

The Data-Center Panic Is Overblown - The Atlantic

By Elias Wachtel

Data centers are allegedly an unmitigated disaster: They guzzle water, strain electric grids, and raise prices, all while offering almost nothing in return. Little wonder that according to a [recent Gallup poll](#), 71 percent of Americans oppose the construction of new AI data centers in their area. Politicians of both parties are proposing moratoriums on new builds, and local officials who have approved construction in the past are losing reelection because of it.

Florida Governor Ron DeSantis [recently captured](#) a popular feeling about the pointlessness of building new data centers for the purpose of powering AI: “Oh, we’ve got to build a data center and charge you more because we want to do videos where I can put your head on Marlon Brando’s body and you can be Don Corleone.”

But the data-center panic is overblown. Most of the complaints inflate the costs of data centers and overlook the fact that, in some contexts at least, they can bring real benefits. If saying no is good politics, it isn’t always good policy.

Let’s start with the claim that data centers do not create good jobs. As Tucker Carlson put it on his [show](#) last month, they are “vinyl-clad warehouses in which sit not people making things, but computers computing things.” Sure, data centers produce a brief construction boom—but “that’s not permanent labor,” Greg LeRoy, the founder of an anti-data-center policy group, [told](#) *Grist*.

Data centers may not be the employment equivalent of 1950s-style assembly plants—and their promoters frequently exaggerate the possibilities—but new research shows that they do bring good jobs at attractive wages. Comparing counties that opened data centers with similar ones that did not, the economists Dany Bahar and Greg Wright [found](#) that the developments increased overall local employment by 4 to 5 percent. Construction employment rose 11 percent, and information-sector employment rose by 22 percent. Many of the jobs that data centers provide—opportunities for electricians, engineers, and plumbers—are of precisely the sort that AI can’t replace (yet). And the people who fill them, Bahar told me, tend to be locals, not new residents drawn from afar. Bahar and Wright found that the employment gains outlasted the construction phase by at least five to six years; average wages in the counties studied ticked up 3 to 4 percent after data-center construction.

The complaints about job creation may also be out of date. Much of the existing data is from co-location facilities, whose owners are essentially landlords renting out space for various companies’ computers and hardware. But data centers in the AI age are generally “hyperscale” facilities, larger projects that are owned and operated by individual companies such as Google and Amazon. Bahar and Wright found that hyperscale centers create far more information-sector jobs than the co-location centers of the past.

Michael Mandel, the chief economist for the Progressive Policy Institute, told me that employment gains are likely to grow as new data centers attract businesses that use AI. Companies using the technology for advanced applications—such as for autonomous vehicles and medical research—may benefit from proximity to these centers, because information can travel faster from source to user. The margin is imperceptible to most people using Claude or ChatGPT, but for companies that

depend on real-time AI-powered decision making at scale, tiny differences in latency matter. The kinds of businesses that will drive the AI economy are thus likely to set up in communities that invest in data centers.

Another popular complaint about data centers concerns their water use. Critics argue that AI wastes billions of liters of water every year and that this is an “[environmental justice crisis](#).” Food and Water Watch cites AI’s “enormous thirst for water” as a reason to ban new data-center construction, which it and 200 other environmental organizations [urged Congress](#) to do last year. Some tech companies have fueled these complaints by refusing to disclose the amount of water they’re using. In a recent congressional hearing, Representative Alexandria Ocasio-Cortez alleged that a Meta data center in Georgia had degraded the local water supply so much that citizens were left with undrinkable water—she held up jars of their brown, sediment-filled water as props.

Data centers certainly do use water. They are basically warehouses of tightly packed, high-powered computers, and when computers run, they get hot. Most data centers—though not all—use water for cooling. But many of them use a “[closed loop](#),” which doesn’t actually waste much, because the water is recycled repeatedly for the same purpose. And many statistics about data centers’ water use are misleading in that they include “indirect” water use too. The Substack writer Andy Masley found one particularly absurd example: In a widely cited paper, the amount of water that AI supposedly “wastes” includes the water that naturally evaporates off rivers and lakes in Washington State. Why? Because those rivers and lakes are dammed for hydroelectric plants, which generate electricity, which is then used by (among other things) a data center. The water-quality issue AOC pointed out in Georgia is not a general feature of data-center construction and appears to have affected only four households.

In 2023, data centers directly consumed 66 billion liters of water. That number sounds alarming, until you realize that America’s golf courses used almost 2 *trillion* liters that same year. California’s almond farms use far more than that. At the national level, all data centers combined currently account for less than 0.5 percent of the country’s freshwater use.

Maybe localities where water is scarce—say, Phoenix, Arizona—should think twice about building water-cooled data centers. But even in such places, many of the talking points are exaggerated. In her best-selling book *Empire of AI*, the journalist Karen Hao alleged that one Google data center in a Chilean city could use 1,000 times more water than the entire population uses in a year. A more [accurate projection](#) found the data-center water use to be equivalent to the amount used by about 20 percent of the city’s residents. (Hao, to her credit, later [acknowledged](#) that her calculation was wildly off base.)

Data centers do use a troubling share of electricity. Fengqi You, a professor of energy-systems engineering, told me that concerns about energy supply “are not to be dismissed.” But here, too, You stressed, “location really matters.” Plenty of places where data centers are being built have more electrical supply than they currently use. Others, though, have grids that are already strained. And if new data centers substantially juice demand while supply stays fixed, prices may rise for everyone, including everyday consumers.

America has needed more and better energy infrastructure since before data centers became an ongoing concern. “We’re putting pressure on a sector which itself has not prospered,” Mandel, the economist, said. But a lack of supply is not inevitable. Critics often seize on the fact that electricity prices have been rising in Virginia, where data centers account for almost 40 percent of the state’s electricity use. But electricity prices are rising faster in some states with far less data-center

development—for instance, [New Jersey and Maryland](#). And Texas, which is building more data centers than Virginia, has kept prices low by increasing capacity.

Loudoun County, Virginia, might be the best place to figure out how data centers affect the communities where they're located. Over the past 20 years, Loudoun has come to house 53 million square feet of data centers and more computing power than all of Beijing. Contrary to what critics believe, the experience of Loudoun suggests that when a data center comes to town, the economy improves.

Data centers occupy only about 3 percent of the county's land area but account for almost half of its property-tax revenue—a projected \$1.3 billion in 2026. I asked Buddy Rizer, the county's chief development officer, what that revenue has meant for the people of Loudoun. "We've been able to build 32 schools and 16 fire stations and six libraries and miles of roads and more than 1,000 acres of parks and recreation, and started an affordable-housing program," he told me, "all while lowering the tax rate on our citizens." Loudoun has slashed its homeowners' property-tax rate by nearly a third over the past decade.

That's not to say that Loudoun's transformation has been entirely smooth. The county made mistakes, including zoning noisy data centers too close to residential areas. Even Rizer admitted that he would do things "a little bit different" a second time. And most localities courting data centers will not be looking to build on the scale that Loudoun has. Still, Rizer said, he has told his counterparts in other counties that "having one or two data centers could double their tax revenue in a year."

Just how profitable data centers are for local governments depends in part, of course, on how they are taxed. Loudoun imposes what's called a "tangible personal property" tax on businesses, which allows the county to tax the valuable equipment housed in data centers in addition to their square footage. Plenty of counties around the country have similar taxes already in place. Conversely, some states offer sales-tax breaks to data centers in order to court them; if those are too aggressive, they can offset gains.

The reasons for resisting data centers may ultimately have less to do with the tangible costs than the symbolic ones. These unlovely warehouses of supercomputers are the physical infrastructure upon which artificial intelligence is built. They give [concrete form](#) to a technology whose promises and perils can otherwise seem abstract. And so they are a stand-in for all that Americans fear about AI: the disruption of education and work, the prospect of simulated relationships and machine-generated art. A moratorium bill advanced by Senator Bernie Sanders and Ocasio-Cortez articulated these fears in populist terms: "We cannot sit back and allow a handful of billionaire Big Tech oligarchs to make decisions that will reshape our economy, our democracy, and the future of humanity," Sanders said.

The AI future can seem mysterious and foreboding, and the issues surrounding it, therefore, can seem alien. The logistical trade-offs of building new data centers are, by contrast, very familiar. They are the same challenges that have always faced big industrial projects, and are amenable to the same kinds of solutions. Data centers will make sense in some communities and not in others. The best question to ask may not be *whether* to build, but *where* and *how*.