

## **The Gap Between Births and Census Counts of Children Born in California: Undercount or Transnational Movement?**

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The 2000 Census (PUMS 5% sample) recorded approximately 66 thousand fewer children under age 1 and born in California than were reported from birth records by the California Center for Health Statistics, a shortfall of 12 per cent. There are substantial variations in the size of this gap with the nativity, Spanish origin, and race of the mother, differences that are consistent with either differential undercount or emigration of the children. This paper explores the Census, vital statistics, and other data sources for evidence of the prevalence of these two phenomena.

### *Birth Data*

The tabulated birth records are shown in Table 1. Three origin-race categories, Hispanic, White non-Hispanic, and Asian or Pacific Islander, non-Hispanic, account for almost 99 percent of the births to foreign-born mothers and are highlighted in the table.

[Note: To improve comparability with the Census counts, we plan to replace these counts with those for births between 4/1/1999 and 3/31/2000 and make an adjustment for mortality. Judging from the number of births in 1999 and 2000, we estimate that the former change will reduce the number of births and the size of the overall gap by about 10 thousand.]

### *Population Data*

Census counts of children by nativity, origin, and race of mother are based on the characteristics of co-resident mothers (in same household as the child under age 1) or, if the mother is not present in the household, those of the co-resident father, if present, or, as a last resort, those of the householder. In the latter two cases, however, we use the race and origin of the *child* rather than the father or householder. The effects of different assumptions about the characteristics of those mothers not living with the children and any differences between the full count and PUMS data will be addressed in the final paper. These counts are shown in Table 2.

### *The Population Shortfall*

Table 3 shows the implied absolute and relative shortfalls of the census counts, by mother's nativity, origin, and race. The relative shortfall for total children of foreign-born women (19 %) is over two and a half times that for all children of native-born mothers (7 %). Within the highlighted race-origin categories, the gap is substantially greater for children of foreign-born than native-born API (Asian or Pacific Islander) and White mothers, 16 % and 25 %, respectively, but negligible (1 %) for children of Hispanic mothers.

### *Gap for Children of Hispanics*

The absence of a gap for children of Hispanic women is puzzling and is explored further in the paper. Specifically, we look at geographic variations among eight regions in the state and find two strong patterns in the gaps for children of *native-born* Hispanic women.

1. The gaps increase monotonically from a low level in the north of the state to southern border. (This geographic trend is much weaker for the gaps in the children of foreign-born Hispanics.)
2. The gaps are substantially higher in three regions in which there is a high ratio of foreign-born to native-born Hispanic births.

These patterns suggest the hypothesis that the nativity of a significant number of foreign-born Hispanic mothers is misreported (as native-born) in the birth records, and that the incidence of misreporting increases with proximity to the Mexican border. In the regions south of San Francisco Bay, up to 5 % of births to foreign-born Hispanic women may be reported as being to native-born women. This would imply a gap of 13 % between the deficits for children born to native- and foreign-born Hispanic women, 9 % and 22 %, respectively.

### *Differential Undercount or Emigration?*

One plausible explanation is that the native-foreign-born differences in the deficit of 16 %, for API, 25 %, for Whites, and 0 to 13 %, for Hispanics, are the result of differentially lower coverage of the children of foreign-born women, children who were in the U.S. but not enumerated by the census. A second plausible explanation is that these differences in the deficit result from the emigration of the children after their birth and before the census.

We are not aware of any direct estimates of the relative importance of these two explanations for the gaps. We therefore examine indirect indicators.

### *Indirect Evidence: Foreign Census Data*

Mexico is the source of more migrants to California than any other nation, and the 2000 Mexican census (public use microdata from the University of Minnesota IPUMS Project) reports over 16 thousand population under age 1 and born in the U.S. The numbers of 1 to 3 year-olds born in the U.S. are between 21 and 25 thousand. While these data do not indicate the state of U.S. birth, the geographic distribution of this population is consistent with at least a third having been born in California. These numbers are equivalent to (very) approximately half of the differential deficit between native- and foreign-born Hispanic 0-year olds in California.

### *Indirect Evidence: School Enrollment Data for Earlier Birth Cohorts*

We examine California school enrollment data for earlier birth cohorts, for which there are similar differences between the census counts and birth data. These data are found to be in closer agreement with the census counts than would be consistent with the implied large differential undercounts.

*Other Indirect Evidence*

We will explore the possibility of using American Community Survey microdata, which includes a question on children born in the previous year, and evaluations of the vital records data on nativity to shed further light on the alternative explanations for the observed gaps.

**Table 1**

<b>Recorded Births to California Residents, by Spanish Origin, Race, and Nativity of Mother, 2000</b>			
Spanish origin / Race	Native-Born Mother	Foreign-Born Mother	Total
Hispanic	92981	166774	259755
Non-Hispanic White only	150652	18763	169414
Black only	30077	2212	32289
Indian only	1940	31	1971
API* only	8441	52805	61246
Other only	173	188	361
Multi-Race	5346	903	6249
<b>Total</b>	<b>289609</b>	<b>241676</b>	<b>531285</b>

Source: State of California, Department of Health Services, Center for Health Statistics, Birth Public Use File, 2000.

Notes: Births to mothers of unknown Spanish origin, race, or nativity allocated.  
\* API : Asian or Pacific Islander

**Table 2**

<b>Children Under Age 1, Living in Households in U.S. and Born in California, by Spanish Origin, Race, and Nativity of Mother, Father, or Householder, 2000</b>			
Spanish origin / Race of Mother, Father, or Householder	Native-Born Mother, Father, or Householder	Foreign-Born Mother, Father, or Householder	Total
Hispanic	77095	137388	214483
Non-Hispanic White only	147492	13773	161265
Black only	25785	2318	28103
Indian only	2502	51	2553
API* only	7523	38487	46010
Other only	338	489	827
Multi-Race	8374	3903	12277
<b>Total</b>	<b>269109</b>	<b>196409</b>	<b>465518</b>

Source: Census 2000, Public Use Microdata Sample (PUMS), United States, prepared by the U.S. Census Bureau, 2003.

Notes: Origin, race, and nativity of mother of children living with mother; otherwise origin and race of child and nativity of father, if present, or householder.  
Excludes children living in group quarters.  
\* API : Asian or Pacific Islander

**Table 3**

<b>Deficit of Census Population Under Age 1 Relative to Recorded Births to California Residents, by Spanish Origin, Race, and Nativity of Mother, 2000</b>					
Spanish origin / Race	Number			Percent of Births	
	Native-Born Mother	Foreign-Born Mother	Total	Native-Born Mother	Foreign-Born Mother
Hispanic	-15886	-29386	-45272	-17%	-18%
Non-Hispanic White only	-3160	-4990	-8149	-2%	-27%
Black only	-4292	106	-4186	-14%	5%
Indian only	562	20	582	29%	64%
API* only	-918	-14318	-15236	-11%	-27%
Other only	165	301	466	96%	160%
Multi-Race	3028	3000	6028	57%	332%
<b>Total</b>	<b>-20500</b>	<b>-45267</b>	<b>-65767</b>	<b>-7%</b>	<b>-19%</b>

Source: Tables 1 and 2, above.

Note: \* API : Asian or Pacific Islander