

Evaluation of the Reintroduced Parental Leave Content in the 2019 Survey of Income and Program Participation¹

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Introduction

Relatively little is known about patterns of parental leave usage in the United States, as few nationally representative surveys have collected information about this topic. Surveys that have included parental leave questions include the Fragile Families and Child Wellbeing Study (FFCW), the National Longitudinal Study of Youth 1997 (NLSY97), and the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B). However, these data sources are either not nationally representative (in the case of FFCW) or rely on births from a relatively narrow period of time. The evolution of historical norms regarding men's and women's roles in childrearing and policy debates surrounding the adoption of a national paid parental leave policy in the United States underscore the importance of understanding how patterns of leave-taking have evolved over time, as well as the characteristics of those who do take leave.

About the SIPP

The Survey of Income and Program Participation (SIPP) is unique among surveys that collect information regarding parental leave because it publishes this information for the population under age 65.³ The SIPP is a nationally representative panel survey administered by the U.S. Census Bureau. It collects information on the short-term dynamics of employment, income, household composition, and eligibility and participation in government assistance programs. The SIPP is administered once a year and has a reference period that covers the previous calendar year for many topics. However, all parental leave information is collected at the time of interview regarding the respondent's first child. As a result, this information is at the person level and does not vary across the months of the reference period.

SIPP Parental Leave Data

The 2019 SIPP included a series of questions about parental leave for the first time since the 2008 panel. While prior panels had only asked women about parental leave usage, both men and women were asked parental leave questions beginning in 2019 when the questions were included again. Respondents were first asked whether they worked during the pregnancy⁴ leading up to

¹ This working paper is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any opinions and conclusions expressed herein are those of the author and do not necessarily reflect the views of the U.S. Census Bureau. The U.S. Census Bureau reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release. CBDRB-FY2022-POP001-OO42

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³ Information is published only for those under age 65 in an effort to mirror the working-age population and mitigate possible bias caused by respondents trying to recall information about leave taken many decades prior.

⁴ The parental leave questions are asked only of those with at least one biological child, meaning that parental leave used for adoptions is not captured.

the birth of their first child (EPREGWORK⁵). Those who worked during the pregnancy were asked whether they continued working right up to the birth (EPREGSTOP). Additional information collected included the type(s) of leave (if any) used after the child was born (EBIRTHRSN1-10), how long prior to the birth the respondent stopped working (EPREBIRTHINT), the type(s) of leave (if any) used prior to the birth (EPREGRSN1-10), whether the respondent worked at any time after the birth (EBIRTHWORK), and how long after the birth the respondent started working (TPSTBIRTHINT). If respondents used multiple types of leave, they could select multiple response options for the applicable questions.

For most parental leave fields, edited values are set using available reported data and logically derived values wherever possible, with hot deck imputation⁶ used where necessary to fill in outstanding missing values for in-universe respondents. Exceptions to this editing process are the generation of the number of months prior to the birth when the respondent stopped working (EPREBIRTHINT) and the number of months after the birth when the respondent returned to work (TPSTBIRTHINT). These fields are created using reported values for the month and year in which the respondent stopped working prior to the birth and started working after the birth in concert with edited fertility information. Respondents without reported information or whose calculated interval falls outside of the range of acceptable values also have their interval imputed.

The purpose of this paper is to note basic distributions and corresponding allocation rates⁷ for the parental leave content in 2019. It also documents ways in which procedures used in 2019 differ from those used in the 2008 panel, as well as the resulting impacts on the data. It concludes by discussing enhancements to the collection of parental leave data being made beginning in the 2022 survey year in an effort to address some of these differences and issues. Given the dearth of available data sources regarding parental leave, as discussed above, comparisons to benchmarks cannot be produced.

Changes in Question Universes

Many of the questions in the parental leave sequence were asked of a different universe of respondents in 2019 than in the 2008 panel (Figure 1). In the 2019 survey year, the new question regarding whether the respondent worked right up until the birth was used to route respondents down one of two different paths. Respondents who indicated that they continued working right up until the birth only received the question regarding types of leave used after the birth of the child. Respondents who indicated that they did not continue working right up until the birth of the child received the other parental leave questions, as applicable, but did not receive the question regarding types of leave used after the birth of the child. By contrast, in the 2008 panel, any respondent who worked during the pregnancy received the question about returning to work

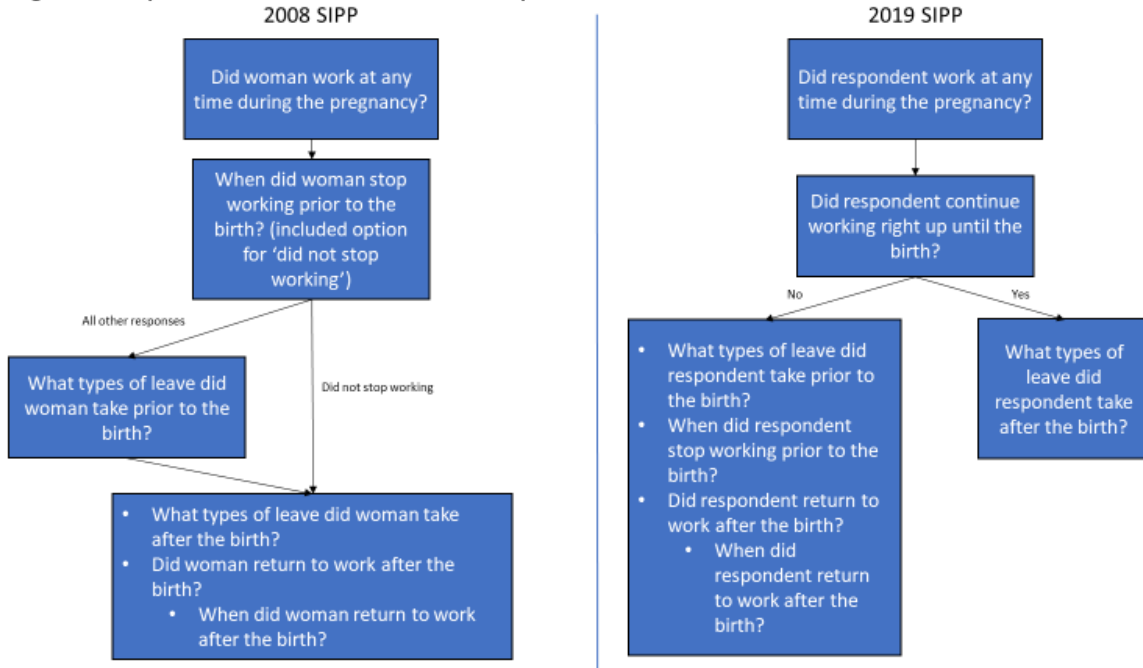
⁵ Information regarding variable universes, answer lists, etc., can also be found in the SIPP codebook: <https://www.census.gov/data-tools/demo/ucsb/sippdict>

⁶ Hot deck imputation refers to using information from a respondent with reported characteristics to fill in a missing value for a respondent with like characteristics.

⁷ ‘Allocation rate’ refers to the proportion of values that were imputed or otherwise assigned to a respondent’s record, rather than based on reported information.

after the birth, as well as the timing of their return to work, if applicable. Additionally, in the 2008 panel, anyone who worked during the pregnancy received the question about types of leave taken after the birth.⁸

Figure 1: Comparison of Parental Leave Question Sequences in the 2008 and 2019 SIPP



Some of these changes may have been unintended. Regardless, some of the changes yielded universes that do not align well with real-world experiences, such as not asking those who continued working up until the birth and then took leave whether they returned to work at some point after the birth. These differences inhibit comparisons between the two panels.

Working During Pregnancy

The first key estimate from the newly added parental leave content is the proportion of adults who worked during the pregnancy preceding the birth of their first child (EPREGWORK). Table 1 presents these estimates, broken down by sex and the year of first birth for the parent. While the percentage of men who worked during the pregnancy preceding the birth of their first child did not differ significantly between those men with a first birth between 1976 and 1980 and those men with a first birth between 2016 and 2019, the percentage of women who worked during the pregnancy preceding the birth of the child increased from 47.5 percent for those women with a first birth between 1976 and 1980 to roughly two-thirds in the most recent birth cohorts. Notably, retrospective estimates for earlier cohorts of women's births in the 2019 data are lower than published estimates from prior surveys conducted closer in time to these births. This finding matches widespread patterns in survey research where individuals are less likely to recall whether an event from far in the past (i.e., working during the pregnancy) occurred than one that

⁸ Those who stopped working prior to the birth because their employer went out of business did not receive the question about types of leave taken after the birth.

occurred more recently.⁹ However, it underscores that while these data provide a sense of the general pattern over time, caution should be used in analyzing parental leave data for individuals from earlier cohorts.

Table 1. Working During the Pregnancy

Year of first birth	Survey Year 2019				Prior Panels
	Men		Women		Women
	Percent	MOE	Percent	MOE	Percent
1975 or earlier	68.2	8.6	37.4	5.0	53.5 ¹
1976-1980	80.8	3.3	47.5	3.2	61.4
1981-1985	75.3	2.9	57.5	2.7	64.5
1986-1990	77.3	2.6	59.8	2.4	67.2
1991-1995	73.9	2.8	62.1	2.5	66.8
1996-2000	80.5	2.2	62.1	2.7	67.2
2001-2005	78.7	2.5	62.8	2.8	69.2
2006-2010	79.4	2.5	63.4	3.0	--
2011-2015	80.6	2.5	64.1	2.8	--
2016-2019	82.6	3.3	66.4	3.9	--
Allocation Rates	13.0	0.7	11.3	0.6	--

¹1971-1975
 Source: Prior to 1981–1985: U.S. Census Bureau, Current Population Reports, Series P23-165; 1986–1990 to 1991–1995: P70-79; 1996–2000: P70-103; 2001–2005: P70-128; 2006–2010 to 2016–2019: 2019 Survey of Income and Program Participation Public-Use File
 Note: 2019 estimates use month 12 weights. Prior panel estimates are derived from <https://www.census.gov/prod/2011pubs/p70-128.pdf>

The allocation rate for working during the pregnancy preceding the first birth (EPREGWORK) for men is 13.0 percent, while the allocation rate for women is 11.3 percent. Because the parental leave question sequence is near the end of the SIPP personal interview, allocation rates are relatively high in comparison with variables corresponding to information collected earlier in the survey instrument reflecting basic demographic characteristics.

Stopping Working Prior to the First Birth

Table 2 presents the frequency of women who stopped working prior to the birth of their first child (EPREGSTOP), as well as the distribution of the timing of stopping working for those women who did so. As mentioned above, a new question regarding whether the respondent worked right up until the birth was used to route respondents in the 2019 question sequence. By contrast, in the 2008 panel, working right up until the birth was an additional response option on

⁹ See Shattuck, R. M., & Rendall, M. S. (2017). Retrospective Reporting of First Employment in the Life-courses of U.S. Women. *Sociological methodology*, 47(1), 307–344. <https://doi.org/10.1177/0081175017723397>

the question about when the respondent stopped working prior to the birth, which was asked of all in-universe female respondents.

In the 2019 data, nearly all men (roughly 99 percent) and roughly 78 percent of women who worked during the pregnancy have an edited value of ‘yes.’ Among those women who stopped working, 27.9 percent stopped working 1 month or less prior to the birth, while 15.1 percent stopped working two months prior to the birth, 41.6 percent stopped working three to five months prior to the birth, and 15.4 percent stopped working six or more months prior to the birth.¹⁰

Table 2. Percent of Women Who Stopped Working Prior to Their First Birth, by Month Before Birth		
	Survey Year 2019	
	Percent	MOE
Percent who stopped working prior to the birth	22.1	1.1
1 month or less	27.9	2.6
2 months	15.1	2.3
3 to 5 months	41.6	2.7
6 or more months	15.4	2.1
Allocation Rate		
Stopped working	11.0	0.8
Timing of leave	48.8	2.9

Source: 2019 Survey of Income and Program Participation Public-Use File
 Note: Estimates use month 12 weights.

The distribution of those who continued working right up until the birth (EPREGSTOP) is unsurprising for men given that they do not bear children themselves. Meanwhile, taken in combination, the data in Table 2 indicate that across cohorts, 84.1 percent of women either did not stop working prior to the birth or stopped working one month or less prior to the birth. By contrast, [previously published reports](#) relying on SIPP panels that utilized the prior question sequence indicate that, beginning with the cohort of births from 1976 to 1980 through the present, the percentage of women who stopped working one month or less prior to the birth (including not stopping at all) ranged from 58.9 to 81.6 percent.

It is possible that the same recall bias referenced above also impacted responses to this revised question sequence, or that some FRs and/or respondents misinterpreted the question as asking whether respondents left their job prior to the birth, rather than whether they stopped working to take leave. Asking affirmatively whether respondents continued working right up until the birth, rather than including it as an additional option when respondents were asked how long prior to the birth they stopped working, may have also impacted respondent behavior. Regardless of the cause, insofar as any respondents who did not interpret and answer this question as expected are out of universe for other questions that may have been relevant to their situation, the feasibility

¹⁰ The proportion of women who stopped working two months prior to the birth and the proportion of women who stopped working six or more months prior to the birth did not differ significantly.

of assessing the reasonableness of these data is hampered. Efforts to address this issue in future data collection cycles are discussed in the conclusion.

The allocation rate for stopping working prior to the birth among women is 11.0 percent, which is in line with other questions in the sequence. Meanwhile, the allocation rate for the number of months prior to the birth that the respondent stopped working (EPREBIRTHINT) is elevated (48.8 percent). Reasons for this elevated allocation rate are discussed below.

Types of Leave Taken Before and After First Birth

Table 3 presents the distribution of types of leave taken before the birth (for women) and after the birth (for both men and women). As discussed above, a fairly large share of women who worked during the pregnancy and stopped working prior to the birth (36.0 percent) indicated that they quit their job prior to the birth of their child, perhaps indicating the effect of possible misinterpretation of questions earlier in the sequence. The other most common responses for women prior to the birth were the use of paid maternity leave (18.1 percent) and unpaid maternity leave (15.5 percent).¹¹

Table 3. Detailed Leave Arrangements Used by Women Who Worked During Pregnancy Preceding First Birth							
Percent Using Leave Arrangement ¹	Survey Year 2019						
	Women				Men		
	Before birth ²	MOE	After birth ³	MOE	After birth ³	MOE	
Quit job	36.0	3.1	8.7	0.8	0.6		0.2
Let go from job	5.3	1.3	1.0	0.3	0.5		0.2
Paid maternity/paternity leave	18.1	2.3	38.1	1.3	9.7		0.7
Unpaid maternity/paternity leave	15.5	1.9	29.2	1.3	5.4		0.6
Paid sick leave	5.9	1.2	8.3	0.7	3.9		0.5
Unpaid sick leave	3.9	1.0	4.7	0.5	1.6		0.3
Disability leave	7.5	1.5	5.2	0.7	0.1		0.1
Vacation leave	4.3	1.1	6.4	0.6	15.0		0.9
Other leave	2.9	0.9	2.8	0.4	2.7		0.4
Did not take leave	7.5	1.4	8.5	0.7	62.2		1.2
Allocation Rate ⁴	12.4	1.7	12.0	0.9	13.5		0.8

Source: 2019 Survey of Income and Program Participation Public-Use File

Note: Estimates use month 12 weights.

¹ Percentages do not sum to 100 because respondents could select multiple answers.

² Universe: Those that worked during the pregnancy and stopped working prior to the birth.

³ Universe: Those that worked during the pregnancy and did not stop working prior to the birth.

⁴ Allocation rate for EPREGSN1/EBIRTHSN1

Meanwhile, patterns of leave-taking following the birth varied between men and women. Women were most likely to take paid maternity leave (38.1 percent) and unpaid maternity leave (29.2 percent). Meanwhile, when viewed in combination across birth cohorts, most men did not

¹¹ The proportion of women who took paid maternity leave prior to the birth and the proportion of women who took unpaid maternity leave did not differ significantly.

take leave after the birth (62.2 percent). However, this obscures [trends in the use of leave among men over time](#), since men who became fathers in more recent birth cohorts took leave at higher rates than fathers in earlier birth cohorts. Across cohorts, the most common types of leave taken by fathers were vacation leave (15.0 percent) and paid paternity leave (9.7 percent).

Among women, the allocation rates for type of leave taken prior to the birth and after the birth did not differ significantly (12.4 percent and 12.0 percent, respectively). The allocation rate for type of leave taken after the birth by men was slightly higher (13.5 percent) than the corresponding rate for women. For most types of leave, allocation occurred exclusively via hot deck. In an extremely small number of cases (less than one percent) for certain types of leave, values were assigned to ensure logical consistency across the different response options.

Returning to Work After the First Birth

Table 4 presents the frequency of women returning to work following the birth of their first child, as well as the distribution of the timing of the return to work for those women who did so. As was the case with the timing of stopping work prior to the birth, the set of people in universe for and resulting response distributions for these questions were affected by response patterns for the question regarding whether the respondent continued working right up until the birth (EPREGSTOP). Additionally, the instrument branching meant that those that reported continuing to work right up until the birth were not in universe for these questions.

Overall, among those women who stopped working prior to the birth, 69.3 percent indicated that they returned to work at some point after the birth of their first child. The timing of the return to work varied. While 23.0 percent of women who returned to work did so two months or less after the birth, 26.8 percent returned to work three to five months after the birth, and 50.2 percent returned to work six or more months after the birth.¹²

	Survey Year 2019	
	Percent	MOE
Percent who worked after the birth ¹	69.3	2.5
2 months or less	23.0	2.8
3 to 5 months	26.8	3.0
6 or more months	50.2	3.4
Allocation Rate		
Worked after birth	11.6	1.7
Timing of return to work	31.7	3.2

Source: 2019 Survey of Income and Program Participation Public-Use File
 Note: Estimates use month 12 weights.

¹ Universe: Those that worked during the pregnancy and did not continue working up until the birth.

¹² The share of women returning to work two months or fewer after the birth and the share of women returning to work three to five months after the birth did not differ significantly.

Among women, the allocation rate for the question regarding whether the respondent returned to work was 11.6 percent, in line with other questions in the sequence. All missing values for this question were allocated via hot deck. Meanwhile, the allocation rate for the number of months after the birth that the respondent returned to work (TPSTBIRTHINT) was elevated (31.7 percent). Reasons for this elevated allocation rate are discussed below.

Reasons for High Allocation Rates for Interval Variables

As highlighted above, the allocation rates for the fields corresponding to the number of months prior to the birth that respondents stopped working and the number of months after the birth when the respondent started working are high. The allocation rate for the number of months prior to the birth that the respondent stopped working (EPREBIRTHINT) was 48.8 percent, while the allocation rate for the number of months after the birth that the respondent returned to work (TPSTBIRTHINT) was 31.7 percent. We would expect the allocation rate for EPREBIRTHINT to be higher than for TPSTBIRTHINT, since the range of acceptable values for EPREBIRTHINT has an upper and a lower bound, while the range of acceptable values for TPSTBIRTHINT only has a lower bound, but both rates are elevated. A number of factors could be contributing to these high allocation rates. First, nonresponse to the questions regarding the month when the respondent stopped working (16.4 percent) and started working (20.7 percent) that are used to calculate these intervals are higher than for the initial question in the parental leave sequence regarding whether the respondent worked during the pregnancy (12.1 percent). Additionally, the field from the fertility section regarding the month of birth for the respondent's first child, which is also used in calculating this interval, also has a high allocation rate (roughly 32 percent). Third, there is some indication from reviewing individual cases that respondents may not have always been referring to the birth of their first biological child when reporting parental leave date information. Taken in combination with the impacts on these variables from the other data quality issues highlighted above, it is difficult to assess the quality of the data for these fields. The data are also not comparable to those from prior panels.

Conclusion

In summary, the 2019 SIPP data are logically consistent and the universes on the variables match with what is expected. However, the differences in the question sequence/universes compared to the 2008 panel, unexpected response distribution to the question about whether the respondent stopped working prior to the birth, and high allocation rates for certain variables render the data incomparable to most prior panels and make it difficult to assess the reasonableness of the 2019 data.

In an effort to ameliorate some of these issues, changes were made to the question sequence for the 2022 survey year. These changes include the following:

- The questions regarding whether the respondent stopped working prior to the birth and (if so) the month and year prior to the birth when the respondent stopped working will be combined into one question that asks directly about duration of time not working prior to the birth in weeks. This question will be less open to misinterpretation and will align the collected information more directly with what is eventually released to the public.

- The questions about the month and year in which the respondent returned to work following the birth will be combined into a question that asks about duration of time not working after the birth in weeks, months, or years, with a follow-up field for interviewers to enter whether the response was in weeks, months, or years. This approach will align the collected information more directly with what is eventually released to the public.
- The universes for the questions regarding 1) the types of leave taken after the birth; 2) whether the respondent returned to work following the birth; and 3) when the respondent returned to work following the birth will be asked regardless of whether the respondent stopped working prior to the birth of the child. This universe will be more logical and align more closely with prior panels.
- The wording of all questions will use the phrase “your first child” rather than “your child” to reinforce which child is being discussed.

Taken in combination, these changes should yield more accurate and relevant data that can also be more easily compared to prior SIPP panels. We will continue to evaluate the quality of the SIPP parental leave data in order to implement changes that enhance the quality and comparability of the content in the future.