

*What a New Technology Added to an Old Demographic Transition — and Why Israel Escaped It

For half a century, the rich world has been getting better at almost everything except having children.

Fertility has been falling across advanced societies for decades. [The OECD average dropped from 3.3 children per woman in 1960 to 1.5 in 2022](#), and birth rates in the United States and Europe have sat below replacement since the mid-1970s. Much of this decline is well understood — women gained autonomy, contraception spread, the economics of childrearing changed, and social norms around work and family life shifted. There is no mystery about the broad direction of travel.

But there is a less obvious question inside the long decline. [The OECD itself notes that the decline stopped temporarily during the 2000s, before resuming after the financial crisis of 2007–08](#). That resumption happened to coincide with the early diffusion of the smartphone. The timing is suggestive, but the global demographic data do not support a simple story of a synchronized fertility collapse beginning around 2010; countries reached their turning points at different times, and in several cases the underlying decline had been running continuously for decades regardless of what was happening in anyone's pocket.

That makes the question more interesting, not less. The issue is not whether smartphones caused fertility to start falling — they plainly did not. It is whether an old demographic transition encountered a new technological environment that altered some of the social mechanisms through which relationships and families are formed. If so, smartphones would not be the cause of the fertility decline. They would be a possible accelerant, or a new layer in a process that was already underway.

And there is a country that offers an unusually revealing test of that possibility: Israel, wealthy, highly educated and technologically advanced, yet still posting the highest fertility rate in the OECD.

The Long Decline — and the Question of What Changed

A recent NBER paper by Melissa Kearney and Phillip Levine reviews why fertility has fallen in almost all high-income countries, and lands on what they call [“shifting priorities”](#): a reordering of adult life in which parenthood plays a smaller role, driven by a mix of cultural, normative, and structural change — more intensive parenting norms, peer effects, media influence, declining religious observance. [Claudia Goldin's related NBER work](#) makes a similar point from a

different angle, treating the fertility decline as a global phenomenon whose roots go back decades before smartphones existed.

Both accounts describe something fundamental about the modern demographic transition. They explain why fertility has fallen, and why the change has been so persistent. What they leave open is whether the technological transformation of everyday life added another mechanism to the process.

That is a narrower question than asking whether smartphones caused the fertility crisis. It is also a more testable one. If smartphones changed how young people spend unstructured time, how often they meet one another face to face, how they search for partners and how they compare their lives with those of others, then they may have altered the environment in which family formation takes place — even without being the original cause of the demographic transition.

What Happened in Our Hands

iPhone, 2007. iPad, 2010. Instagram, Snapchat, and a wave of dating apps not long after. The smartphone became the default site of human attention during the same broad period in which an already-established fertility decline resumed and continued to deepen.

The strongest causal evidence here is narrower than the headline version of this argument usually suggests, and it is worth being precise about exactly what it shows. [Myers and Hooper's 2026 NBER paper](#) uses AT&T's exclusive US distribution of the iPhone between 2007 and 2011 as a natural experiment, using geographic variation in AT&T's mobile broadband coverage to identify the effect. They find that iPhone access reduced births among 15-to-19-year-olds by 4.5 to 8.0 percent and among 20-to-24-year-olds by 3.2 to 6.6 percent, and estimate that iPhone diffusion can account for roughly a third to half of the decline in the US general fertility rate among women 15-44 over the period they study.

That's a real, specific, causally identified effect — for the United States, for young women, in the early smartphone years. It is not, on its own, evidence that smartphones caused a global fertility collapse. What it establishes is narrower but still important: smartphone access itself can alter fertility behavior through a real, measurable channel.

The open question is whether that channel matters beyond the particular population and period studied. The global demographic data do not provide a clean before-and-after experiment: fertility trajectories differ substantially between countries, and many of the underlying declines predate smartphones by decades. But the possibility that a new technology could amplify an existing

demographic trend is no longer merely speculative. At least in the early US evidence, smartphone access appears capable of changing fertility behavior.

The possibility becomes harder to dismiss when we look at how young people actually spend their time. [Using American Time Use Survey data from 2003 to 2024, Myers and Hooper find that the amount of time 15-to-19-year-olds spend with friends physically present, outside work and school, fell from 141 minutes a day to just 43 — a decline of 69 percent.](#) Among 20-to-24-year-olds, it fell from 107 to 49 minutes, and among 25-to-29-year-olds from 65 to 34 minutes. These figures do not prove that smartphones caused the decline, or that reduced face-to-face interaction caused lower fertility. But they document a profound change in the social environment in which friendships, dating and sexual relationships form.

That matters because fertility is not produced by economic incentives alone. Before a great many people can decide whether to have a child, they first have to meet someone, form a relationship and sustain it long enough for a family to become conceivable. A society can make parenthood cheaper without making relationships easier to form. If the ordinary, unstructured social contact through which relationships once emerged has been sharply reduced, the demographic consequences may appear only later — and may be visible first not in fertility statistics, but in the disappearance of the social conditions that precede them.

Dating apps might appear to solve precisely this problem, offering more ways to meet people just as ordinary opportunities to do so in person decline. But digital abundance may alter commitment rather than restore social connection: it may raise the threshold, at least for some people, for accepting a flawed, real person and building something with them when alternatives always appear to be one swipe away. That is not evidence that dating apps cause lower fertility. It is a plausible mechanism by which more ways to meet someone could still fail to translate into more durable relationships.

For people already within childbearing age, the mechanism may look different again. A [cross-sectional study of women in China](#) found social media use correlates with heightened fertility-related anxiety, mediated by social comparison and attitudes toward gender roles — though the study cannot establish which way the causal arrow runs, and it has so far been tested in only one cultural context. Still, it fits a broader shift the Kearney-Levine framework also points to: parenthood has moved, for a growing share of people, from a default stage of adult life to a high-stakes personal project, one that seems to demand a level of financial, emotional, and existential certainty that modern life makes harder to reach.

The Obvious Objection

The most serious objection to all of this deserves treatment as a real challenge, not a footnote. Fertility was already declining long before smartphones existed. Delayed family formation, rising education, changing labor markets, contraception and changing social norms were already transforming reproductive behavior. The smartphone risks becoming a convenient, visible symbol for a shift that was already underway, rather than an important cause of it.

That objection is correct as far as it goes.

The argument here therefore is not that smartphones replaced the established explanation. Nor is it that a single technological invention suddenly caused fertility to collapse. It is that an old demographic transition may have encountered a new social technology capable of modifying some of the behaviors through which that transition unfolds.

An old trend met a new environment.

The question is how much the environment matters.

The Country That Didn't Get the Memo

If part of the modern fertility problem involves the weakening of face-to-face life and the substitution of digital alternatives for slower forms of social interaction, a useful test case is a country that shares many of the defining features of modern high-income societies — high education, advanced technology, urbanization, expensive housing and demanding careers — yet has followed a radically different fertility trajectory.

Israel is that country, and the story it tells is more interesting than “modernity failed to arrive.”

[Israel's total fertility rate was around 2.9 children per woman in 2022](#), against an OECD average of 1.5 — the only OECD country above replacement level in the OECD's 2022 data. To find comparable numbers elsewhere in the developed world, you would have to go back to the American baby boom of the 1960s.

The easy explanation is the ultra-Orthodox. [Haredi fertility really is extreme — around 6.5 children per woman](#), and it does pull the national average up substantially. But the more interesting part of the picture sits elsewhere. [Non-Haredi Jewish women had a fertility rate of 2.45 in 2022, and even fully secular Jewish women had a rate of roughly 1.96 between 2020 and 2022](#). That's below

replacement, but far above the fertility levels now typical among secular, highly educated populations in much of Western Europe.

Here's the part that's easy to get wrong: this isn't a case where the usual fertility-suppressing forces simply failed to apply. Israel has high housing costs, long career tracks, and — by Northern European standards — comparatively modest public childcare support. By most socioeconomic logic, its fertility should track something closer to Southern Europe.

[Researchers at Israel's Institute for National Security Studies have found that even in the highest socioeconomic decile, the average Israeli woman is still expected to have 1.95 children over her lifetime](#) — meaning the usual negative relationship between income, education and fertility, so reliable elsewhere in the OECD, is strikingly weak in Israel.

The normal suppressors are present. They just don't suppress as much.

It's also worth being honest that Israeli fertility isn't a simple, static baseline slowly eroding. The overall Jewish fertility rate actually rose over the two decades to 2022, even as it has softened somewhat since 2018; [the Taub Center's most recent demographic analysis projects that completed fertility among secular and non-religious traditional women will approach roughly 1.7 by the end of the 2030s](#), which would still sit above current rates in Northern Europe and North America. Israel isn't a country where modernity has been defeated, nor one where an old family norm is simply fading on a fixed trajectory. It's a country where modernity and a resilient family culture have coexisted, sometimes pulling fertility up and sometimes down, in a way that neither the standard economic model nor a simple story of decline captures well.

Nor does this trace to some latent trait carried by Jewish identity across borders. Jewish communities outside Israel largely mirror the fertility patterns of their host societies. Whatever is driving Israeli fertility is tied to the Israeli context specifically — researchers point to a cultural emphasis on family that runs through even secular life, a strong current of “familism,” and a [collective sense of national stakes shaped by a history of existential threat](#). Having a child there appears to carry a meaning that extends beyond the personal, something closer to a civic and generational commitment than a purely private choice.

There's a smaller, related data point worth noting. Israel's abortion law is formally liberal, and [applications have continued to decline — 6.6 per 1,000 women of childbearing age in 2024, down from 6.9 in 2023, with 99.8 percent of applications approved](#). That's consistent with the idea that social norms around childbearing in Israel differ from much of the developed world, though the statistic alone doesn't prove it; declining application rates could reflect several overlapping



trends, and it's better read as a small piece of corroborating evidence than as its own independent argument.

Why Money Hasn't Fixed This Elsewhere

The natural policy response to fertility decline is to reach for the checkbook — cash transfers, extended parental leave, subsidized childcare. France gets held up as the success story, and decades of sustained investment there have [nudged fertility modestly upward relative to its neighbors](#). But the gains are measured in tenths of a child per woman, not the kind of shift that restores replacement-level fertility on its own. No wealthy democracy has so far managed to restore replacement-level fertility through pronatalist policy once fertility has fallen substantially below it.

Projections modeling more aggressive intervention aren't encouraging either. [Simulations of Japan's fertility future suggest that even very large financial commitments — cash benefits approaching 1.5 to 1.7 percent of GDP — produce only a limited probability of reaching long-run replacement](#), and that closing a meaningful gap would likely require spending well beyond 3 to 6 percent of GDP, an estimate that probably still overstates the achievable effect.

This is closer to what you'd expect if the crisis, at bottom, involved something money can't easily buy.

A State That Notices

There's a small but telling data point worth setting alongside all of this: both Iran and Japan have launched state-supported dating initiatives in recent years, in direct response to demographic decline. Two governments at opposite ends of the ideological spectrum have arrived at the same diagnosis — that people are no longer meeting each other, and that this, specifically, is now a problem worth direct state intervention. It's a glimpse of a broader pattern: when the informal social infrastructure that used to produce relationships weakens, states start trying to build administrative infrastructure to replace it. Whether that kind of institutional substitution can actually do the job the original social fabric did is very much an open question.

Put the pieces together and a more complete picture emerges than any one of them offers alone. Fertility has been declining across the rich world for half a century, for reasons that have little to do with smartphones. But somewhere inside that older decline, a newer layer may have formed: a technological environment that can measurably alter fertility behavior in at least one well-studied case, and that may have altered the social environment in which relationships form elsewhere as well — thinning out the everyday interaction



through which relationships used to form, while feeding a steady diet of comparison and future-anxiety to people already deciding whether to have children.

Israel doesn't refute this picture. It's what makes it legible. Secular Israelis aren't shielded from smartphones, dating apps, or economic pressure — they carry the same phones and face many of the same structural burdens as their European counterparts. What differs is the cultural buffer around them: a dense social fabric, and a widely shared sense that the future has to be actively populated rather than merely managed or administered. That buffer hasn't stopped Israeli fertility from declining. But it appears to be absorbing something that, elsewhere, goes largely unabsorbed.

If that's roughly right, it carries an uncomfortable implication for policymakers elsewhere. Treating fertility decline as a pricing problem — something a sufficiently generous transfer payment can fix — targets the wrong layer of the problem. Cash can offset lost income. It can't easily rebuild a frayed social fabric, and it does little to counter the comparison, uncertainty and future-anxiety that can be amplified by a digital environment. Israel doesn't offer a policy lever that other countries can simply import; a shared history of existential threat isn't something a government can manufacture on demand. What it does offer is a sharper version of the underlying question every declining society now faces: whether a society's fertility ultimately tracks something no transfer payment can buy — whether its members still believe the future is worth populating.

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