

Innovating by including “pay as you go” phones in combination with household panels

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**Why you should think about incorporating
PPD in household panel surveys?**

RDD: Contract v. pre-paid phone numbers?

Cell phones require a data plan to be used and while most plans don't come with a formal contract anymore, companies like Verizon, AT&T, and T-Mobile still have arrangements that lock you into a specific plan, at a specific price, for a specific amount of time.

Most cell plans are "post-paid" plans, in that you agree to be held to specific terms and then pay your bill at the end of the month. These types of plan typically require a good credit score, a permanent address, and a valid form of government-issued identification.

“Pay-as-you-go” phones are non-contract/prepaid phone plans that are more commonly used by individuals who are unable to qualify for contracts or “post-paid” plans.

Phone plans are typically assigned a specific phone number when you activate the SIM card that comes with the phone or when you insert a prepaid SIM from a carrier. The number is linked to the SIM card rather than the phone itself, meaning if you switch SIM cards, the phone number will change accordingly.

How can survey researchers identify “pay-as-you-go” phone numbers?

For the past decade, cell phone sample providers offer a flag that indicates whether each phone number in a sample belongs to a PPD or a non-PPD home.

Previous research (Schalk et al., 2015; McGeeney, 2015; Dutwin and Malarek, 2014; Dutwin, 2014) found that including these flagged phone numbers in samples successfully led to more interviews with Black adults, Hispanic adults, Spanish language interviews, individuals with less than a high school diploma, households earning less than \$40,000 annually.

Other key demographics of this population: They are more likely to live in urban areas, they are less likely to be registered to vote, and more likely to be independent or non-leaning.

Why include “pay-as-you-go” phones in your sample?

- Research demonstrates that certain population groups are disproportionately denied contract phones because of structural barriers, such as credit scores and other social and economic disparities.
- Previous research by KFF and SSRS has found that PPD (prepaid/pay-as-you-go/non-contract) phones are more common among certain populations such as people of color, individuals with lower incomes or lower levels of education, people without permanent housing, people who recently immigrated into the U.S., and non-English language speaking individuals.
- These groups are also among the hardest-to-reach populations in surveys and are frequently underrepresented in polling.

Case Study: A comparison of ABS and PPD samples

KFF's Racism, Discrimination, and Health Survey

- The Survey on Racism, Discrimination, and Health was designed and analyzed by researchers at KFF. All fieldwork was managed by SSRS; sampling design and weighting was done in collaboration with KFF.
- The survey was conducted June 6 – August 14, 2023, online and by telephone among a nationally representative sample of 6,292 U.S. adults in English (5,706), Spanish (520), Chinese (37), Korean (16), and Vietnamese (13).
- The project serves as a good example of how two sampling designs, ABS and PPD, can lead to different sample demographic profiles.

KFF's Racism, Discrimination, and Health Survey

- The project included two samples: ABS and PPD
- Both sampling strategies included increased efforts to reach geographic areas with larger shares of the population having less than a college education and larger shares of households with a Hispanic, Black, and/or Asian resident within the ABS sample, and geographic areas with larger shares of Hispanic and non-Hispanic Black adults within the PPD sample.
- 5,073 adults were reached through the ABS sample and either completed the survey online (4,529) or over the phone (544).
- 1,219 adults were reached through a random digit dial telephone sample of prepaid cell phone numbers (all completed over the phone).
- Marketing Systems Groups (MSG) provided both the ABS and RDD sample

KFF Racism, Discrimination, and Health Survey

Unweighted demographics of PPD and ABS

Demographics	ABS	PPD
Man	38%	47%
Woman	61%	52%
White, non-Hispanic	27%	27%
Black, non-Hispanic	26%	31%
Asian	11%	2%
Hispanic, born in U.S.	19%	11%
Hispanic, non-U.S. born	9%	21%
Total non-U.S. born	21%	28%
Less than H.S. diploma	7%	16%
H.S. graduate	18%	29%
Some college	32%	30%
College +	43%	24%
18-29 years	16%	15%
30-49	37%	33%
50-64	27%	29%
65+	20%	23%
Insured, less than 65	90%	78%
Uninsured, less than 65	10%	22%

KFF's Racism, Discrimination, and Health Survey

- Using very similar stratifications within each sampling design, we still found that incorporating PPD sampling helped us reach a less U.S. born population with lower levels of education.
- This group, which was more likely to be uninsured, reported very different experiences accessing and receiving health care services in the U.S.

How to incorporate PPD in household panel surveys?

Supplementing v. Recruitment

- Researchers could also **supplement panel studies on a case-by-case basis** depending on the needs of each specific study. When a study needs larger sample sizes from certain groups that are more easily reached on PPD phones, it could be a simple way to boost sample sizes by adding a PPD sample component to a panel sample.
- **Adding PPD recruitment to household panel surveys** could improve the overall demographic representation of the panel by increasing representation among foreign-born adults, individuals with lower levels of education, as well as improve representation from racial and ethnic groups that are lower responders to other forms of recruitment.

Hot tip: One way to recruit PPD sample to household panel is by asking at the end of a supplemental study if they would like to join the panel.

Supplementing

- A monthly KFF survey examining key topics in current health policy debates in the U.S.
 - *The data I am showing today is from January 2025.*
- Interviews are conducted in English and Spanish, and conducted online and by telephone among a nationally representative sample of ~1200 adults living in the U.S.
- The sample is generated from the SSRS Opinion Panel, a nationally representative probability-based panel as well as a supplemental PPD sample.
- The PPD is stratified to reach larger shares of Hispanic adults and Black adults (while the panel sample is designed to reach proportional representation of the groups)

KFF Health Tracking Poll

Unweighted demographics sample recruited using PPD, compared to overall panel

Demographics	Total panel	PPD
White, non-Hispanic	64%	35%
Black, non-Hispanic	11%	26%
Hispanic	16%	26%
Total non-U.S. born	15%	21%
H.S. or less	22%	42%
Some college	30%	29%
College +	47%	28%
18-29 years	14%	20%
30-49	39%	29%
50-64	25%	26%
65+	22%	26%

Recruitment

- SSRS has been recruiting to the SSRS Opinion Panel from PPD samples for the past several years.
- While it only represents a small fraction of the overall panel size (2%), it does help the panel representation in terms of race and ethnicity, and non-English speakers.

SSRS Opinion Panel

Unweighted demographics sample recruited using PPD, compared to overall panel

Demographics	Total panel	PPD
White, non-Hispanic	58%	43%
Black, non-Hispanic	13%	31%
Hispanic	16%	16%
Total non-U.S. born	5%	5%
H.S. or less	23%	38%
Some college	30%	35%
College +	45%	26%
18-29 years	12%	13%
30-49	42%	33%
50-64	25%	29%
65+	22%	25%

Keep in Mind

- You will have to do weighting adjustments to account for potential overlaps between different sampling frames
 - “Do you or does anyone living with you use a prepaid plan for your cellphone? Prepaid plans, also known as pay as you go or no-contract phones, are plans where the user pays for a specific amount of data usage or minutes in advance.”
- Incorporating PPD may mean you have to program your survey for CATI (if not already).
- Sampling with PPD flag requires both financial and personnel resources that may make it a barrier for some research organizations, but there are significant benefits for including this group in your sampling strategy.
- If you are interested in learning about how SMS push to web works with PPD samples, please come to my AAPOR 2025 presentation!

THANK YOU

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