

New paper on the iPhone and fertility

by Tyler Cowen June 8, 2026 at 6:53 am in Data Source, Web/Tech

The U.S. general fertility rate has fallen by 22% since 2007, a sustained decline not readily explained by economic conditions, contraceptive use, housing or childcare costs, or other commonly cited factors. We assess the potential role of a different shock: the diffusion of the smartphone. The U.S. rollout of the iPhone, the first modern smartphone, provides a natural experiment: from June 2007 through February 2011, the device was sold only on AT&T, allowing us to identify its effect from variation in AT&T's mobile broadband coverage. Entropy-balanced Poisson and synthetic difference-in-differences event studies imply that access to the iPhone reduced births by 4.5–8.0% at ages 15–19 and 3.2–6.6% at ages 20–24, with statistically significant but smaller declines among older cohorts. Placebo analyses applied to Verizon and Sprint's pre-2011 coverage footprint are null. Taken together, these cohort effects imply that the diffusion of the iPhone deepened the decline in births among women under 30 while suppressing the rise in births among older women. Overall, the diffusion of the iPhone explains 33–52% of the decline in the general fertility rate among women aged 15–44. National-survey evidence on time use and sexual behavior is consistent with the iPhone reducing in-person interactions, increasing pornography use, and reducing sexual frequency.

That is from [Caitlin K. Myers & Ezekiel Hooper](#). An interesting and difficult to discuss question is how much we actually want teen fertility rates to decline, and to what extent we should consider such declines a good thing.

Note also that as this study is set up it does not discriminate against the "the iPhone effect on fertility is mainly a thing of timing" hypothesis. And [a Paul Novosad comment](#).

 71 Comments     print

Comments

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Lord Action

2026-06-08 08:40:56

#

↑ 20 ↓ -4

Hide Replies

While I'm open to the idea that technology, broadly, is part of this, it would seem to have trouble with the large parts of the world where fertility is plummeting that are neither rich, educated, advanced, or terribly western.

My best theory is that it's multifactor and richness and education aren't nothing, but that the primary cause of the drop off in fertility is density. People don't breed when they feel crowded.

Respond

Sure

2026-06-08 11:49:10

↑ 17 ↓ 0

Hide Replies

Ehh, NYC in the early 20th century had perhaps the world's highest population density ... ever ... and still had TFRs that would be top 10% for modern jurisdictions.

I suspect that the major impact of density is just what it contributes to the main mechanism of fertility decline - delayed marriage.

Dating in cities is hard - you have fewer overlaps between your dating pool and other areas of your life (professional, family, religious, political) so you are approaching dating with fewer resources and less data. But cities come with deeper dating pools so you have much larger potential improvements from waiting (real or imagined matters not). And the economies of coupling are much lower in the city. Whatever substitutes you want for marital relations (hookers, drugs, games, psychiatrists, restaurants), they will be present and you can likely find a way to utilize them without accruing stigma elsewhere in your life.

The other side of the coin, is that in cities (as increasingly in the rest of world) there are increasingly few ways to attain social standing that aren't throw all in on a job. Nobody cares if you lead the local Rotary. Your union, should you have one, is largely a quid-pro-quo lobbying affair rather than an alternative social ladder where union treasurer might bespeak social stability for his progeny. Politics? Largely overrun by professionals and organized around issues rather than community. Religion? Ever where it isn't declining leadership positions mean largely that you are willing to fill

them.

Jobs have eaten the rest of life. For any relative social good the way to get it is to work hard earning it or spending a lot of money.

And that makes marriage difficult. The push factors - access to sex, more efficient living arrangements, skill specialization - are muted by the modern urban economies commodization of nearly all aspects of life. The pull factors - where you could know that this mate was well received by friends, family, and community are largely gone as well.

But those forces are wreaking their havoc out in the burbs and the rural areas as well. People want stability in marriage. But we've made it hard to find any certain tells aside from career. So the optimal play becomes going all-in on a career until you can marry, and then dialing back later. Except when everyone does that we red queen our way to nowhere.

Respond

Anti-Gnostic

2026-06-08 13:13:12

↑ 4 ↓ -1

#

People moving to lower densities as soon as they can afford them seems as anthropologically constant as older, wealthy men marrying younger women.

Respond

Lord Action

2026-06-08 12:59:15

↑ 2 ↓ 0

#

Hide Replies

"Ehh, NYC in the early 20th century had perhaps the world's highest population density ... ever ... and still had TFRs that would be top 10% for modern jurisdictions.

I suspect that the major impact of density is just what it contributes to the main mechanism of fertility decline - delayed marriage."

Well, yeah, it's quite possibly the paradox of choice. And it would matter if you were in a "modern" dense place or in a balkanized neighborhood that happened to be

embedded in a not-actually-as-dense, but densish place.

That could very well be why Seoul is worse than NYC which is worse than St. Louis which is worse than the suburbs of Wichita.

An inability to pairbond in circumstances that are too dense is a possible mechanism. It's not the only possible mechanism, but it's a decent one. People take too long to commit in those circumstances.

Respond

Sure

#

2026-06-09 12:00:59

↑ 0 ↓ 0

I think the big thing is that in the before times you lived with your family, new all the possible mates, and were reasonably confident that when you married you were getting an outcome that was reasonably certain. Modernity broke the link between geography and family, but up until the 1970s or arguably the 90s, folks who migrated - across the ocean, to the burbs, or into dense cities - quickly ensconced themselves in dense communities that mimiced the old villages. Ethnic segregation was the norm. It was almost invariable that your neighbors would overlap in one of: your local house of worship, your local union, your local Little League, your local school PTO, your local civic service group, your local political machine, etc.

You might live in a skyscraper at peak human density ... but the place was still filled with people "like you" and the folks "like them" were safely beyond the pale for all but the most adventurous. Even if you jumped on of the major barriers (e.g. a Protestant marrying a Catholic) odds were that you knew her family through some other social connection so you knew what you'd get.

But these days? Cities are the loneliest places. There is virtually no overlap, at all, between social circles. And most young urban dwellers have exceedingly few married friends who might provide good information for matchmaking anywhere in the social network that overlaps with potential mates.

Phones likely accelerated this trend. Why join a trivia team when you can just play the latest online game. Why spend money on alcohol looking to get laid when you can get Pornhub for free anwyhere and escort services on demand?

Modern dating is just frankly bizarre. Your choice of mate is likely the single most impactful decision in life - more so than which career you attain by far in my experience. But the first pass filter most folks use is raw looks coupled with less than 30 seconds of deliberation. Of course the starting search space is going to suck. And wading through it to find a match is going to take forever. All while all participants are confronted with endless reasons to delay and hope for a better option to come along.

Fertility can survive humans in quite close contact. But it, so far, cannot survive atomization and wildly inefficient search patterns.

Respond

Peppa

#

2026-06-08 09:15:07

↑ 8 ↓ 0

Hide Replies

Good point. Though aren't smart phones well diffused through the developing world by now?

Certainly the fertility decline predates smart phones, but the question here is more about whether they accelerated the trend from ~07 onward.

Respond

Lord Action

#

2026-06-08 09:28:09

↑ 2 ↓ 0

Hide Replies

To be clear, I'm not arguing that access to new, interesting technology has no effect, although I agree with the criticism that it seems to correlate well with other suspected causes of the collapse in fertility.

But to answer your specific question, while smartphones exist everywhere, feature phones still dominate in much of the world. I believe smartphone penetration is only about 30% in Africa and 40% in South Asia (I had to quickly look that up).

And I'd bet if you look at, for example, Sub-Saharan Africa, you'll find a much

higher concentration of smartphones in the cities, among the education, among the rich, etc.

Respond

Harpoon

#

2026-06-08 09:32:02

↑ 1 ↓ -1

Hide Replies

"And I'd bet if you look at, for example, Sub-Saharan Africa, you'll find a much higher concentration of smartphones in the cities, among the education, among the rich, etc."

You mean the people with the lowest fertility rates? They are the ones with the iPhones?

Respond

Lord Action

#

2026-06-08 09:36:50

↑ 1 ↓ 0

Yes, but they get those characteristics, which came with low fertility before anyone ever had a smartphone, and then they get smartphones.

So it's kind of weird that the fact they were going to one day buy smartphones reached back in time and affected the fertility of that kind of person before 2007.

Basically there's a serious correlation versus causation problem here.

I am not dismissing the result, however. I do actually believe that distracting alternatives to dating, marrying, and raising children are actually an issue here. My inclination is to think that it's one of the issues and not the main one, but I don't disbelieve it. I don't have evidence to dismiss it at this point.

Respond

Lord Action

#

2026-06-08 09:33:09

↑ 0 ↓ 0

You'd have to look closely at timing to make sense of this.

Respond

Mike in Va

#

2026-06-08 09:07:46

↑ 8 ↓ -2

This seems most likely. The mouse utopia effect.

Respond

Nick

#

2026-06-08 10:32:52

↑ 2 ↓ 0

Hide Replies

Isn't that fairly ahistorical? Human density kept hitting unprecedented heights as soon as agriculture was invented... unless the thesis is that some "fertility destroying threshold" was reached in more recent times

But even then... America is by no means Dense in the way many other countries are... and the fertility decline seems to be hitting all developed/developing countries regardless of density?

Respond

Lord Action

#

2026-06-08 10:38:09

↑ 1 ↓ 0

Hide Replies

Yeah, clearly the thesis is there's some threshold. Suburban homes seem fine, Asian skyscraper apartments don't.

Within America, density explains fertility in a strong way. People in apartments don't have kids, roughly speaking, at least not without an obvious out to better living conditions. Of course there are other correlates with density, and

disambiguating among them is hard.

If you look at density in the U.S. and internationally, it lines up with fertility really well almost no matter where and when you look and how much you zoom in.

Respond

Lord Action

#

2026-06-08 10:41:24

↑ 5 ↓ 0

Hide Replies

"Suburban homes seem fine, Asian skyscraper apartments don't."

It seems like we don't have to be rural.

I could easily believe we've got some instinct that counts the number of strangers we see each day and delays fertility if it exceeds 40. Obviously I'm making that specific thing up, but such a mechanism is evolutionarily plausible. Something must be incenting us to find new niches.

Respond

Lord Action

#

2026-06-08 14:14:35

↑ 4 ↓ 0

Riffing off Sure's helpful comments, it could very well be that a guy who sees too many strange young women thinks "I shouldn't settle down yet" and a girl who sees too many strange young men thinks "this isn't a safe place to have kids."

It would not be at all surprising if we were tuned to take local population issues into account when making fertility decisions, and of course our primitive brains would have no idea about global populations or anything like that, it would just be looking at what it could see hyperlocally.

Respond

JK Brown

#

2026-06-08 11:17:31

↑ 2 ↓ 0

Hide Replies

How do you explain the plunge of the fertility rate in the US and UK from 3.5 in 1960 to 2.1 in 1973? Except by the spread of the transistor radio?

"The mass-market success of the smaller and cheaper Sony TR-63, released in 1957, led to the transistor radio becoming the most popular electronic communication device of the 1960s and 1970s."

The transistor radio meant you could listen to your radio alone or in smaller groups than having the congregate at the malt shop.

Respond

Anti-Gnostic

2026-06-08 13:05:06

↑ 5 ↓ 0

Hide Replies

I blame the printing press.

Respond

Agorabum

2026-06-09 15:48:33

↑ 0 ↓ 0

The trouble all started with Martin Luther

Respond

Wayfaring Stranger

2026-06-08 08:22:46

↑ 18 ↓ -3

Hide Replies

"An interesting and difficult to discuss question is how much we actually want teen fertility rates to decline"

I don't find it difficult. "teen" is not the crux of the issue. The crux of the issue is

"married" or in a similarly stable relationship.

Kids need two parents.

Respond

Marie

#

2026-06-08 08:54:42

↑ 19 ↓ 0

Hide Replies

Exactly.

The decline in teen fertility is fine, especially since it implies that young women will be more ready and able to start and raise a family once they finish HS.

One thing I would like to see is "sex ed" being more about planning to have a stable (preferably married) relationship and children at the best time (starting mid-late 20's). That obv includes not having in babies in your teens, but also includes the idea it's good and important to do and you should to wait a while, but not too long". Too much of the message is "having a baby will ruin your life", not enough is "do it *at the right time*" and even "if you wait too long, infertility can ruin some aspects of your life".

Respond

Lord Action

#

2026-06-08 09:29:52

↑ 7 ↓ 0

Hide Replies

Strong agree.

The first rule of holes is, when you find yourself in one, stop digging.

Respond

Biggles f'Tang

#

2026-06-08 16:07:23

↑ 4 ↓ 0

That would be an excellent opener on the first day of sex ed class.

Respond

Mother of three

#

2026-06-08 09:26:45

↑ 10 ↓ -5

Indeed.

There's no sign of a fertility decline at my church. Babies and toddlers everywhere, constant appeals for help in the nursery.

If you don't have kids in this context, people assume something's wrong with you and have sympathy.

Please keep telling all your left-wing friends not to bother with kids in their lives as it's just too much trouble to be worth it.

Respond

Wayfaring Stranger

#

2026-06-08 08:35:34

↑ 5 ↓ -2

Hide Replies

The issue is this: do we want more kids poorly parented or fewer kids well parented? No doubt there are some single parents (often well off) who can handle the job alone, but for the average person with the average income it takes two parents to raise kids well, and even then it isn't so easy.

The general rule should be two parents. Hopefully that's where we're going.

Respond

Sure

#

2026-06-08 12:14:56

↑ 4 ↓ 0

What we want is to people to have the sort of life courses they want: get married in the timeframe they desire, having the number of kids they desire, and living in the place they desire.

Currently, the tradeoffs between those and other things skew very heavily against early (e.g. pre-30) marriage and childbearing. But nothing was handed down from on high that the current incentive structure driving the tradeoffs that determine equilibrium behavior are sacrosanct.

Maybe the dislocations needed to create incentive structures that make it easier to marry at 25 and have kids aren't worth the costs. But we should at least make a conscious decision that weights the options for how to structure society. Maybe we should go full Libertarian and nuke the welfare state, maybe we should copy the Israeli model, or whatever.

But there is no need to make a determination about who is less desirable for breeding. There is a lot of benefit on one side of the ledger for earlier average marriages and the almost certain to follow earlier childbearing.

Respond

Mike in Va

#

2026-06-08 09:10:29

↑ 0 ↓ 0

Hide Replies

Aren't we headed in the opposite direction with a lower percentage of children being raised by their married mother and father?

Respond

Lord Action

#

2026-06-08 10:03:33

↑ 4 ↓ 0

Not really. I believe that trend peaked maybe 25 years ago and has been falling as divorce has become rarer.

Respond

Wayfaring Stranger

#

2026-06-08 10:03:52

↑ 2 ↓ 0

From what I understand single parenthood is decelerating.

Respond

Sure

#

2026-06-08 11:54:08

↑ 1 ↓ 0

Single parenthood is in terminal decline at the moment. And it is unlikely to reverse.

And given that pregnancy functions like a social contagion, we really only should have expected a lot of it when norms were in flux with a bunch of women around peers who had kids (e.g. early married folks) while also not adhering to the stigmas that would have prevent single parenthood previously (e.g. religion).

People have children when they are around children and as teenagers are ever more sealed off in weird educational bubble there is ever less pull towards the sorts of things that lead to early parenthood.

At this point, I think we may have be past the point where half of teen pregnancies are to religious minority mothers who are married and reasonably well established in life (e.g. the Amish, Hutterites, Laestadians).

Respond

steve

#

2026-06-08 11:27:47

↑ 1 ↓ 0

Hide Replies

Divorce rates for teen marriages are higher than when marrying later so not sure how much we want teens getting married so they can have kids. It's also pretty well known that teen marriages have pretty poor economic outcomes on average though not sure how much of that is due to a high percentage of teen marriages occurring among poor kids to begin with.

Steve

Respond

Sure

#

2026-06-08 12:03:07

↑ 4 ↓ 0

Hide Replies

1. Discohabitation has most of the same knocks to finances, mental health, and the rest as a divorce. We avoid very few poor economic outcomes by delaying marriage for cohabitation. And if we could delaycohabitation we should consider the next option.

2. Teen marriages without prior cohabitation and even more so without a previous sexual relationship (i.e. virgin marriage) are not all that bad. Something around the marriage survival odds for getting married at 32.

3. Teen marriage stats are going to be a mess these days for the religious minorities. When you enter the labor force early, as with the Amish, you may be married at 19, but have had 5 years of responsibility in a career.

4. Divorace impacts are small potatoes compared to a lot of stuff we do. Tobacco is highly addicting and will cause all manner of trouble. We don't care at 18. You can enlist in the military and have folks try to kill you (and in war we'd draft you if it got bad enough). Student debt from a non-completed degree has *much worse* odds ratios than a divorce for economic ruination.

Teen marriage and fertility is largely a rounding error no matter how you look at it. If we had a society that regularly married off teens - like the 50s - they'd be largely fine. And while their hazard ratios above one, the optimal age is something like 25 for health, economic, and psychiatric data that I have seen. And things like repetitive discohabitation, drug use (to include cigarettes or alcohol), and unemployment all have worse hazard ratios.

Teen marriage should be something like 50th on a rank ordered list here.

Respond

Wayfaring Stranger

#

2026-06-08 17:51:49

↑ 2 ↓ 0

Discohabitation! That's it! The bee gees were responsible for the whole single parent thing!

Respond

Quantitative Sneezing

2026-06-08 17:51:29

↑ 0 ↓ 0

I tried discohobitation back in the '70s...

Respond

Wayfaring Stranger

2026-06-08 12:43:01

↑ 1 ↓ 0

"Divorce rates for teen marriages are higher than when marrying later "

I agree but I also know many very successful people who's parents married young.

Respond

bazza

2026-06-08 23:11:23

↑ 0 ↓ 0

Yeah, my brother married his wife when she turned 18. That was back in the '70s.

Respond

Marie

2026-06-08 08:34:08

↑ 8 ↓ 0

Hide Replies

" Overall, the diffusion of the iPhone explains 33–52% of the decline in the general fertility rate among women aged 15–44."

Hard doubt. There simply weren't enough iPhones in use 2007-2011 to have a significant effect on fertility, especially among teens.

The authors look at data from 2007-2011. According to GPT, in 2010, only 23-25% of

US subscribers had a "smart" phone at all (vs flip phone or feature phone) and iPhone only had about a 25% share of that (Blackberry(!) was dominant and Android still small.).

Even assuming that basically all "fertile age" people owned phones, only a small percentage of them had an iPhone. To have a notable dent on fertility, the iPhone would pretty much need to double as a chastity belt, not a distraction....

Even more, I doubt that many 15-19 year olds had what were then very expensive, very high-end iPhones, when only a very small fraction of phone owners had one at all (GPT says \$300-400/mo with contract in 2026=\$, \$900 unlocked). There's just no way it had impact on the teen population -- it might even be more realistic to use the drop in 15-19 y-o fertility in the treatment regions as a *baseline*.

If I were really mean, I would say that the main early uptake of iPhone was among tech nerds with more money than social skills (not a typically high-fertility population).

Respond

Peppa

2026-06-08 09:08:49

↑ 1 ↓ 0

The study talks to this a bit. The numbers — and the broader idea that a small number of iPhones can change the social dynamic without everyone owning one — is still plausible. But you're not wrong.

Respond

Quantitative Sneezing

2026-06-08 09:29:32

↑ 6 ↓ 0

Hide Replies

Is it truly possible that pulling out [the phone] is more than 80% effective?

Respond

Sure

#

2026-06-08 12:09:43

↑ 1 ↓ 0

Hide Replies

Pulling out the penis is more than 80% effective. For most sober individuals it is pretty trivial to get withdrawal contraceptive rates north of 95% – there is a reason that highly pronatal religions had to have taboos against it.

I think the big deal with phones is that they are means by which ideas diffuse rapidly and change in relative status. When we had the advent of printing you got the Protestant Reformation and a decline in monasticism even within the Catholic World. When you had truly mass market journalism we had new social movements (e.g. Prohibition) that were driven off the sensationalism of outlier stories. When you had motion pictures we saw society change towards Third Way gloss. Television brought us 1950s cultural homogeneity and so forth.

The cell phone is doing the same. It is raising the salience of differences between the sexes (ever more on both sides are pathologizing statistically normal behaviors). It is reducing the barrier to rivalous options.

Turns out all the Libertines who said you cannot stop teenagers from having sex were wrong. Pornhub, politics, and passive scrolling work just fine.

Respond

Quantitative Sneezing

#

2026-06-08 17:54:33

↑ 1 ↓ 0

Hide Replies

Don't discount germophobia as well. The 20-somethings I see perma-masking and wiping gym equipment pre- and post- use (with no visible sweat on the surface at any time) aren't exactly likely to be willing to swap bodily fluids with anyone. The gross factor is far too high for them.

Respond

mikeInThe716

#

2026-06-08 22:00:25

↑ 0 ↓ 0

Yes, a few times annually during travel, I'll use a mass market gym. Germophonia is tedious in a busy gym. Along with disrupting selfie videos and posing. Often by (wtf???) young men.

Narcissistic women I get. But, sorry, looks-maxing dudes are just effed up.

Respond

Arthur

#

2026-06-08 06:56:25

↑ 5 ↓ -1

Mouse utopia

Respond

Hadur

#

2026-06-08 07:13:53

↑ 4 ↓ -1

Hide Replies

There's definitely a quad chart to draw about people who accept that iPhones cause fertility decline or not vs people who think fertility decline is good or bad. Probably people in all four quadrants can be found here.

I'm in accepts iPhones cause fertility decline, thinks fertility decline is bad. I'm literally posting this from my iPhone btw.

Respond

Crusader

#

2026-06-08 08:10:28

↑ 3 ↓ -3

Hide Replies

Who's bold enough to join me in fertility decline is bad, iPhone is going to solve the fertility decline.

Respond

Harpoon

#

2026-06-08 09:15:40

↑ 3 ↓ 0

Given that the Amish have the best demographics, I will not join you in that quadrant.

Respond

BC

#

2026-06-08 09:53:28

↑ 3 ↓ 0

"An interesting and difficult to discuss question is how much we actually want teen fertility rates to decline, and to what extent we should consider such declines a good thing."

It's not that difficult. Declines in teen pregnancies are good things. What would be both interesting and difficult is explaining to parents that, while those smartphone bans might decrease teen angst, they might also increase the chances of their teenage daughters getting pregnant...

Respond

JFA

#

2026-06-08 10:10:38

↑ 1 ↓ 0

Quite different from Tyler's earlier strident tone about why he doesn't believe smartphones cause birth declines.

I'm in the camp that thinks there's an effect, but this one seems a bit too large. Explaining up to half of the decline? I'm skeptical... but ownership of smartphones did increase dramatically over that time frame among younger cohorts.

Respond

dearieme

#

2026-06-08 06:59:08

↑ 4 ↓ -4

"difficult to discuss question": what, on a purportedly libertarian blog?

(Albeit with added censorship.)

Respond

MT

#

2026-06-08 09:00:49

↑ 2 ↓ -2

Hide Replies

Luckily AT&T mobile coverage doesn't correlate with anything that might be important here

Respond

JFA

#

2026-06-08 10:20:18

↑ 2 ↓ 0

Hide Replies

does it correlate with something that the Sprint and Verizon coverage don't (since those show not effects)?

Respond

Lord Action

#

2026-06-08 10:26:39

↑ 2 ↓ 0

I mean, probably, right?

They sell to different demographics in different parts of the country, for one. There's a reason why they got the iPhone - they thought it best matched their customers.

Respond

Gilligan

#

2026-06-08 12:48:55

↑ 0 ↓ 0

The original iPhones were ATT only.

Though, to be fair, there were other devices that did the more-or-less the same thing back then, with arguably better specs.

Respond

Peppa

#

2026-06-08 09:22:03

↑ 0 ↓ 0

Props to the researchers for a clever experiment design! The mechanism — less face-to-face, less sex, more entertainment, more porn — makes sense.

Respond

Axa

#

2026-06-08 10:04:10

↑ 0 ↓ 0

Borderline trolling: work from home is good for fertility. So, farming should be the top choice for guys willing several children.

"The research, covering 38 countries including those in Europe, finds that realised and planned fertility increases by 0.32 children per woman when both partners work from home at least one day per week compared with those who work at employer or client sites."

<https://www.euronews.com/health/2026/03/30/working-from-home-is-linked-to-higher-fertility-new-study-finds>

Respond

Kaz Stanczak

#

2026-06-08 10:31:26

↑ 0 ↓ 0

(1) I had an immediate hypothesis:

The paper's control group may not be a valid counterfactual for the treatment group, so the estimated iPhone effect may partly reflect pre-existing differences in fertility trends.

(2) So I asked two AIs. Here are their answers:

(i) Grok: Bottom line: Manski would say the paper is suggestive and better than naive correlations, but the causal interpretation is not robust enough under his standards. Your hypothesis (doubts on clean treatment/control) aligns with his critique — the findings are plausible but should be presented with far more humility and bounds, not as strong evidence that smartphones "explain" a third to half of the fertility drop. Interpret as correlational insight + a decent natural experiment, but not definitive causation.

(ii) ChatGPT: Bottom line: viewed through Charles Manski's partial-identification lens, the paper may show an interesting reduced-form association between iPhone access and fertility decline, but the causal claim depends on a strong treatment/control comparability assumption. The AT&T monopoly identifies variation in access, not random iPhone exposure. The missing object is the Manski frontier: how large a non-parallel untreated fertility trend between high-AT&T and low-AT&T areas would be needed to erase the estimated effect? Without that bound, the result is too point-estimate-heavy to be fully credible.

(3) My bottom line: Interesting study, but I remain unconvinced.

Respond

JK Brown

#

2026-06-08 11:30:54

↑ 0 ↓ 0

Hide Replies

After plunging from 1960-80, the birth rate to women 20-24 flattened out until the

1990-95 period when a sustained decline started. The 15-19 birth rate followed this pattern.

Even women 25-29 followed this pattern, though they instead had a slight pop from 1995-2005 before resuming a slow decline.

It should be noted the 15-24 yr old birth decline did match in a steeper slope decline after 1995.

Keep in mind, in 1960, the oldest Boomers were only 14 and in 1995, the youngest Gen Xers were 15. Seems that those born after 1970 were far less likely to have children before age 30.

Respond

bazza

#

2026-06-08 23:56:08

↑ 0 ↓ 0

How much were US birthrates affected by [Latin] immigration? Do you have the data by country of birth or ethnicity?

NZ birth rates were certainly bouyed by Polynesian immigrants through the 1980s and '90s and by indigenous Maori upto the early 90s (published government stats don't clearly differentiate). During this period the nation maintained a TFR of 2.1, so given the proportion of Maori and Polynesian, local caucasian birthrates were around TFR of 1.9. TFR declines first in NZ caucasian women then in Maori women then in Polynesian women coincided with declines in rates of teenage pregnancy for each ethnicity.

Since 2010 TFR rates for all ethnicities have persistently declined, even among new East Asians immigrants who always had low TFR.

I attribute this latter decline to the emergence of 'internet culture' which was accelerated by the smart phone through the 20teens.

Respond

Fred Bush

#

2026-06-08 13:18:04

↑ 0 ↓ 0

Seems quite problematic to assert that the pregnancy rate for 15-year-olds should be anything but zero.

Respond

Jack of all disciplines

#

2026-06-08 23:41:51

↑ 0 ↓ 0

People talk about a variety of reasons for the decline in fertility, and rightly so, but there are some reasons that seem intuitively obvious to me but are not much discussed. One of those is relevant here: entertainment options. I would hypothesize that the primary reason why the smartphone would cause a decline in fertility is most succinctly described as this: entertainment on the smartphone competes with sex in how we spend our leisure time. Today we have far more ways to amuse ourselves than in generations past. Taking part in the new leisure activities crowds out the oldest of leisure activities.

Respond

bazza

#

2026-06-09 00:07:35

↑ 0 ↓ 0

Total fertility Rate in NZ oscilated around 2.1 from 1980 to 2010. Middle class TFR was about 1.9 with immigrants and the Lower class having a TFR about 2.3. Since 2010 the national TFR has consistently declined (ie every year) from 2.1 to the current 1.57. I attribute this decline to the emergence and establishment of 'internet culture'. I suspect the primary mechanism suppressing fertility is through greatly expanded 'social comparison' through English language social media that was accelerated by the smart phone through the 20teens.

Respond

rayward

#

2026-06-08 08:28:15

↑ 0 ↓ -1

Hide Replies

Again, almost the entire drop in the fertility rate is attributable to the decline in teen pregnancy. On the one hand, Americans prefer celibacy for teens, but on the other hand, economists obsess over the decline in the fertility rate. Which will it be: a teen pregnancy rate back in the day I was a teen (contraceptives were mostly unavailable for teens and abortions were unlawful) or a much lower teen pregnancy rate but a commensurate lower fertility rate. BTW, it's not only economists, the rise in religious fundamentalism and the rise in male hypermasculinity affect the choice. Back when I was a teen and a girl left to attend a boarding school, sure, boarding school. Those were the good old days.

Respond

Lord Action

#

2026-06-08 08:35:13

↑ 1 ↓ 0

Hide Replies

"Again, almost the entire drop in the fertility rate is attributable to the decline in teen pregnancy."

People should stop saying this.

(1) To the extent that it's true, it's only really true in America where the rest of fertility has conspicuously declined less.

(2) It's not really true in America. There have been large effects that are somewhat hidden by swapping out the native population.

Respond

bazza

#

2026-06-09 00:29:47

↑ 0 ↓ 0

Hide Replies

WRT (2) in NZ decline in fertility among different ethnic groups coincided with declines in teenage fertility. This happened sequentially. Among 'white' girls it was mostly in the 1970's. Among Maori, in the 1980's. Both also recorded a rural/urban split ie more teenage births in rural areas. Among Polynesians the decline was in the 2000's ie the children of emigrant parents.

Polynesian TFR was higher than local born through the 80's and 90's though their children have about the same TFR as other resident Kiwis.

East Asian immigrants that began entering from 2003 have had low (1 to 2 children at most) TFR since arrival. It remains to be seen what South Asian TFR will be. It is currently higher than East Asian though they have only really been arriving post covid.

The decline in TFR since 2010 has coincided with increasingly later marriage ie rates of teenage pregnancy haven't changed much, staying low.

Respond

bazza

#

2026-06-09 00:33:37

↑ 0 ↓ 0

I checked with Gemini: rates of teen pregnancy have fallen by 2/3 since 2010! The rest is correct.

Respond

Okay

#

2026-06-08 07:59:54

↑ 1 ↓ -3

Hide Replies

Data without any theory isn't helpful. The iPhone is not really any different than any other smartphone, except through marketing. Anyone could have been doing identical things on a Samsung (or any other) smartphone that they were doing on an iPhone. What is the theory that predicts this is an iPhone only thing? If different people were more likely to buy iPhones in ways correlated with having children, then your causation is muddled.

Respond

mofo.

#

2026-06-08 09:43:34

↑ 2 ↓ 0

"Anyone could have been doing identical things on a Samsung (or any other) smartphone that they were doing on an iPhone."

They could have, but the werent.

Respond

Wayfaring Stranger

#

2026-06-08 08:30:46

↑ 2 ↓ -3

Hide Replies

In fact initially the iPhone was the only "smart phone". You might recall the main competition at the time was the now-forgotten Blackberry, not Samsung or Motorola, which came in response to the iphone and were not nearly as popular at first.

In fact sometime around 06-07, I actually bought an IPAQ, a windows-based hand held device that was NOT a phone. Seems like when I bought that iPaq there were a few hand-held phones analogous to the iPhoe but they were very expensive and klutzy.

Respond

Lord Action

#

2026-06-08 08:36:38

↑ 4 ↓ 0

Hide Replies

In fairness, the level of ubiquity wasn't the same and that might matter.

College girls generally didn't have Blackberrys.

Respond

Wayfaring Stranger

#

2026-06-08 12:46:33

↑ 0 ↓ 0

Hide Replies

I didn't have much contact with kids of that age 2007-2011 but were iPhones really ubiquitous among college students by 2011? I dunno, I feel like probably not. In 2009 IIRC alot of people I knew were still clinging to their BBs.

Respond

Lord Action

#

2026-06-08 14:16:20

↑ 0 ↓ 0

I don't have numbers, but they spread like wildfire in that set.

I had started a new job around then and I came in with a Blackberry from a previous employer and I was the only one who had one who wasn't already senior. By 2010, we all had the company paying for our smartphones.

Respond

Ted Craig

#

2026-06-08 07:08:49

↑ 0 ↓ -5

I seem to remember something from Econ 101 about causation and correlation. How does that go again?

Respond

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