

Assigning Race and Ethnicity to Birth Records Using a CPS- Based Kidlink Method

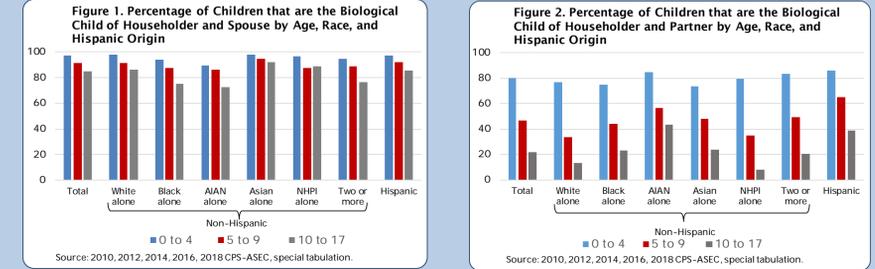
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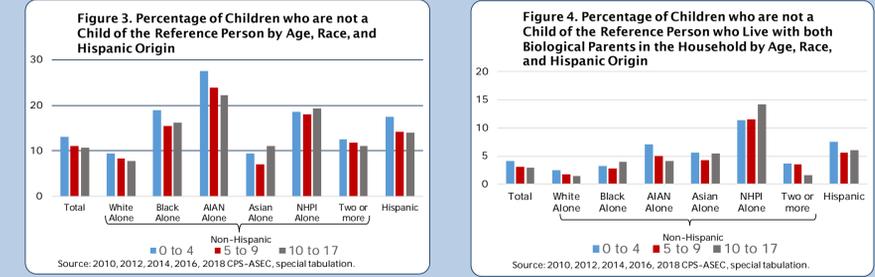
ABSTRACT

Birth certificates in the United States include the race and Hispanic origin of the mother and father, but not the child. This creates challenges for demographic estimation and research. The U.S. Census Bureau used the Kidlink method to assign race and Hispanic origin to birth records for the 2010 Demographic Analysis (DA) estimates. Census data for biological children are linked with data from their potential parents to create distributions of race and ethnicity. The distributions are combined with information on birth certificates to assign race and Hispanic origin to aggregated birth records. The method assumes that the spouse or unmarried partner of the householder are the biological parent of the child. Further, it excludes subfamilies where neither parent is the householder. Using data from the Current Population Survey (CPS), we test assumptions about biological parentage. We also incorporate family types that do not include the householder when assigning race and ethnicity to birth records.

ASSUMPTIONS AND LIMITATIONS OF KIDLINK



- The married partner of the householder is the biological parent of the child. This assumption varies by age, race, and Hispanic origin of the child.
- The unmarried partner of the householder is the biological parent of the child. This assumption varies by age, race, and Hispanic origin of the child.



- The method can only use data for children that are the biological child of the reference person (householder).
- There are children that live with both biological parents that are missed with the current method.

CPS-BASED KIDLINK METHOD

CPS data include more information about parents and subfamilies than decennial census data. The census questionnaire asks the respondent to identify the relationship of each member of the household only to the householder. CPS data include specific variables that indicate whether the mother and father of the child also live in the household, whether or not they are the householder. These are referred to as parental pointers.

With the CPS-Based Kidlink Method, we can use parental pointers to identify the biological parents of the resident child. This way, we can exclude non-biological parents and include only biological child-parent groupings, something we are not able to do using decennial census data. We then develop proportions of child's race and Hispanic origin based on their biological parents' information in the CPS, which we refer to as the "CPS Bio Link." We compare the CPS Bio Link method to a CPS method using the Census relationship approach or "CPS Cen Link"

RESULTS

Race

To analyze the effects of using the new CPS-Based Method, we calculate the percentage of children who are multiracial by the race of the mother and father. In the figures below, we compare the 2010 Census Kidlink results from the CPS using the census relationship approach (CPS Cen Link) and the CPS using the biological parent approach or CPS Bio Link.

Figure 5. Percentage of Children Reported as Multiracial by Method, Race of Mother, and Race of Father.

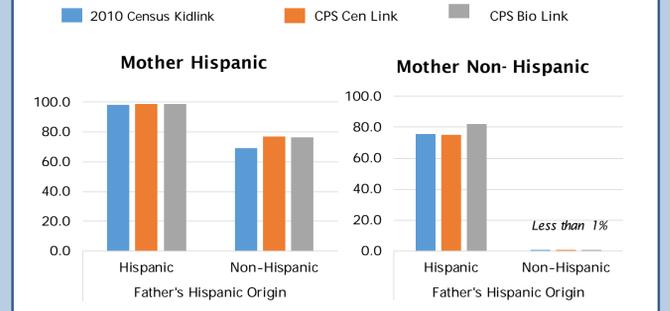


Source: 2010, 2012, 2014, 2016, and 2018 CPS ASEC, 2010 Census.

- The CPS methods tend to find more children reported as multiracial than the 2010 Census Kidlink method.
- The CPS Bio Link method generally produces higher estimates of the multiracial population than the CPS Cen Link and 2010 Census Kidlink method.
- The difference between the CPS Cen Link and Bio Link methods varies by race, with the largest differences for the Black Alone, AIAN Alone, and NHPI Alone groups.

Hispanic origin

Figure 6. Percentage of Children Reported as Hispanic by Method and Hispanic Origin of Mother and Father



Source: 2010, 2012, 2014, 2016, and 2018 CPS ASEC, 2010 Census.

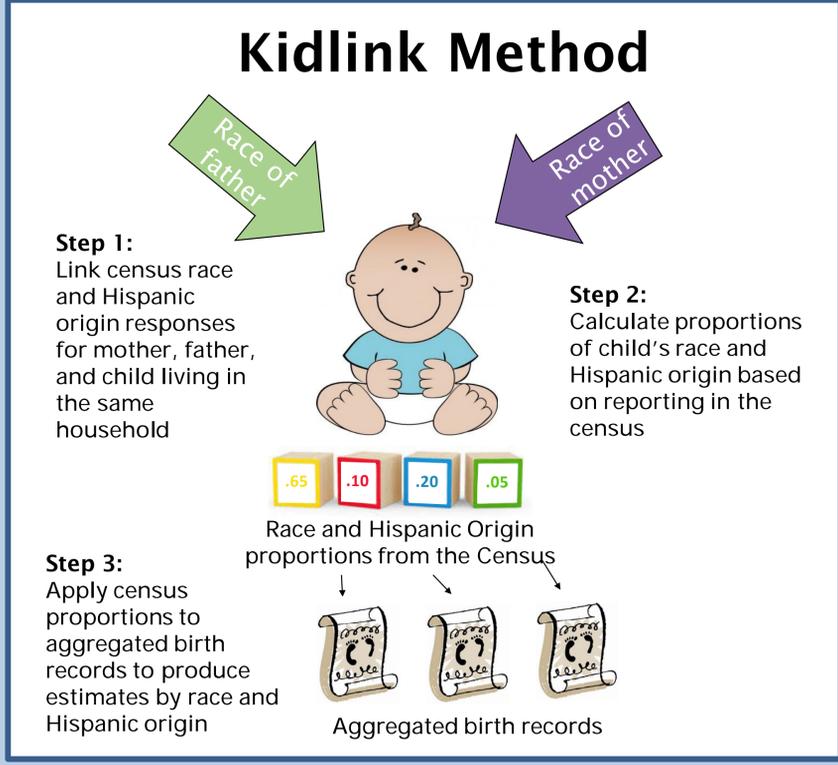
- The CPS methods assign more children as Hispanic when the mother is Hispanic and the father is non-Hispanic than the original Kidlink method.
- The CPS Bio Link method assigns more children to the Hispanic category when the mother is non-Hispanic and the father is Hispanic than the other methods.

CONCLUSION

The original Kidlink Method assumes that the spouse and unmarried partner of the householder is the biological parent of the child. We have shown that this varies greatly by the age, race, and Hispanic origin of the child. Additionally, the original Kidlink Method excludes children that are not the biological child of the householder, such as children living in grand-parent headed households or other complex living situations. We have developed a new method using CPS data that (1) identifies only biological child-parent groupings and (2) includes child-parent groupings that do not include the householder.

The results show that the CPS Bio Link method produces higher estimates of children that are multiracial. The method also produces higher estimates of children that are Hispanic when one parent is Hispanic and the other is not.

The findings will be used to improve the method used to assign race and Hispanic origin to birth records for the upcoming 2020 Demographic Analysis (DA) estimates. The DA estimates will be used to evaluate coverage in the 2020 Census.



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