

# **Tracking -- and Modeling -- Nativity In State and Sub-state Population Projections for California**

**John Pitkin**

Analysis and Forecasting, Inc, Cambridge, MA

Presentation to USC Annual Demographic Workshop

Los Angeles, CA, June 9, 2014



# Components of Population Change, Southern California, 1970-2010

<b>Period ending Apr. 1</b>	<b>Population</b>	<b>Change</b>						
<b>1970</b>	<b>9,956,000</b>							
<b>1975</b>	<b>10,473,000</b>	<b>518,000</b>						
<b>1980</b>	<b>11,622,000</b>	<b>1,149,000</b>						
<b>1985</b>	<b>13,064,000</b>	<b>1,442,000</b>						
<b>1990</b>	<b>14,602,000</b>	<b>1,538,000</b>						
<b>1995</b>	<b>15,195,000</b>	<b>593,000</b>						
<b>2000</b>	<b>16,443,000</b>	<b>1,248,000</b>						
<b>2005</b>	<b>17,324,000</b>	<b>881,000</b>						
<b>2010</b>	<b>18,052,000</b>	<b>728,000</b>						

# Components of Population Change, Southern California, 1970-2010

Period ending Apr. 1	Change (average annual)			Natural Increase			
	<i>Births</i>	<i>Deaths</i>					
<b>1970</b>							
<b>1975</b>		<b>163,000</b>	<b>85,000</b>	<b>78,000</b>			
<b>1980</b>		<b>181,000</b>	<b>85,000</b>	<b>95,000</b>			
<b>1985</b>		<b>220,000</b>	<b>92,000</b>	<b>128,000</b>			
<b>1990</b>		<b>276,000</b>	<b>100,000</b>	<b>176,000</b>			
<b>1995</b>		<b>327,000</b>	<b>102,000</b>	<b>225,000</b>			
<b>2000</b>		<b>288,000</b>	<b>105,000</b>	<b>184,000</b>			
<b>2005</b>		<b>270,000</b>	<b>107,000</b>	<b>163,000</b>			
<b>2010</b>		<b>273,000</b>	<b>108,000</b>	<b>165,000</b>			



# Components of Population Change, Southern California, 1970-2010

(April 1)	Migration				Net Domestic		Total	
	Born in California		Other U.S. Born		Foreign Born		Domestic	
1970								
1975								
1980								
1985								
1990								
1995								
2000								
2005								
2010								

# Components of Population Change, Southern California, 1970-2010

Period	Pop Change	Change (average annual)		Natural Increase	Net Migration		Total
		<i>Births</i>	<i>Deaths</i>		<i>Domestic</i>	<i>Inter-</i>	
2005	<b>881,000</b>	<b>270,000</b>	<b>107,000</b>	<b>163,000</b>	<b>-112,000</b>	<b>125,000</b>	<b>13,000</b>
2010	<b>728,000</b>	<b>273,000</b>	<b>108,000</b>	<b>165,000</b>	<b>-120,000</b>	<b>100,000</b>	<b>-19,000</b>

# **California Demographic Futures (CDF) projections of State population**

- **Developed in collaboration with Dowell Myers and the Population Dynamics Research Group at the University of Southern California**
- **To project policy-relevant impacts of nativity and immigrant duration (Year of Entry)**
- **First generation in 2001, second in 2005**
- **Third generation (2012) also classifies the native population by birth state**



# **Pitkin-Myers “Generational” Model developed to project population for sub-regions within CA**

- **With Pitkin-Myers Regional “Generational” model**
- **6-County Southern California (SCAG) Region in 2012**
- **Los Angeles County, 2012**
- **Santa Clara County, 2013**

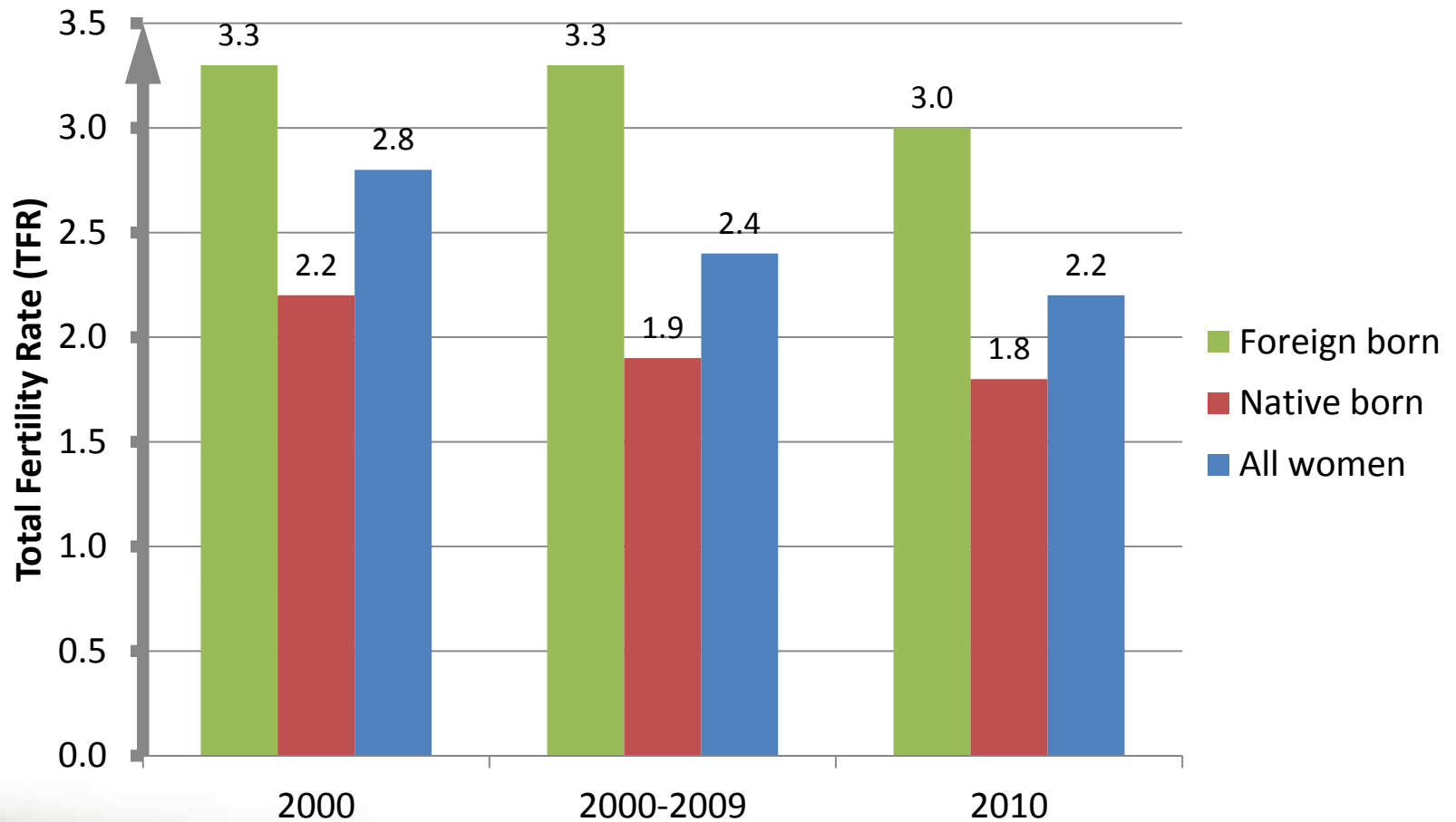
# CDF and P-M models categorize population

- **By age**
- **Sex**
- **Race and Hispanic origin**
- **Foreign-born, First Generation by**
  - Year of entry to the U.S. (before 1980,1980,.....)
- **Native-born, Second Generation by**
  - Birth state (CA or other)
- **Native-born, Third Generation by**
  - Birth state (CA or other)

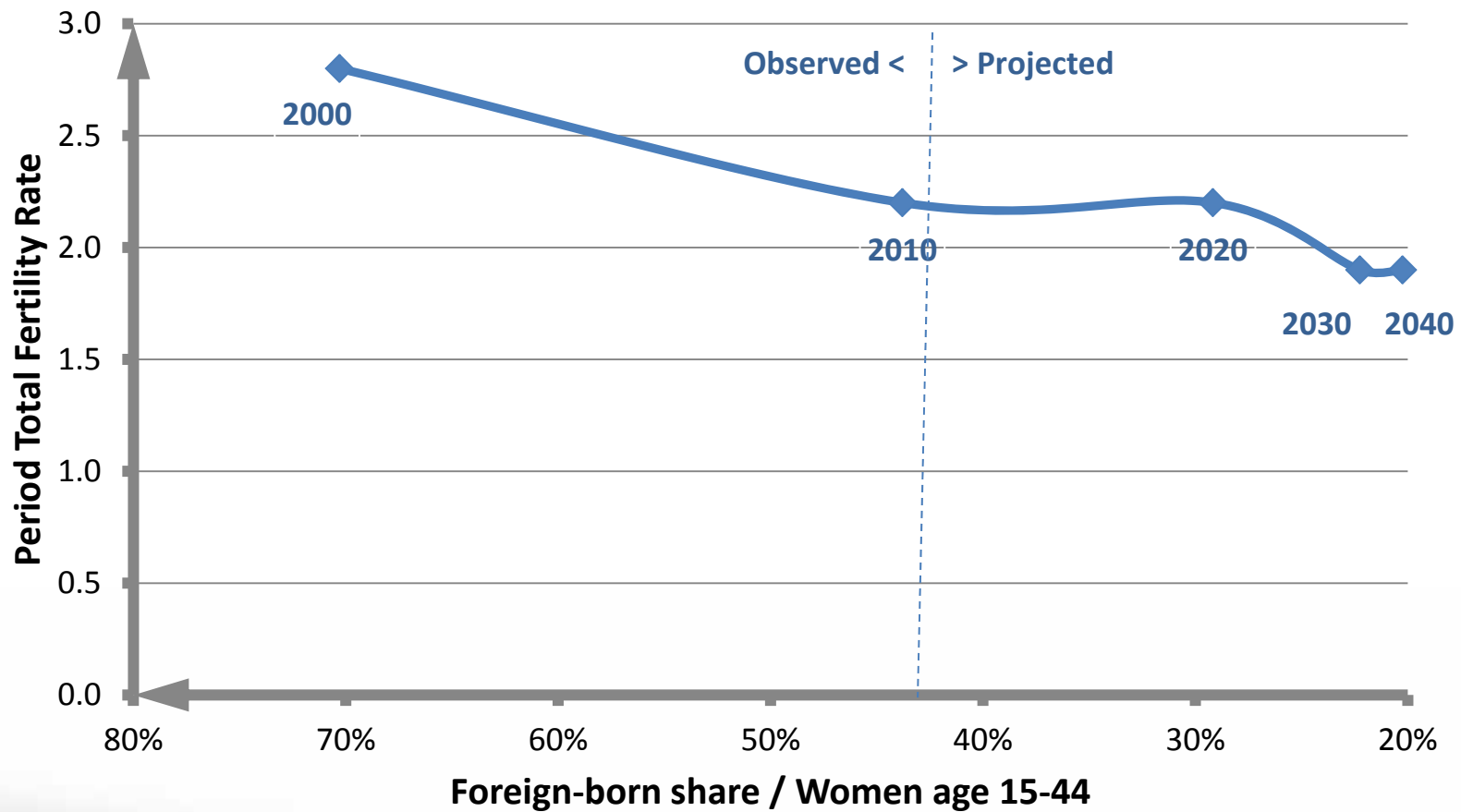
# **CDF and P-M Models are annual, cohort-component**

- **Annual, from 2010 to 2030 or 2040**
- **Two regions in CDF: California, other U.S.**  
**Three in P-M: Region, Rest of CA, other U.S.**
- **Demographic rates are calibrated between 2000 and 2010 Censuses**
- **Post-2000 birthplace and YOA are carried forward to 2010 and future, e.g., as race**

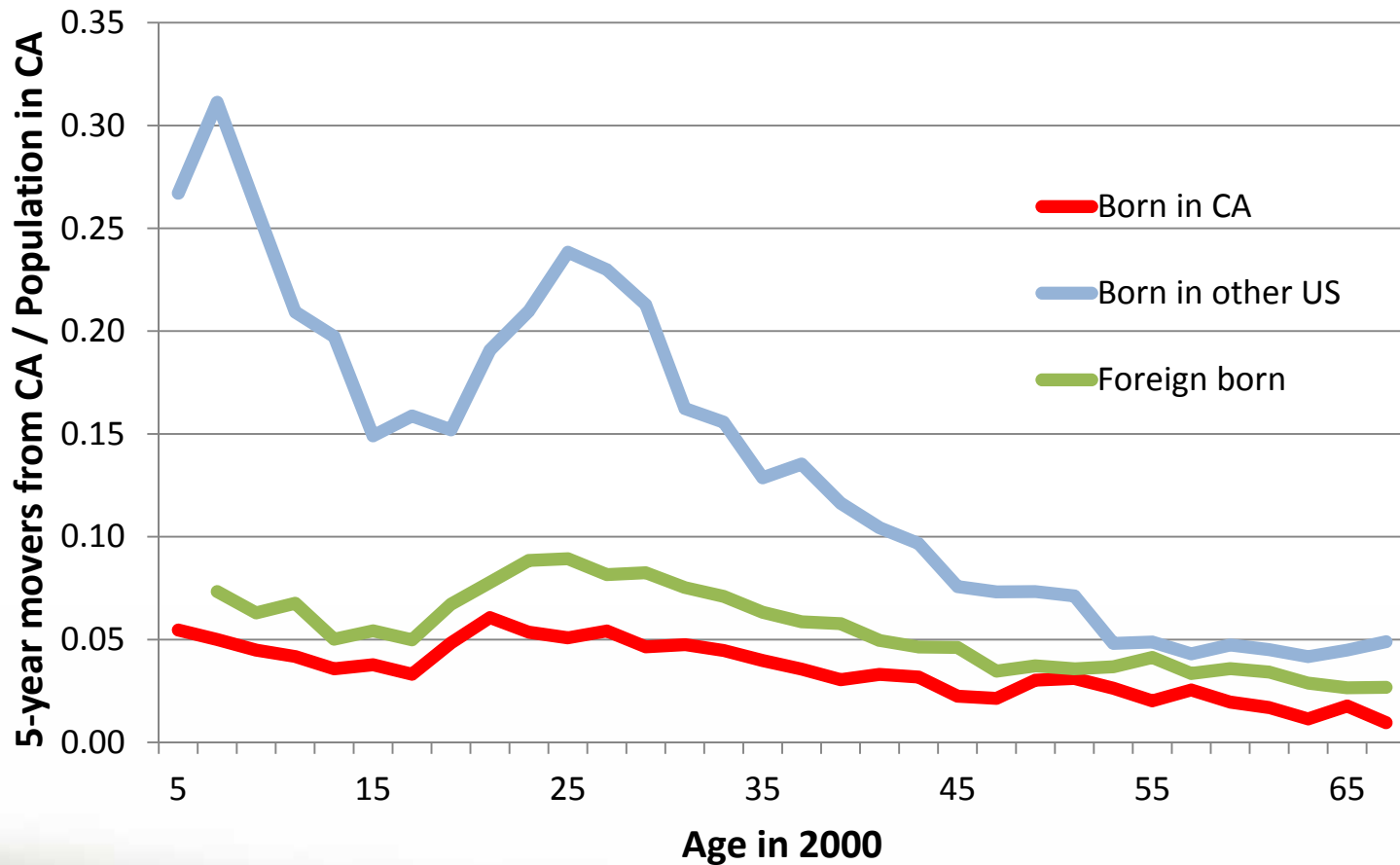
# Nativity and Fertility in California Hispanic women



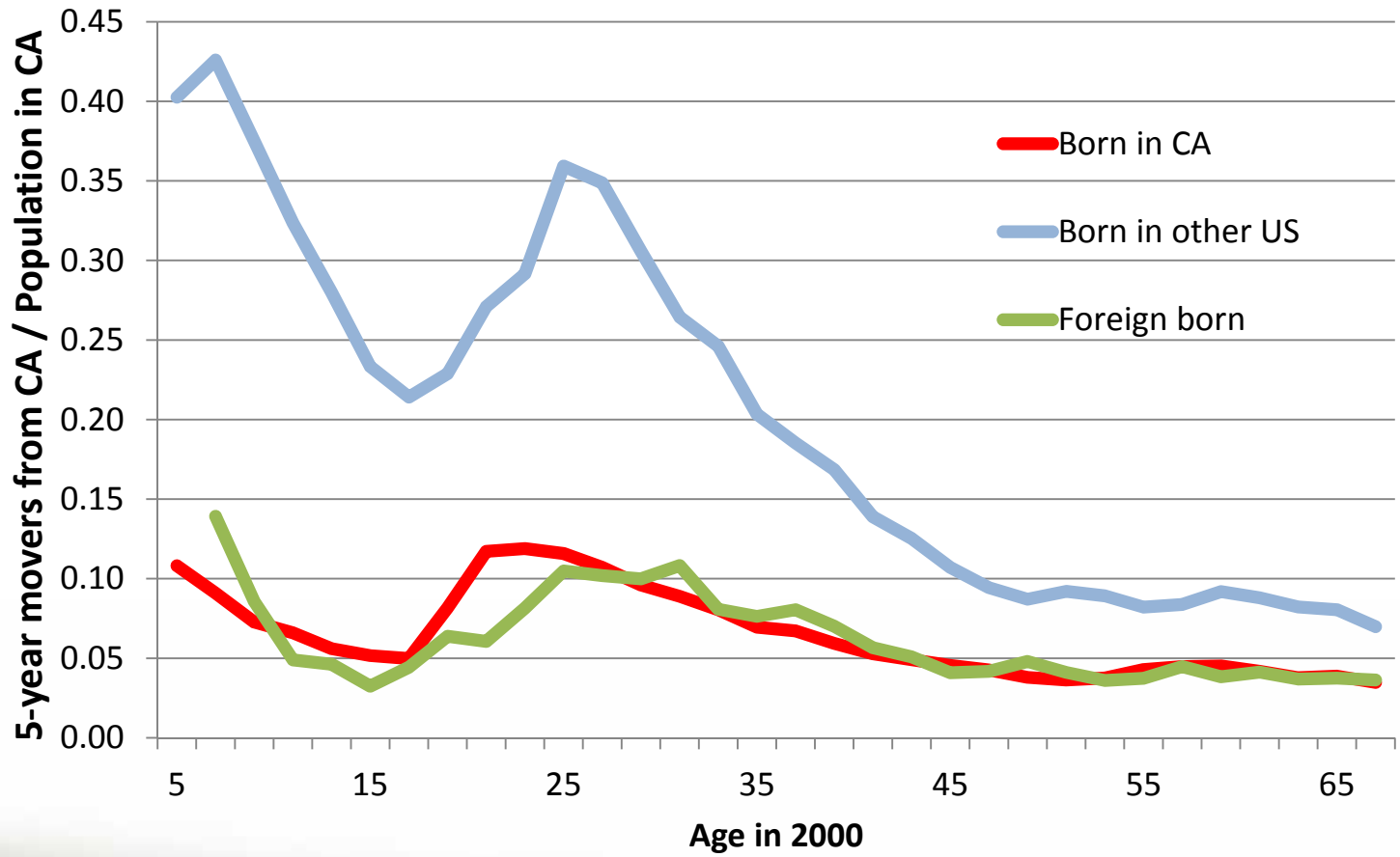
# Nativity mix affects projected Fertility of Hispanics in California



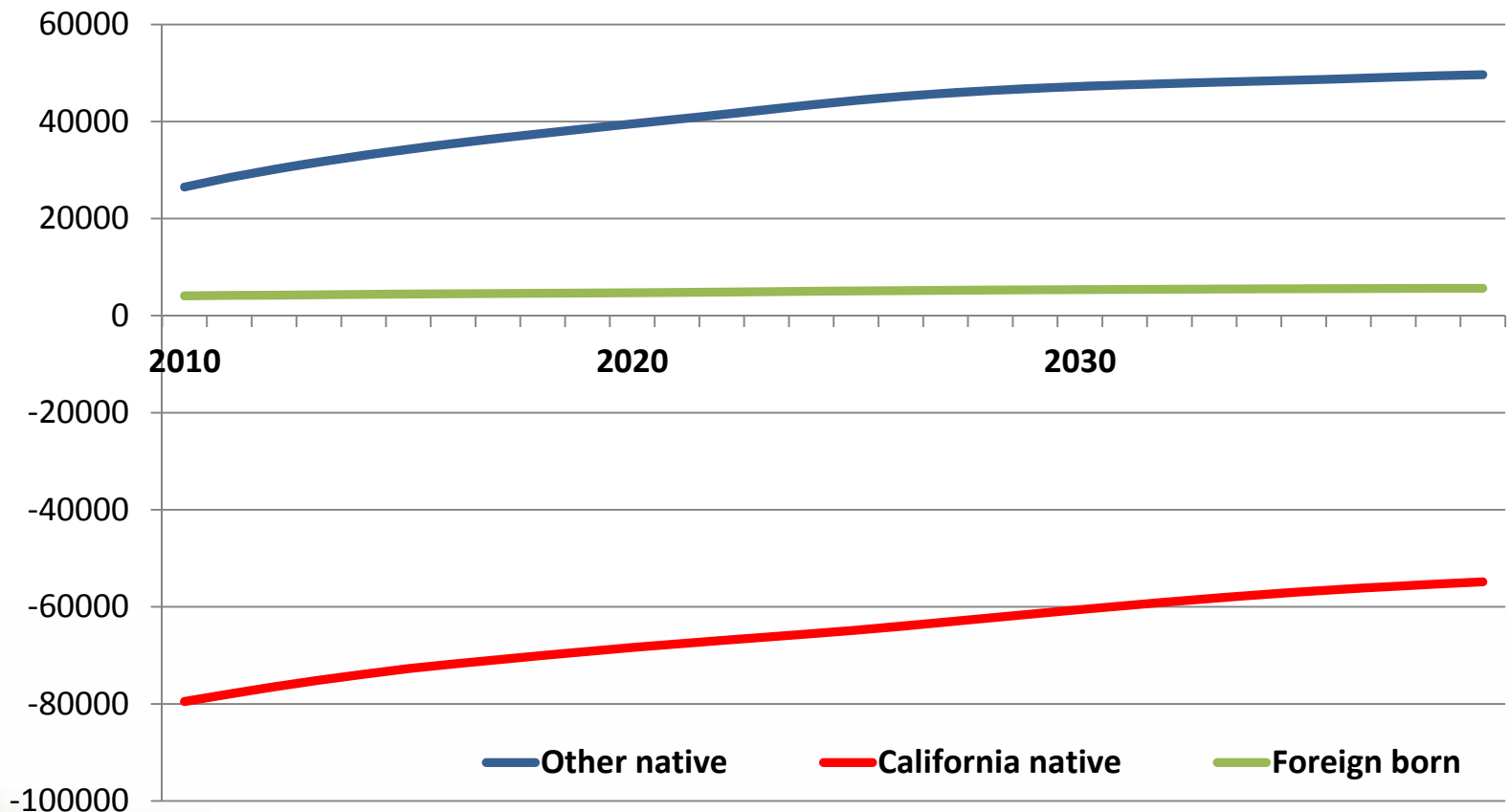
# Domestic Migration rates from California 1995-2000, Hispanics



# Domestic Migration rates from California 1995-2000, Non-Hispanic Whites

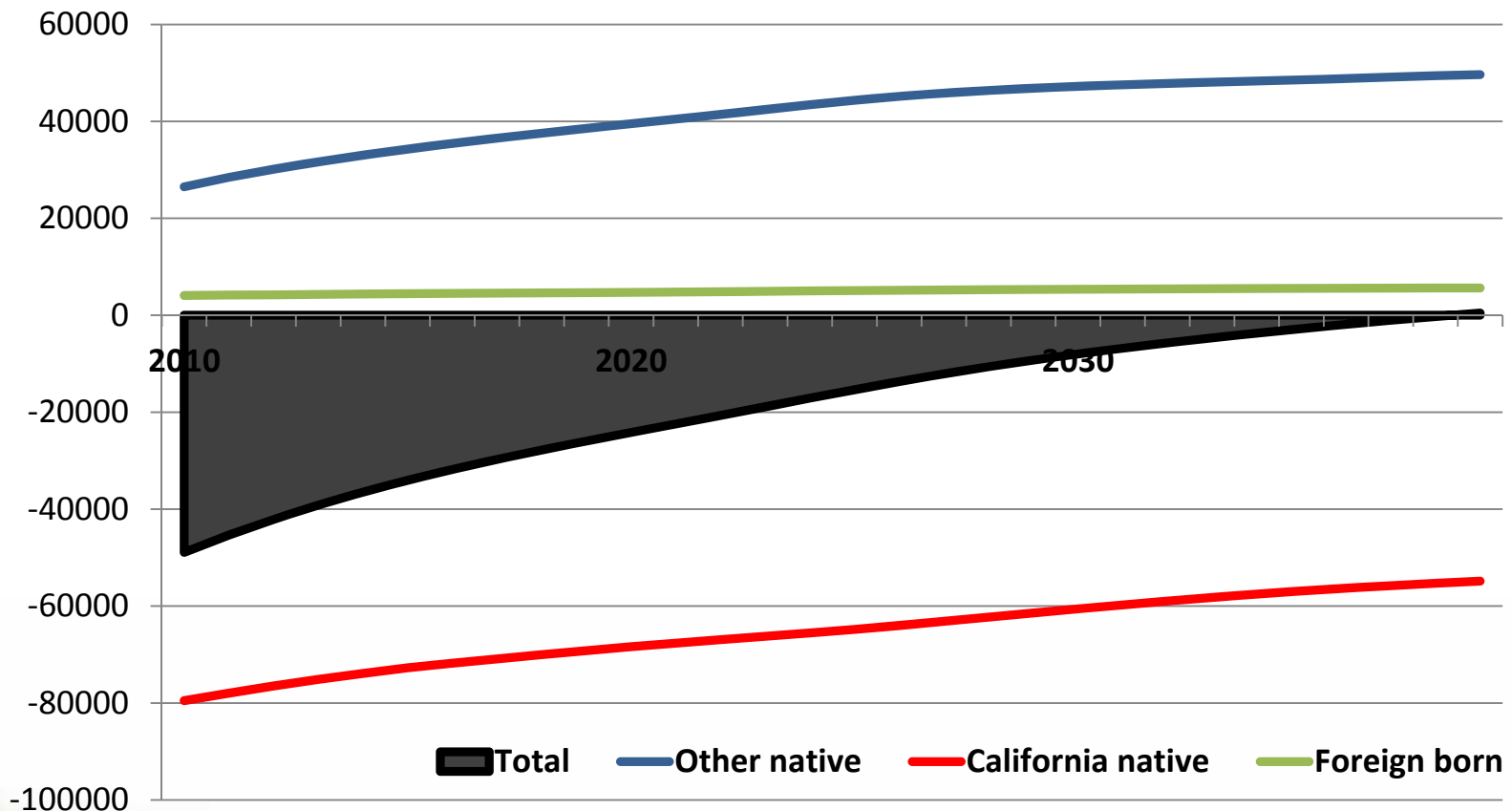


# Net Domestic Migration to California 2010-2040 Projected, Non-Hispanic Whites

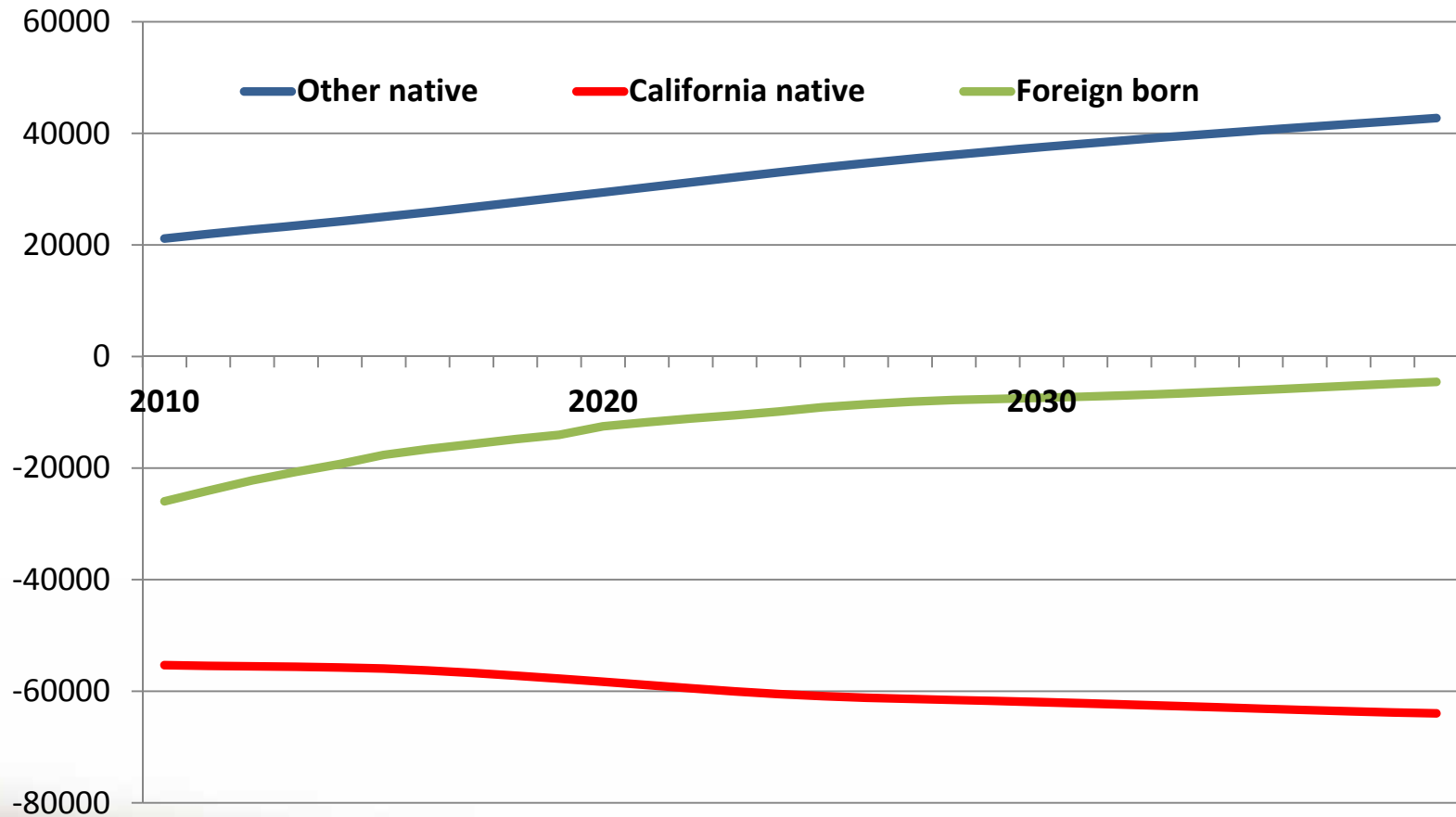




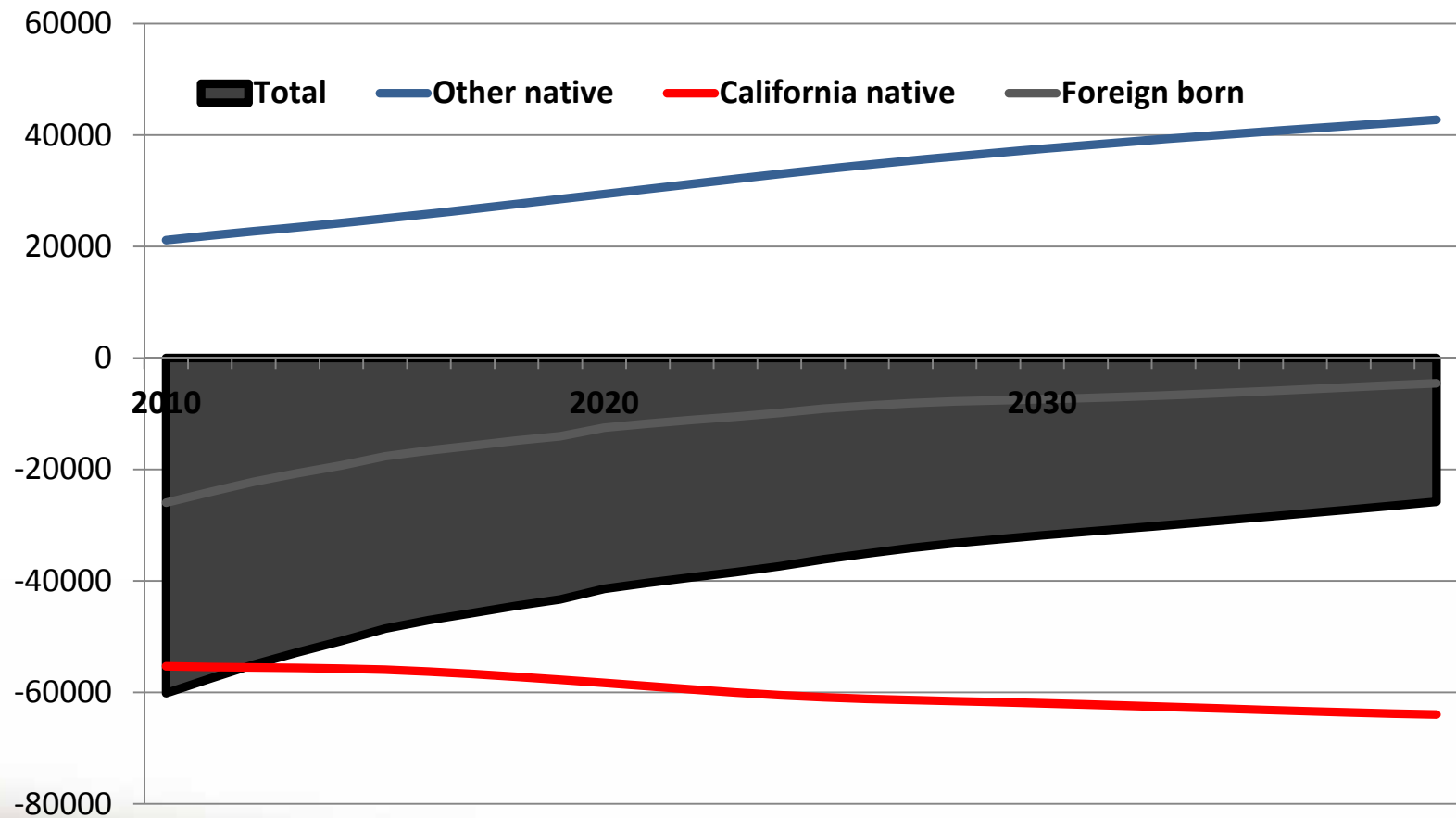
# Net Domestic Migration to California 2010-2040 Projected, Non-Hispanic Whites



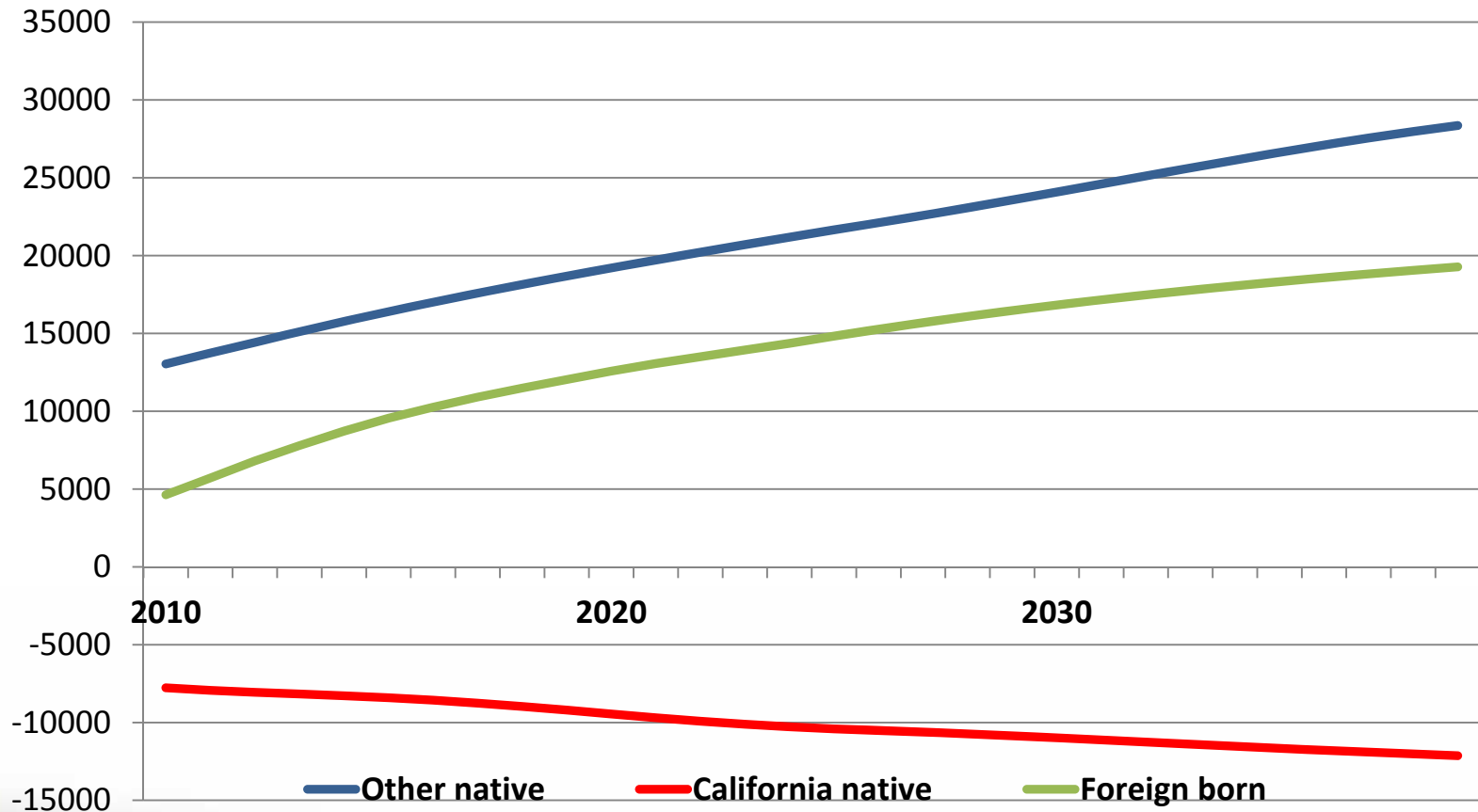
# Net Domestic Migration to California 2010-2040 Projected, Hispanic



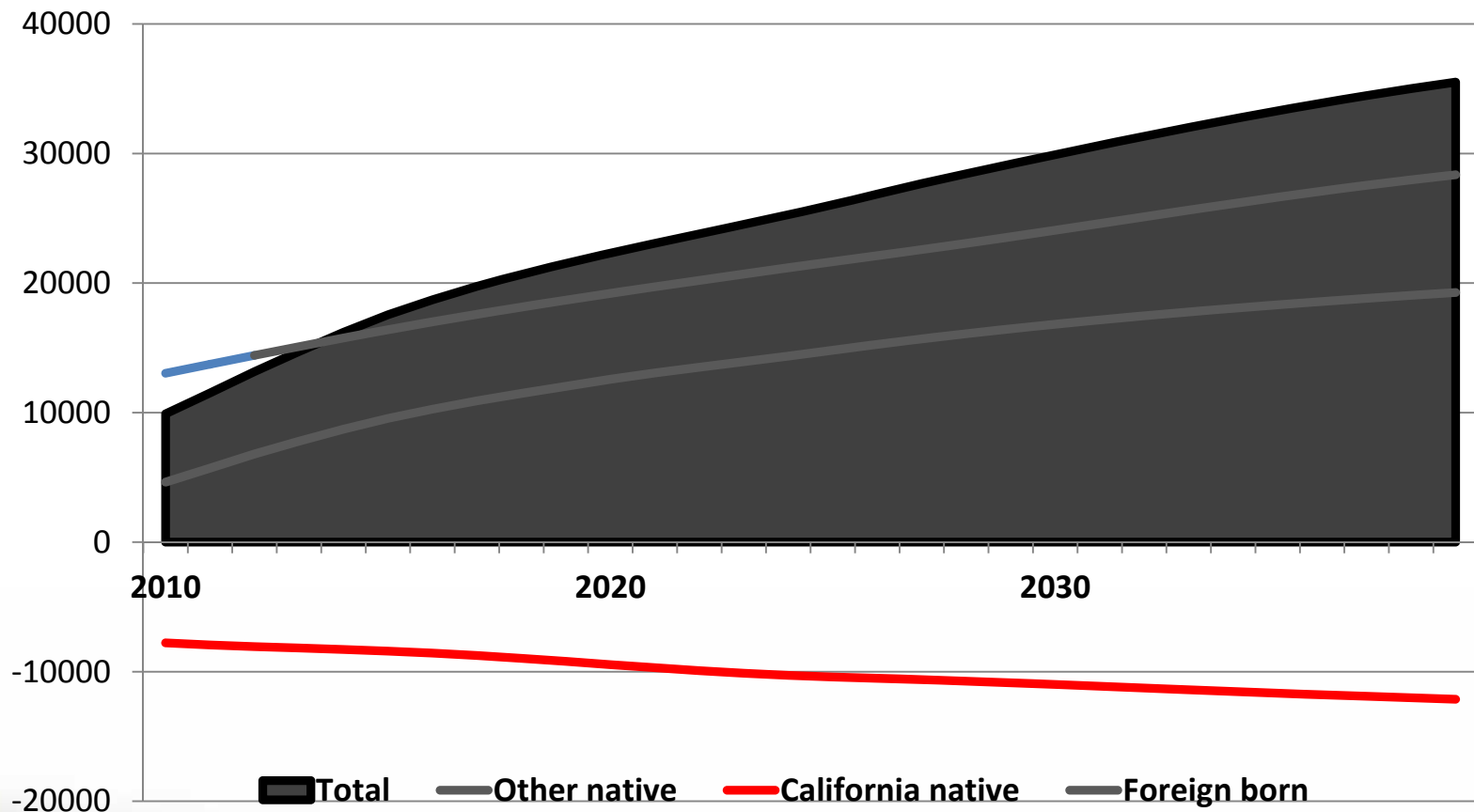
# Net Domestic Migration to California 2010-2040 Projected, Hispanic



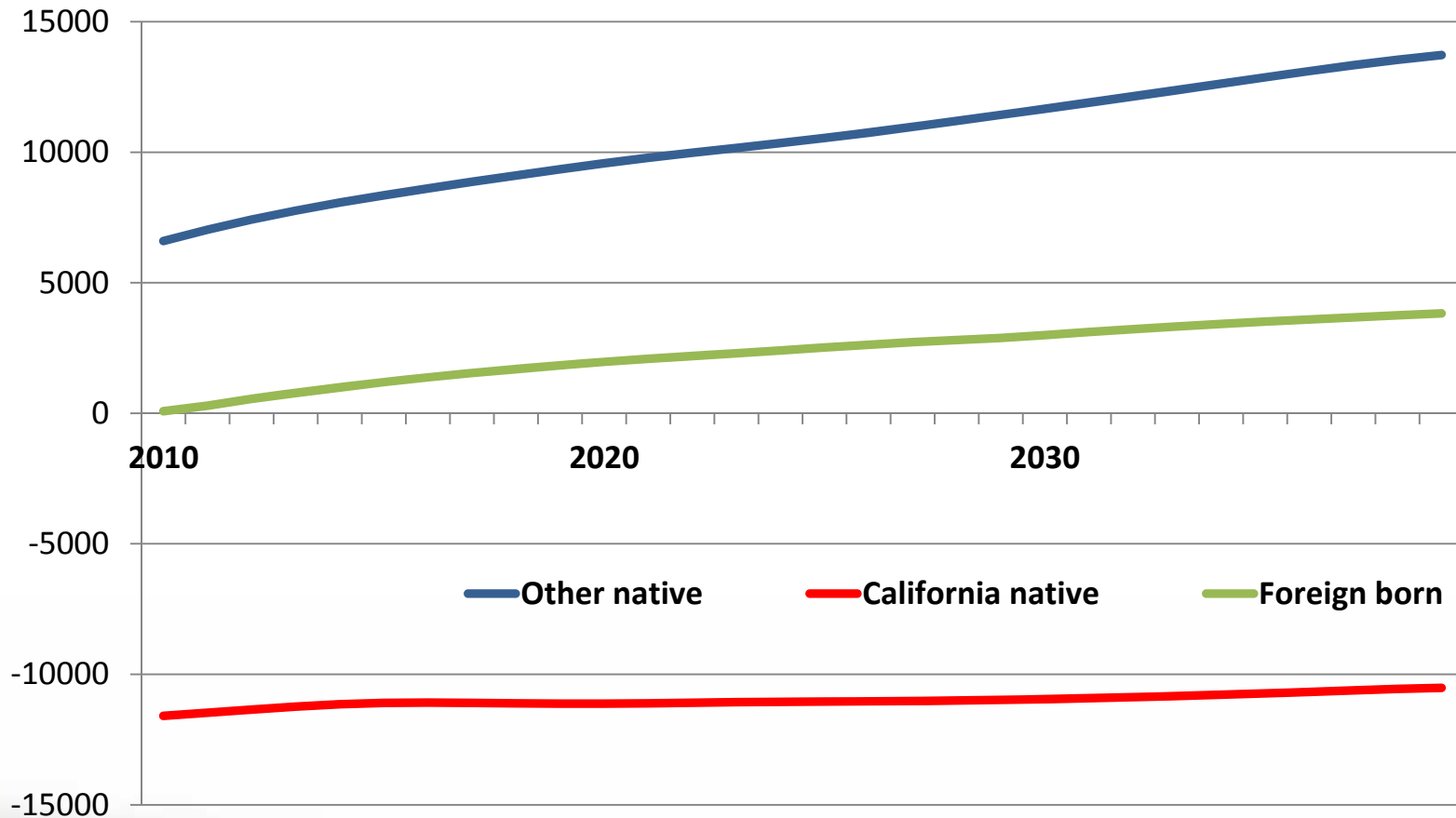
# Net Domestic Migration to California 2010-2040 Projected, Asian, Pacific Islander



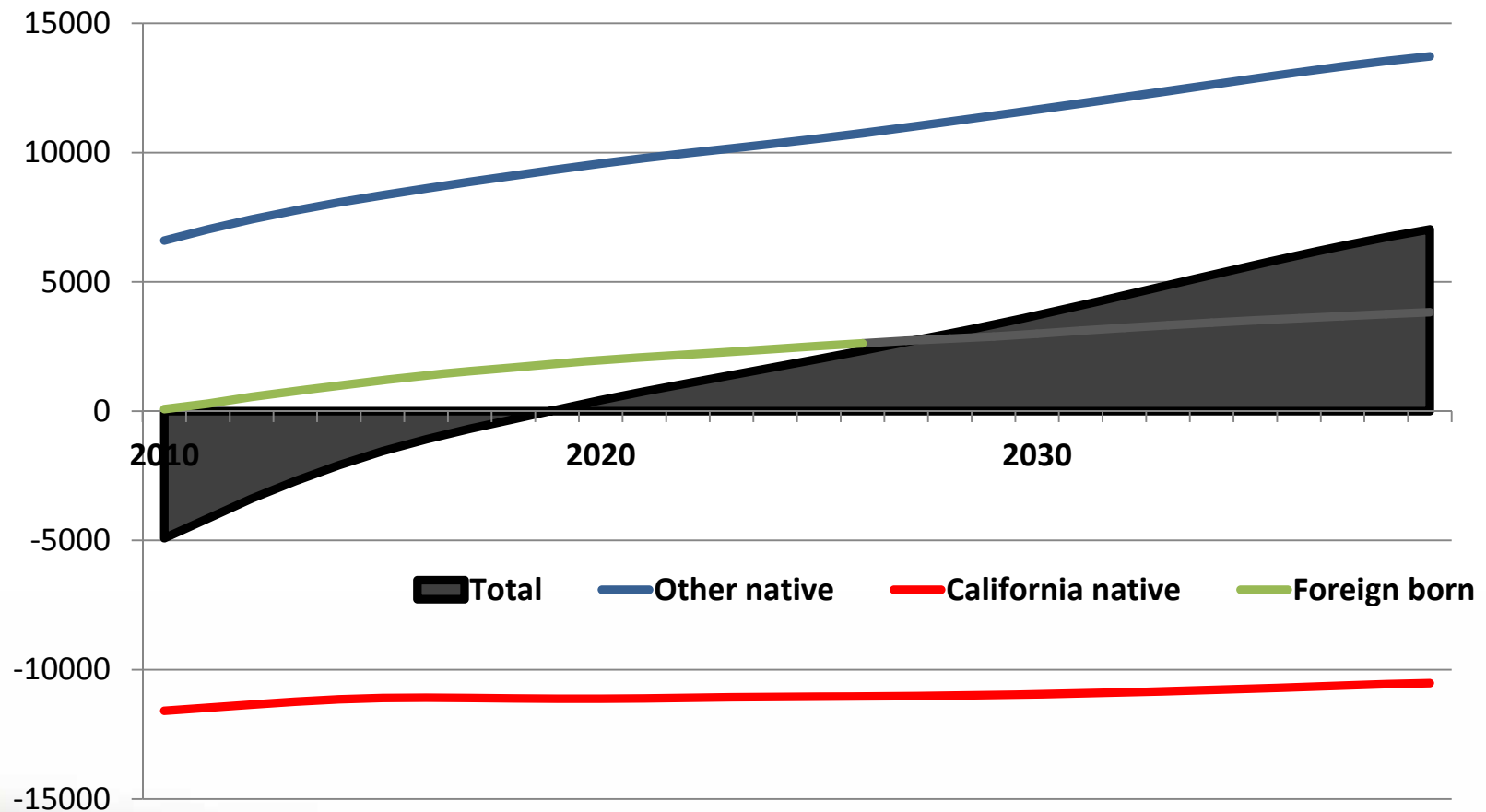
# Net Domestic Migration to California 2010-2040 Projected, Asian, Pacific Islander



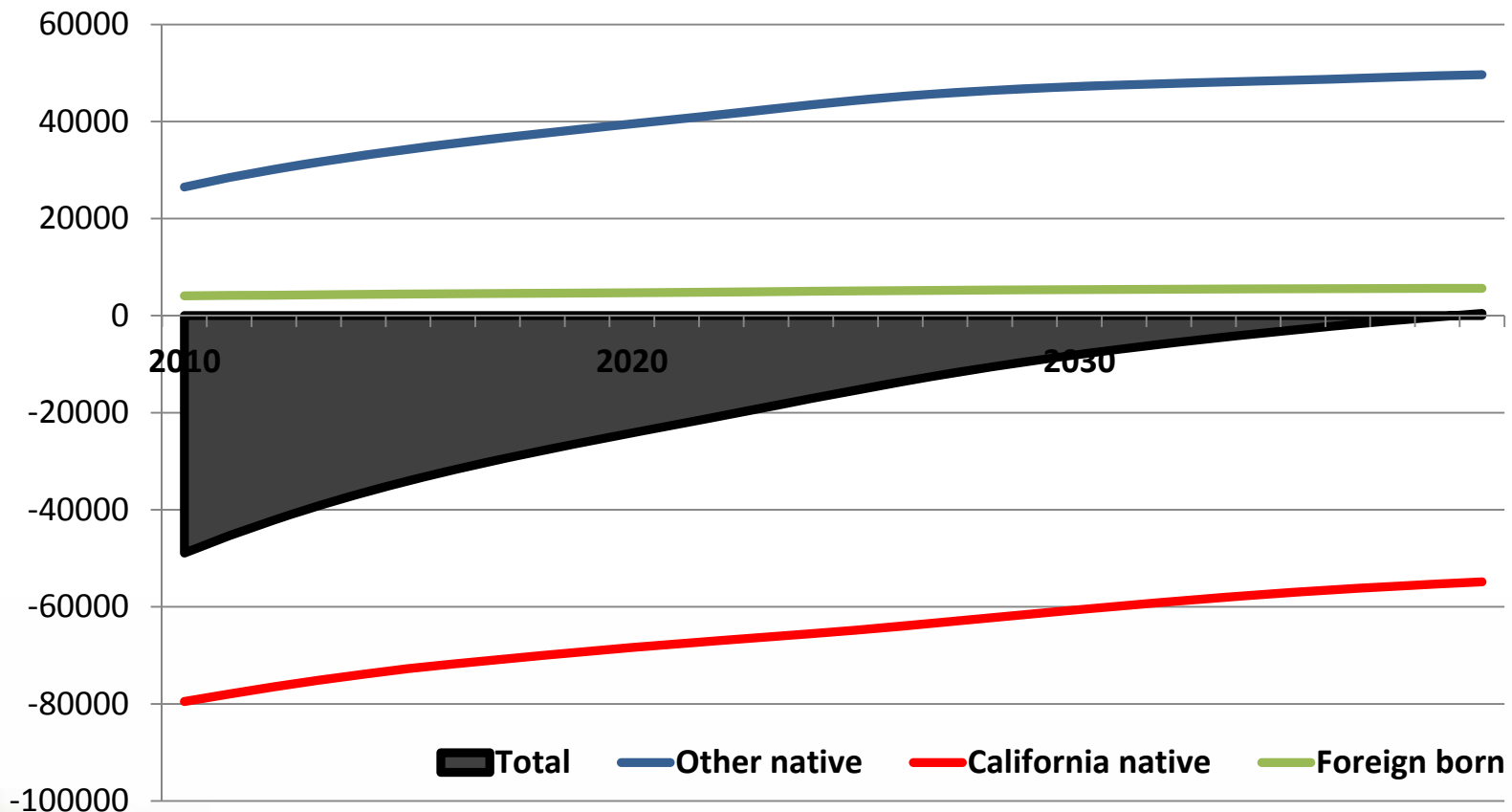
# Net Domestic Migration to California 2010-2040 Projected, Non-Hispanic Black



# Net Domestic Migration to California 2010-2040 Projected, Non-Hispanic Black



# Net Domestic Migration to California 2010-2040 Projected, Non-Hispanic Whites





# Thank You

## John Pitkin

<john\_pitkin@earthlink.net>

Analysis and Forecasting, Inc.

18 Brattle St. #356

Cambridge, MA 02138

California Demographic Futures

reports and information on projections of California and Los Angeles County  
search for “USC popdynamics projection”