Demographic Research Unit

State and County Population Estimates

Population Estimates?

- It is NOT a 'guess' like throwing a dart or tossing dice.

- It IS a systematically derived number of people living in an area. We use US Census benchmarks, scrutinized input data and well-known statistical models to derive estimates.

The Most Basic Equation

Estimate = Census + B – D + NM

- B = births
- D = deaths
- NM = net migration

NM = NI +NDM

- NI = Net Immigration (from a foreign country)

- NDM = Net Domestic Migration (from other states and counties)

Population Balancing Equation

- Last Year's (revised) Population
- + Births
- + Domestic In-Migrants
- + International Immigrants
    (authorized and unauthorized)
- - Deaths
- - Domestic Out-Migrants
- - Emigrants
- = Current Population
- California July 2015 Population Estimates

State & County Population Estimation Methods

State	Counties
• Driver License Address Change (DLAC) Model	• Modified DLAC Model • Ratio-Correlation Model • Tax Return Model

Driver License Address Change (DLAC) Model

- Cohort-Component Method
  - Cohorts
    - 0-17
    - 18-64
    - 65+
  - Components
    - Births
    - Deaths
    - Net Migration

County Estimates: Modified DLAC Model

- This model is very similar to the DLAC model just described for the state population estimate.

- The county model adds a measure of county-to-county migration within California.

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Data for 65+ Components

- Census 2000 baseline population
- No births to add to this cohort
- Actual or estimated deaths
- Medicare and Medi-Cal Program Enrollments
- International Immigrants (new from 2015)

Data for 0-17 Components

- Census 2000 baseline population
- Actual or estimated births
- Actual or estimated deaths
- Public school enrollment in grades 1-8 and elementary ungraded
- International immigrants (new from 2015)

Data for 18-64 Components

- Census 2000 baseline population
- No births to add to this cohort
- Actual or estimated deaths
- Driver license address change data
- Internal Revenue Service matched tax returns
- Immigration (legal, unauthorized, emigration)
- Group quarters population data

Data Sources for Population Estimates

- State Agencies	- Federal Agencies
- Health Services	- Internal Revenue Service
- Motor Vehicles	- Centers for Medicare & Medicaid Services
- Education	
- Employment Development	- Department of Defense
- Corrections	- Federal Bureau of Prisons
- Mental Health	- Department of Labor
- Developmental Services	- Veterans Affairs
- UC and CSU Systems	- Department of Homeland Security
- Veterans Affairs	- Census Bureau

International Immigration Data

- International immigration data are from Department of Homeland Security (DHS).
  - Lawful permanent residents (I-485 application) data from Office of Immigration Statistics (OIS).
  - International student visa data from Immigration and Custom enforcement (ICE).

- Before 2015 July data: estimate of international immigrants only based on I-485 application data.

Lawful Permanent Residents (I-485 Application Data)

- Data are published online at https://www.dhs.gov/yearbook-immigration-statistics

- Public access data and reports are published around September for the last fiscal year.

- Customized tables can be requested.

Lawful Permanent Residents

- OIS customized tables for the DLAC method:
  - All classes of admission
  - New arrivals
  - Adjustment of status
- Data are listed by county and age groups
- Age Groups: 0-4, 5, 6-17, 18-64, and 65+

Lawful Permanent Residents

- Prior 2015: use only one group 18-64
- Revised method: all age groups, except those who are 5-17 years
  - New arrivals: all classes of admission.
  - Adjustment of status: 3 groups of admission: conditional approval, asylums, and refugees.
    - Counts of immigrants: 10% in 2010, 33% in 2011, 66% in 2012, and 98% in 2013, 100% from 2014.

Student Visa Data

- Raw data from ICE: student's status, type of visa, program start date, program end date, status change date, 1st active date in CA school, citizenship, educational level, school name, and school type.
- Visa type: J-1 (exchange scholars) and F-1 (self funding)

Student Visa

- Coding county of residence using school name
- Calculating start year, end year, and duration staying in California
- Count of number of outstanding students by county and year:
  - ∑new student visa - ∑number of expired visa

Net Immigrants

- 6-17 years old group: excluded (already included in school enrollment data)
- 0-5,18-64 and 65+: net count of student visa (18-64 only)+ new arrivals + fraction of adjustment of status immigrants (conditional approvals, asylums, and refugees).

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Net International Migration

Year	All ages	0-5 adj	18-64	65+	Student visa (included in 18-64 group)
July 10	31,109	1,093	23,031	2,168	5,093
July 11	127,838	5,042	93,678	7,800	13,669
July 12	130,398	4,679	96,145	8,847	6,883
July 13	135,838	4,986	103,219	7,743	7,727
July 14	149,661	5,606	117,724	7,370	18,377
July 15	145,174	5,426	112,440	8,014	10,996
Census to Date	720,018	26,832	546,237	41,941	62,745

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