Recent Trends in California Migration

Evidence from the American Community Survey 2005-2019

STUART GABRIEL AND BENJAMIN FREYD UCLA ZIMAN CENTER FOR REAL ESTATE JENNIE BRAND, NEAL FULTZ, AND MICHAEL TZEN CALIFORNIA CENTER FOR POPULATION RESEARCH

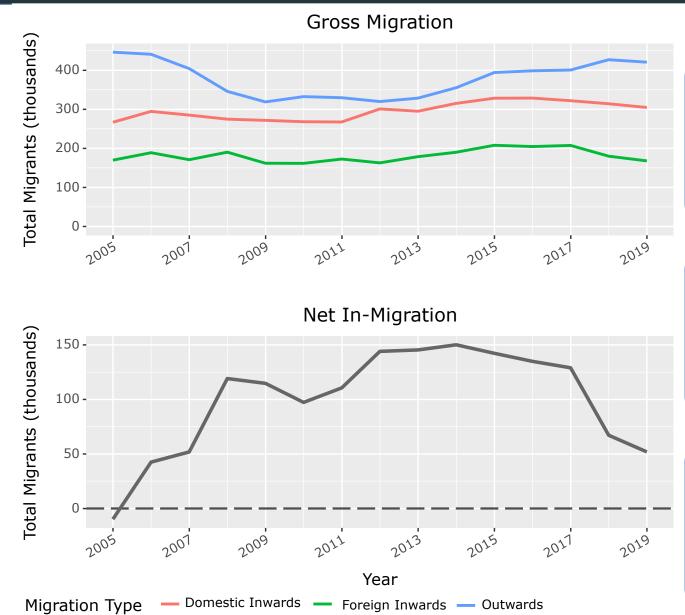
University of California Office of the President February 4, 2021 Recent media reports suggest an acceleration in population flight from California. Turnaround in long-standing CA migration flows could have substantial adverse consequences for CA economic activity, tax base, and fiscal policy.

This study utilizes the most recently available data from the American Community Survey (2005-2019) to characterize trends and defining characteristics of California migration. The ACS is a premier source for detailed U.S. population and housing information.

A few words about our data:

- Annual frequency
- 1% sample of U.S. population; representative cluster sampling of households
- Next survey update: 2020 data available in November 2021
- Our sample focuses on former and current California residents above 25 years of age
- Migration is defined as having moved across state lines within the 12 month period prior to the survey
- Our sample size ranges from 200,000 to 250,000 individuals per year

California Migration Flows 2005 - 2019

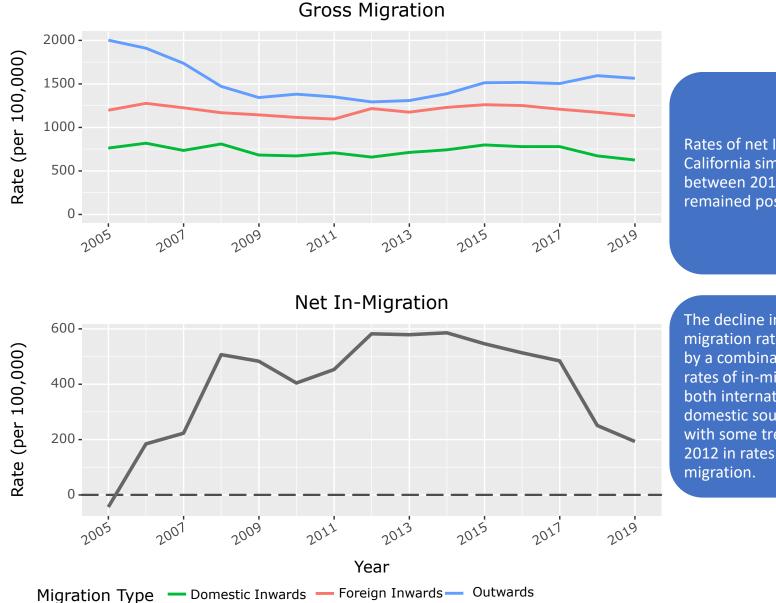


California in-migration exceeds out-migration. Net inmigration to California trended down from roughly 150,000 persons/year to 50,000 persons/year between 2014 -2019.

Out-migration has trended up by roughly 100,000 over recent years but was little different in magnitude in 2019 from 2005. In-migration from both domestic and foreign sources recently has eased but appears little changed on net over the study period.

In 2019, out migration exceeded domestic inmigration by roughly 100,000 persons; the positive net domestic out-migration from CA moved up from 2012 to a 2019 level not much different from the early 2000s.

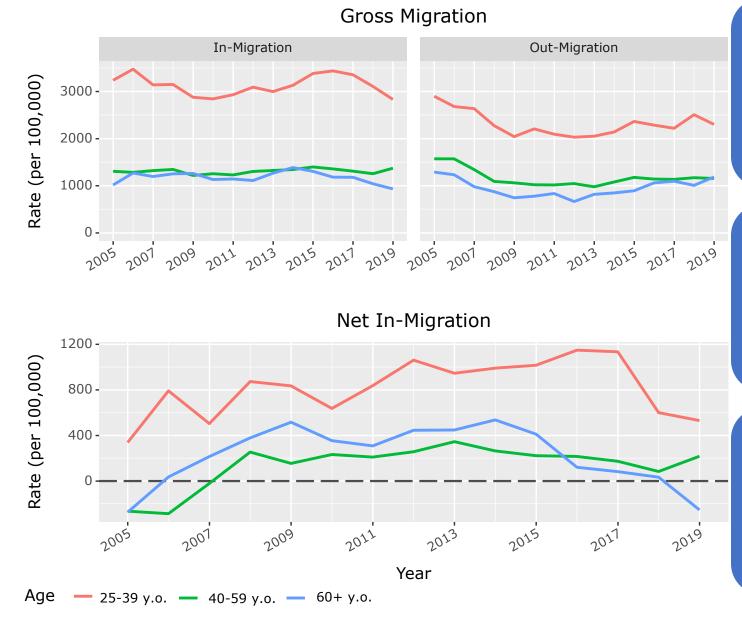
California Gross and Net Migration Rates 2005 - 2019



Rates of net In-migration to California similarly declined between 2014-2019 but remained positive.

The decline in net inmigration rate to CA is driven by a combination of damped rates of in-migration from both international and domestic sources coupled with some trending up since 2012 in rates of outmigration.

Migration Rates by Age Cohort (Including International Immigrants)

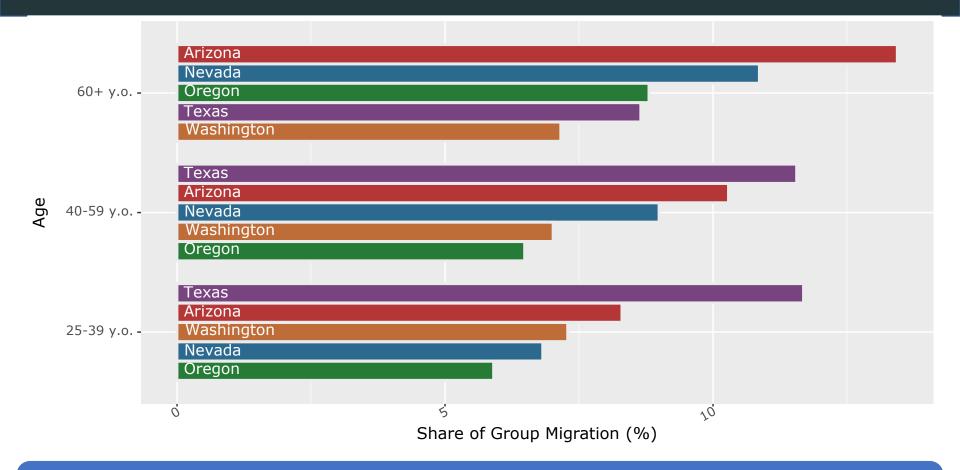


Mobility rates among the younger (25-39) age cohort substantially dominate those of older groups. Net inmigration rates among younger persons declined by roughly one-half between 2017 and 2019 but remain positive.

Net in-migration rates among middle aged persons ((40-59) changed little over study years.

Net in-migration rates to California among older persons aged 60+ moved down from 2014 and turned negative in 2017 owing to adverse trends in both rates of in- and out-migration.

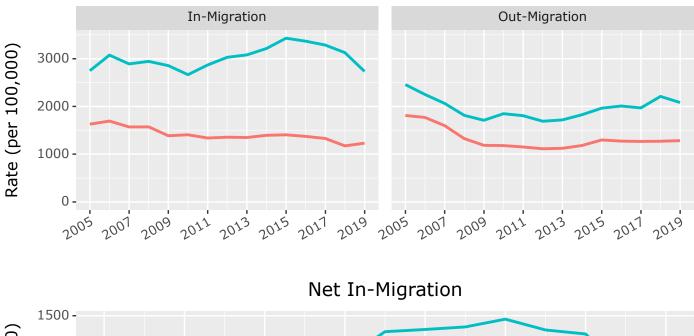
Top State Destinations of California Immigrants by Age



Texas was the top destination choice among younger and middle-aged cohorts. In contrast, the neighboring and more affordable states of Arizona and Nevada were top destinations choices of retiree migrants.

Top sending regions for young in-migrants to CA included Washington State and New York.

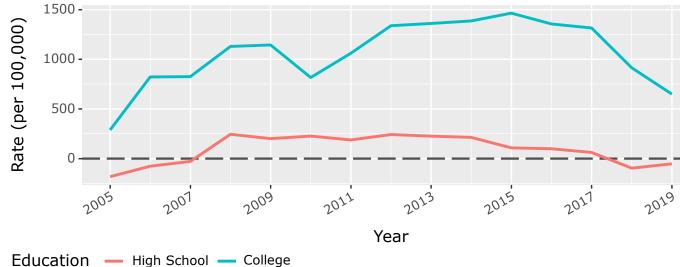
Migration Rates by Educational Attainment Including International Immigrants



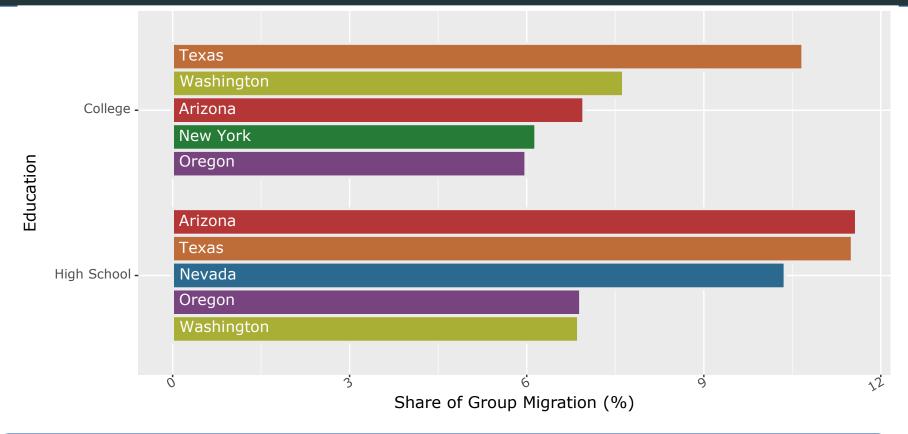
Gross Migration

Net in-migration to California has been dominated by higher human capital collegeeducated migrants; net CA inmigration rates among that group have fallen back by roughly one-half since 2015 but remain positive..

Net in-migration rates among high school educated households have been modest and trended down in recent years to close to zero in 2019.



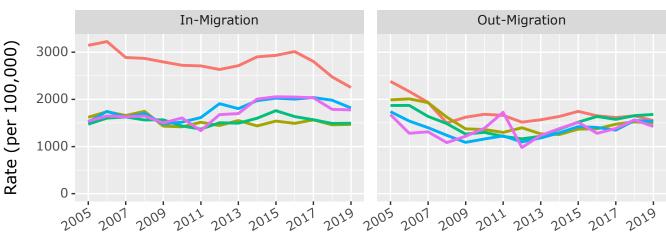
Top State Destinations of California Migrants by Educational Attainment



Texas and Washington State were the top destinations of high human capital out-migrants from CA, whereas Arizona, Texas, and Nevada ranked as the top destinations of lower human capital migrants.

New York, Texas, Illinois and Washington State were the top sending regions of high human capital migrants to CA; in contrast, lower human capital migrants to CA originated in AZ, NV, and TX.

Migration Rates by Income Percentile Including International Immigrants

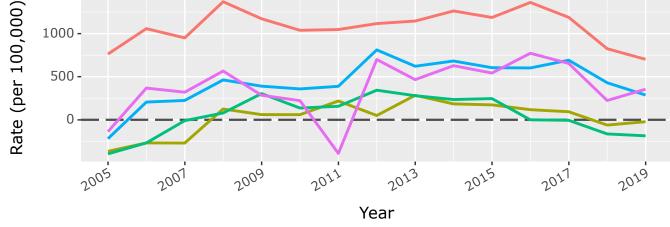


Gross Migration

Net In-Migration

Net in-migration rates to CA have declined among all income quartiles. Among middle-income migrants in the second and third income quartiles, those rates turned slightly negative in recent years.

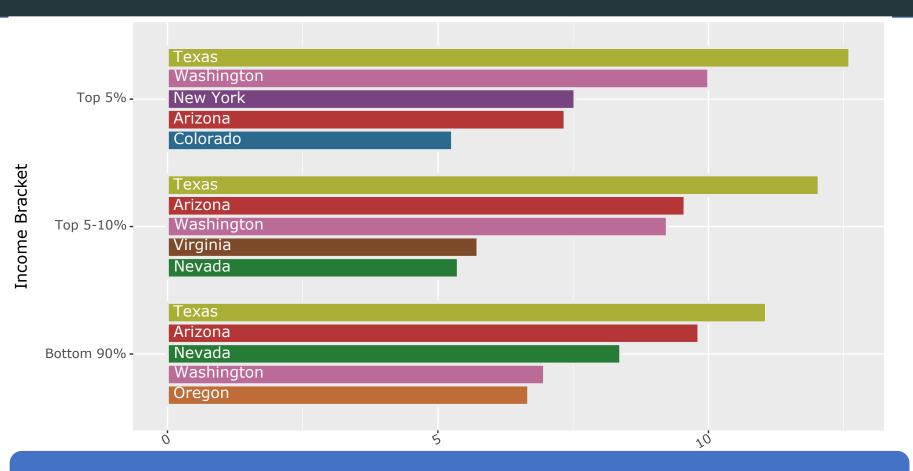
Rates of net in-migration to CA among the top 5 percent of earners declined by one-half in recent years but remain positive. The decline in rates of in-migration among the top 5 percent of earners reflects the combination of some easing in entry rates coupled with modest trending up in exit rates.



Income percentiles are computed each year based on income from current California residents.

Income — First Quartile — Second Quartile — Third Quartile — Fourth Quartile — Top 5%

Top State Destinations of California Migrants by Income

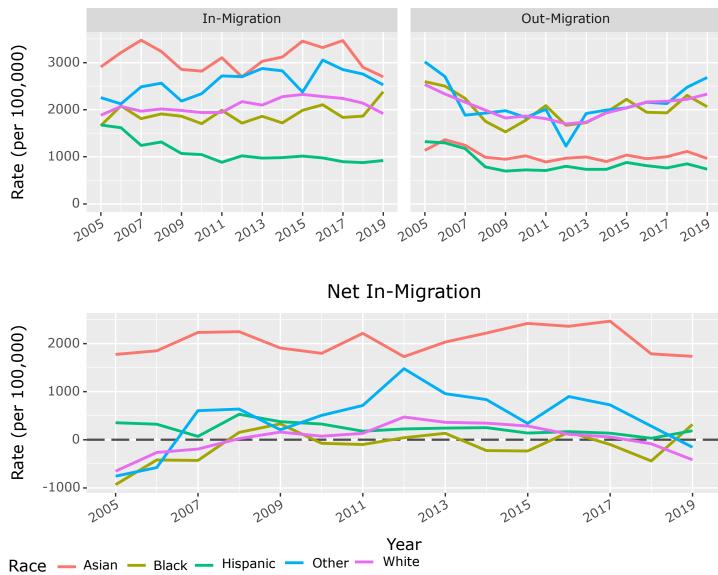


Popular destinations among the top 5% of earners included Texas, Washington State, and New York; similarly, New York and Texas were the top origins of high earning population entering CA.

Popular destination and origin states among the lower 90% of CA earners included Texas, Arizona, and Nevada.

Migration Rates by Race Including International Immigrants



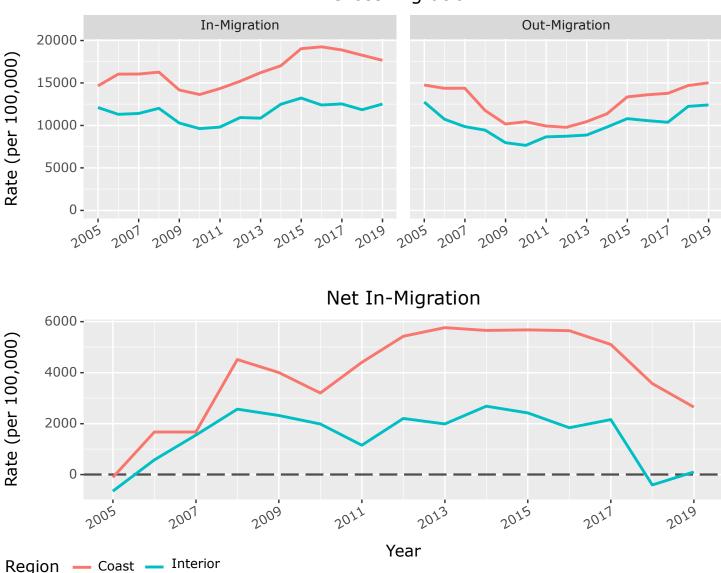


Net in-migration rates of Asian households were elevated relative to other groups and little changed over the 2005 – 2019 study period.

Among white households, rates of net in-migration have been modest and recently became negative.

Excluding Asian and white households, rates of in- and out-migration among other racial and ethnic groups were largely balanced over the past decade.

Migration Rates by CA Coastal Metropolitan Areas and Interior Including International Immigrants



Gross Migration

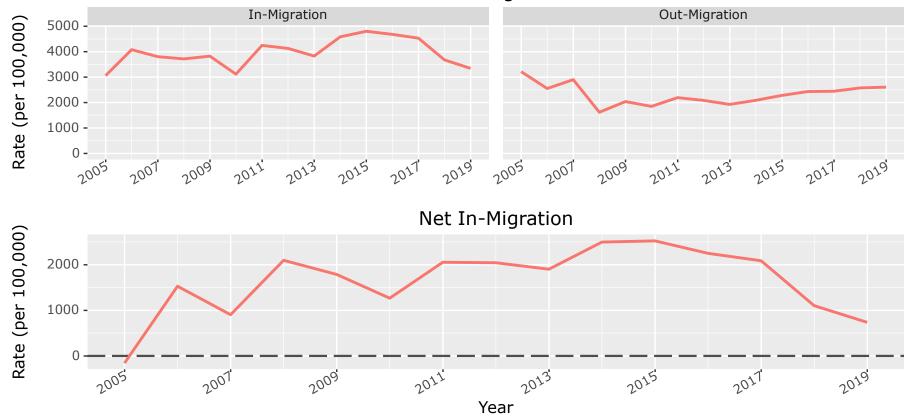
Migration flows to and from CA coastal metro areas dominated those of the remainder of the state.

Rates of net in-migration to coastal CA metro areas remained positive in 2019 but have declined by roughly one-half since 2016. Rates of outmigration from coastal areas have trended up since 2012 whereas entrants to those areas have fallen back modestly.

Net in-migration to interior areas of CA declined in recent years, owing to ongoing trending up in rates of departure.

Migration Rates of Tech Sector Workers Including International Immigrants

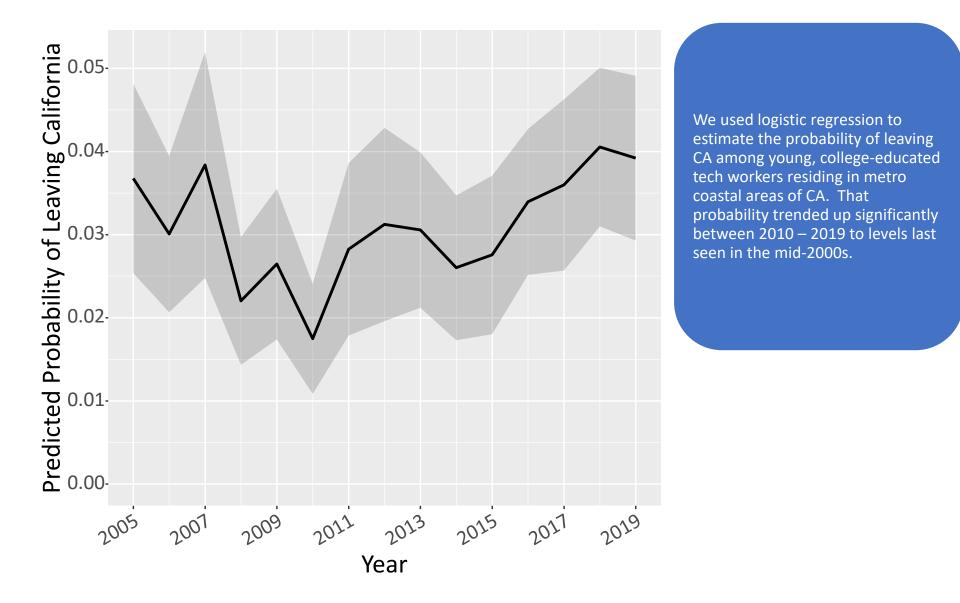
Gross Migration



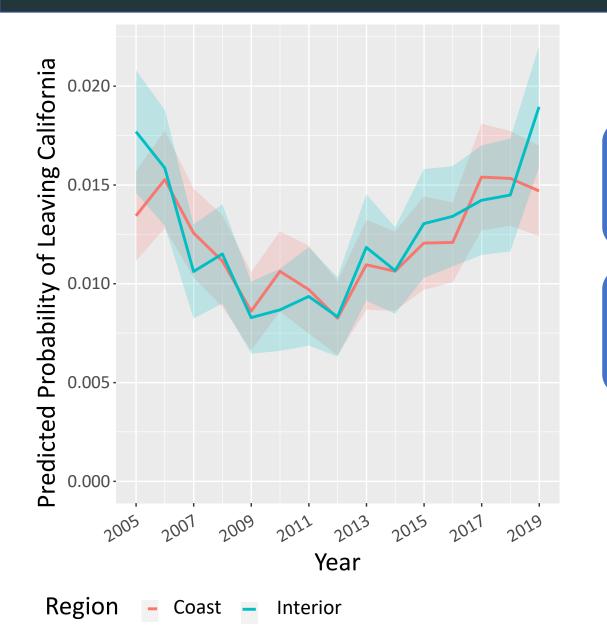
Net in-migration rates of tech sector workers fell by over two-thirds between 2015-2019, owing to a combination of downward adjustment in arrivals coupled with ongoing trending up in departures.

Notwithstanding, in 2019, rates of net in-migration of tech sector workers remained positive.

Predicted probability of leaving California for college-educated, tech workers aged 25-40 residing in coastal areas



Predicted probability of leaving California for white, high school educated residents aged 60+ from either Coastal or Interior California



We similarly used logistic regression to estimate the probability of leaving CA among white, high school educated, retirees from either coastal metro or interior areas.

Results indicate the exit probability of that group has trended up in recent years but remains low in magnitude and similar to levels recorded in the mid-2000s.

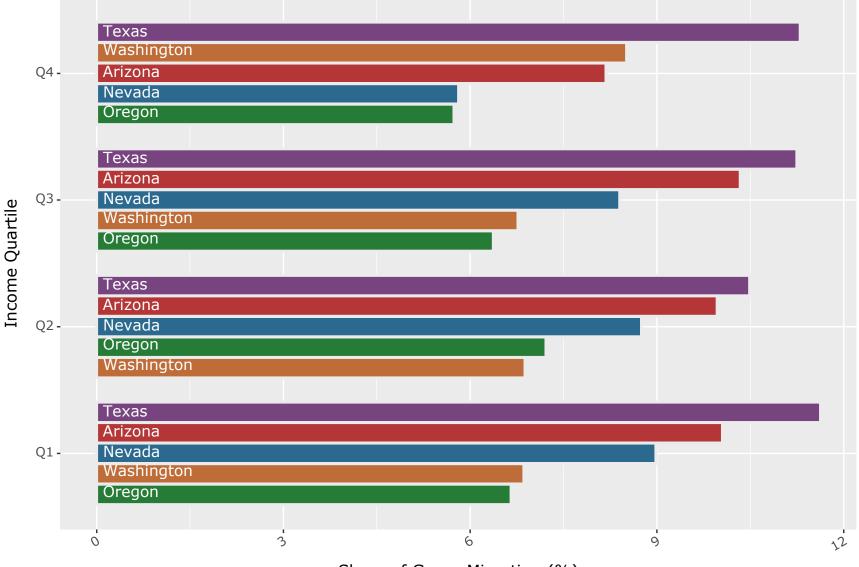
Some Takeaways

- This presentation provides a cautionary note in assessment of CA migration trends. While net inmigration to CA remained positive through 2019, it has declined in recent years owing to a combination of increased exits and damped entry.
 - Among young (25-39) and high human capital (college educated) persons as well as CA metro coastal areas, rates of net in-migration remained positive but declined by roughly one-half in recent years. Similar outcomes were evidenced for earners in the top and bottom income quartiles as well as for the top 5 percent of earners.
 - In recent years, net exits from CA were evidenced for middle-income (second and third income quartile) and for white residents of the state.
 - Net in-migration rates of Asian households were elevated relative to other groups and little changed over the 2005 – 2019 study period. Rates of in- and out-migration were largely balanced among other racial and ethnic groups.

Takeaways (con't)

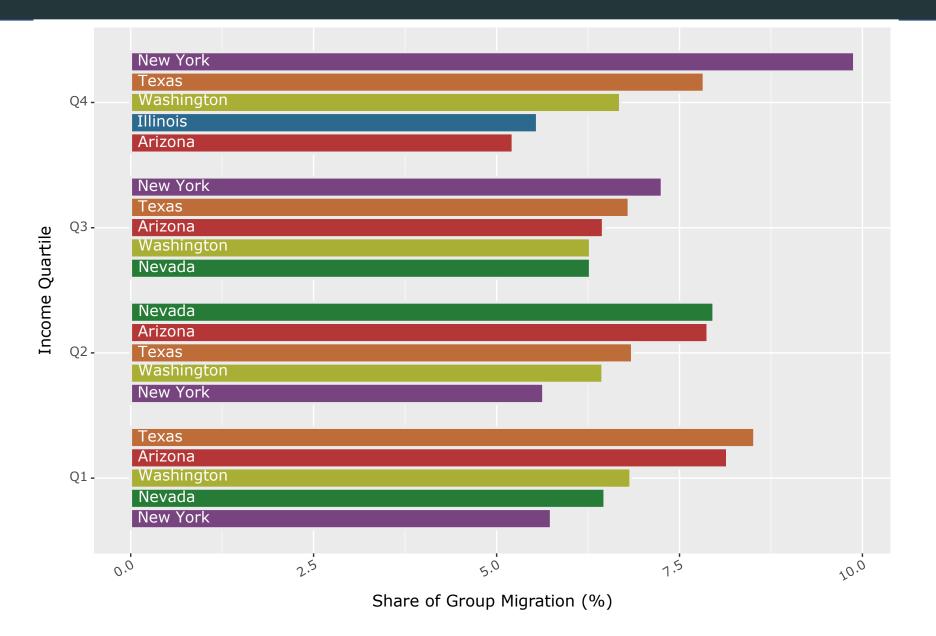
- Net In-migration to CA of tech sector workers as measured in both absolute flows and rates trended up markedly through 2015 but have fallen back in recent years. Tech worker in-migration to CA remained positive in 2019.
 - That decline is consistent with the high costs of housing in coastal California as well as diffusion of tech more generally to emergent agglomerations elsewhere in the U.S. Popular destinations of that group included Texas, Washington State, and New York.
 - Results of logistic regression suggest that the probability of California departure among young, collegeeducated, tech sector workers more than doubled over the past decade.
- Overall, findings suggest ongoing but diminished attractiveness of CA among younger, more highly educated, urban and tech employed households across the income spectrum. Results suggest similar outcomes among lower human capital retiree populations.

Top State Destinations of California Migrants by Income Quartile

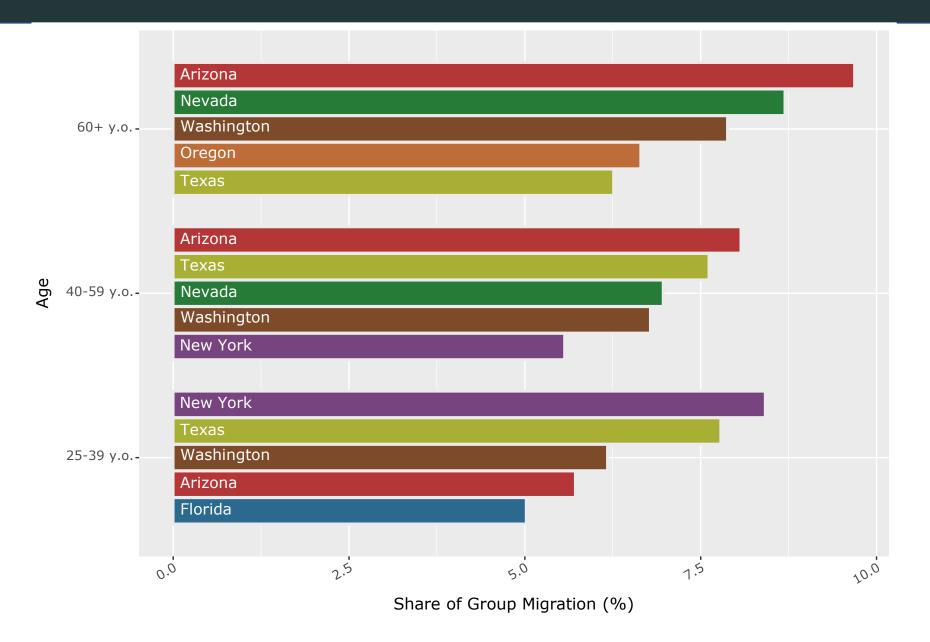


Share of Group Migration (%)

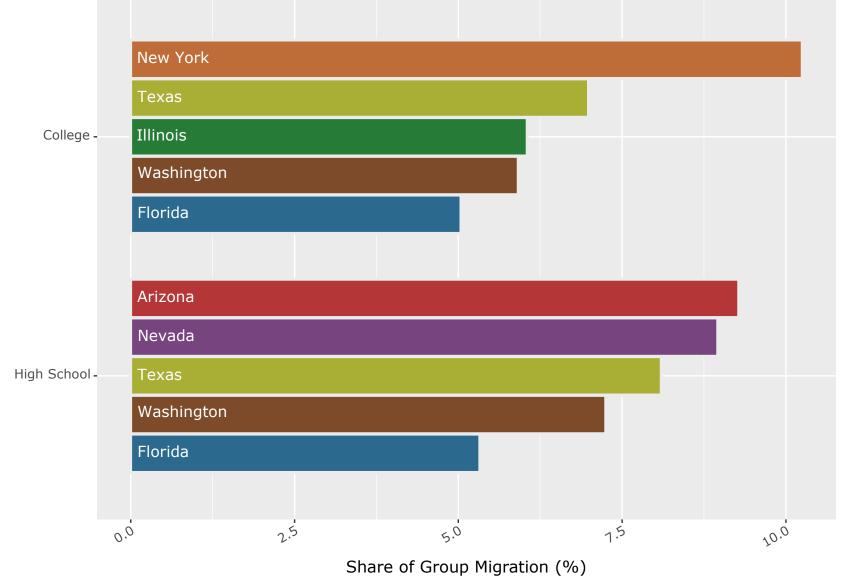
Top Origin States of Migrants to California by Income Quartile



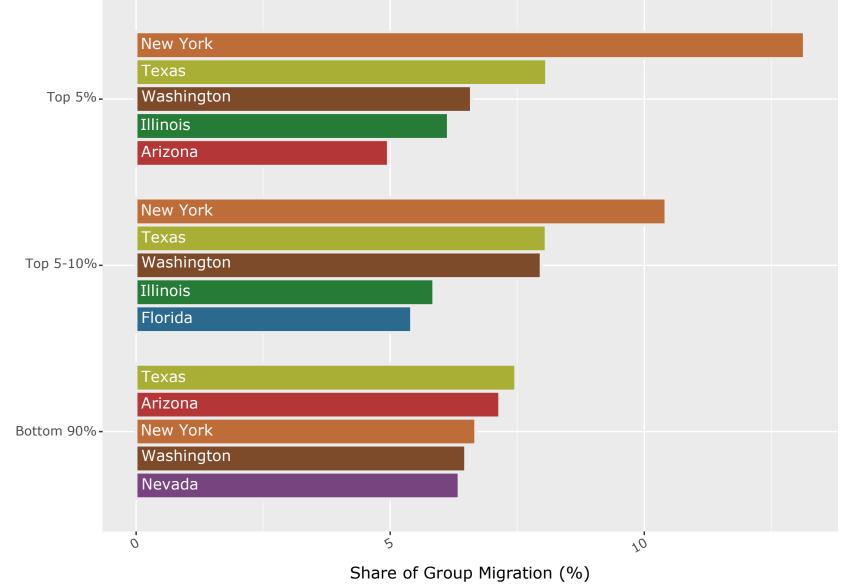
Top Origin States of Migrants to California by Age



Top Origin States of Migrants to California by Educational Attainment



Top Origin States of High Income Migrants to California



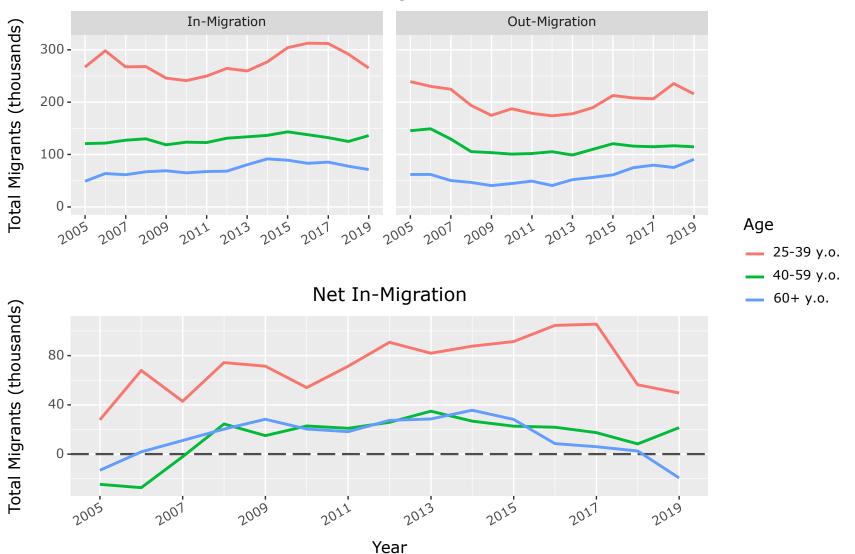
Income Bracket

Definition of Technology Occupations

- Our definition uses the set of occupations defined in Beckhusen, Julia, "Occupations in Information Technology", American Community Survey Reports, ACS-35, U.S. Census Bureau, Washington, DC, 2016
- The set of technology occupations is the following:
 - Computer and Information Systems Managers,
 - Computer Scientists and Systems Analysts/Network systems Analysts/
 - Web Developers
 - **Computer Programmers**
 - Software Developers, Applications and Systems Software
 - **Computer Support Specialists**
 - Database AdministratorsNetwork and Computer Systems Administrators

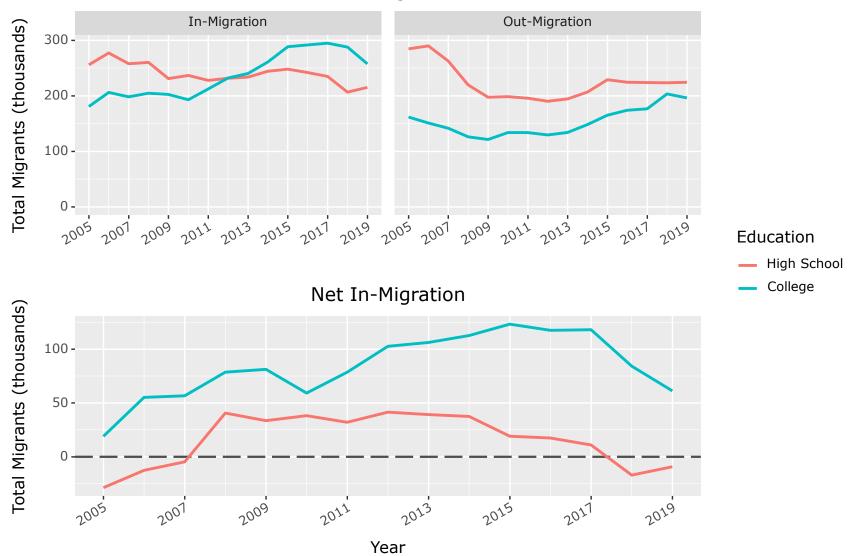
Migration Flows by Age Including International Immigrants

Gross Migration



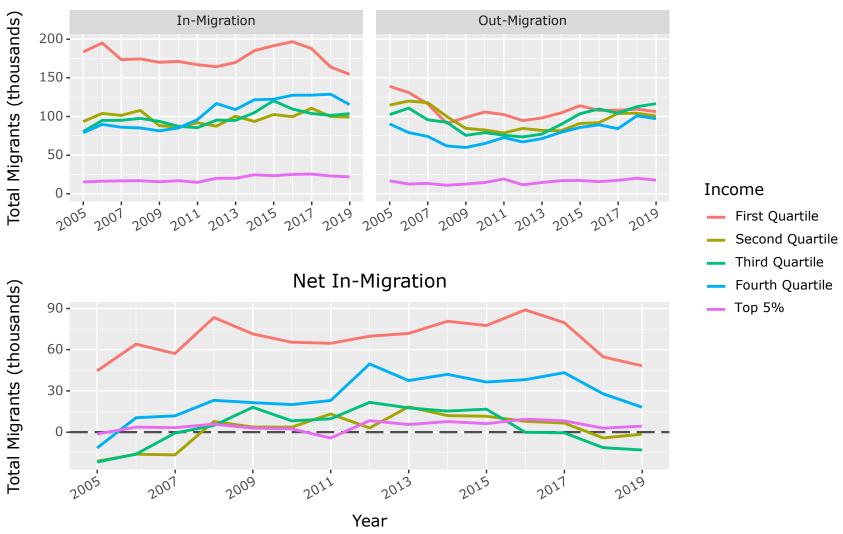
Migration Flows by Educational Attainment Including International Immigrants

Gross Migration



Migration Flows by Income Percentile Including International Immigrants

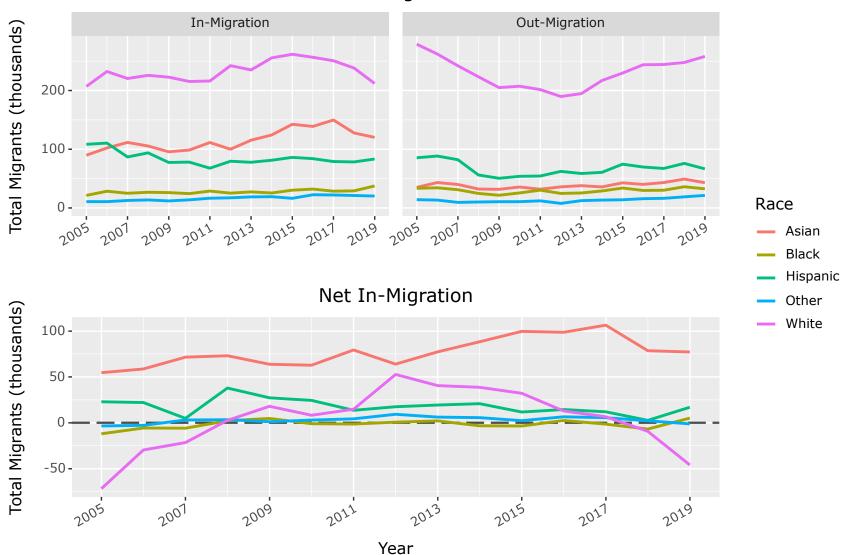
Gross Migration



Income percentiles are computed each year based on income from current California residents.

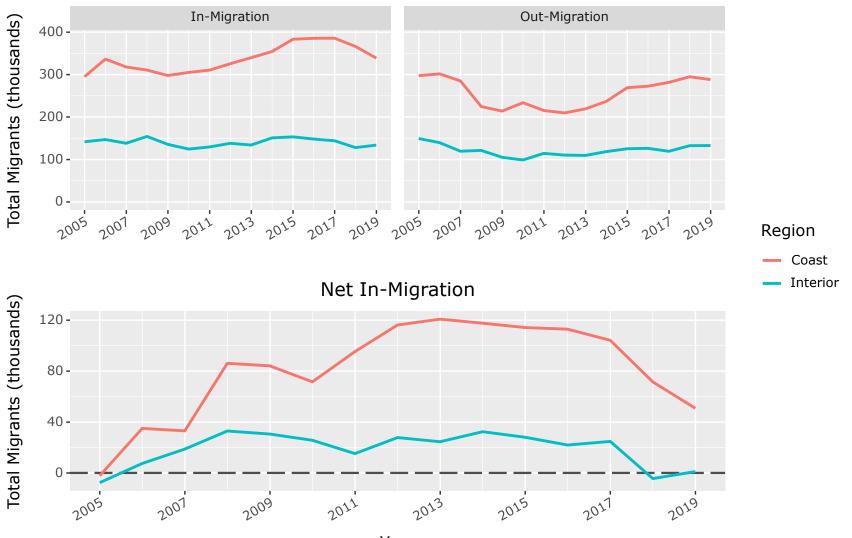
Migration Flows by Race Including International Immigrants

Gross Migration

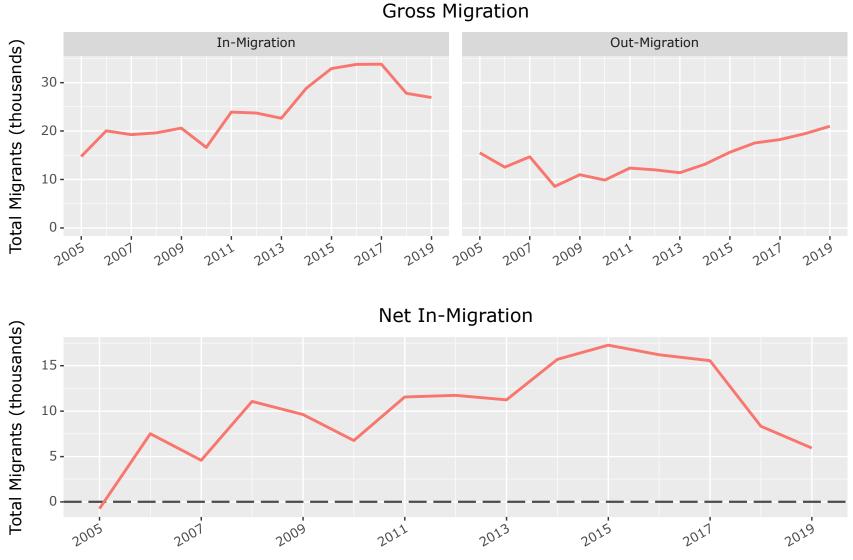


Migration Flows by CA Coast and Interior Including International Immigrants

Gross Migration

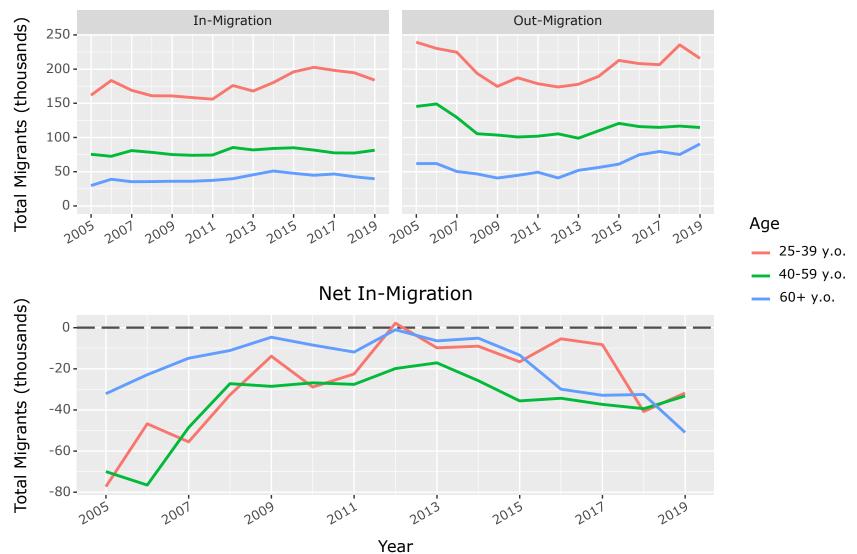


Migration Flows of Tech Sector Workers Including International Immigrants



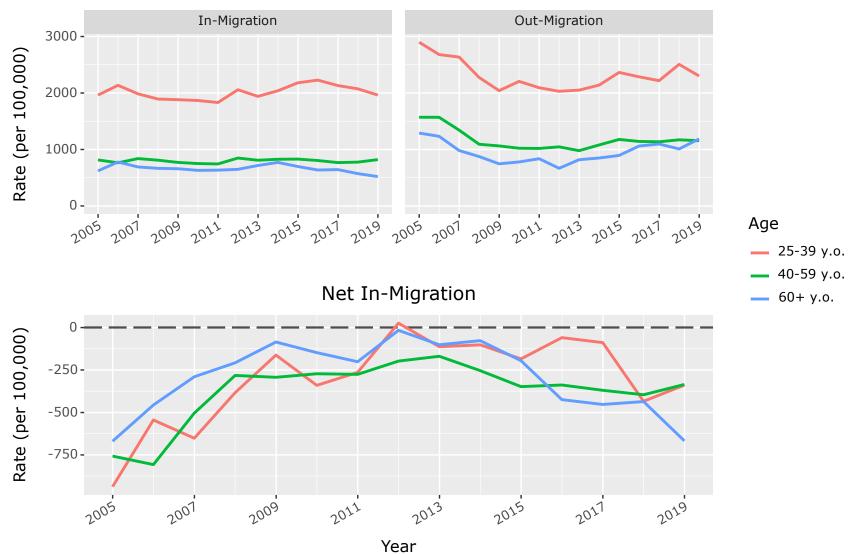
Migration Flows by Age Excluding International Immigrants

Gross Migration



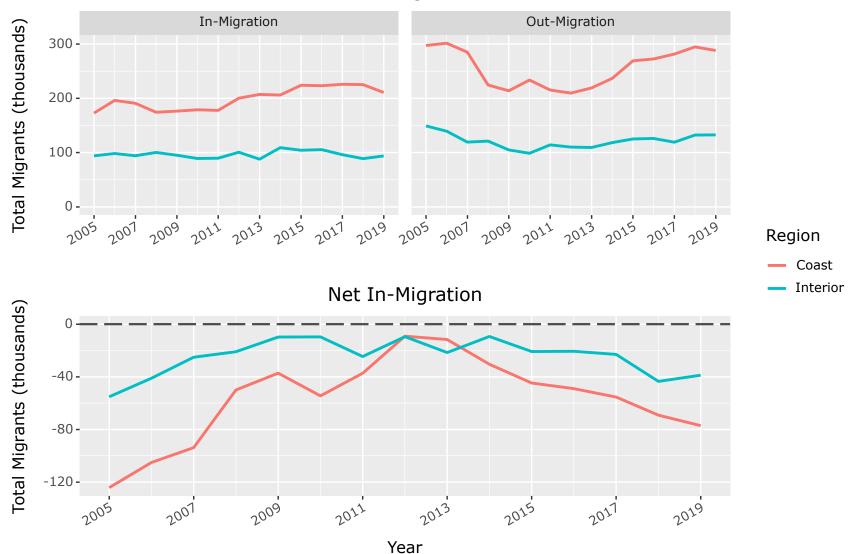
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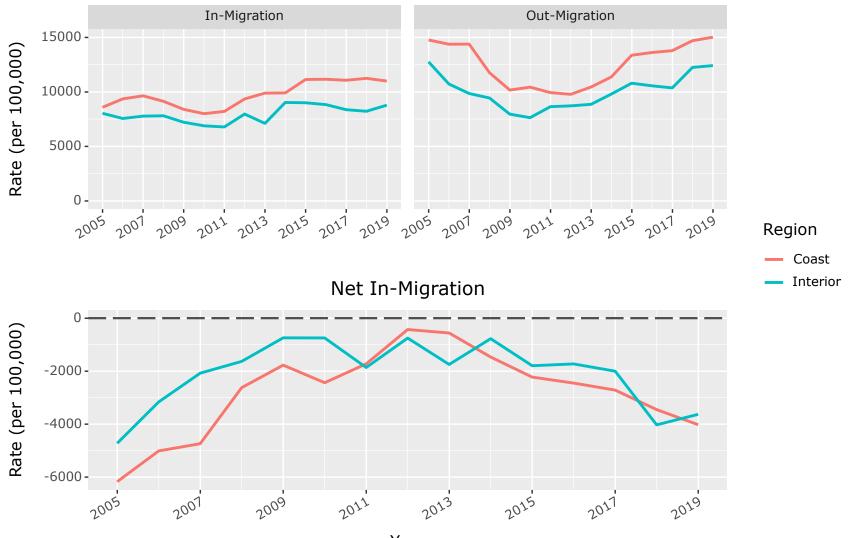
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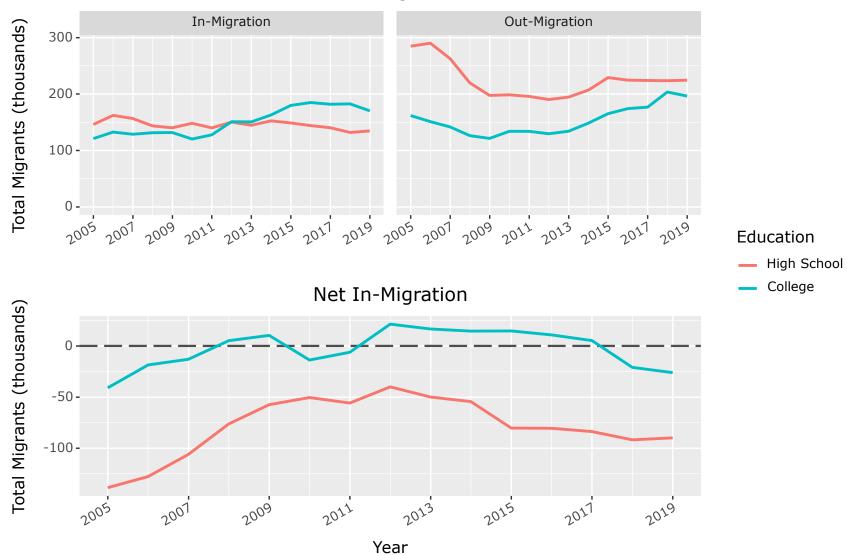
Migration Rates by CA Coast and Interior Excluding International Immigrants

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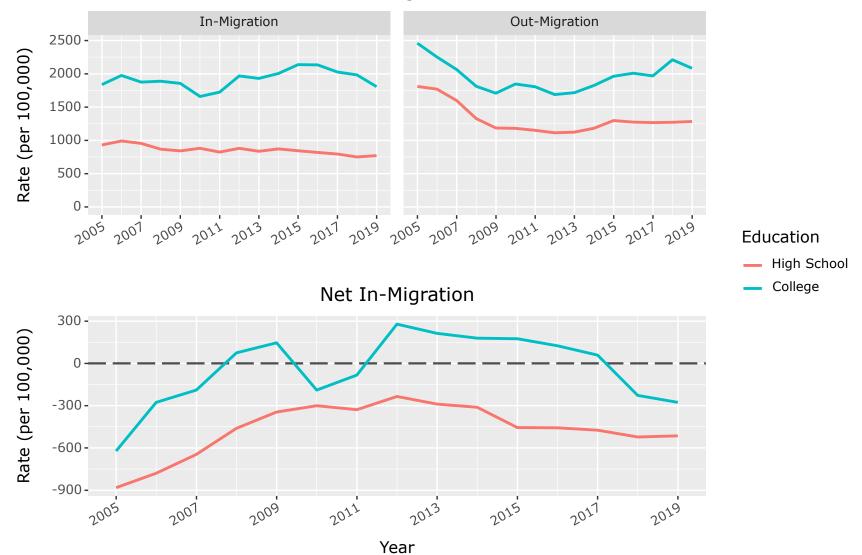
Migration Flows by Educational Attainment Excluding International Immigrants

Gross Migration



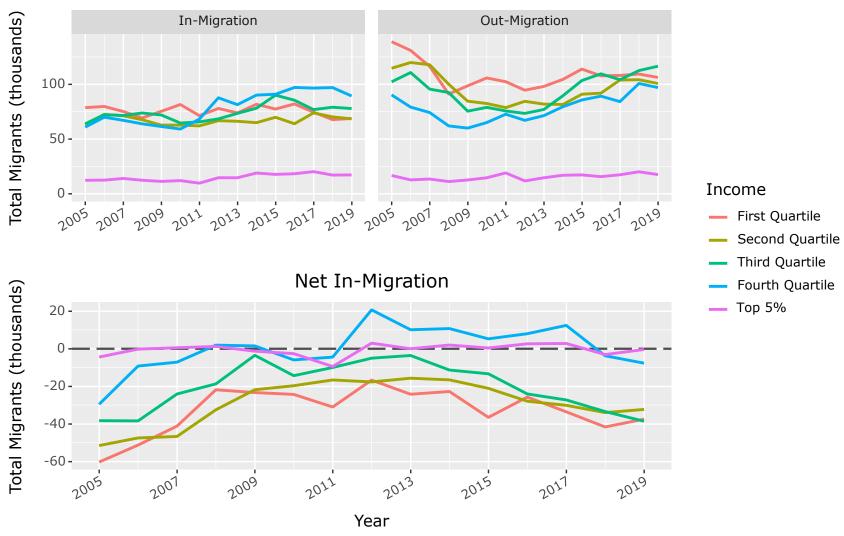
Migration Rates by Educational Attainment Excluding International Immigrants

Gross Migration



Migration Flows by Income Percentile Excluding International Immigrants

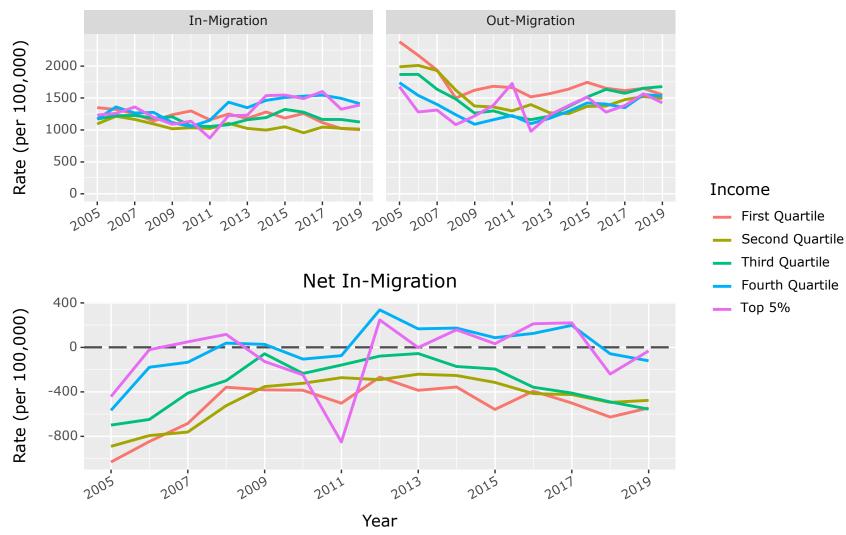
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Migration Rates by Income Percentile Excluding International Immigrants

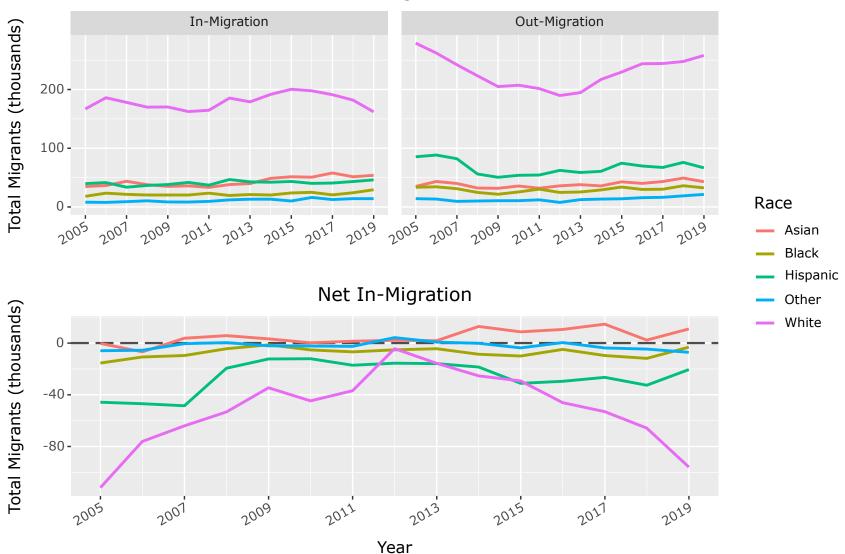
Gross Migration



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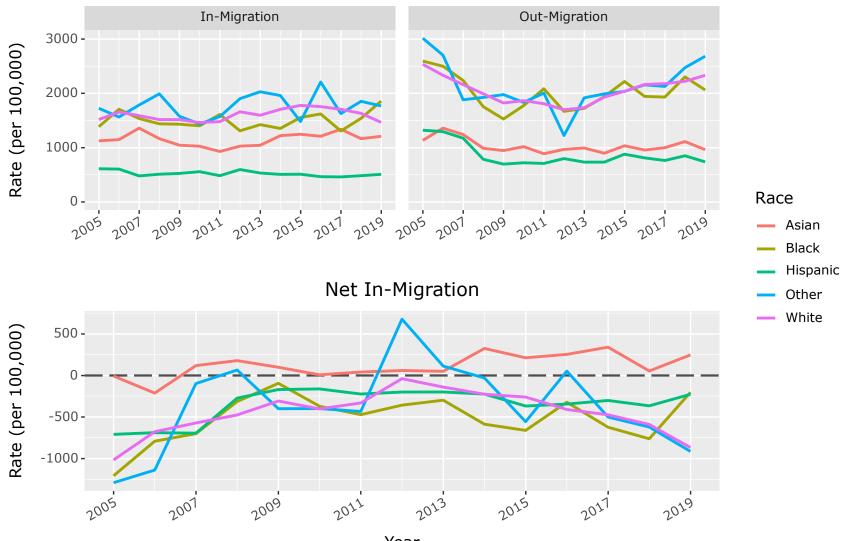
Migration Flows by Race Excluding International Immigrants

Gross Migration



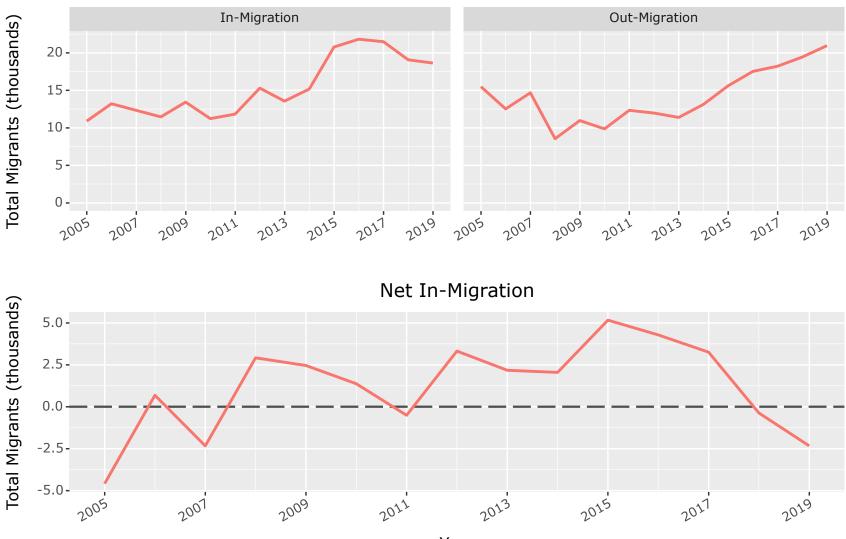
Migration Rates by Race Excluding International Immigrants

Gross Migration

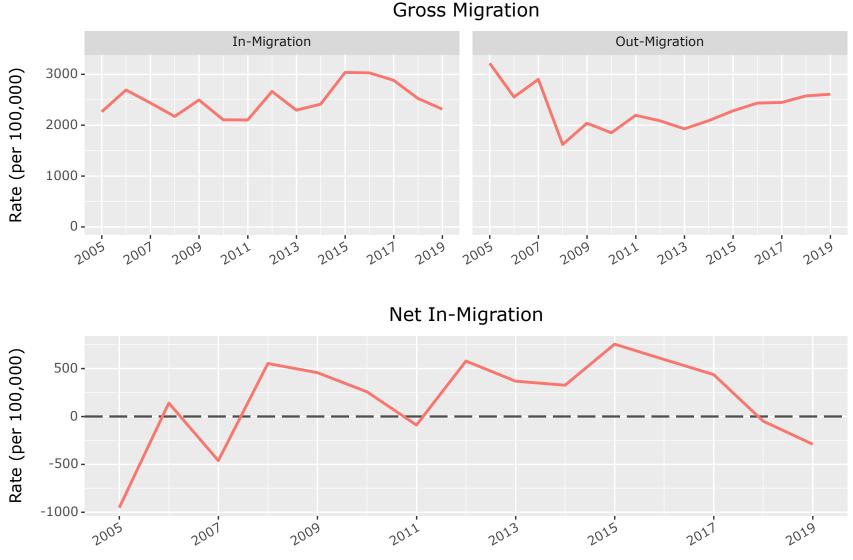


Migration Flows of Tech Sector Workers Excluding International Immigrants





Migration Rates of Tech Sector Workers Excluding International Immigrants



The following counties are categorized as coastal: San Diego, Orange, Los Angeles, Ventura, Santa Barbara, Santa Clara, Santa Cruz, San Francisco, San Mateo, Marin, Sonoma The remainder is categorized as interior



Assignment of Race of Migrant

Definition of Race Categories

The ACS contains two relevant raw variables: Race and Hispanic

We build our code using the following algorithm:

- Black: Race = Black
- White: Race = White
- Asian: Race = Asian
- Hispanic: Hispanic = Yes

Other: Other Cases

This assignment of race leads to the following case counts over the period of analysis

| <u>Category</u> | <u>Count</u> | <u>Percentage</u> |
|-----------------|--------------|-------------------|
| White | 2,795,279 | 47.6 |
| Hispanic | 1,700,297 | 29.0 |
| Asian | 921,361 | 15.7 |
| Black | 301,316 | 5.1 |
| Other | 150,860 | 2.6 |

Recent International Immigrants Analysis

- The analysis focuses on foreign-born immigrants whose first time arrival in the US happened in the 2 years before the survey (hereafter "recent US immigrants")
- It computes the percentage of those people who left California in the 12 months before the survey, to try and assess whether California acts as a gateway or as the long-term destination of recent US immigrants
- This analysis rests on the assumption that recent US immigrants who either are in California or just left it at the time of the survey lived only in California since their arrival in the US
- This assumption is not testable in our data, but seems reasonable given the short timeframe since arrival in the U.S.