Researchers reveal global patterns of ‘urban exodus’

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Transcript

Speaker 1: Hello, we are looking at a really fascinating global phenomenon today. But before we really get started, we do have a mandatory disclosure to make. I need to be explicit here. I am not a real person. I'm an AI-derived voice generated from source material provided by WorldPop.

Speaker 2: And the same goes for me. I'm also an AI-derived voice, and it's important for you to know that this audio overview has been reviewed, edited, and validated by the experts at WorldPop for accuracy.

Speaker 1: Okay, now that we've cleared that up, let's talk about the urban exodus. You know the story. During the pandemic, everyone supposedly fled the cities. It's a narrative we've heard, well, thousands of times.

Speaker 2: Right, but a new paper we're looking at today suggests that whole story, it's actually much more complicated.

Speaker 1: It is, yeah. What's the source?

Speaker 2: It's an article in press. The title is *COVID-19 and Urban Exodus, Diverging Population Redistribution Patterns Across Countries from 2020 to 2022*, and it's published in NPJ Urban Sustainability.

Speaker 1: And who is behind it?

Speaker 2: Well, the lead author is Qianwen Duan from the University of Southampton, and the senior author is Andrew J. Tatem, who is the director of World Pop.

Speaker 1: Okay, and with funding from places like the ESRC South Coast Doctor Training Partnership and the Bill and Melinda Gates Foundation, I imagine they could do something, well, a bit more sophisticated than just a standard survey.

Speaker 2: Oh, much more. They didn't just ask people where they moved. They used anonymised, aggregated, and opt-in mobile location data from Meta. So basically, from Facebook users across 35 different countries.

Speaker 1: And that's key, isn't it? Because traditional census data is just too slow.

Speaker 2: Way too slow. It can take years. This data gave them a near real-time look at where people were sleeping at night throughout the pandemic.

Speaker 1: But with so much data. How do they sort it all out? I mean, how do you tell if someone actually moved versus just, visiting family for a few weeks?

Speaker 2: That's the really clever part. They used an algorithm called BFAST. It stands for Breaks For Additive Seasonal and Trend. Think of it like a noise cancellation tool for population data. It's designed to separate normal, seasonal, travel-like people going away for a summer holiday from what they call actual structural breaks.

Speaker 1: Structural breaks, meaning the population baseline actually shifts and doesn't just bounce back.

Speaker 2: Exactly. So, it can tell the difference between a vacation and an evacuation, so to speak.

Speaker 1: I see.

Speaker 2: And this allowed them to define two distinct pandemic phases, that early response in 2020 and then the later response, which ran through 2022.

Speaker 1: And what were they looking for inside those phases?

Speaker 2: Two main things, 2 indicators. First, the change in the proportion of people living in urban areas. And second, the correlation between population drops and how dense the city was.

Speaker 1: And this is where that whole everyone left the city story. This is where it really starts to fall apart, right? It seems what they found points to a huge divide based on wealth.

Speaker 2: A massive one. They found a very strong correlation with the Human Development Index, the HDI.

Speaker 1: And just so we're all on the same page, when we say very high HDI, we're talking about wealthy service-based economies, places like the UK, the US, France.

Speaker 2: Correct. And in those very high HDI countries, The urban exodus was real. They saw a sustained drop in urban populations. People left the dense city centres, and for the most part, they stayed out. But when you look at the middle and high HDI countries, so places that are still developing or industrialising, the pattern just completely flips.

Speaker 1: So, in those countries, the pandemic didn't actually stop urbanization.

Speaker 2: Not at all. In fact, their cities continued on their growth trajectories despite COVID. The economic pull of the city was, it seems, just stronger than the push of the virus.

Speaker 1: So, you have this split. The wealthy West de-densifies while much of the rest of the world keeps packing into cities.

Speaker 2: That's the divergence, yeah.

Speaker 1: Okay, that split is fascinating, but I want to talk about the consequences. The study mentions a potential misalignment between where people live now and where the infrastructure is.

Speaker 2: It's a huge financial problem. Think about a city like London or New York. We've built these incredible, very expensive physical networks, water, power, public transit, all designed for peak capacity.

Speaker 1: Right. A subway line costs pretty much the same to run, whether the train is full or half empty.

Speaker 2: Exactly. The pipes still need maintaining, even if fewer people are using them. The fixed costs don't go away. So, you have these city budgets, often shrinking, paying to maintain

underused systems. And that's only one side of the coin. Then you have to look at where all those people move to.

Speaker 1: The rural areas, the smaller towns.

Speaker 2: Yes. And suddenly, those places have this influx of new residents who are demanding city-level services. They want better internet, a more reliable power grid, upgraded water systems.

Speaker 1: So, we're effectively paying twice. We're paying to maintain empty pipes in the city, and at the same time, we're paying to build brand new pipes out in the country.

Speaker 2: That is the planning dilemma in a nutshell. It's a deeply inefficient allocation of resources, and if these population shifts are permanent, it's a misalignment that, well, current city legits are just not set up to handle.

Speaker 1: To read the full article, follow the link.