



Arizona: Population Growth Drives Climate and Water Woes

An NPG Commentary
by Edwin S. Rubenstein

When national population growth hit a record low, just 0.1% in 2021, Arizona added 98,000 people. Only Texas and Florida – states with much larger populations – added more residents that year.

Net migration has long been the key component of the state’s population growth, usually contributing more than births minus deaths, commonly referred to as “natural increase.” As the baby-boom population ages, natural increase will fall further. **State demographers project natural increase will turn negative sometime in the 2030s, at which time net domestic migration will be the sole source of AZ population growth.**¹

In recent years Phoenix has ranked first among all metro areas for net domestic migration. Nearly 89,000 people moved to the Phoenix area between July 2019 and July 2020 – an average of 244 new residents per day.²

Arizona drew an average 268,461 domestic migrants per year during the 2016-2020 period, with California contributing by far the most – 23.9% of the total.³

Arizona was home to 273,000 illegal immigrants in 2019, according to the Migration Policy Institute. It is surely higher today: Though the Biden Administration has decided to keep Title 42 in place, the influx of illegal aliens remains at record highs. The recent passage of Arizona Proposition 308, granting in-state tuition to illegal alien high school graduates, portends further long-term increases in this illegal population.

At times like this it’s easy to forget periods in AZ’s recent past when illegal immigration fell dramatically. From 2008 to 2009, for example, the unauthorized population went from about 560,000 to about 460,000, according to the Department of Homeland Security.⁴ The collapse in illegal immigrant population numbers occurred when state law criminalized undocumented migrants and

required beat cops to enforce Federal immigration laws. Ultimate culpability clearly rests with DC, not Phoenix.

The lure of (relatively) affordable housing

Housing affordability may be the strongest magnet. Nationally, the share of homes affordable to families earning the U.S. median family income fell to 42.8% in the second quarter of 2022, the lowest since the Great Recession. The Phoenix metro area is even pricier, with only 22.3% of homes sold affordable to median income families. But Arizona homes are dirt cheap compared to those in California, where metro area affordability is the lowest in the country, the worst being Los Angeles at 3.6%.⁵

Planned communities bring environmental havoc

“More people means there are more places to live, more infrastructure, more asphalt, more cement, you have more buildings,” says Erinanne Saffell, a climatologist at Arizona State University.⁶

Trees, grass, even deserts, cool off at night, but, “...our concrete and asphalt, the human-made materials...hold on to that heat all through the night and they release it very slowly...,” she says.

Decade after decade the unique ability of man-made materials to retain heat have impacted AZ’s climate: As evidence, Saffell notes: “**In the last 100 years or so, temperatures have increased by about 2 to 2.5 degrees across the state. But if you zoom in and look at the Phoenix metropolitan area, temperatures there have increased in the last 50 years by about 4 to 4.5 degrees.**”⁷

With Phoenix so expensive, builders are focusing on the vast swaths of desert in the city’s ex-urbs. **The Howard Hughes Corporation** is developing “one of the largest master-planned communities in the nation, **Douglas Ranch.**”⁸ Planned for the western suburb of Buckeye, it is

expected to have more than 100,000 homes, bringing in at least 300,000 new residents. And it's just one of more than two dozen communities in the works around Phoenix – all in the midst of the worst drought in more than 1,000 years.

Bottom line: Prospects for a cooler, more livable Phoenix are increasingly slim.

Speaking about water: Arizona's **1980 Groundwater Management Act** requires developers to prove there is 100 years' worth of water in the ground on which they're building. Sounds great, until you think about it:

Thought #1: "100 years' worth of water" in 1980 could easily be 50 years, or less, by today's standards, given the subsequent rise in population and per capita water consumption. A 2021 report from ASU's Kyle Center for Water Policy warns that the groundwater supply is considerably less than regulators estimate, and that without a change in direction **"the physical groundwater supply under Buckeye will decrease and will not be sustainable."**⁹

Thought #2: Climate change is depleting reservoirs faster than anyone in 1980 thought possible. **(Wrecked vessels at the bottom of Lake Meade have become Arizona's latest tourist attraction.)**¹⁰ This means less backup water to rescue developments – like Douglas Ranch – that are totally reliant on groundwater.

The Howard Hughes Corporation's response? CEO David O'Reilly plays the technology card:

"Every home will have low flow fixtures, national desert landscaping, drip irrigation and reclamation," he said, adding, **"we work with the local municipalities, the city of Buckeye, all the water districts, to make sure that we're enacting real conservation measures, not just at our property, but across the entire region."**¹¹

Sound familiar? We've heard this pro-technology spin before – e.g., assertions by coal- and oil-fired utilities that renewable energy will forestall global warming – only to have population growth and development overwhelm the claimed benefits.

From hero to zero: Arizona sabotages local initiatives

Two decades ago, Arizona was a leader in combating climate change. The governor drafted the state's first climate action plan, persuading other western states to do likewise – and coordinate their efforts.

At the time AZ cities were in a long-running fight with air-pollution. Passenger vehicles were (and still are) a main driver of the state's smog problem. The governor and

Arizona Department of Environmental Quality officials determined that adopting the more stringent California Clean Car standards was needed, **especially in light of the state's rapid population growth.**¹²

Fast forward to 2022:

Population is still growing, and Arizona still does not have a statewide climate action plan. In fact, it has enacted policies that prohibit state agencies from even tracking and reporting greenhouse emissions.¹³

In the absence of state leadership, cities and counties have taken matters into their own hands. Flagstaff, Phoenix, and Pima County conduct their own greenhouse gas emissions inventories. In recent years Maricopa County, Tempe, and Tucson have implemented climate action plans.

A few years back, Phoenix Mayor Kate Gallego issued what amounted to a cry for help:

"Cities are the branch of government that are closest to our residents. We hear what they need and what they want. If we lead, it really can make a difference. I would love to see the Legislature give us more tools to be able to respond to our residents rather than restrict our ability."¹⁴

Sorry, Ms. Gallego: In 2014 the Legislature outlawed plastic bag bans in cities and towns. In 2015 the Legislature prohibited cities from monitoring energy use in commercial buildings, a move one Tempe city council member called a **"slap in the face to local decision making."**¹⁵

Arizona proudly calls itself the Grand Canyon state. **"The Grand Canyon is like the canary in the coal mine,"** says Roger Clark, a program director for the Grand Canyon Trust. **"Visibility issues are an early warning sign of things going awry in the atmosphere."**¹⁶ The once pristine canyon is now enveloped in haze up to 75 days a year.

Summary

Arizona is a state in denial. Decades of unbridled population growth have converted untold acres of desert into urban sprawl. Decades of undoing statewide environmental regulations have exacerbated the heat and water shortages stemming from that population growth.

While the current situation is wildly out of sync with continued population growth and future-focused sustainability, it is not too late.

But the clock is ticking.

NOTES

1. George W. Hammond, *Here's how many Californians have moved to Arizona*, November 13, 2020, azbigmedia.
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3. Hammond, op.cit.
4. <https://www.goucher.edu/learn/graduate-programs/mfa-in-nonfiction/student-alumni-work/illegal>
5. George W. Hammond, *Here's how much housing affordability has dropped in Arizona*, 2022, azbigmedia.
6. Alexis Dominguez, *Arizona's population growth affecting the climate, according to expert*, June 21, 2022, azfamily.com.
7. Ibid.
8. <https://www.cnn.com/2022/04/05/developers-flood-arizona-with-homes-even-as-drought-intensifies.html>
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10. <https://www.cnn.com/interactive/2022/12/us/lake-mead-drought-shoreline-discoveries-climate-ctpr/index.html>
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12. Erin Stone, *Arizona was a leader in climate change policy 15 years ago. What happened?*, Arizona Republic, September 25, 2020.
13. Joan Meiners, *The Arizona climate that could have been*, Arizona Republic, October 26, 2022.
14. Stone, op.cit.
15. Ibid.
16. Ibid.

Edwin S. Rubenstein, president of ESR Research, is an experienced business researcher, financial analyst, and economics journalist. He has written extensively on federal tax policy, government waste, the Reagan legacy, and – most recently – on immigration. He is the author of two books: *The Right Data* (1994) and *From the Empire State to the Vampire State: New York in a Downward Transition* (with Herbert London, 1994). His essays on public policy have appeared in *The Wall Street Journal*, *The New York Times*, *Harvard Business Review*, *Investor's Business Daily*, *Newsday*, and *National Review*. His TV appearances include *Firing Line*, *Bill Moyers*, *McNeil-Lehr*, *CNBC*, and *Debates-Debates*. Mr. Rubenstein has a B.A. from Johns Hopkins and a graduate degree in economics from Columbia University.



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