

Migration and Educational Attainment in California: The Start of a “Brain Drain”?

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Introduction

Migration and population change are important issues with major social, economic, and political implications. California, which has always been viewed as a land of opportunity, has recently experienced increasing levels of outmigration and negative net migration. As other studies have shown, this has led to [general population decline](#) – based on population estimates from the 2020 U.S. Census, in 2021 California lost a seat in Congress for the first time since its founding in 1850.

We would like to know more about who is moving, and why those people are moving. [Previous studies](#) have suggested that housing costs play a role, because low-income workers are more likely to leave the state. This report considers and extends this work in light of more recent data. Rather than look at household income, it looks at the educational attainment of migrants aged 25 or older.

This report uses data from the American Community Survey (ACS). The ACS is the largest annual, nationally representative sample of U.S. households. Over 3 million people across the U.S. respond to questionnaires about their housing costs, energy use, commuting patterns, education, income, as well as standard demographic information such as age, sex, and race/ethnicity. The ACS also asks people whether they moved in the past year, and if so, where they came from. It could be from a different place in the same metro area, a different part of the state, a different state, or even a different county. This information can be used to study migration and the characteristics of the migrants and their households.

Definitions

This report analyzes migration in California and makes the following definitions:

- Out-migration: relocation out of California, to another state in the U.S.¹
- In-migration: movement into California, from either another state in the U.S. or from another country

¹ Since the ACS is based on U.S. households, we cannot track the number of people who migrated from California to another country. Thus, our estimate of outmigration is a lower-bound on total theoretical outmigration.

- Net migration: the amount of in-migration minus the amount of out-migration; thus, net migration tracks the change in California's population that is due to migration

This report does not evaluate the amount of intrastate migration (say, from one county or metro area to another within California).

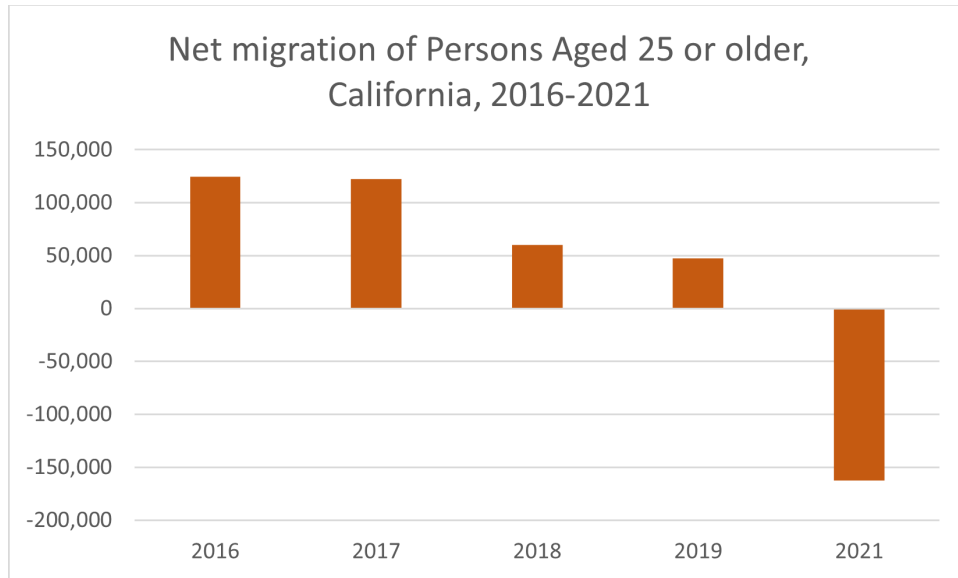
Further, this report looks specifically at migration by educational attainment, for all adults aged 25 or older. The following educational attainment categories are used:

- Less than HS: someone with 12 years of education or less who has not earned a high school degree or GED; includes people reporting no schooling at all
- HS/GED: person whose highest education earned is a high school diploma or GED and who has not completed any post-secondary education
- Some college: person has some years of post-secondary educational attainment, but no degree
- Associate's: person has earned an Associate's degree and has no Bachelor's degree
- Bachelor's: person has earned a Bachelor's degree and has no post-graduate degree
- Master's/Professional: person has earned a Master's degree or other post-graduate professional degree, such as a law or medical degree
- Doctoral: person has earned a PhD.

This report examines net migration rates by educational attainment using the above definitions, from 2016 to 2021. The year 2020 is excluded because of problems with data collection during the COVID-19 pandemic.

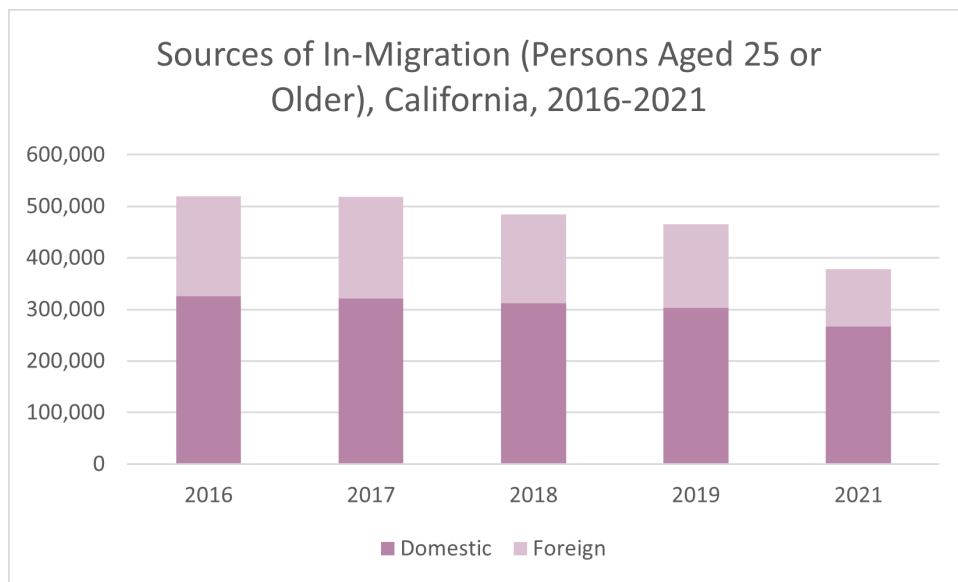
Results

In 2016, net migration of persons aged 25 or older, including foreign immigrants, was approximately +124,644 persons. However, by 2021, net migration was -162,460 persons. There were major declines in net migration between 2017-2018 and 2019-2021 (data for 2020 were not used due to collection and quality concerns created by the pandemic). See the figure below.



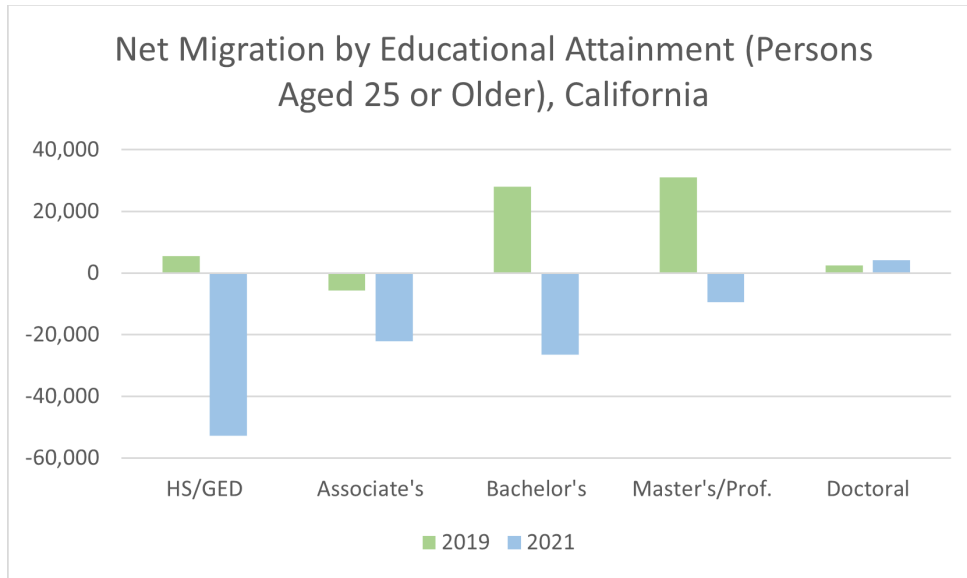
Source: 2016-2021 ACS microdata (author's calculations using person sample weights provided by IPUMS)

The next figure breaks down the amount of in-migration by domestic and foreign sources. Both domestic and foreign migration into California decreased in 2021, but the decline in foreign immigration was more pronounced. Foreign immigrants were about 37% of all in-migrants in 2016; that number declined to 29% in 2021.



Source: 2016-2021 ACS microdata (author's calculations using person sample weights provided by IPUMS)

It was mentioned earlier that while net migration has trended downward since 2016, there was a significant change in 2017-2018 and 2019-2021. To focus on 2019-2021, I present net migration by educational attainment in the figure below.



Source: 2016-2021 ACS microdata (author's calculations using person sample weights provided by IPUMS)

According to this chart, in 2021 the state suffered losses due to migration at almost every level of educational attainment. The most concerning of the changes is the “flip” in net migration, from positive to negative, of people with Bachelor’s and Master’s/Professional degrees between the two years.

Table A1, in the Appendix, presents year-by-year breakdowns in net migration by educational attainment.

Discussion

Prior to the pandemic, the conversation around migration was concerned with the trends – downward trends in net migration and population growth were sparking conversations about how we keep people in California. We are now at a point where trends and possibilities have become reality. Especially now that even higher educated workers have started to flee the state, we must come to terms with the possibility of a “brain drain” and start talking concretely about how to address rising costs of living in California.

Table A1: Migration Counts for People Aged 25 and Older, California, 2016-2021

	<u>2021</u>			<u>2019</u>			<u>2018</u>		
	Out	In	Net	Out	In	Net	Out	In	Net
HS/GED	97,775	45,043	-52,732	68,819	74,285	5,466	70,976	62,699	-8,277
Associate's	45,880	23,725	-22,155	33,521	27,867	-5,654	33,230	31,806	-1,424
Bachelor's	159,279	132,887	-26,392	120,693	148,799	28,106	123,773	155,184	31,411
Master's/Professional	90,448	80,947	-9,501	59,931	90,984	31,053	67,770	109,098	41,328
Doctoral	16,608	20,713	4,105	15,603	18,123	2,520	12,165	24,049	11,884

Source: author's calculations from ACS microdata, 2016-2021.

Notes: See text for definitions of "Out" and "In" migrants.

Table A1 continued: Migration Counts for People Aged 25 and Older, California, 2016-2021

	<u>2017</u>			<u>2016</u>		
	Out	In	Net	Out	In	Net
HS/GED	76,384	74,871	-1,513	74,858	75,555	697
Associate's	27,911	32,926	5,015	31,790	28,564	-3,226
Bachelor's	104,695	166,359	61,664	105,408	164,487	59,079
Master's/Professional	61,241	108,419	47,178	60,868	106,871	46,003
Doctoral	10,734	21,245	10,511	8,247	20,410	12,163

Source: author's calculations from ACS microdata, 2016-2021.

Notes: See text for definitions of "Out" and "In" migrants.