Pandemic Babies:
The Social Organization of Daily Life, Sudden Disruptions to Social Activities, and National Evidence of Disruption of Trends in U.S. Fertility Behavior

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How did the COVID-19 pandemic influence U.S. fertility behaviors? *It's complicated.*

- **Childbearing intentions, sex, contraceptive use → pregnancy and babies**

  - Non-family work, school, childcare, and social activities all interrupted/stopped/moved into the household
  - In the U.S. this coincides with a divisive political season, including rhetoric about science, medicine, public health and education
  - Also, high death rates due to COVID-19 and potential for associated trauma

  1. **Costs vs. benefits** of each behavior
  2. **New ideas/attitudes** spread
  3. **Psychological factors** intensify

Theoretical Framework:
Social Organization of Daily Activities

- **Costs vs. benefits in the U.S. setting**
  - **Job loss** and reduced job prospects (less income to support children)
  - Reorganization of **work** to the home (increase childrearing costs)
  - Reorganization of **childcare/school** to the home (higher time costs)
  - → Lower motivation to have children (children have higher costs)

  - **Health care** and health-related supply chain interruptions (lowering supply)
  - → Lower use of contraception/medical interventions to reduce childbearing

  - **Recreation/education** decentralized, interrupting/reducing social interactions
  - → Lower access to sexual intercourse (forming relationships has higher costs)

Theoretical Framework:
Theory of Reasoned Action

- **Attitudes and beliefs in the U.S. setting**
  - Prior variance by religiosity and race/ethnicity
  - Trajectory of declining intentions to have children

  - A new high volume of messaging about the burden of childrearing
  - → Likely to reduce childbearing intentions

  - A new high volume of messaging about lack of trust in science and medicine
  - → Likely to reduce contraceptive use, especially methods requiring medical action

Theoretical Framework: Limits to Reasoned Action

- **Psychological variance in the U.S. Setting**
  - Generally, high levels of endorsement of love as a key premise for long-term, co-residential sexual relationships
  - But, substantial levels of marital conflict, including assault and forced intercourse
  - Also, substantial levels of major depressive disorder and alcohol use disorder (along with other mental health problems)

  - Pandemic likely to intensify emotional dimensions of intimate relationships: both positive and negative → Predictions for fertility in both directions, but clearly forced intercourse likely to increase unintended pregnancy

  - Pandemic had potential to produce mental disorder episodes → Prior evidence points to higher levels of unintended pregnancy

Using Three <u>Harmonized</u> Data Resources to Track U.S. Fertility Trends

- Nationally representative samples of U.S. women across multiple years directly before the pandemic and during the pandemic

- **U.S. National Survey of Family Growth** (2015-17 & 2017-19)
  - Repeated <u>face-to-face</u> cross-sectional survey with measures in all key domains of fertility intentions and behaviors (ages 15-49, n=5014 for 2015-17 & n=5559 for 2017-19)

- **Panel Study of Income Dynamics–Transition to Adulthood Supplement** (2017 & 2019)
  - Children aged 18-28 of PSID households, nationally representative, <u>phone (2017, n=1317); web (2019, n=1352)</u>
  - Redesigned before 2017 wave to replicate some NSFG measures

- **The American Family Health Study** (2020-2021)
  - First area probability nationally representative <u>web-survey</u> of U.S. fertility
  - Entirely composed of NSFG measures among those age 18-49 (n=576)

Trends in Births and Pregnancies

Table 1: Proportion of Women with Pregnancies in the past 12 months and babies ever born.
(values in parentheses are design-adjusted SEs, and all estimates are weighted)

	NSFG 2015-17	PSID-TAS 2017	NSFG 2017-19	PSID-TAS 2019	AFHS 2020-21
Pregnancy Last 12-months, ages 18-49	.15 (.01)	--	.11 (.01)	--	.10 (.02)
Ever Baby, ages 18-49	.63 (.01)	--	.60 (.01)	--	.57 (.03)
Ever Baby, ages 18-28	.31 (.02)	.32 (.02)	.25 (.02)	.25 (.02)	.26 (.04)

Trends in Sexual Activity

Table 2: Sex in the past 12 months

(values in parentheses are design-adjusted SEs, and all estimates are weighted)

	NSFG 2015-17	NSFG 2017-19	AFHS 2020-21
Ages 18-22	.80 (.02)	.71 (.03)	.47 (.07)**
Ages 23-28	.85 (.02)	.84 (.01)	.79 (.05)
Ages 29+	.89 (.01)	.87 (.01)	.82 (.03)*

NOTE: AFHS different from other samples at *p < 0.05 or ** p < 0.01 (based on design-adjusted chi-square tests).

Trends in Contraceptive Use

Table 3: Use of any contraceptive method in the past 12 months among those who are **_sexually active._**

(values in parentheses are design-adjusted SEs, and all estimates are weighted)

	NSFG 2015-17	NSFG 2017-19	AFHS 2020-21
Ages 18-49	.87 (.01)	.87 (.01)	.66 (.03)**
Ages 18-28	.90 (.01)	.88 (.01)	.64 (.06)**

NOTE: AFHS different from other samples at ** $p < 0.01$ (based on design-adjusted chi-square tests).

Trends in Pregnancy Intentions

Table 4: Desire (want) any future pregnancy

(values in parentheses are design-adjusted SEs, and all estimates are weighted)

	NSFG 2015-17	PSID-TAS 2017	NSFG 2017-19	PSID-TAS 2019	AFHS 2020-21
Ages 18-49	.51 (.01)	--	.48 (.01)	--	.37 (.03)**
Ages 18-28	.81 (.02)	.83 (.01)	.78 (.01)	.84 (.01)	.55 (.05)**

NOTE: AFHS different from other samples at ** p < 0.01 (based on design-adjusted chi-square tests).

Multivariable models of fertility <u>intentions</u>, women age 18-28

<u>Table 5: Logistic reg. predicting wanting a(another) pregnancy (odds ratios displayed)</u>

	NSFG 2015-2017	PSID-TAS 2017	NSFG 2017-2019	PSID-TAS 2019	AFHS 2020-2021
Hispanic	1.37	1.27	1.62**	1.49	2.20
Black	0.84	0.80	1.55*	1.14	4.25*
< 4 Years of College	0.71**	0.60	1.35	0.40**	0.21**
Ever Worked	1.98*	1.19	1.70	1.28	16.10**
18-22	1.65*	1.92**	1.30	1.84**	1.33
Ever had a child	0.37**	0.57*	0.41**	0.42**	1.52

Note: For TAS models, "ever had a child" includes adopted and stepchildren. Predictors are significant within single sample models at *$p < 0.05$ or ** $p < 0.01$. Odds ratios in red indicate a significant difference between AFHS and PSID-TAS 19.

Summary of Current Evidence

This is very early evidence of pandemic changes in childbearing.

- Trends in **pregnancy and childbearing** appear to <u>continue uninterrupted</u>; early evidence is likely shaped by pre-pandemic preferences and behaviors

- Rates of both **sex and contraceptive use** among the sexually active appear to <u>decline</u>; these changes may be brief

- **Intentions** for a/another pregnancy appear to <u>decline</u> and <u>predictors</u> of these intentions also appear to change; this change may also be brief or it <u>may accelerate U.S. fertility declines</u>

Next steps

1. Monitor unintended childbearing

   - The combination of lower pregnancy intentions and lower contraceptive use is likely to produce higher rates of unintended pregnancy

2. Investigate differences by relationship status, religiosity, and other predictors of fertility behaviors

   - Trends may be quite different within key sub-groups

3. Monitor the intentions and behaviors of successive cohorts across time

   - We are likely to see cohort-specific responses to the pandemic

4. Investigate more frequent longitudinal measures of intentions and behaviors

5. Launch new programs of research on psychological influences on fertility

Supplemental slides

Initial evidence of declining contraceptive use within AFHS

Using within-AFHS monthly sex and contraceptive use histories, we examine variance in contraceptive use among the sexually active by number of months of pre-pandemic behavior included in the report.

More research to follow.