Transcript
FedTalk: Did the COVID-19 Pandemic Cause Residents to Leave Urban Neighborhoods?
Federal Reserve Bank of Cleveland
March 25, 2021

Presentation

Mekael Teshome, vice president and senior regional officer, Federal Reserve Bank of Cleveland-Pittsburgh office: Hello and welcome to FedTalk. I'm Mekael Teshome, senior regional officer at the Pittsburgh branch, and I'll be your moderator today. FedTalk is our speaker series we launched in 2019. In these series, we share research that's relevant to our community and we ask participants to join us for the discussion. Past events have included subjects such as the opioid epidemic, the racial wealth gap, and the Paycheck Protection Program. All of our events can be found on our website, Clevelandfed.org, or on our YouTube channel, where you can view past events.

A few housekeeping items before we begin. Your microphone was muted when you entered today's event, and it will remain muted throughout the session. If you want to ask a question, just click anywhere on your screen to display the menu bubbles and enter your question in the chat there. We'll try to cover as many questions as possible at the end of the presentation, and if we can't get through all of them, we'll be able to get back to you afterward. To optimize your viewing experience, I recommend you click on the black layout button on the top right of your Webex application screen, click the grid view, and then select hide participants not on video.

We're excited to have you join us for a discussion about urban migration with Stephan Whitaker. Stephan is a policy economist in the regional analysis and outreach group here at the Cleveland Fed. His current work includes research on housing markets, labor mobility, and studies of state and local government finances. Stephan holds a BA in economics from Columbia University, an MS in statistics from Colorado State University, and a PhD in public policy from the University of Chicago. Before Stephan earned his PhD, he served as a lieutenant in the United States Air Force. Stephan, thanks for joining us. The floor is yours.

Stephan Whitaker, policy economist, Federal Reserve Bank of Cleveland: OK. Thank you very much, Mekael, and thank you everyone for joining us this morning. I know you were looking forward to hearing about migration as it relates to urban neighborhoods. And you're going to get a little bit of a bonus because we have a new *District Data Brief* that's coming out this morning, which expands this look at the migration response to the pandemic to cover everyone coming and going from the high-cost metros in the US, and looking at their destinations as well as where they're heading to.

So I've been studying urban neighborhoods for a few years now. I had a couple *Commentaries* back in 2019 that covered trends and demographics and urban neighborhoods. And so, when we got into 2020 and the pandemic hit, I started seeing these stories about an urban exodus, people fleeing from dense neighborhoods for various reasons related to the pandemic. And I thought, given the data that we have access to and the past work that I had done, I was in a good position to be able to confirm whether this phenomenon is actually happening and if it is, put some numbers on it, to be able to quantify it.

So I released the *District Data Brief* on the 5th of February that tried to answer specifically this question, "Did the COVID-19 pandemic cause an urban exodus?" And that got quite a bit of a response. And so I've received good questions from people, and I've tried to follow up on some of those questions with a follow-up document that was released today, and also the second *Data Brief*, where I found that a lot of people were using a movement out of urban neighborhoods as a proxy for leaving high-cost, large metro areas. So, I'm trying to speak directly to that with the new *Data Brief*.

I do encourage you to go out and take a look at those on our website. You can read all the methodology and details in the first *Data Brief*. But if you want to find numbers for your metro area or figures, then take a look at the fourth quarter update because those have an additional quarter of information from the pandemic year.

So all the estimates that I'm going to be showing you are based on the Federal Reserve Bank of New York Equifax Consumer Credit Panel. And this is a 5 percent random sample drawn from all adults that have credit histories that are maintained by Equifax.

And if you think about all of your creditors, your student loan servicer, your credit card, your mortgage, each month they're sending reports to Equifax that show whether you've paid your bills, and they also give what that lender has as your current address. So, Equifax is receiving all these, and they have an algorithm that considers all the reports and comes up with what they think is most likely your current address.

Now, when the data comes to the Federal Reserve System, it's anonymized, so we don't get names or addresses, but they give us a unique ID for each borrower and the census block that that current address is in. So we can link people from quarter to quarter and then see: Are they living in a different census block?

Blocks can be placed in any larger geography. So I'm going to place them in census tracts or in metro areas. And then my estimates of migration all come from counting how many people were

living in this metro area or this neighborhood a quarter ago and now are living somewhere else, so we can observe their origin and their destination.

It's a large sample—over 12 million people—and it covers … credit histories are maintained for over 80 percent of the adults in the US. So it's not absolutely comprehensive, but it's a very good sample to give us a sense of where people are moving from and to.

Now, as for my definitions of urban neighborhood, one of the things that motivated me to start trying to publish reports on this was that I was seeing a lot of analysis that used the central city or the central county of a metro area, and they would give demographics for those jurisdictions and then say that that was urban. But I think we all know of examples where you've got, say, a suburb that is as dense and as urbanized as anything in the central city. It didn't really seem right to think of that as a suburb. On the other hand, we have some central cities that have annexed a lot of their suburban neighborhoods. So that's not really urban. And the same thing with central counties. They often contain a mix of urban and suburban. But if we divide it at the census-tract level, what I really wanted to try to get at was neighborhoods that allow people to do some of their errands or possibly their commute to work on foot or public transit and not be designed around the automobile and completely auto dependent.

So to get at that, I selected the tracts that had at least 50 percent of their housing units being built prewar. So when neighborhoods were still laid out to allow for walking and not designed around the automobile, I require that the census tract have at least 2,000 people per square mile and that's so that I don't include ex-urban areas that just happen to have old houses. And I also don't want to include tracts that were high density at some point but the population has fallen to the point where they may not really be able to function like an urban neighborhood anymore, supporting that walkable retail, for example.

Now, we still are building in the US some new urban neighborhoods. So if I have a tract that has over 7,000 people per square mile, I designate that as urban as well and that 7,000 is about the density of major cities in the US back in 1930. And so that's how I selected that cut-off.

I require that the tracts that I'm going to call urban be in a metro area of at least 500,000 people. And this is sort of setting aside…there's a lot of college towns or resort areas where they may have some dense housing right next to a walkable historic commercial district. But I think a lot of us, we wouldn't necessarily view that as an urban neighborhood if it's set in a metro that only has 100,000 people or something along those lines.

OK. So this definition's subjective. So you can agree with it or disagree with it, but I just wanted to let you [know] what I'm doing. Overall, in the US, about 18 percent of the population lives in neighborhoods that meet this definition of urban. It's higher in places like New York and Los

Angeles; over 60 percent of the population there is in urban tracts. Thirty to forty precent are in urban tracts for Boston, Chicago, Philadelphia. And then some metros that are closer to the national average are New Orleans, Pittsburgh, Seattle. They have a mix of urban and suburban. And then there are some large metros that have very few urban tracts, and those are places like Charlotte, Nashville, Atlanta, et cetera.

OK. So now that we've defined urban neighborhoods, what did happen with their migration in 2020? What I've got here is the national aggregates of the net flows out of urban neighborhoods and also the gross flows in and out, divided out on the right-hand side.

So in a typical month in the 10 years before we got to the pandemic, anywhere from 10,000 to 30,000 people on net were leaving urban neighborhoods. And then once we got into 2020, that really jumps up such that the last few observations are over 70,000 people per month leaving urban neighborhoods.

So you can look at that and say, "That looks like an urban exodus," but there's a lot of nuance to it. So if we move over to the gross migration, you can see the dashed lines are the actual quarterly observations and there's a lot of seasonality in those. So it's a little bit difficult to look back and compare them to prior years. So I'm also presenting the thick solid line [which] is a four-quarter moving average.

So we can see in the blue, which is the flows out of urban neighborhoods, that the last few readings on the dashed line, those are higher than anything we've seen in the last 10 years or so. But once we average out the dip down in the spring when the shutdowns were happening and it was just making it difficult to do business or get showings for houses, that dip down was offset by a jump up in the summer. But overall migration out of urban neighborhoods, it's up somewhat in 2020, but not really an enormous departure from recent years. On the other hand, the inflows, which are represented by the gray lines—both the dashed and the solid—that started heading down in 2020 and has just continued to decline.

So I think this changes the perspective. When we use the word "exodus," to me, that puts the emphasis on people leaving. But the story in most places has been as much about the inflow declining as the outflow increasing.

All right. So, in the *Data Brief* and in that fourth-quarter update, I give the change in net migration for 96 metro areas, and those are basically all the metro areas that are large enough that I can define urban tracts in them. And there's just three of those where there's a large increase in outmigration from urban neighborhoods, and that increase is larger than the decline in the inflows. Those happen to be New York and San Francisco. All of the gross-flow graphs that

I'm showing here can be found in that fourth-quarter update. So if you want to look at some other metro areas, you can find it there.

So what we see for those two areas is that there really was a substantial increase in the outflow from their urban neighborhoods, and I think that drove a lot of the urban exodus narrative. At the same time, their inflows were declining throughout 2020.

The third place that shows that pattern happens to be Bridgeport, Connecticut. But most other areas, other large metros have patterns like what we see here in Seattle and Washington, where the outflow from the urban neighborhoods was up in 2020, but the decline in the inflow was almost twice as large. So it's really driving the change in their net migration out of their urban neighborhoods.

And the other metros that show this pattern include San Jose, Denver, Los Angeles, Boston, San Diego, and Chicago. They all kind of follow this…the same pattern where outmigration from the urban neighborhoods is up somewhat but immigration is down substantially.

Now, those places tend to be sort of high-turnover places. Every year, there's lots of people arriving and lots of people leaving, and so the pandemic sort of slowed down their pipeline of inflow. But the rest of the country, metro areas that are a little bit smaller or aren't those sorts of high-turnover places, there's a lot less going on. And so what I'm showing here is the four large metros that are in the Fourth District, and I think they're pretty typical of what's going on in the rest of the country.

So if we look at Cincinnati and Columbus, for example, there's a little bit of movement around in the quarterly observations. But once you move to the four-quarter moving average, it's really difficult to say that 2020 was remarkably different from 2019 or 2018 for these metro areas.

In Cleveland and Pittsburgh, what you see is a slowdown of both the outflows and the inflows, and that's something, actually, that we saw in past recessions for these metro areas. So again, I wouldn't categorize that as an urban exodus. If someone says that an urban exodus is happening in Ohio cities, I can't say that the data support a statement like that. It's happening in a few other metros, but not so much here in the Fourth District.

All right. So going back to the national aggregates. What I have on this bar graph here is the change in gross inflow that's in red, and the change in gross outflow in blue, and the credit data allows us to break this down a few different ways. I have some other cuts of the data in the first *Data Brief*, but the ones that I wanted to highlight are homebuyers versus renters and then age.

So when the *Data Brief* came out, and I was having some of those conversations, people were saying, "We've got all kinds of buyers that want to be in our urban neighborhoods. There's great demand. We're able to sell all the units we have," and the data is really consistent with that. The decline of inflow of people, who, once they arrive in the urban neighborhood or that have a mortgage, which I'm taking as a proxy for they're a homebuyer, it's down only slightly. So those people are probably looking past the pandemic. If you're going to buy a home, you're thinking about five years out, seven years out, and they still want to be in those neighborhoods.

Who's not coming is renters, and this is consistent with some pretty steep declines in apartment rental costs in especially the large, high-cost metro areas. The phenomenon, the change in the net migration, is mostly about young adults. You can see that the largest declines in inflows and increases in outflows are among 18- to 34-year-olds, and senior citizens not changing their flow so much.

All right. So in the stories about this phenomenon, there were a lot of different things proposed as what was pushing people out of urban neighborhoods or possibly allowing them to leave urban neighborhoods. So what I have here is the changes in net migration, net outflow from urban neighborhoods by metro area. And I should mention whenever I'm referring to a change, I take the pandemic-impacted quarters of 2020, so that's the second, third, and fourth quarter. I take the migration that happened in that time period, and I compare it to the second, third, and fourth quarter of the three prior years, so 2017, '18, and '19. And that's to just have kind of a baseline to compare to, in case 2019 was kind of an unusual year and that it was the peak of the business cycle. And I leave out the first quarter in each case because in 2020, that wasn't impacted by the pandemic, and all of this migration is very seasonal. So I'd need to either have that in or have it out in [order] to make the comparison apples to apples.

All right. So getting back to the scatter plots here. Each of those circles represents a metro area. The size of the circle is based on the population of the metro area. And these reveal that we have the relationship that you might expect between, say, COVID-19 deaths and outflow from urban neighborhoods.

So in general, if there were more deaths in the metro area, there was more movement out of the urban neighborhoods of that metro area. Small business closures—a lot of people put forward the idea that the pandemic induced shutdowns, kind of took away one of the main amenities that attracts people into urban neighborhoods and sort of justifies the higher rents if they're paying them there. So if all those businesses are shut down, you're just less motivated to move in, and the data is consistent with that. So the greater share of small businesses that were able to remain open in the metro area, the less there is an increase in outmigration from the urban neighborhoods.

The strongest relationship is the one on the top right, which is, if we take Dingel and Neiman's estimates—they have a paper out last year where they categorize occupations by whether it's possible to do them remotely—and then within each metro area, there's a percentage of occupations that are telework-capable. And so the higher that percentage is, the greater the increase in net outmigration from urban neighborhoods. And so the idea here, you could think of it as people being sort of freed up. They don't have to live near their employer anymore, but I think a lot of it could also be someone who's getting a new job or, say, a first-time job. There's no one at the office, so it's not really that beneficial to choose a residence near the office. They may just stay with their parents or stay wherever they were before, and that's really part of that decline and inflow to urban neighborhoods that I was talking about before.

Right. So this next slide is answering one of those questions that came up. After the first *Data Brief*, people were saying, "All right. If there's an increase in people leaving urban neighborhoods, where are they going?"

So on the left, we can see that about 55 percent of them headed to a suburb in the same metro area. And then, if they left the urban neighborhood and left their region, 16 percent headed to a high-cost, large metro area—and that's assuming…I mean, they may have been leaving a high-cost metro area and choosing another one, or they maybe have left an urban neighborhood in a lower-cost area and went to the high-cost area.

And then there's a roughly even split between people heading to lower-cost, large metro areas, midsized metro areas, and then places that are small metro areas or even maybe not, a micropolitan area, or even a rural area, about 9 or 10 percent heading to each of those.

So that is the migration flow in the pandemic quarters in 2020. Now, how is that different from the previous three years? And this is on the bar graph on the right-hand side—moves to the suburbs are up about 2½ percent, but moves to lower-cost, large metro areas, midsized metro areas, and small areas including rural, those are up 8 to 12 percent. So it seems like a lot of people…if there's an increase of flow not only out of the urban neighborhoods, but also to some of these lower-cost and less populous regions.

OK. At this point, I'm going to shift to material that's in the new *Data Brief* that's coming out today and that one focuses on … it doesn't make an urban/nonurban distinction. I'm going to consider everybody who's moving from one metro area to another metro area or not even a nonmetro area.

So first I needed a list of high-cost, large metro areas. So I started with the median list price per square foot—and that's data that's available from the National Association of Realtors—and identify the areas that were in the top quartile by that measure using a population weight as I

calculated that quartile. And then, focusing on the metrics that are over 2 million people in population, the list there is all 14 of these metro areas. And I've put a star on New York and Chicago because, surprisingly to me and maybe to other people, their median list price per square foot is not in the top quartile. So they're very large areas, and they include some portions of the metro where there's lower-cost housing. But if you zoom in and look at that same measure at the zip code level, the zip codes that would give you sort of a normal commute to their employment centers, 25 to 30 minutes, the housing costs there are much higher and would easily place in that top quartile.

Now, I also didn't think anybody would really believe it if I had a list of high-cost areas that New York City wasn't on it. So if you disagree with any of this, I give the estimates individually for each of those metro areas in the *Data Brief*, and you can just set aside one if you don't think it belongs on the list.

Now, once you get outside of the really high-cost metros, then the differences between the housing prices are smaller, and there's also more overlap in the distribution. So the way I was thinking about it was, once you've left Los Angeles or Washington DC, where you head to is probably going to depend less on housing costs because you're already sort of moving away from the high-cost area. You're going to choose based on what you need to do your job, certain professional services, or perhaps access to a large airport with a lot of connections. Or you may be choosing based on amenities. So you may want pro sports or live theater that's much more available in a large metro area, or you may want access to outdoor activities that is much easier to get if you're living in a small town or a rural area.

So I divide the rest of the country outside those high-cost, large metro areas into three groups by size. So there's the lower-cost, large metros, and all 21 of those are listed there. And then midsized metros, and I give a few examples. There's 75 of them all together. And then, everything else is in small metro areas, towns, and rural areas. And I've listed the seven largest of those small metro areas just so you can take a look and think about sort of how big are the biggest places that this includes. And then anything smaller would also be in that category.

OK. So if we look at the net migration between those high-cost metros and these other three types of regions, we see a pattern like we saw for migration out of urban neighborhoods. The monthly net outmigration from the high-cost areas, it was sort of steadily climbing from 2013 through 2019. And then once we hit the pandemic, it really takes off.

Now, as we saw before, the net migration can be influenced both by outflows and inflows. So on the next slide here, I have a matrix that gives the changes in the flows between all of the types of regions that I've identified.

And what I thought was really interesting about this was, you can see how dramatic it is for the high cost of large metro areas. Their flows toward lower-cost metro areas are up 5 percent, toward midsized metros are up 10 percent, toward small metros up 9 percent. And the same time those outflows were increasing, the inflows into the high-cost, large metro areas were dropping from all of the regions by 8 or 9 percent.

So that combines to give that really strong adjustment in the net flows to high-cost areas or from high-cost areas. But it's also…I thought it was interesting that if you look at all of the flows toward either smaller or less expensive regions, they're at least positive. They didn't decline. These changes are probably not significant, but they didn't go down. But then, if we go to this portion of the table, all of the flows toward larger or higher-cost regions, those have all declined including even flows toward midsized metros from small metros. That's gone down. So it speaks to something shifting during the pandemic that's really been favoring lower cost and less populous areas.

OK. So what areas seem to be sort of winning from this shift? To answer that, I took the change in net migration from high-cost metro areas to all the other metro areas in the country, and then I scaled that by the size of their metro workforce. So a lot of this discussion has been about could the remote workers leave these high-cost areas and show up in other areas and boost the economy there?

So I need to remind you here that the numerator in this calculation is all migrants, and certainly not all migrants are remote workers. Some are remote workers, but you've also got retirees and students and people who are changing and taking a new job physically located in the metro. So this is sort of an upper bound on how many people could possibly have left the high-cost metros and shown up somewhere else during the pandemic.

And I think what this tells us is if this is going to be a major phenomenon, it's just getting started because even the largest place, the place that has received the most of these flows out of the high-cost areas, it's just 1 percent of their workforce so far. And for most other places, it's a much smaller fraction of the workforce, stated down here at 2/10 of a percent for most areas.

OK. The other thing that we can notice about these receding areas is that there seems to be a favoring of less-populous regions that are either adjacent to or within a short driving distance of the high-cost metros. So, Oxnard, California, borders Los Angeles, for example. Virginia Beach is within not too long of a drive from Washington DC. So, we see this sort of … if this is being driven by remote workers, it could be that some of these people want to be able to still go back to their place of employment a couple times a month or quarter.

The blue bars are places that are over 150 miles from any of the high-cost metros. And in past years, these places were drawing people away from those high-cost metros, in a lot of cases with their own growing tech clusters, so that's the case…Austin, Raleigh are examples of those.

And then the third category is places like Buffalo, Rochester, Pittsburgh, Cleveland, that, in the years before the pandemic, these areas were sending more people to the high-cost metros than they were receiving back. But once the pandemic kicked in, that flow toward the high-cost areas declined substantially so that the net migration flipped, and now, during the pandemic at least, it has favored these metro areas.

So the other question that came up quite frequently was that flip that I just described, could that possibly become permanent and enable regions to really benefit from being able to pull people away from the high-cost metros?

Now, I can't answer this definitively because we don't know yet what share of people who are able to do their work remotely are going to be either allowed by their employers to do that more or less permanently and so given permission to go live in a different region. And then also how many of them are going to want to do that?

But we can start off with some numbers and then a scenario to give us a sense of how the scale, how large could this possibly be? There's about 42 million workers in the high-cost, large metro areas. And based on that same estimate of telework-capable occupations, about 17 million of them could possibly be remote workers.

So if we assume in the paper…I have scenarios for 1 percent, 3 percent, and 5 percent. If we assume 5 percent of these people are willing and able to relocate to another metro area, that would put 862,000 workers on the move. OK. If somehow, these remote workers just evenly spread themselves out across all of the other regions that aren't high-cost metros, they would increase employment everywhere by 0.8 percent.

All right. But what if a region could do a little bit better than that and was able to attract 3 out of every 100 of these remote workers? That would be about 26,000 employees. So for a place like Columbus, that'd be the equivalent of about 2-1/2 percent of their current labor force. And it'd be very reasonable to expect a multiplier effect because these people—they're earning their money outside the region, but they're spending on local services, so healthcare, childcare, home maintenance; all those things could have additional increases in employment because of this added demand.

But the direct gains of those remote workers themselves, those would be the equivalent to about a year of employment growth for Columbus. For a place like Cleveland, that has a little bit

slower employment growth generally, that same 26,000 employees would be the equivalent to two years and four months of employment growth.

So I think, if we take those type of figures, and we can think about how long does an expansion usually last when we're having employment growth. A lot of regions would be happy to get boosted forward by two, two-and-a-half years of employment growth.

So the point I want to make here is during the pandemic, there hasn't been enough movement to really be having an impact on a lot of areas yet. But if even a small fraction of the potential remote workers follow these newly established migration patterns out of the high-cost metro areas, there is a potential for substantial gains to a lot of other regions.

All right. So, I'm just going to wrap up with a recap. Was there an exodus out of urban neighborhoods? In New York and San Francisco, I think you could say, "Yes." For a lot of other large metro areas, there was some increase in outmigration, but it was really the inflows declining that had the larger impact. The decline of the inflows is concentrated among renters and young adults. And overall changes in net migration out of urban neighborhoods show the strongest correlation with telework-capable occupations.

Was there an exodus out of the high-cost, large metros? I would say, "Yes." There is evidence of that. Both their outflows increased, and their inflows decreased. The migrants leaving those areas seem to favor nearby, less populous metros.

But if remote workers in the years going forward are able to, or desire to, follow these newly established migration patterns, I think there is an opportunity there for lower-cost regions to attract them and boost their local economies.

All right. So I think I'll end there and try to answer questions that anyone has.

Q&A

Mekael: Thanks for the informative presentation, Stephan. We are starting to get some questions coming in. So, I'll start you off with one we received earlier. This attendee asks, "Do you think local income taxes were a factor?"

Stephan: It's interesting. So I did not try to test that correlation as I did with the others. But it actually probably wouldn't work because I've looked at this for some other research that I do on local public finance. And local income taxes are actually, they're pretty unusual.

So there's a little under 4,000 jurisdictions in the whole country, and that's out of about 35,000 cities and towns that are covered in the census of governments. A little under 40,000 of them collect a local income tax; 2,500 of those are in Pennsylvania and about 500 of them are in Ohio.

So the rest of the country does not do that very much. They rely on other sources for their local income taxes. The one high-profile exception is in New York City. So there's two jurisdictions in New York State that collect income taxes, New York City and Yonkers.

So I think given, well, two things, both how unusual that tax is. If it's not present in all those other metro areas that I described that had the increases in outflows and declines in inflows, then it couldn't have been a driver.

And then, I also noted that we're not really seeing an urban exodus happening in the cities in Ohio or Pittsburgh to a really great extent. So I don't think it would be a driver there, either.

So I can't say definitively, but that's what I sort of know about these related issues, and I think it's unlikely.

Mekael: Thanks. Another question we got is, "How can cities position themselves to take advantage of this?" And I would broaden the question to even say, "What are some lessons learned for jurisdictions?"

Stephan: Well, the one thing we don't have, we can't change our location. And so we noticed that a lot of this migration is sort of trying to stay in the region. I wonder whether, going forward, there's a possibility of trying to fill. So if it turns out that that tendency to stay in the region is driven in part by a desire to be able to easily get back to your employer's physical location, then what you might want is a frequent and relatively low-cost travel that can serve that purpose, that sort of lets you maintain that connection with the employer, even though you've gone to a different metro area.

So whether that's done by air or rail, I mean, the drive times, I think those are unlikely to change unless we start to trust our autonomous electric vehicles to whisk us back to Boston in six ... I don't know. It wouldn't be a short enough number of hours, coming from, say, the Midwest, but yeah.

So that's what I would say is you want to think about connections to where these remote workers are coming out of and keeping those strong, and making it convenient for people to stay

connected to what had been geographic agglomerations before the pandemic sort of loosened those ties.

Mekael: Great. Thanks. We have another question. "How do you adjust for demographics, specifically the natural movement of younger cohorts from smaller square-foot areas to a larger space, presumably over the course of their lifetime?"

Stephan: Oh! Well, let's see. So I'm not exactly sure what you mean by adjust for demographics. I mean, it certainly is the case that there's going to be a life-cycle demand for different types of housing. So to say, "adjusting for that," my assumption is that the desire for that shift would have been similar in 2020 to what it had been in 2019, 2018, and 2017, except for the changes that were caused by the pandemic.

So there's always people who are flowing out of urban neighborhoods because they want a larger housing unit. And those trends are ongoing. Sometimes they're heading up, sometimes they're heading down, but they're always there.

Now, I have seen a lot of argument that part of the increase in the outflow was that people had to work at home and then, in a lot of cases, if they had children, the children were also studying at home. And so that motivated them to want more space. So I wouldn't say I'm trying to control for that. I mean, I think that's part of the phenomenon, part of what's driving the trends that I'm able to report in the data.

So I don't attempt to sort of split that out and say, "Well, how much of this movement is attributable to that?" I just think it's one of the channels through which the pandemic is motivating these shifts in migration.

Mekael: Yeah. Yeah, and I, just reading into the question, I suspect the attendee was thinking of the millennial generation, this large generation that was naturally progressing toward home ownership at some point. So, yeah.

Stephan: Yes. Yeah, and if you want to see…I've got some information on those trends in those early *Commentaries* that I listed. So one tracks the share of each generation that is in an urban neighborhood, and you can see this, the life cycle, it increases as people go into their 20s. Once they get into their 30s, it starts to decline. And it has a slightly different shape for the different generations, Gen X versus millennial and early boomers. That's who I'm able to observe in the data. And the second of those *Commentaries* looks very specifically at those people who move

into urban neighborhoods and then back out. That one is all about temporary urbanists, and that's a phenomenon that I think a lot of us, we sort of hear about, talk about. We know people.

Maybe we do it ourselves, but demographically, it's a difficult thing to observe, because most data sets, they just ask you, "Where are you living today? Where did you live a year ago?" But they can't say, "Did you move and then return to somewhere you came from?" or "Did you move and then move again?"…and observe those life-cycle patterns of going into and then out of urban neighborhoods. And that's one of the things that the credit panel allows me to do. So I've got some kind of unusual estimates that can be found in that *Commentary*.

Mekael: Thank you. We have another question. This person asks, "I see that homicide rates were measured in one of your panels," and this person's asking if you've looked at any other indicators of crime for larger metro areas that experienced protests during the summer.

Stephan: Yes. I did not. I did not. I focused in on the homicides just because I felt those would be sort of the highest profile, and I think a lot of people use that count as sort of a proxy for overall crime, which is…it's not a perfect proxy. Sometimes there are disconnects between homicides and other violent crimes or property crimes, but I didn't have time to test all of them separately. So I just focused in on the homicides.

Now, in the first *Data Brief*, there is a discussion of the protests that happened in 2020. I had been looking at those, even before we got into 2020. I have been looking around for measures of that type of protest to use in empirical work.

And so far, we haven't been able to find something that we trust as a measure. So certainly, I think that did figure into some people's decisions.

The best I could do in the *Data Brief* was to pull out the net migration charts for some of the metro areas where the protests lasted far beyond a few days and continued to have property damage and disruption of life, particularly in these urban neighborhoods that continued throughout the year. And so, I just show those net migrations. And so…that people can look at them, and you'd have to make your own decision about whether that or to what extent the shifts that are observable there are due to the protests.

One thing that's going to be tricky going forward is that all the stuff with the pandemics, the lockdown, the shift to remote work, that's happening at the same time as the protests and property destruction is happening. So, someone's got to come up with a strategy to disentangle the impacts of those two.

Mekael: So what about workers that were most impacted by the pandemic, people working in leisure and hospitality, in those related industries? Since the pandemic is starting to get behind us, are those trends ... well, first of all, did you see any trends among those workers and, if so, are they reversing?

Stephan: Ok. So I'm trying to think how exactly I could get at that. The Consumer Credit Panel, it's got great data on some things, particularly debts, but it lacks a lot of demographics on things like income. We don't observe income, we don't observe occupation, or even whether the person is employed or not.

So I can't, say, track the migration of people who work in leisure and hospitality industry or something like that. I'd have to proxy for it either with, say, the share of people in those occupations in the census tract or the metro area. I did not attempt to do that. So if you wanted to get an answer to that, I think what you could do is go to that fourth-quarter update and look at the trends for metros that you know have a specialization in leisure and hospitality.

So look at Las Vegas. You can look at Honolulu. You can look at some of the metros in Florida and see what their patterns were. I don't have it. And just trying to recall from paging through them, nothing really jumped out at me as saying that those were especially different where I would say, "OK. This is ...."

Well, actually where I have seen that, going back to the research that I do on local public finance, you could see drops in sales tax income and other forms, like if they had hotel taxes and that type of thing. You could see those falling off. But in terms of the migration, I can't say that it jumped out at me, that there were distinct differences for regions that we would expect to be especially reliant on those industries.

Mekael: Do you see the large metro areas recreating themselves to better attract or retain their population before they experience a very significant outflow?

Stephan: OK. Well, this is kind of a long-term question. The areas in the country, whether they end up being high cost or low cost and also whether their population grows or declines, depends a lot on their elasticity of housing supply. So if you look at places like Dallas and Houston, their populations have grown rapidly for multiple decades. Their incomes have risen. They're adding a lot of jobs, but their housing costs never really get extremely high because they add housing

units. That's in contrast to places like San Jose or the San Francisco area, where they have some employment growth, but they don't have a lot of population growth, and they have a lot of housing-cost appreciation. And that's because there's limitations on how much their housing supply can expand.

So the way I would think about the pandemic and the shift to remote work is that it's opened up sort of another relief valve for these high-cost areas. You could see in those trends of the migration away from the high-cost areas that it had been kind of climbing up late in the expansion, and that is people in those areas deciding that the cost versus the benefits no longer favored that metro. And so they were going to go somewhere else and, if you think about it, this has always been possible to some extent. So if you have a major corporation, they can send their back-office operations to a lower-cost area, so that they're paying those workers less. And there's even international outsourcing and those are other things where that the housing costs are rising. And so there are some people who are either going to decide to move away or not try to move to those very high-cost areas.

Now, the remote work opens up one more possibility. If you really like the match you have with your employer, you like your job in the high-cost area, but you don't like paying those costs, you might have the option to move away. And so that means you're one less person in that metro bidding for the housing and helping with that house-price appreciation.

So I don't expect that the populations are not going to be falling in these high-cost metro areas. It's just that the populations will continue to grow slowly, but the housing should appreciate a little bit less than it was in the past.

Mekael: Hmm. Yeah. That's interesting, because we hear in so many regional markets about how there's just a shortage of homes available for purchase or existing homes. And so it's almost like that could put the brakes on migration to a region.

Stephan: Yeah. I think so. I mean, there's some. The drop in inventory, I think some of that's been really acute and sort of specific to the pandemic experience. I am reporting increases in outflows from the high-cost metro areas and from the urban neighborhoods. And so each person that leaves frees up a housing unit.

So if it's a for-purchase unit, it seems like somebody's showing up and buying it, but the rental units. The vacancy has climbed, and so the rents have been dropping because the owners are trying to keep those units full.

So in terms of the limitation of inventory, I mean, there's a short-term and a long-term aspect of that. The high-cost regions where I said that the housing supply is inelastic, those are really long

term, sometimes geographic limitations. You can't build houses in the ocean. You can't build them in certain mountain slopes or protected areas. So that's a limitation on inventory that was there and will continue to be there.

And in terms of people just not putting their units on the market because it's the pandemic, I think that's something that we'll work through probably over the next year and get back to a more normal pace of home sales or tenant turnover and leases.

Mekael: Yeah. Do you foresee migration back to cities ever really gaining strength like an urban renaissance type of situation?

Stephan: Well, I think there's certainly a possibility of that. There's competing forces. So urban neighborhoods had a really good stretch after the Great Recession, and that I believe was mainly driven just by the large millennial cohorts being in the ages when they prefer urban amenities.

So a lot of those people were flowing into the urban neighborhoods. Once they reached their early 30s, mid-30s, then they start flowing out. The cohorts after them are smaller, but the neighborhoods are also more desirable now than they were 10 years ago. There's more businesses. There's more amenities. There's more housing units and nice new apartments have been built.

So I don't expect that the populations will be declining in these neighborhoods. I think more likely what we'll see is higher shares of each age cohort being in urban neighborhoods than you had, say, 10 years ago or 20 years ago or 30 years ago.

So if that's mainly driven by amenities, I don't see any reason that that trend should slow down. You could even have a phenomenon where there's people who really like urban amenities, but, because of their occupation, they can't live in an urban neighborhood. They need to be in a small town because that's where their employer is, or they need to be in a distant suburb because that's where their employer is.

Now, if remote working is freeing up people to not be in their physical location most of the week, now some of those people now have the option of living in their urban neighborhood where they didn't before. Now, I can't say exactly how large that phenomenon will be, but I think it's another shift that we haven't thought about yet in the discussions of how the pandemic is changing demand for urban neighborhoods.

Mekael: Well, thank you so much, Stephan. We are at time now. We appreciate you making the time to share your research and for the informative discussion. Thank you to all of our attendees for submitting some thoughtful questions. We hope to engage with you again.

Please mark your calendars for our next FedTalk on April 14. This session will cover our National Financial Literacy Month program, which will be on race and the financial lives of students and young adults. Thank you so much, everyone. Take care and hope to see you soon.

Stephan: OK. Yes. Thank you, everyone. Thank you, Mekael. Good afternoon.