAM. Good evening. I'm from Hermitage High School in Henrico, Virginia. And I would like to ask you, if you could offer advice to all of today's teenagers, what would you tell them?

CHAIRMAN POWELL. Ah, interesting. So I guess I would say, having raised some teenagers myself, and -- you know, a couple of things. I'll say it again that I think economics is really interesting. And it's great. Economics was not taught in high schools when I was in high school. Not at all. And it is now. And that's a great thing. My kids took some economics in high school and they took some in college. I tried to get my kids to major in economics. None of the three majored in it. That's okay, though.

So I guess I would say, though, more broadly that -- you know, a couple of things. One, you have to be -- kids have to decide -- you're the only -- you're the -- the only -- you're the only person that can decide what standards you want to hold yourself to. So hold yourself to a high standard. That's up to you. No one else can do that. You know, it's not about teachers making you do stuff, it's not about your parents making you do stuff. Pretty soon you're going to be on your own. And you've got to decide what you want to make of it yourself. That's one thing.

Another is to believe in yourself. And, you know, so many people, and I was, certainly, one of them, you just -- you know, you have all these doubts about whether you're supposed to be the one to do well and succeed and all that. And, you know, you just have to believe that you have gifts, and believe that they're real, and that you can achieve things, and that you matter and you're going to amount to something.

And the last piece of that, I would say, too, is think big. You know, it's just such a simple thing, but, I mean, think big in a sense of things really are possible. I'll give you an example. So I went to a high school out in Rockville, Maryland, and in the summer of 1966, I guess I was 13 years old, a teacher taught us BASIC and FORTRAN, how to program. There cannot have been 25 kids my age in the country

at that point who knew BASIC and FORTRAN and were programming. I mean, Bill Gates hadn't found this yet. Right? So I thought -- you know, and -- you know, if it had just occurred to me, you know, this is really cool. There's a lot that can happen here with this. You know, I was right there. And I never touched it again. I never programmed a computer again after that.

So I think there are things are happening all the time around you that hold enormous possibilities. And you just have to just be open to the possibility that really no one else sees. And, anyway, you'll always look back in life, I think, and see those moments where, wow, I should have followed up on that. That turned into something great.

BEULAH WILLIS-BROWN. Mr. Chairman, we have another question. Although I mentioned this a little earlier in the event, how did you get into public service, and what would you say to students looking at public service careers?

CHAIRMAN POWELL. Okay. So I grew up here in Washington, D.C. And so there were -- you know, public service was happening all around. And, you know, kids in my grade school, there were kids whose parents were Congress people and things like that, so I always thought it was really something to do. And then when I was -- when I was in college, my dad was up for -- my dad was a lawyer in Washington, and he was up for a job in administration. And he couldn't take it because he had six children in private schools. And I was so -- I so wanted him to take this job. He couldn't do it. So just financially, you know, six children all of whom went all the way through private school and grad school. So, I mean, on a lawyer's salary it was -- there was no room for him to do this. So I really -- that really convinced me.

When I graduated from college, I had no plan, but I wanted to do -- I want to have a private sector career, and go in and out of government. And amazingly enough, that's what happened. And I would just say what I said earlier, which is, you know, public service is so rewarding. It's, you know -- there's a sense of mission in really good private sector companies, too. There's an amazing sense of mission in working in the public sector. And I would say, certainly, in working at the Fed. We do surveys of people here. And the sense of mission and the value that people get from feeling like they serve that mission is amazing. It's

great. We do it in a non-political way. We don't talk about politics. We don't bring our politics here. We just do the best we can for the public.

It's enormously rewarding. And, you know, I hope people will see it as part of their career, or their whole career. You need people to do both those things. So in my life, it just -- it was something I really wanted to do in my 20s. And amazingly enough, it just happened. I mean, it didn't just happen, but it was something I wanted to do that most of my peers in the places that I was working didn't have any interest in. And, you know, it's a great thing to do with your life if it can be a part of your life.

PRINCETON WILLIAMS. Now we'll turn to a question from the Cincinnati branch of the Cleveland Fed.

BRAD SMITH. First, I wanted to just say thank you, Chairman Powell, for taking your time to answer the questions tonight. And my name is Brad Smith. I teach for Cincinnati Public Schools. And my question to you is, if a student is interested in a career in the Fed, what would you advise them to do now in high school to help them achieve that goal?

CHAIRMAN POWELL. You know, so a couple of basic things. I would say, you know, study economics, give economics a try in high school. And then take -- you know, take macro and micro when you get to college. And see whether you really like it. This is just the economic side of the Fed. So if you really like it, you'll know whether it's really for you. And if it's for you, then this is a great place to work. We hire a great number of -- I think we're the biggest hirer in the United States anyway, the system is, of econ Ph.D.'s every year. So I think we're a great place to work. We mix the ability to do research with also the ability to do policy -- work on policy that's very important to the public. So those are things that we do.

I think also we have -- I mean, most people who work here are not economists. So we also do financial regulation. And, you know, that's another thing. If you're going to do financial regulation here, you might do that with a law degree or not. You can just come here. You can study public policy, generally, in high school and college and do that. You know, also -- you know, you can try to get a summer job at one of the reserve banks depending -- or at the Board here, depending on what you want to

do. We don't hire a lot of -- I'm not sure we hire any high school students, but we hire college students. You know, we're always looking for the next generation of talent. We always are. Everyone is.

So, I mean, there are 24 or 25,000 employees of the Fed all through the country, and there are branches and the Federal Reserve and banks everywhere. So if you want this to be -- if you want to check out the Fed, you can do that. And there a lot of different things you can do here.

BEULAH WILLIS-BROWN. Mr. Chairman, we received several questions about how you spend your time off, including one from Steve Zanetti at Kellam High School in Virginia Beach. Steve asks, what do you do to unwind when you are not here working?

CHAIRMAN POWELL. So I have a few hobbies. I've been a road cyclist for a long time. So I ride my bike. I don't get to ride outdoors very much these days, but I like to ride my bike. Also I play music. I'm a guitar player. I'm not in a band right now, but I'm really hoping to get a Fed band going on. The vice chair here at the Board is actually a singer/songwriter, and, you know, has a really great singing voice, and he has CD's and things like that. So I'm hoping we can -- and there are a number of musicians here. So I'm hoping we can get something going.

The problem is there's just -- there's so much to do. Really, it is a -- you know, there's not a lot of time for this. And, you know, I have a wonderful family and friends. So I have -- you know, I have a perfectly fine life. As chair, you don't -- you rarely get time off. In the same sense, though, you know, it's -- there's no -- you can't possibly work enough in this job. And you just accept that. I never saw Ben or Janet, Ben Bernanke or Janet really and truly get away, except maybe for a few days over the holidays. You just have got to be thinking about the next thing at work all the time. And that's fine. That's just the way it is.

BEULAH WILLIS-BROWN. Mr. Chairman, acoustic guitar or electric, and why?

CHAIRMAN POWELL. I'm better at acoustic. I'm much better at acoustic than I am at -- I have both, but I just -- I don't know, I just, I don't know -- acoustic is what I've always played. And I don't sing very well, but I can sing -- I can sing a little bit of melody, but I'm not a great singer. But I'm a decent guitar player. I'm hoping we can get something going here.

BEULAH WILLIS-BROWN. That was our last online question, Mr. Chairman.

CHAIRMAN POWELL. Was it? Okay.

PRINCETON WILLIAMS. We have one more question from here in the boardroom from Christine.

CHRISTINE PEDERSEN. Chairman Powell. Hi, Christine. I'm Christine Pedersen. I teach at New Kent High School in beautiful New Kent County, Virginia. And my question for you is, why should a high school student care what the Federal Reserve does or doesn't do, and what would you say to a student who thinks it doesn't matter to him or her?

CHAIRMAN POWELL. Well, what would I say? I would say that I think the Fed is a really interesting place. And I think it's a really important place in American society. So our policies affect everyone. And, you know, we serve the whole public. And I think it's an interesting institution. It's got an interesting history. If you like history, you can go back and look at the Bank of the United States and the Second Bank of the United States and -- so I think it's interesting. I think it's important. I think if you get interested in it, you'll realize very quickly that it's really interesting, and really important. So not everybody's going to fall in love with central banking. In fact, most people are going to go through their lives not knowing much about central banking. That's my empirical finding.

But for those who have any interest at all, I just think, you know, it's an important institution. People should know the basics about it, you know, what is our part in -- what's the role that we play in the United States' government and in American society. And what's important about the Fed to know is that we're independent, that we're non-political, that we serve everybody, and what we do. You know, we move short-term interest rates around, and that has an effect on the economy. The higher, higher rates will slow the economy down. Lower rates will support the economy. And also supervision and regulation of financial institutions. If you just know those two things, that's a good start. And if you find it more interesting, then maybe you'll spend your life doing this. Who knows?

PRINCETON WILLIAMS. Well, thank you, Chairman Powell. This concludes our session tonight. We sincerely appreciate your time for speaking with us. We appreciate all the educators who

participated around the country, and hope that you learned more about the Federal Reserve that will help you in your classroom to teach your students about the Fed's mission and our functions. Thank you to all of you for what you do in the classroom. But, most of all, thank you, Chairman Powell, for taking your time and being with us tonight. We are grateful.

CHAIRMAN POWELL. Seriously, thanks to all of you for being here and all of you online for what you do, which is so important, you know, for your kids and for your schools and for your country.

Thank you.