



Correcting the record about post-2020 entrances to California

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May 5, 2022 update: CPL published an updated, in-depth [errata](#) on April 14, 2022, that explains this error and how CPL addressed it.

In [March](#) and [December](#) of 2021, we published two reports about domestic migration in California. These reports discussed who was moving to California and who was leaving, and looked at regional patterns across the state.

Unfortunately, we have since discovered that some of those estimates were inaccurate due to an error in our calculations. **Specifically, we substantially underestimated domestic entrances to California in 2020 and 2021.** Our preliminary estimates suggest that the actual decline in entrances to California from other states was less than half as large as we reported. The cause was that we did not account for a change in how our sample was pulled starting in Q1 2020. This error affects only entrances, and does not impact the estimates of the number of people leaving California, moving within California, or breaking down destinations among non-entrant movers. This document describes the error, and in the coming weeks we will release corrected versions of our two prior reports, as well as new results that include data from Q4 2021.

We, the authors, take full responsibility for the mistake. As we have noted in both publications, there are important implications for people moving in or out of California. We deeply regret any misinformation this may have created and have implemented additional steps with our credit-data review process to prevent mistakes like this from happening again.

More detail about the error

Our mobility reports use the University of California Consumer Credit Panel (UC-CCP), a quarterly panel (2004 to present) of anonymized credit report data from one of the three nationwide credit bureaus. We receive two extracts in the UC-CCP: one is a 2% national sample, and one is specific to California. For the December 2021 publication, we used only the California extract. For the March 2021 publication, we used both extracts, and the error affects only estimates using the California extract.

When we first created the UC-CCP California extract, the credit bureau provided quarterly data on individuals that lived in California at any point from 2004 through 2019, even during the quarters in which they resided in another state. Starting in Q1 2020, after the initial data was provided, we updated our process for how the credit bureau refreshes our data every quarter. These refreshes are the same as the initial pull with one key difference: they do not go backwards in time. For anyone residing in California 2004 to 2019, we are provided with their location data even before and after they live in California. But for people who began appearing in the California extract after Q4 2019, we do not go back to prior quarters to pull data on their prior location.

To date, our mobility reports have counted somebody as a “mover” to California only when we were able to observe them in two consecutive quarters, where their ZIP code in the first quarter is outside California, and their ZIP code in the next quarter is inside California. In this way, we do not inadvertently count the numerous first-time credit holders – appearing in the data for the first time – as movers. This approach worked well prior to the Q1 2020 change in how we refresh the data, because prior to 2019 we have the location of each individual even before they live in California. This approach also worked well for people in our dataset who lived in California after 2004 that later left the state and subsequently returned, because we receive data on individuals after they leave California, and thus were able to observe their intermediate location before they moved back to California.

However, this approach incorrectly excluded people who never lived in California during the 2004-19 period, and who moved to California after Q4 2019. For those people, the first observation we see is their first quarter in California, and because we do not observe their location in the prior quarter, we did not have two consecutive quarters in different locations and therefore did not count them as a mover. As a result, we underestimated the number of people who moved into California after Q4 2019. We are updating both policy briefs to fix this error and will post updated results that correct this issue as soon as they are available.

Questions: For any questions about this correction, please email the authors at evanwhite@berkeley.edu and nholmes@berkeley.edu.