

The Diversity of California's Registered Nursing Workforce – 2013 Update

October 9, 2013

Conducted for the
California Board of Registered Nursing

Prepared by:
Renaë Waneka, MPH
Joanne Spetz, PhD
Philip R. Lee Institute for Health Policy Studies
University of California, San Francisco
3333 California Street, Suite 265
San Francisco, CA 94118

Contents

Key Findings	3
Current Statewide Data	3
Statewide Population Projections.....	9
Regional Highlights.....	12
Conclusions	15
Regional Chart Book.....	1-1
Bay Area	1-1
Central Coast.....	2-1
Central Valley	3-1
Greater Sacramento.....	4-1
Los Angeles Area	5-1
Northern California	6-1
Inland Empire	7-1
Southern Border	8-1
Appendix	9-1
Methods.....	9-1
Regions.....	9-2

Key Findings

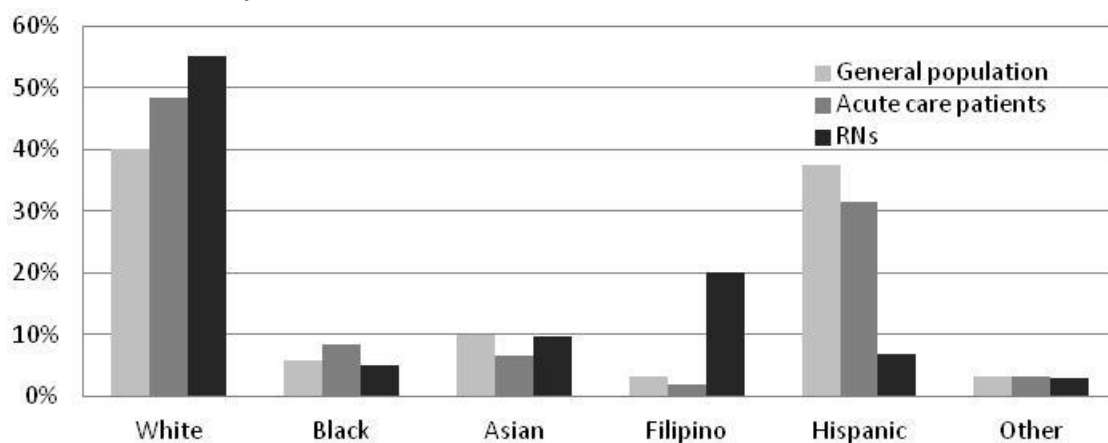
The ability of California Registered Nurses (RNs) to provide culturally competent care to Californians is associated with the language skills and diversity of the RN workforce. Moreover, diversity in the RN profession reflects progress in providing opportunities for young people to obtain postsecondary education and enter the health professions. This analysis focuses on trends in the diversity of California RNs, statewide and by region, and compares this diversity to that of the population of California as a whole. Data from the California Board of Registered Nursing (BRN) Surveys of RNs (2008, 2010 & 2012), the BRN Annual Schools Report (2003-2012), the California Department of Finance county-level population projections (2010), the California Office of Statewide Health Planning and Development, and the 2010 Census were used for this analysis¹. Methods used for the analysis are provided in the Appendix.

Below is a description of the major findings from this analysis. Charts for each of the eight regions within the state are included after the key findings.

Current Statewide Data

Chart 1 shows the overrepresentation of White and Filipino RNs and the underrepresentation of Black and Hispanic RNs in comparison to both the patient population and the general population in California. Oftentimes, Filipinos are grouped with other Asians. Separating these ethnic groups shows that non-Filipino Asian RNs are not overrepresented to the same degree as Filipino RNs. Non-Filipino Asian RNs are overrepresented in comparison to the patient population but are equally represented in comparison to the general population.

Chart 1. Racial Composition², California



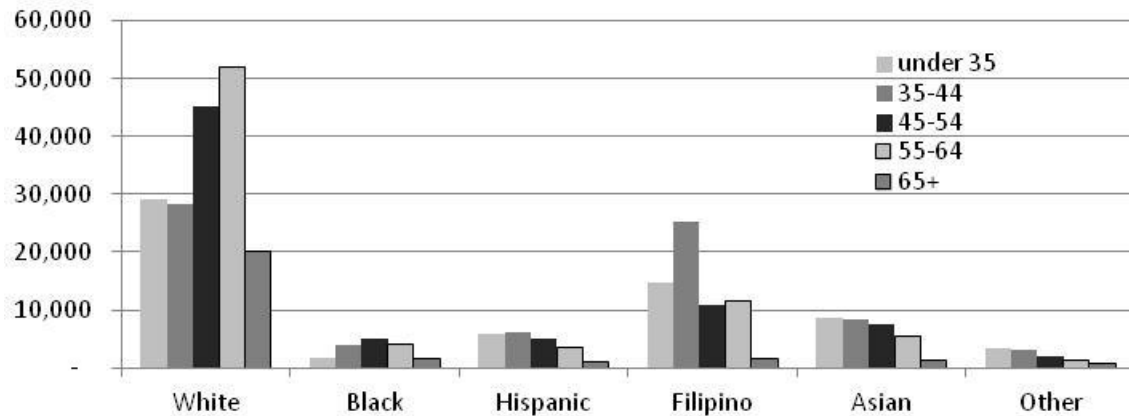
Sources: Census, 2010; OSHPD Patient Discharge Data, 2010; BRN Survey of RNs, 2012

¹ This report was originally published in May 2012. This version of the report contains updated data from the BRN Survey of RNs (2012), BRN Annual Schools Report (2011 & 2012), California Department of Finance general population projections (2010), and OSHPD patient population data (2010).

² Due to limited data, Native Americans are grouped with Other throughout this report.

With the majority of White RNs older than 44 years of age, and larger numbers of younger RNs in other racial groups, Chart 2 shows an increased diversity among younger nurses.

Chart 2. Racial Composition of RNs by Age, California, 2012



Source: BRN Survey of RNs 2012

Overall, more than 90% of California nurses younger than 55 years of age work in nursing. In 2012, Black nurses in California had the highest employment rate at 94%. Between 2010 and 2012, Table 1 shows a slight decline in the employment rates of California RNs overall and of California RNs of White, Hispanic, Filipino and other undisclosed races. Despite these small declines, the high employment rates for Black and Hispanic RNs in 2012 suggest that employing currently unemployed nurses of these racial groups cannot bridge the gap between Blacks and Hispanics in the nursing workforce and those in the patient population.

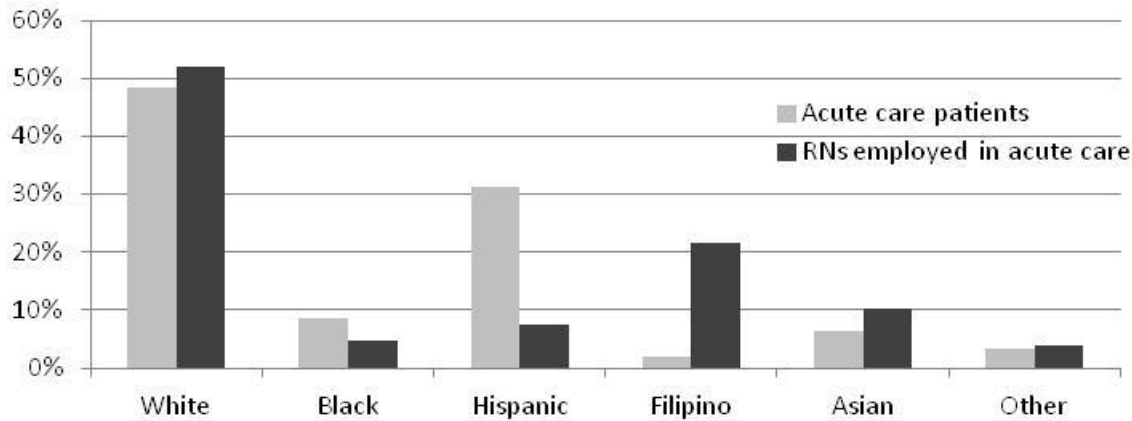
Table 1. Share of California RNs Less than 55 Years of Age Working in Nursing, by Race

Race	2010	2012
White	92%	90%
Black	94%	94%
Hispanic	94%	91%
Filipino	96%	92%
Asian	89%	90%
Other	89%	88%
Total	92%	91%

Source: BRN Survey of RNs, 2010 & 2012

Since the majority of California RNs work in the acute care setting, taking a closer look at this setting shows a greater share of Black and Hispanic acute care patients than nurses working in that setting.

Chart 3. Racial Distribution of Acute Care Patients and RNs Employed in Acute Care, California



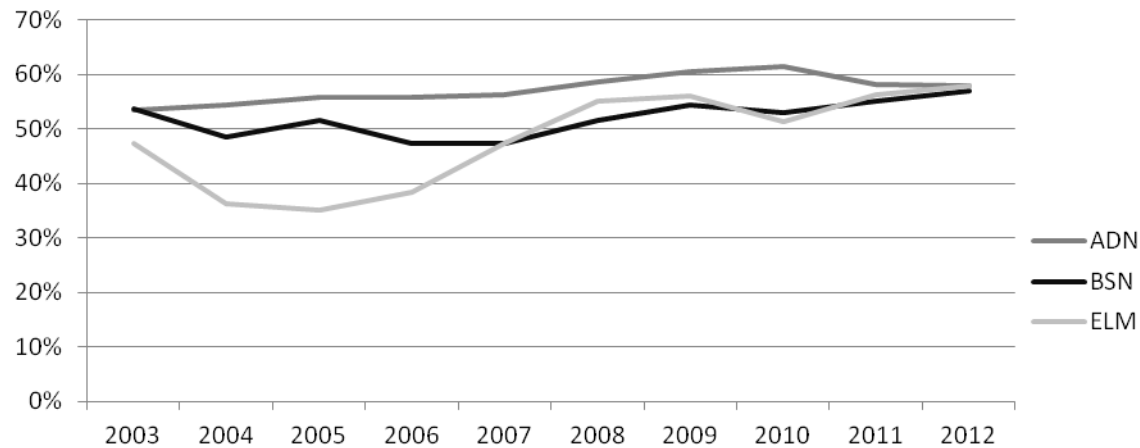
Sources: OSHPD Patient Discharge Data 2010, BRN Surveys of RNs 2012

Student data from RN programs provide insight into the diversity of new nurses. Since 2005, there has been increasing diversity among graduates of RN programs, suggesting an increase in diversity among nurses over time. Table 2 and Chart 4 show increased racial diversity, regardless of the type of RN program. Entry-level Master's (ELM) programs have had the greatest increase in diversity since 2005, but these programs graduate fewer new nurses than either Associate (ADN) or Bachelor (BSN) degree programs.

Table 2. Racial Composition of California's RN Program Graduates, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	12%	12%	11%	12%	14%	16%	15%	17%	16%	20%
Black	9%	8%	8%	7%	6%	6%	6%	5%	5%	6%
Filipino	12%	11%	13%	14%	14%	14%	14%	14%	12%	10%
Hispanic	21%	20%	22%	19%	19%	17%	17%	17%	19%	18%
White	47%	48%	46%	47%	46%	42%	41%	41%	43%	42%
Other race	1%	1%	1%	1%	1%	5%	6%	5%	5%	5%
Ethnic Minorities	53%	52%	54%	53%	54%	58%	59%	59%	57%	58%

Source: BRN Annual School Report, 2003-2012

Chart 4. Ethnic Minorities among California's RN Program Graduates by Degree Earned, 2003-2012

Source: BRN Annual Schools Report, 2003-2012

Over the past ten years, the share of ethnic minorities enrolling in California's registered nursing programs has been increasing. Students of Asian and other unspecified races were responsible for most of this increase, while the share of Hispanics has remained about the same and the shares of Filipinos and Blacks have been declining.

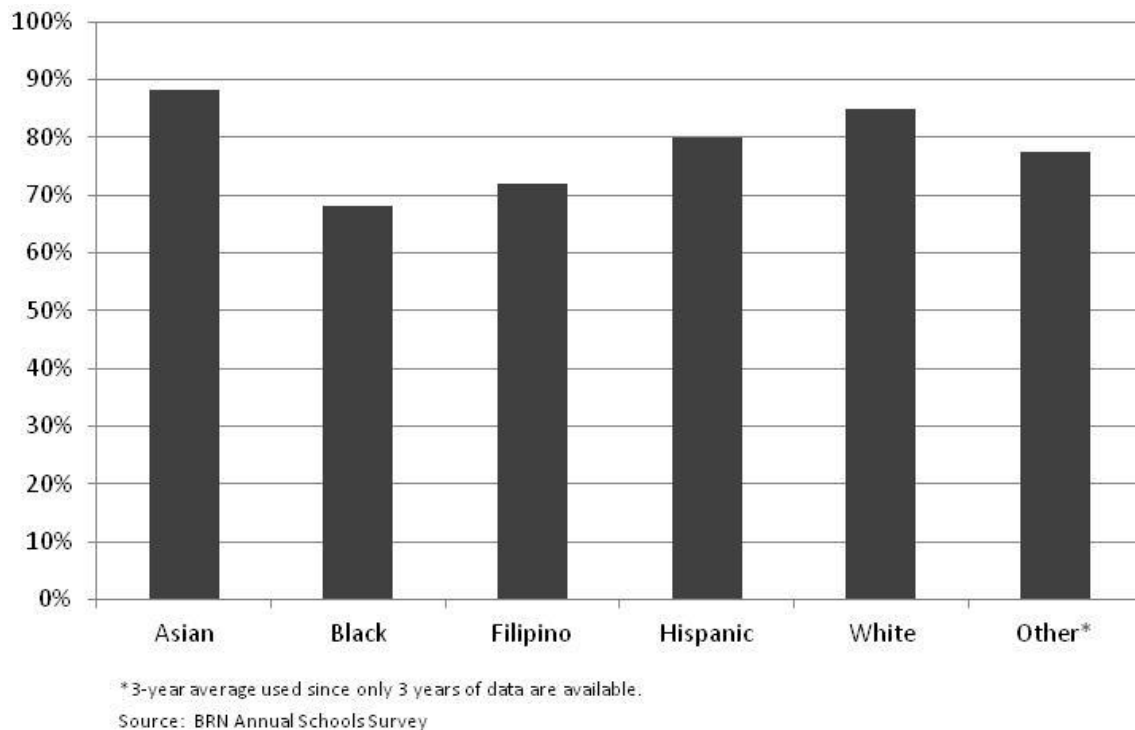
Table 3. Racial Composition of New Student Enrollments in California's RN Programs, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	15%	14%	12%	14%	17%	16%	17%	16%	18%	21%
Black	9%	8%	6%	8%	8%	7%	6%	6%	6%	6%
Filipino	11%	12%	14%	15%	15%	14%	15%	15%	13%	10%
Hispanic	20%	20%	21%	19%	18%	18%	18%	18%	19%	19%
White	44%	46%	46%	43%	41%	41%	39%	41%	40%	40%
Other race	1%	1%	1%	1%	1%	5%	5%	5%	5%	6%
Ethnic Minorities	56%	54%	54%	57%	59%	59%	61%	59%	60%	60%

Source: BRN Annual School Report, 2003-2012

The five-year average completion rates³ by race show that 88% of Asian and 85% of White students that started nursing programs completed those programs while only 80% of Hispanics, 72% of Filipinos, 68% of Blacks, 78% of those of other undisclosed races completed nursing programs they started. Addressing lower completion rates among Black and Hispanic students may help further increase the diversity among nursing graduates and generate a nursing workforce more comparable to both the general population and the patient population.

Chart 5. Average RN Program Completion Rate by Race, 2008-2012



Although the racial composition of RNs may not match the population, English language abilities of the general population and the ability of RNs to speak other languages indicate whether nurses can provide some aspects of culturally competent care, regardless of race.

Data from the 2010 Census indicate that 29% of all Californians speak Spanish at home and that 54% of these Spanish speakers also speak English very well.⁴ On average, younger Spanish speakers have better English language skills than their older counterparts⁵, suggesting that Spanish language skills among RNs may become less of a concern in providing culturally competent care to Hispanics over time.

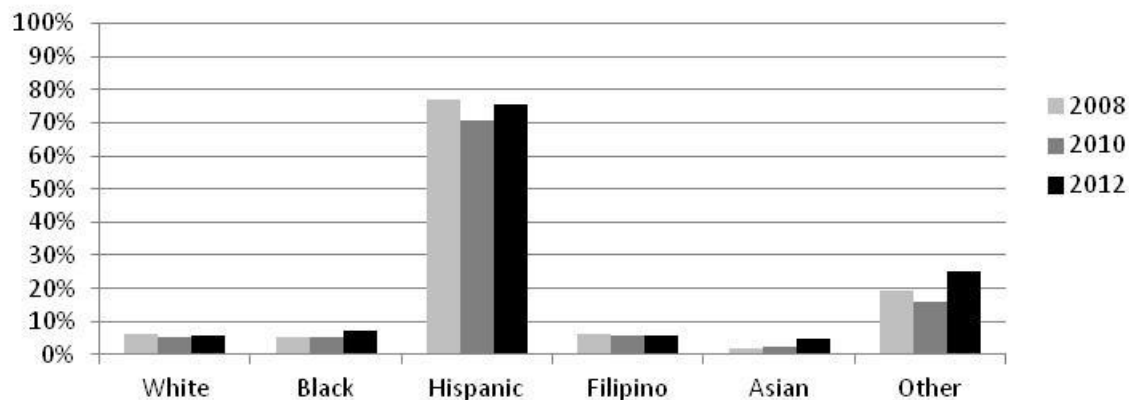
³ Since student-level data are unavailable, completion rates are calculated using total new student enrollments and completions by race, and it is assumed that it takes a newly enrolled nursing student two years to complete the program.

⁴ These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

⁵ Of Spanish speakers in California, 77% of those 5 to 17 years of age speak English very well, while 48% of those 18-64 years of age and 33% of those 65 years of age and older have similar English language skills (Census, 2010).

Overall, 11% of California RNs speak Spanish (12% in 2008, 11% in 2010 and 11% in 2012).⁶ The majority of California RNs who identify as Hispanic speak Spanish (77% in 2008, 71% in 2010 and 75% in 2012). While Hispanic nurses (7% in 2012) are underrepresented in comparison to the Hispanic population (38% in 2010), 14% of RNs are either Hispanic or speak Spanish (14% in 2008, 14% in 2010 and 13% in 2012), which may address some of the gap in culturally competent care that exists between the nursing workforce and the general population.

Chart 6. Share of California RNs Fluent in Spanish



Source: BRN Survey of RNs 2008, 2010, 2012

In addition to Spanish, Tagalog and other Asian languages are commonly spoken by RNs. Since Filipino RNs are overrepresented compared to the general population and the patient population, recruiting RNs who speak Tagalog is not a priority. However, non-Filipino Asians are underrepresented in comparison to the general population, indicating that proficiency in Asian languages other than Tagalog may improve culturally competent care for Asian patients.

Data from the 2010 Census data indicate that 10% of Californians speak an Asian or Pacific Island language at home and that 51% of them also speak English very well.⁷ On average, those of younger age groups have better English language skills than their older counterparts⁸, suggesting that Asian or Pacific Island language skills among RNs may become less of a concern in providing culturally competent care to non-Filipino Asians over time. However, only 6% of California RNs speak an Asian language other than Tagalog, and almost all of them are non-Filipino Asians (>99% in 2008, 2010 and 2012). These data suggest that

⁶ In the first version of this report (published in May 2012), the share of California RNs fluent in Spanish was reported as 31%, which is the share of RNs fluent in Spanish if fluent in more than one language. This figure fails to account for RNs who only speak English. The accurate share of all California RNs fluent in Spanish – regardless of how many languages they speak – is 11%, as reported here.

⁷ These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

⁸ Of Asian or Pacific Island language speakers in California, 75% of those 5 to 17 years of age speak English very well, while 52% of those 18-64 years of age and 25% of those 65 years of age and older have similar English language skills (Census, 2010).

increasing the share of RNs with non-Filipino Asian language skills may improve culturally competent care for non-Filipino Asian patients.

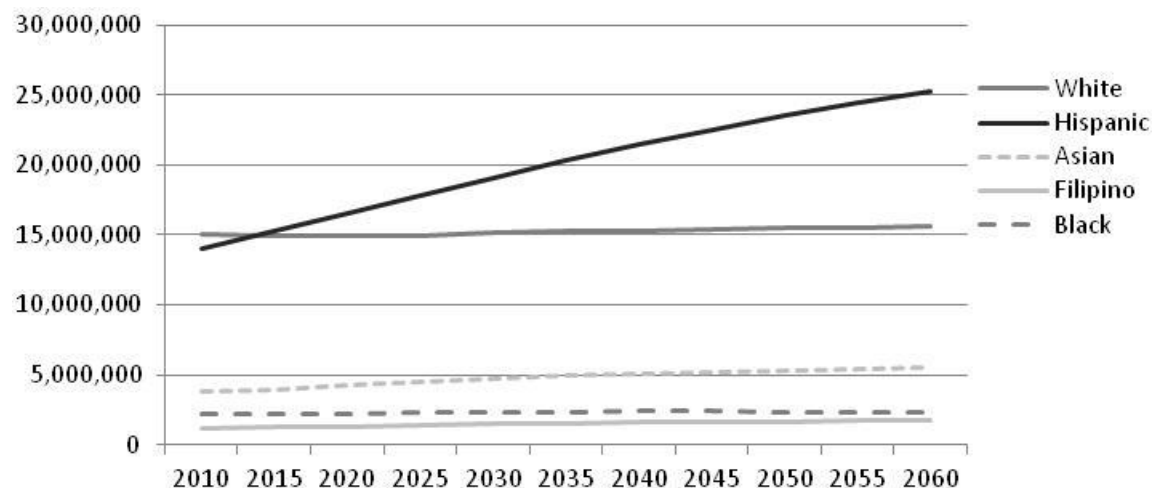
The data shown thus far illustrate that Hispanic and Black RNs are currently underrepresented in comparison to the population. Racial composition of new nurses graduating from California's RN programs suggests that these disparities will continue over the next several years. Spanish language skills of non-Hispanic RNs may provide some culturally competent care for Hispanic patients. However, younger Hispanics also speak English very well, suggesting that Spanish language skills among RNs may become less important over time. Even so, other aspects of providing culturally competent care will continue to be important, and the difference in racial composition between the population and the nursing workforce remains.

Statewide Population Projections

Current data show that Hispanics and Blacks are underrepresented in the nursing workforce. Projecting the racial composition of RNs and the general population until 2060 allows us to show how these populations may change over time and whether additional steps to increase the diversity of the nursing workforce should be prioritized.

Population projections⁹ provided by the California Department of Finance suggest that the number of Hispanics in California is projected to grow dramatically over the next forty years. By 2015, the number of Hispanics in California is projected to surpass the number of Whites in the state. The number of non-Filipino Asians is also projected to grow at a moderate rate, while the number of Whites, Blacks and Filipinos are projected to stay about the same.

Chart 7. Projected Racial Composition of California's Population, 2010-2060

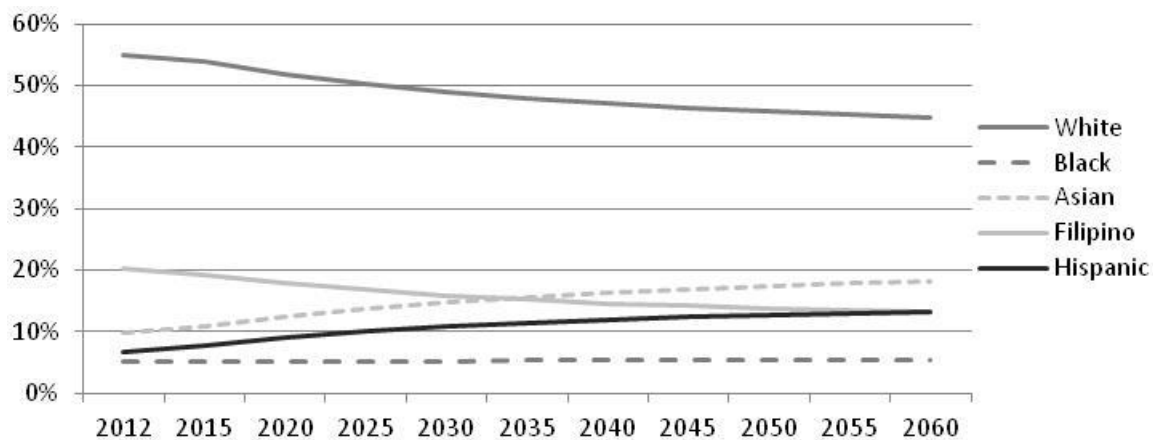


⁹ Native Americans and those of other undefined racial/ethnic groups comprise less than 5% of the current general population and nursing workforce. Since these racial/ethnic groups show little change within the next 50 years, these groups were excluded from the charts and tables in this section of the report.

The RN workforce in California is projected to become more diverse, with White nurses comprising less than half of the workforce by 2028. However, these projections suggest that there will continue to be greater diversity in the general population than among California nurses.

Since these projections use past changes in diversity among nursing school graduates and graduation rates by race to predict future diversity, it is possible that diversity among nursing school graduates may change in ways not reflected in the data. It is also possible that factors not included in the model will add increased diversity to the nursing workforce.

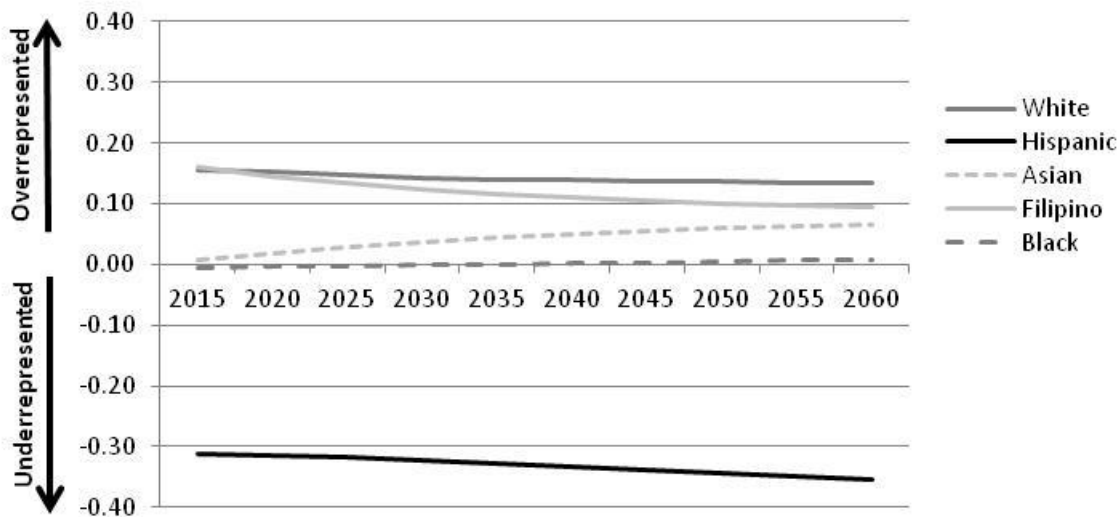
Chart 8. Projected Racial Composition of California RNs, 2012-2060



Sources: BRN Survey of RNs 2012; BRN Annual Schools Survey; CA Department of Finance 2010

When combining the projections of RNs and the general population, the data suggest that Hispanics will continue to be underrepresented – and become more underrepresented – in the nursing workforce over time, Blacks will be equally represented, and all other racial groups will be overrepresented in comparison to the general population. Chart 9 shows that Hispanics have fewer nurses per capita than any other racial group shown and that this disparity is projected to become more pronounced over time.

Chart 9. Projected Difference between RNs and the General Population by Race, 2015-2060



Sources: BRN Survey of RNs 2012; BRN Annual Schools Survey; CA Department of Finance 2010

Regional Highlights

Regional analysis of the data shows the diversity of the RN workforce in comparison to the general population and patient population in eight different parts of California. These data provide additional understanding into the racial disparities between the population and the RN workforce and can help target programs aimed at increasing diversity of the RN workforce. Charts focusing on each of the eight regions are included after the key findings. A list of the counties included in each region is provided in the Appendix.

Regardless of the region, Hispanics are the most underrepresented racial group in the nursing workforce and are projected to remain underrepresented. In all regions except the Inland Empire, Blacks are also underrepresented, but to a lesser extent than Hispanics. Non-Filipino Asians are slightly underrepresented in more regions in 2012 than they were in 2010 but are projected to become equally represented in the Inland Empire and Southern Border by 2015 and in the Bay Area by 2040. Slight underrepresentation of non-Filipino Asians is projected to continue in Greater Sacramento over the next fifty years and is anticipated to appear in the Central Coast in 2050.

Table 4. Underrepresentation of Racial Groups in RN Workforce in Comparison to the General Population, by Region

Region	Underrepresented		
	2010	2012	Future Forecast
Bay Area	Hispanic Asian Black	Hispanic Asian Black	Hispanic Black (until 2050) Asian (until 2040)
Central Coast	Hispanic Black	Hispanic Black Asian	Hispanic Black (until 2060) Asian (starting in 2050)
Central Valley	Hispanic Black	Hispanic Black	Hispanic Black (until 2020)
Greater Sacramento	Hispanic Black Asian	Hispanic Black Asian	Hispanic Asian Black (until 2040)
Los Angeles Area	Hispanic Black	Hispanic Black	Hispanic Black
Northern California	Hispanic Black	Hispanic Black Asian	Hispanic Black (until 2030)
Inland Empire	Hispanic Asian	Hispanic Asian	Hispanic Asian (until 2015) Black (starting in 2025)
Southern Border	Hispanic Asian Black	Hispanic Black Asian	Hispanic Black (until 2035) Asian (until 2015)

Although the racial composition of RNs may not match the population, English language abilities of the general population and the ability of RNs to speak other languages indicate whether nurses can provide some aspects of culturally competent care, regardless of race.

In all regions, the share of Hispanics in the general population is much greater than the share of RNs that is Hispanic or fluent in Spanish, as shown in Table 5. The largest gaps in representation of Hispanics are in the Central Coast, Central Valley, Los Angeles Area and Inland Empire. In all of these regions, the general population is more than 40% Hispanic, while 16% or less of the RNs in these regions are Hispanic or fluent in Spanish. While almost half of all Californians who speak Spanish at home, regardless of region, speak English very well¹⁰, the disparity between Spanish language skills among RNs¹¹ and Spanish-speaking Hispanics is most pronounced in the regions with the most underrepresentation of Hispanics in the nursing workforce in comparison to the general population.

Table 5. Share of Hispanics in General Population and among RNs, and Spanish Language Fluency for Hispanic and Non-Hispanic RNs, by Region

Region	Hispanic Population*	RNs [‡]		
		Hispanic	Non-Hispanic, Fluent in Spanish	Hispanic or Fluent in Spanish
Bay Area	24%	4%	6%	10%
Central Coast	43%	6%	7%	13%
Central Valley	47%	9%	7%	15%
Greater Sacramento	21%	3%	3%	6%
Los Angeles Area	47%	8%	8%	16%
Northern California	15%	1%	3%	5%
Inland Empire	42%	9%	4%	13%
Southern Border	35%	9%	7%	16%

*2010 Census, [‡] BRN Survey of RNs 2012

In addition to Spanish, skills in non-Filipino Asian languages may help RNs provide culturally competent care to their patients. While many non-Hispanic RNs speak Spanish, very few non-Asian RNs speak an Asian language. Regional analysis of these data suggests that increasing non-Filipino Asian language skills of RNs is not a high priority.

¹⁰ These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

¹¹ In the first version of this report (published in May 2012), the share of California RNs fluent in Spanish was reported as the share of RNs fluent in Spanish if fluent in more than one language. This figure fails to account for RNs who only speak English. The share of all California RNs fluent in Spanish – regardless of how many languages they speak – is reported accurately here.

The five-year average RN program completion rates¹² by race show that Blacks have lower average completion rates in most regions. However, at least 85% of Blacks completed RN programs in Northern California and the Southern Border. Average completion rates for Hispanics are at least 90% in the Central Valley and Northern California.

Table 6. 5-year Average RN Program Completion Rates by Race, by Region*, 2008-2012

Region	Asian	Black	Filipino	Hispanic	White
Bay Area	86%	77%	80%	89%	91%
Central Coast	66%	60%	80%	80%	88%
Central Valley	91%	68%	82%	90%	77%
Los Angeles Area	84%	63%	64%	72%	79%
Northern California	88%	67%	77%	95%	98%
Inland Empire	79%	72%	78%	85%	85%
Southern Border	86%	82%	80%	84%	88%

*Greater Sacramento had insufficient data on the racial breakdown of students completing its RN programs over the last four years. Therefore, its 5-year average completion rates are considered unreliable and are not included here.

Over the last five years, the Bay Area and Inland Empire saw increases in the share of Hispanics entering their RN programs. However, Hispanics have become less represented among new RN students in Greater Sacramento, Los Angeles Area and Southern Border and have seen no change in representation in other regions. These data coupled with the disparity between the share of Hispanics in the general population and the share in the RN workforce in most regions suggest that initiatives to recruit and retain Hispanics in RN programs across California may improve the representation of Hispanics in the RN workforce.

Table 7 also shows declines in the share of Black students enrolling in RN programs in the Bay Area, Los Angeles Area and Inland Empire. These data combined with decreasing shares of Blacks graduating from these programs due to completion rates lower than those of their peers, suggest that the share of Black RNs will continue to decline unless interventions that encourage enrollment and improve success rates of Blacks in RN programs are implemented.

Table 7. Change in Representation of Racial Groups among New Students in RN Programs*, 2008-2012

Region	Asian	Black	Filipino	Hispanic	White
Bay Area	Increasing	Decreasing	Decreasing	Increasing	
Central Coast			Decreasing		
Central Valley	Increasing				Decreasing
Greater Sacramento		Increasing	Decreasing	Decreasing	Increasing
Los Angeles Area	Increasing	Decreasing	Decreasing	Decreasing	
Northern California	Increasing				Increasing
Inland Empire	Increasing	Decreasing	Decreasing	Increasing	Decreasing
Southern Border	Increasing		Decreasing	Decreasing	Increasing

*Blank cells indicate no change in racial representation.

¹² Since student-level data are unavailable, completion rates are calculated using total new student enrollments and completions by race, and it is assumed that it takes a newly enrolled nursing student two years to complete the program.

Conclusions

Statewide data suggest that Hispanics are currently – and will continue to be – the most underrepresented racial group in the nursing workforce as compared to the general population. With employment rates over 90% for Hispanic RNs younger than 55, recruiting unemployed RNs to return to work would fail to close the gap between the share of Hispanics in the nursing workforce and the general population. Although 13% of RNs statewide report being Hispanic or speaking Spanish fluently, 38% of Californians identify as Hispanic, illustrating that Spanish language skills among RNs can provide some aspects of culturally competent care to Hispanic patients but cannot bridge the gap in representation for Hispanics in the nursing workforce. The greatest need for RNs with Spanish language skills is in the Central Valley, Los Angeles Area and Central Coast, where the share of RNs that identify as Hispanic or fluent in Spanish is at least 30 percentage points less than the Hispanic population in the region. While Spanish language skills may be valuable in providing some aspects of culturally competent care to Hispanic patients, there is an increasing gap between Hispanics in the nursing workforce and the general population.

Although there is increased diversity among RNs younger than 45 years of age, the share of Hispanic RNs in this age group remains low in comparison to the general population. Student data from RN programs indicate that the share of Hispanic students enrolling in and graduating from RN programs has changed little over the past ten years. These data suggest that the share of Hispanic RNs will continue to decline unless interventions encouraging enrollment of Hispanics into RN programs and improving success rates of these students are implemented.

The share of Hispanics in the general population, and therefore the patient population, is projected to grow considerably over the next fifty years. Even though the data suggest that the English language skills of Spanish-speaking Californians will improve over time, Spanish language skills and other aspects of providing culturally competent care will likely be important for RNs in the future. Finding ways to increase the share of Hispanic RNs and emphasizing skills in multiple languages may help nurses become more adept at caring for their patients. While Hispanic RNs are the most underrepresented racial group, regional analysis shows that Black and non-Filipino Asian RNs were slightly underrepresented in some parts of California as well.

Projections of RNs and the general population indicate that Blacks will become more equally represented over the next fifty years in most regions, while they will remain slightly underrepresented in the Los Angeles Area. Even though Blacks are projected to become more equally represented throughout California due to limited growth in the Black population over the next fifty years, strategies to improve success among Black students in RN programs could accelerate the rate at which they become more equally represented in the nursing workforce.

Data on the population of non-Filipino Asians suggest that they will be slightly underrepresented among RNs in the Inland Empire and Southern Border for the next couple of years, in the Bay Area until 2040, and will continue to be slightly underrepresented in Greater Sacramento over the next fifty years. Starting in 2050, non-Filipino Asians will be slightly underrepresented in the Central Coast. Student data from RN programs indicate that the share of Asian students enrolling in RN programs has been increasing and that the share of non-Filipino Asians graduating from these programs has been increasing due to higher

completion rates than most of their peers. These data suggest that the share of Asian RNs will continue increasing. However, these increases will not keep pace with the growth of the Asian population in Greater Sacramento and the Central Coast, suggesting that strategies to increase the share of Asian RNs in Greater Sacramento and the Central Coast may help address the gap in representation between RNs and the general population.

Regional Chart Book

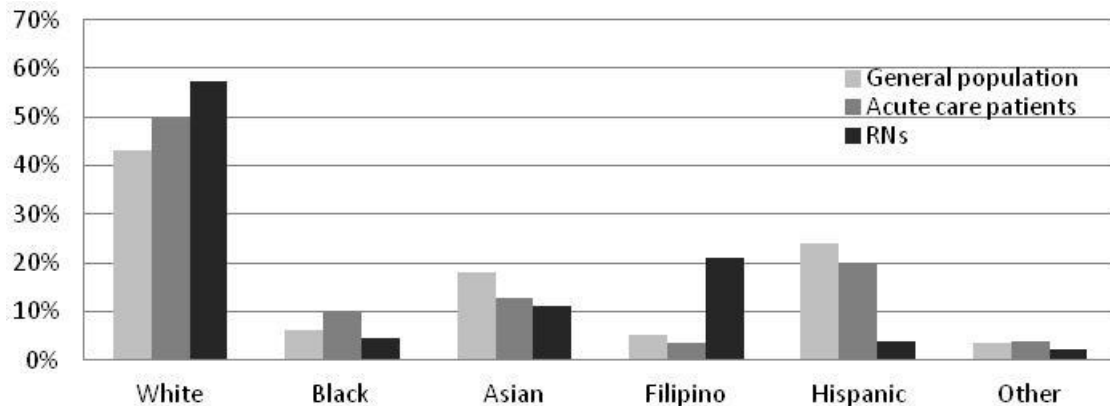
Bay Area

The Bay Area represents Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma counties.

Current Data

Chart 1 shows the overrepresentation of White and Filipino RNs and the underrepresentation of Black, Hispanic and Asian RNs in comparison to both the patient population and the general population.

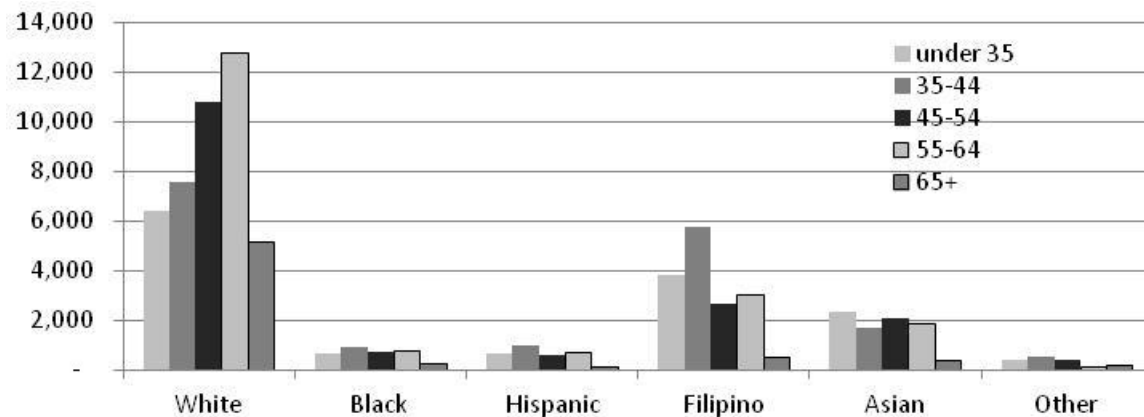
Chart 1. Racial Composition, Bay Area



Sources: Census, 2010; OSHPD Patient Discharge Data, 2010; BRN Survey of RNs, 2012

With the majority of White RNs over 45 years of age, Chart 2 shows greater diversity among younger RNs.

Chart 2. Racial Composition of RNs by Age, Bay Area, 2012



Source: BRN Survey of RNs 2012

While the overall employment rate of Bay Area nurses under the age of 55 has decreased slightly since 2010 (from 91% in 2010 to 88% in 2012), employment rates of Black and Hispanic nurses increased to 94% during the same time period. In 2012, the employment rate among Asian RNs (80%) was the lowest of any racial group in the region. Higher employment rates among Black and Hispanic RNs may help shrink the gap between Blacks and Hispanics in the nursing workforce and those in the general population. Increasing the employment rate among Asian RNs may help address the gap between non-Filipino Asians in the nursing workforce and those in the general population.

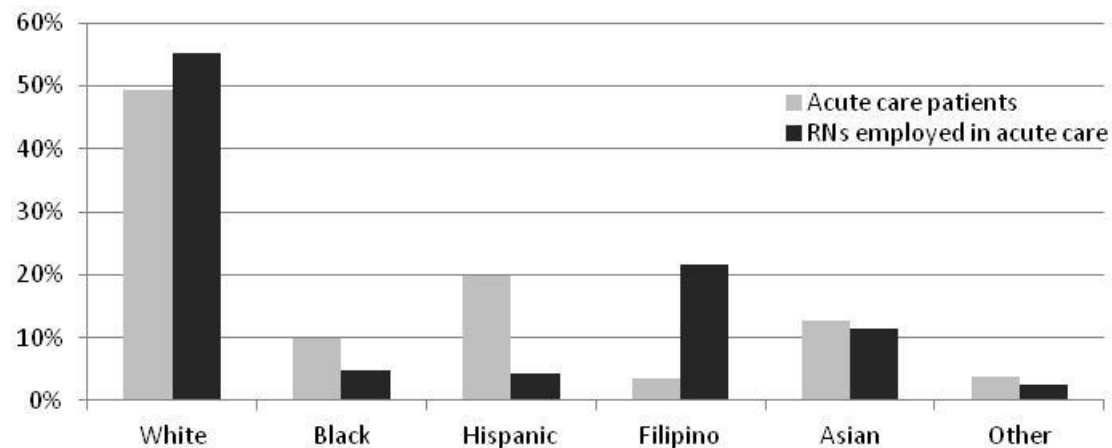
Table 1. Share of Bay Area RNs Less than 55 Years of Age Working in Nursing, by Race

Race	2010	2012
White	91%	89%
Black	79%	94%
Hispanic	86%	94%
Filipino	95%	91%
Asian	89%	80%
Other	80%	80%
Total	91%	88%

Source: BRN Survey of RNs, 2010 & 2012

Since the majority of RNs work in the acute care setting, taking a closer look at this setting shows a greater share of Hispanic, Black and Asian acute care patients than nurses working in that setting.

Chart 3. Racial Distribution of Acute Care Patients and RNs Employed in Acute Care, Bay Area



Sources: OSHPD Patient Discharge Data 2010, BRN Surveys of RNs 2012

Student data from RN programs provide insight into the diversity of new nurses. Table 2 shows that the share of non-Filipino Asians and Hispanics among RN program graduates has increased since 2010, while the share of Blacks and Filipinos decreased during the same time period.

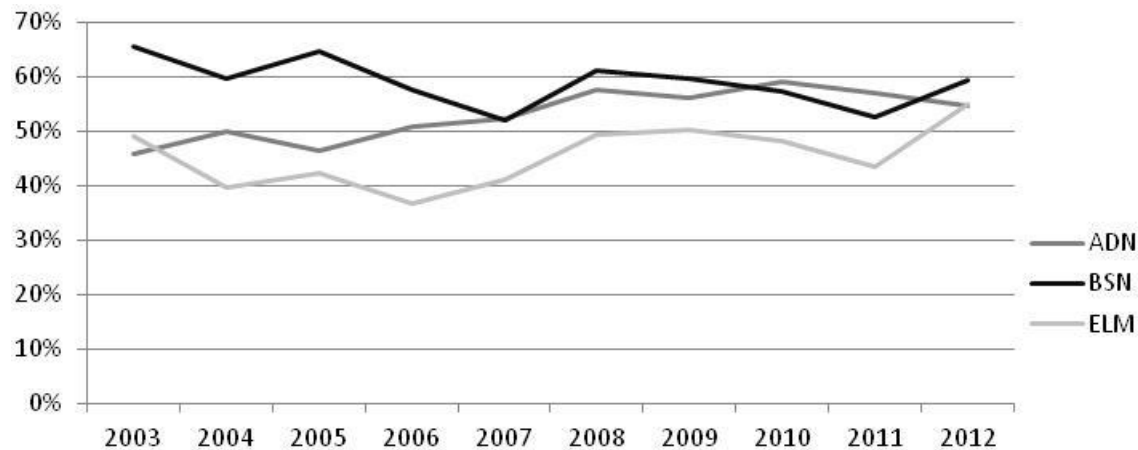
Table 2. Racial Composition of the Bay Area's RN Program Graduates, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	21%	16%	18%	18%	20%	24%	19%	19%	18%	27%
Black	7%	8%	7%	7%	6%	6%	6%	6%	5%	4%
Filipino	12%	14%	16%	15%	13%	14%	16%	16%	15%	9%
Hispanic	12%	13%	12%	11%	11%	11%	11%	11%	12%	13%
White	47%	48%	47%	49%	49%	40%	43%	43%	46%	43%
Other race	1%	1%	1%	1%	0%	5%	6%	5%	5%	4%
Ethnic Minorities	53%	52%	53%	51%	51%	60%	57%	57%	54%	57%

Source: BRN Annual School Report, 2003-2012

Chart 4 shows that Bachelor (BSN) degree and Entry-level Master's (ELM) programs have had overall increases in diversity over the last ten years, while Associate (ADN) degree programs have become less diverse. Bay Area BSN and ELM programs graduate a greater share of new RNs now than they did ten years ago (44% in 2003, 55% in 2012), indicating that continued increases in diversity among BSN and ELM graduates could lead to increased diversity of RNs in the region and to an RN workforce with a racial composition more comparable to the population it serves.

Chart 4. Ethnic Minorities among the Bay Area's RN Program Graduates by Degree Earned, 2003-2012



Source: BRN Annual Schools Report

Over the last ten years, there has been increased diversity among new students enrolling in Bay Area RN programs. Table 3 shows an overall increase in the share of non-Filipino Asians and Hispanics among new RN students since 2009 but a decrease in the share of Filipinos and Whites during the same time period. The share of Blacks and those of other undisclosed races remained about the same over the last four years.

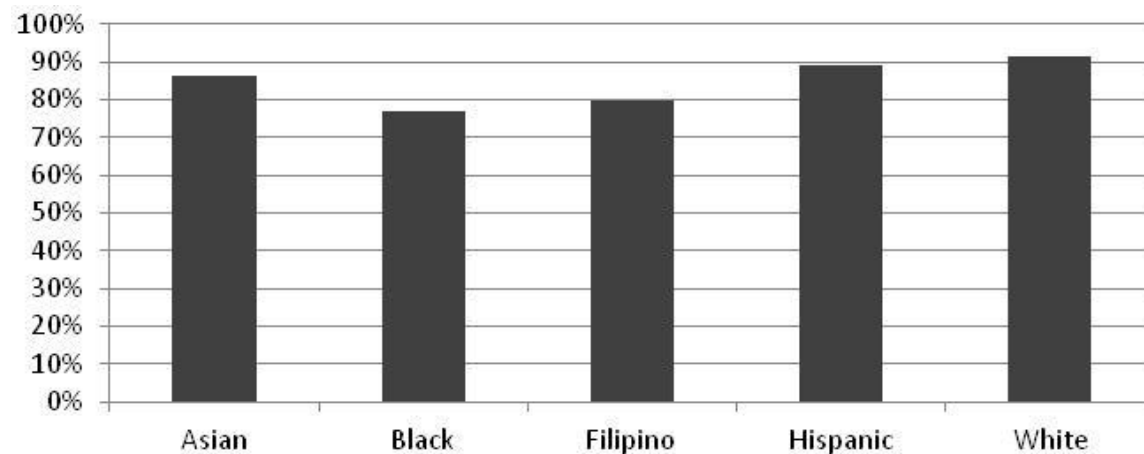
Table 3. Racial Composition of New Student Enrollments in California's RN Programs, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	24%	21%	16%	18%	25%	21%	17%	19%	18%	27%
Black	8%	7%	5%	6%	7%	8%	6%	5%	4%	5%
Filipino	11%	12%	16%	18%	14%	13%	16%	16%	14%	9%
Hispanic	11%	11%	18%	13%	12%	11%	12%	11%	14%	15%
White	44%	48%	44%	43%	42%	41%	43%	44%	44%	38%
Other race	1%	1%	1%	0%	1%	6%	6%	4%	5%	5%
Ethnic Minorities	56%	52%	56%	57%	58%	59%	57%	56%	56%	62%

Source: BRN Annual School Report, 2003-2012

The five-year average completion rates¹ by race indicate that Blacks have the lowest average completion rate in the region. Improving lower completion rates may help further increase the diversity among RN graduates.

Chart 5. Average RN Program Completion Rate by Race, Bay Area, 2008-2012



Source: BRN Annual Schools Survey

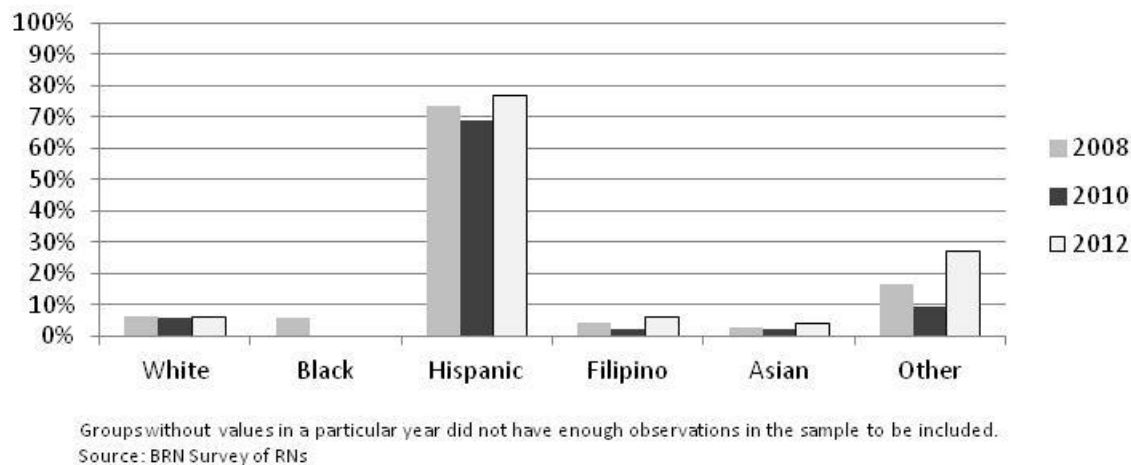
¹ Since student-level data are unavailable, completion rates are calculated using total new student enrollments and completions by race, and it is assumed that it takes a newly enrolled nursing student two years to complete the program.

Although the racial composition of RNs may not match the population, language abilities of RNs indicate whether nurses can provide some aspects of culturally competent care, regardless of race.

Data from the 2010 Census indicate that 18% of people in the Bay Area speak Spanish at home and that 53% of these Spanish speakers also speak English very well.² On average, younger Spanish speakers have better English language skills than their older counterparts³, suggesting that Spanish language skills among RNs may become less of a concern in providing culturally competent care to Hispanics over time.

Chart 6 shows that the majority of Bay Area RNs fluent in Spanish identify as Hispanic and that the shares of Hispanics, Filipinos, non-Filipino Asians and RNs of other undisclosed races fluent in Spanish are at their highest levels since 2008. However, no Black RNs reported Spanish language fluency in 2010 or 2012, and the overall share of Bay Area RNs fluent in Spanish has remained around 8% over this time period (8% in 2008 and 2010, 9% in 2012).⁴ With only 10% of Bay Area RNs identifying as Hispanic or fluent in Spanish and 24% of the population in the region identifying as Hispanic in 2012, Spanish language skills among RNs in the region do not compensate for the underrepresentation of Hispanics in the nursing workforce in comparison to the population.

Chart 6. Share of Bay Area RNs Fluent in Spanish



In addition to Spanish, Tagalog and other Asian languages are commonly spoken among RNs. Since Filipino RNs are overrepresented compared to the general population and the patient population in the Bay Area, recruiting RNs who speak Tagalog is not a priority for this region. However, non-Filipino Asians are underrepresented in comparison to the general population and slightly underrepresented in comparison to

² These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data. Bay Area estimates do not include Marin or Napa counties, since there were insufficient data for those counties to produce estimates.

³ Of Spanish speakers in the Bay Area, 78% of those 5 to 17 years of age speak English very well, while 47% of those 18-64 years of age and 40% of those 65 years of age and older have similar English language skills (Census, 2010).

⁴ In the first analysis and report published in May 2012, the reported share of Bay Area RNs that speak Spanish failed to account for RNs who only speak English. The accurate share of all Bay Area RNs that speak Spanish – regardless of how many languages they speak – is 8%, as reported here.

the patient population, indicating that proficiency in Asian languages other than Tagalog may improve culturally competent care for Asian patients.

Data from the 2010 Census indicate that 17% of people in the Bay Area speak an Asian or Pacific Island language and that 51% of them also speak English very well.⁵ On average, those of younger age groups have better English language skills than their older counterparts⁶, suggesting that Asian or Pacific Island language skills among RNs may become less of a concern in providing culturally competent care to non-Filipino Asians over time. However, only 7% of Bay Area RNs speak an Asian language other than Tagalog, and almost all of them are non-Filipino Asians (>99% in 2008, 2010 and 2012). These data suggest that increasing the share of RNs with non-Filipino Asian language skills may improve culturally competent care for non-Filipino Asian patients.

The data shown thus far illustrate that Hispanic, Black and Asian RNs are currently underrepresented in comparison to the population of the Bay Area. Racial composition of nurses graduating from Bay Area RN programs shows that the share of Asian and Hispanic RNs increased in the past three years, while the share of Black RNs remained relatively constant. Asian RNs may be able to provide some aspects of culturally competent care, regardless of their language skills. However, if the share of Asian patients who speak an Asian language is greater than the share of RNs who speak an Asian language, there may be a continued gap in providing culturally competent care for these patients. Spanish language skills of non-Hispanic RNs may provide some culturally competent care for Hispanic patients, but the difference in racial composition between the population and the nursing workforce remains. The data suggest that disparities among Blacks and Hispanics will continue over the next several years.

⁵ These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

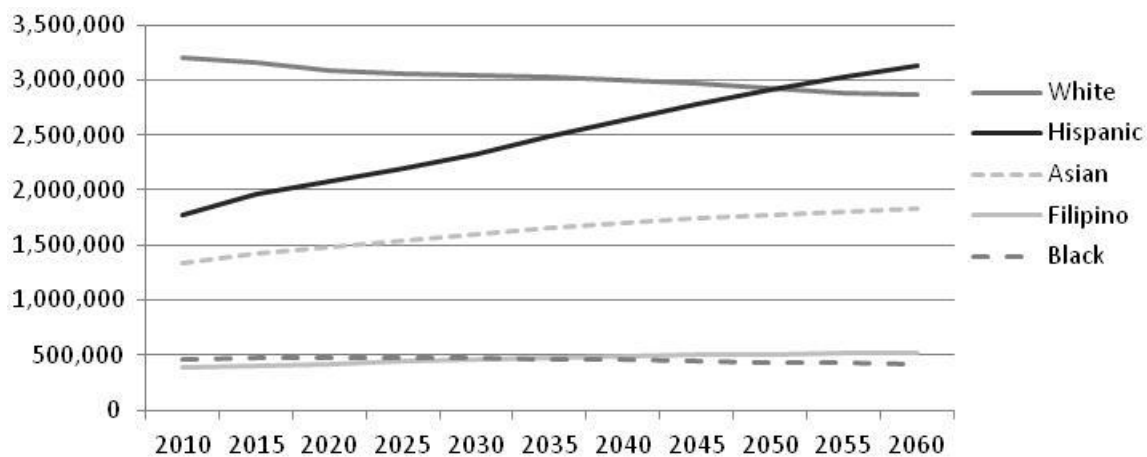
⁶ Of Asian or Pacific Island language speakers in the Bay Area, 74% of those 5 to 17 years of age speak English very well, while 52% of those 18-64 years of age and 23% of those 65 years of age and older have the similar English language skills (Census, 2010).

Population Projections

Current data show that Hispanics, Blacks and non-Filipino Asians are underrepresented in the nursing workforce. Projecting the racial composition of RNs and the general population over the next 50 years allows us to show how these populations may change over time and whether additional steps to increase the diversity of the nursing workforce should be prioritized.

Population projections⁷ provided by the California Department of Finance suggest that the number of Hispanics in the Bay Area is projected to grow dramatically over the next fifty years. Before 2055, the number of Hispanics in the region is projected to equal and then surpass the number of Whites in the region. The number of non-Filipino Asians is also projected to grow at a moderate rate, while the number of Whites is projected to decline.

Chart 7. Projected Racial Composition of the Bay Area's Population, 2010-2060



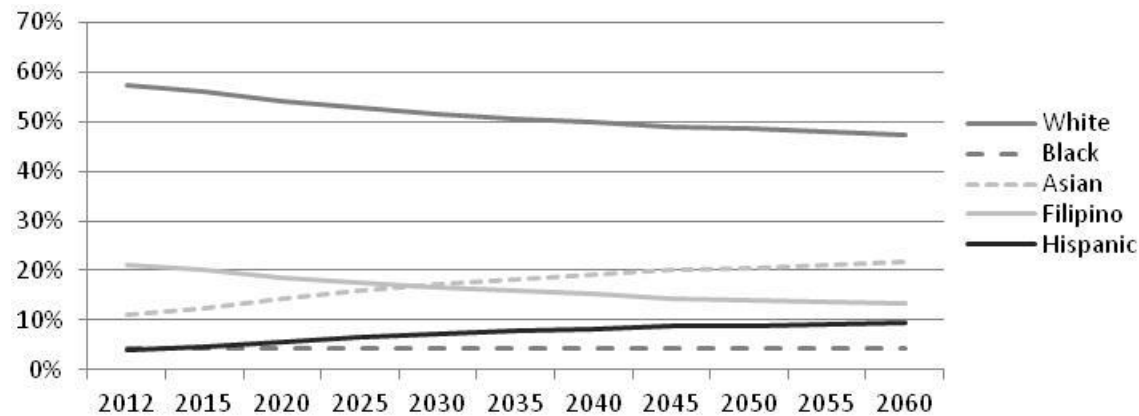
Source: CA Department of Finance

⁷ Native Americans and those of other undefined racial/ethnic groups comprise less than 5% of the current general population and nursing workforce. Since these racial/ethnic groups show little change within the next 50 years, these groups were excluded from the charts and tables in this section of the report.

Chart 8 shows that the RN workforce in the Bay Area is projected to become more diverse, with White nurses comprising less than half of the workforce by 2045. However, these projections suggest that there will continue to be greater diversity in the general population than among Bay Area nurses.

Since these projections use past changes in diversity among nursing school graduates and graduation rates by race to predict future diversity, it is possible that diversity among nursing school graduates may change in ways not reflected in the data. It is also possible that factors not included in the model will add increased diversity to the nursing workforce.

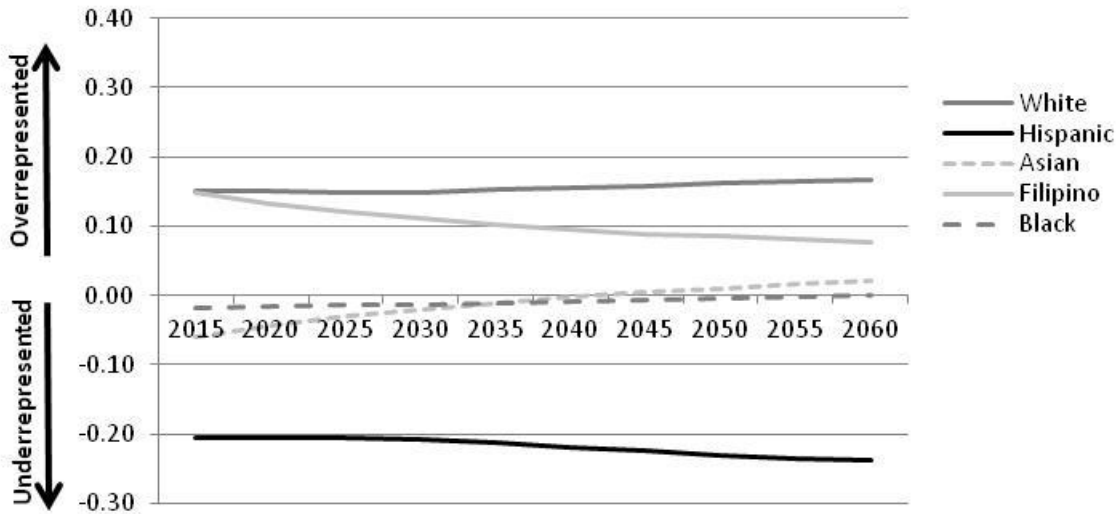
Chart 8. Projected Racial Composition of Bay Area RNs, 2012-2060



Sources: BRN Survey of RNs, 2012; BRN Annual Schools Report, 2008-2012

When combining the projections of RNs and the general population, Chart 9 shows that Hispanics will continue to be underrepresented in the nursing workforce. Non-Filipino Asians will be slightly underrepresented until 2040, Blacks will be slightly underrepresented until 2050, and Whites and Filipinos will be overrepresented in comparison to the general population.

Chart 9. Projected Racial Representation of RNs in Comparison to the General Population, Bay Area, 2015-2060



Sources: BRN Survey of RNs 2012; BRN Annual Schools Survey; CA Department of Finance 2010

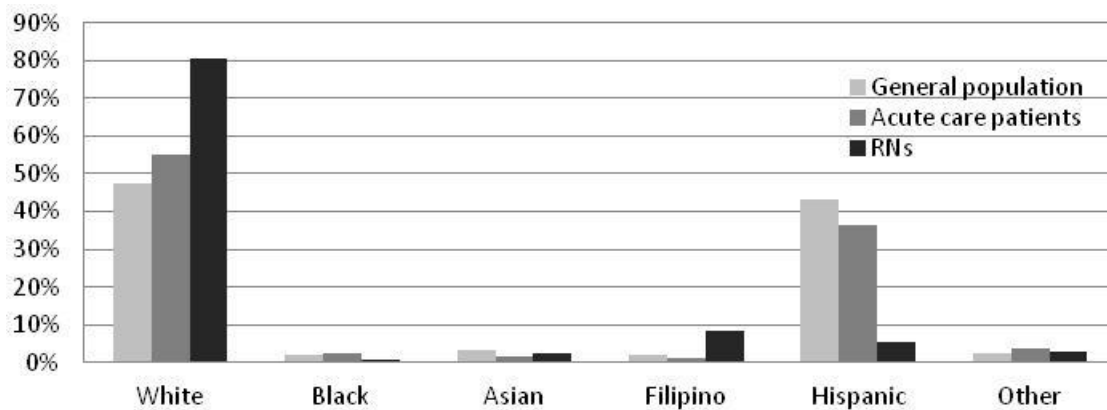
Central Coast

The Central Coast represents Monterey, San Benito, San Luis Obispo and Santa Barbara counties.

Current Data

Chart 1 shows the overrepresentation of White and Filipino RNs and the underrepresentation of Hispanic and Black RNs in comparison to both the patient population and the general population in the Central Coast. Non-Filipino Asians are slightly overrepresented in comparison to the patient population but underrepresented in comparison to the general population. Those of other undisclosed races are well represented in comparison to the general population but underrepresented in comparison to the patient population.

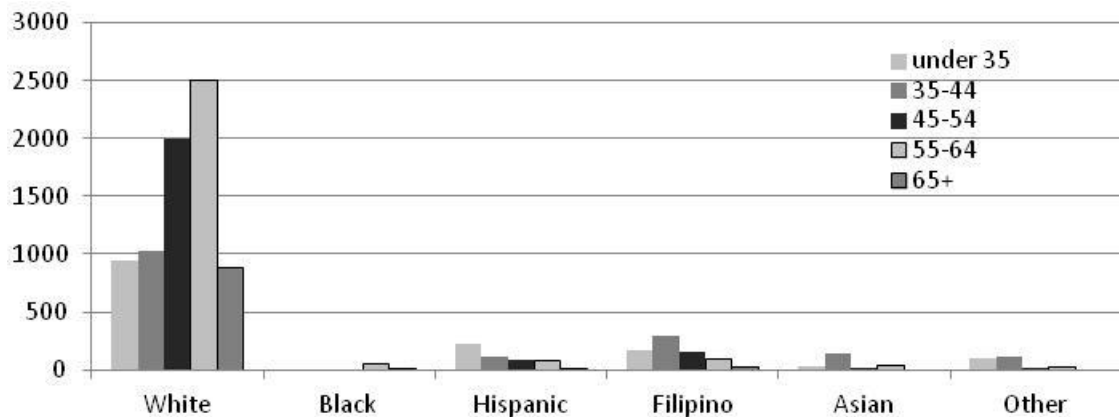
Chart 1. Racial Composition, Central Coast



Sources: Census, 2010; OSHPD Patient Discharge Data, 2010; BRN Survey of RNs, 2012

With the majority of White RNs older than 44 years of age, and larger numbers of younger RNs in other racial groups, these data show an increased diversity among younger nurses.

Chart 2. Racial Composition of RNs by Age, Central Coast, 2012



Source: BRN Survey of RNs 2012

The overall employment rate of Central Coast nurses under the age of 55 has increased slightly since 2010 (from 92% in 2010 to 94% in 2012). Filipinos had a decreased employment rate between 2010 and 2012, while all other racial groups with data available saw an increase in their employment rates over the same time period. In 2012, the employment rate among Asian RNs (85%) was the lowest of any racial group in the region. Higher employment rates among Hispanic RNs may help shrink the gap between Hispanics in the nursing workforce and those in the general population. Increasing the employment rate among Asian RNs may help address the gap between non-Filipino Asians in the nursing workforce and those in the general population.

Table 1. Share of Central Coast RNs Less than 55 Years of Age Working in Nursing, by Race

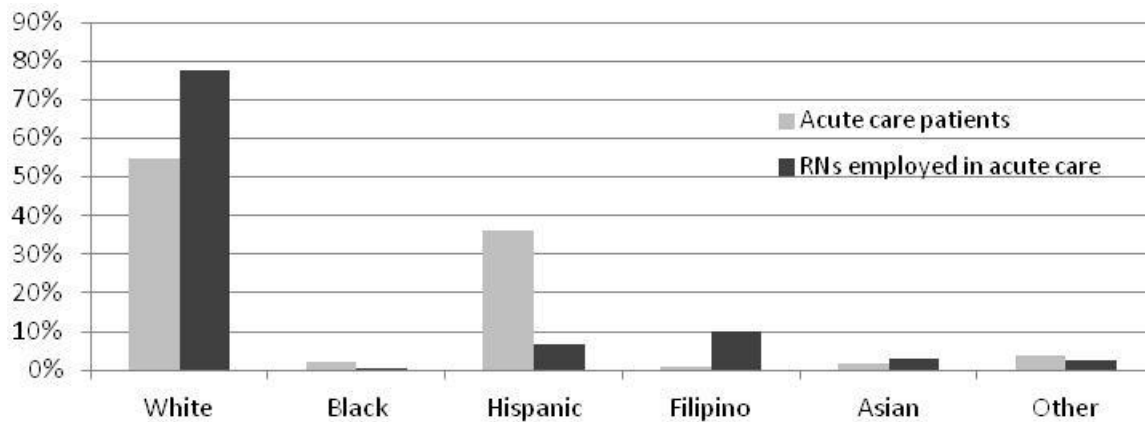
Race	2010	2012
White	92%	94%
Black	100%	NA*
Hispanic	91%	94%
Filipino	96%	89%
Asian	83%	85%
Other	84%	100%
Total	92%	94%

*Not available – No Black RNs reported in 2012 BRN Survey of RNs in this region

Source: BRN Survey of RNs, 2010 & 2012

Since the majority of California RNs work in the acute care setting, taking a closer look at this setting shows a greater share of Hispanic, Black and Other acute care patients than nurses working in that setting.

Chart 3. Racial Distribution of Acute Care Patients and RNs Employed in Acute Care, Central Coast



Sources: OSHPD Patient Discharge Data 2010, BRN Surveys of RNs 2012

Student data from RN programs provide insight into the diversity of new nurses. Table 2 shows an overall increase in diversity among graduates of RN programs since 2004. Even though diversity among graduates has increased since 2004, the share of ethnic minorities in 2012 is about the same as it was in 2003. Over the last four years, the shares of Blacks and Whites among Central Coast RN program graduates have declined, the shares of non-Filipino Asians and Filipinos have fluctuated, and the shares of Hispanics and those of other undisclosed races have increased.

Table 2. Racial Composition of the Central Coast's RN Program Graduates, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	8%	8%	1%	4%	8%	2%	5%	9%	5%	6%
Black	4%	1%	4%	2%	1%	0%	3%	2%	0%	1%
Filipino	6%	4%	9%	5%	2%	12%	6%	10%	6%	9%
Hispanic	25%	22%	18%	14%	23%	17%	17%	18%	22%	21%
White	56%	65%	68%	72%	65%	63%	69%	58%	58%	57%
Other race	2%	1%	0%	2%	0%	5%	1%	3%	9%	5%
Ethnic Minorities	44%	35%	32%	28%	35%	37%	31%	42%	42%	43%

Source: BRN Annual School Report, 2003-2012

The diversity of new students enrolling in RN programs has fluctuated over the ten-year period shown in Table 3. While the diversity of new students was at its highest in 2011, the share of ethnic minorities in 2012 is less than it was in 2003. In 2011, 30% of new students in the region identified as Hispanic, but 2012 data show that the share of Hispanics dropped to 19%.

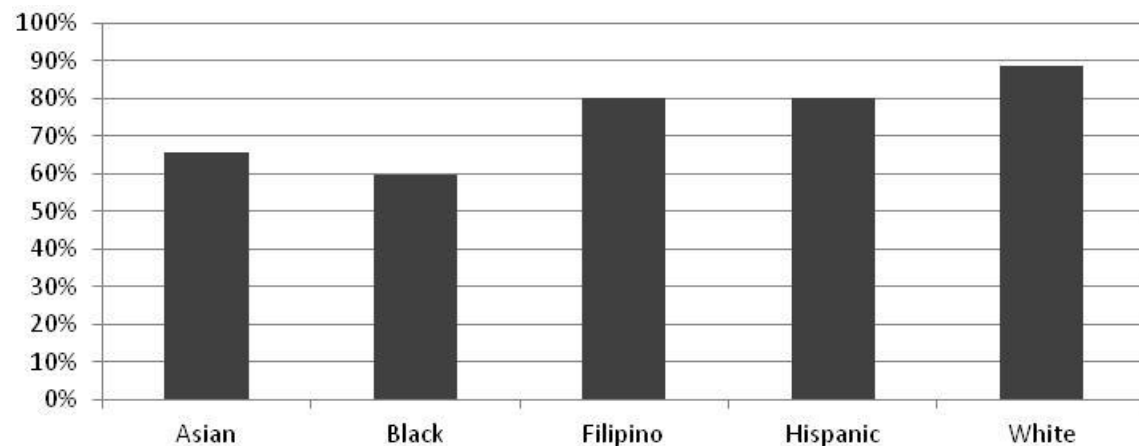
Table 3. Racial Composition of New Student Enrollments in the Central Coast's RN Programs, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	7%	4%	2%	5%	10%	2%	8%	7%	7%	8%
Black	1%	3%	3%	3%	2%	2%	2%	1%	2%	1%
Filipino	5%	5%	6%	7%	8%	10%	10%	9%	8%	5%
Hispanic	29%	17%	21%	23%	28%	19%	15%	20%	30%	19%
White	57%	68%	67%	61%	51%	67%	65%	63%	50%	65%
Other race	1%	3%	2%	0%	1%	0%	0%	0%	3%	3%
Ethnic Minorities	43%	32%	33%	39%	49%	33%	35%	37%	50%	35%

Source: BRN Annual School Report, 2003-2012

The five-year average completion rates¹ by race indicate that Blacks have the lowest average completion rate (60%), followed by Asians (66%) in the region. Addressing these lower completion rates may help further increase the diversity among nursing graduates.

Chart 4. Average RN Program Completion Rate by Race, Central Coast, 2008-2012



Source: BRN Annual Schools Report, 2008-2012

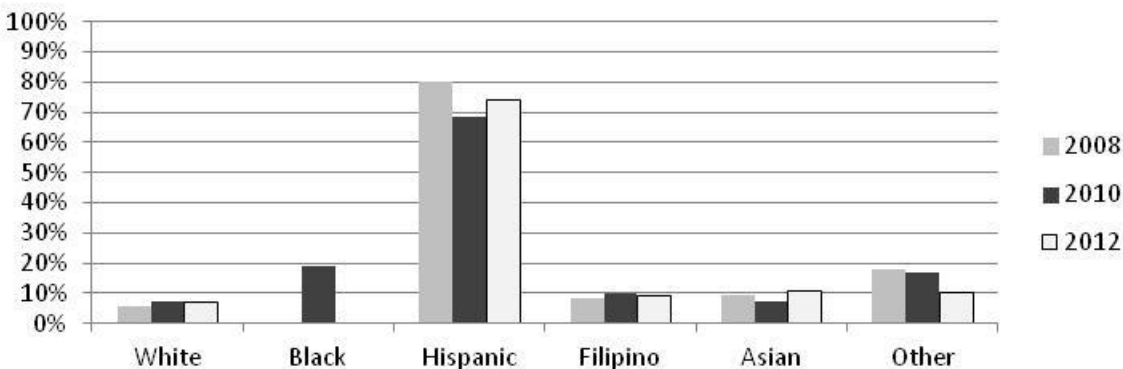
¹ Since student-level data are unavailable, completion rates are calculated using total new student enrollments and completions by race, and it is assumed that it takes a newly enrolled nursing student two years to complete the program.

Although the racial composition of RNs may not match the population, language abilities of RNs indicate whether nurses can provide some aspects of culturally competent care, regardless of race.

Data from the 2010 Census indicate that 38% of people in the Central Coast region speak Spanish at home and that 47% of these Spanish speakers also speak English very well.² On average, younger Spanish speakers have better English language skills than their older counterparts³, suggesting that Spanish language skills among RNs may become less of a concern in providing culturally competent care to Hispanics over time.

Chart 5 shows that the majority of Central Coast RNs fluent in Spanish identify as Hispanic and that the shares of non-Hispanics fluent in Spanish have fluctuated since 2008. The overall share of Central Coast RNs that speak Spanish has remained around 11% over this time period (10% in 2008, 12% in 2010 and 11% in 2012).⁴ With only 13% of Central Coast RNs identifying as Hispanic or fluent in Spanish and 43% of the population in the region identifying as Hispanic in 2012, Spanish language skills among RNs in the region do not compensate for the underrepresentation of Hispanics in the nursing workforce in comparison to the population.

Chart 5. Share of Central Coast RNs Fluent in Spanish



Groups without values in a particular year did not have enough observations in the sample to be included.
Source: BRN Survey of RNs

Data from the 2010 Census also indicate that 4% of people in the Central Coast speak an Asian or Pacific Island language at home and that 56% of them also speak English very well.⁵ While only one to two percent

² These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data. Central Coast estimates do not include San Benito or San Luis Obispo counties, since there were insufficient data for those counties to produce estimates.

³ Of Spanish speakers in the Central Coast, 66% of those 5 to 17 years of age speak English very well, while 41% of those 18-64 years of age and 29% of those 65 years of age and older have similar English language skills (Census, 2010).

⁴ In the first analysis and report published in May 2012, the reported share of Central Coast Area RNs that speak Spanish failed to account for RNs who only speak English. The accurate share of all Central Coast RNs that speak Spanish – regardless of how many languages they speak – is 11%, as reported here.

⁵ These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

of Central Coast RNs speak an Asian language other than Tagalog, non-Filipino Asians are overrepresented in the RN workforce in comparison to the patient population in the region and the small share of non-Filipino Asians in this region speaks English well⁶. These data suggest that recruiting RNs with Asian language skills is not a high priority for this region.

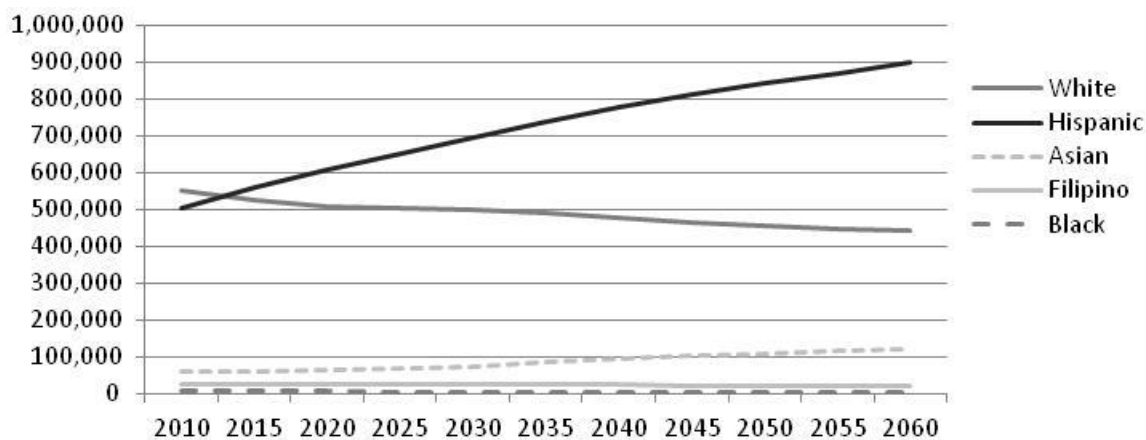
The data shown thus far illustrate that Hispanic and Black RNs are currently underrepresented in comparison to the population. The racial composition of new nurses graduating from the Central Coast's RN programs and lower graduation rates among Hispanic and Black RN students suggest that these disparities will continue over the next several years. Spanish language skills of non-Hispanic RNs may provide some culturally competent care for Hispanic patients, but the difference in racial composition between the population and the nursing workforce remains.

Population Projections

Current data show that Hispanics and Blacks are underrepresented in the nursing workforce in the region. Projecting the racial composition of RNs and the general population over the next 50 years allows us to show how these populations may change over time and whether additional steps to increase the diversity of the nursing workforce should be prioritized.

Population projections⁷ provided by the California Department of Finance suggest that the number of Hispanics in the Central Coast is projected to grow dramatically over the next fifty years. Before 2015, the number of Hispanics in the Central Coast is projected to equal and then surpass the number of Whites in the region.

Chart 6. Projected Racial Composition of the Central Coast's Population, 2010-2060



Source: CA Department of Finance

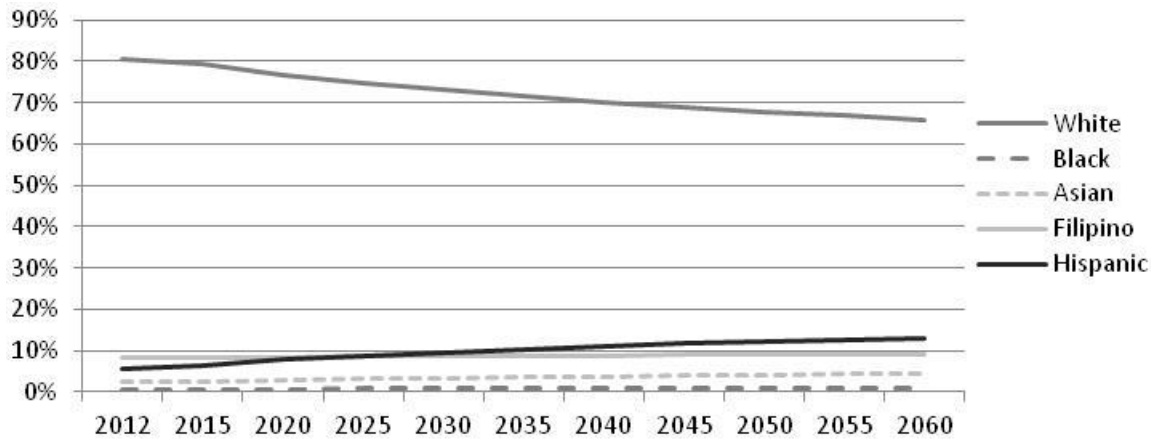
⁶ Of Asian or Pacific Island language speakers in California, 60% of those 5 to 17 years of age speak English very well, while 57% of those 18-64 years of age and 47% of those 65 years of age and older have the similar English language skills (Census, 2010).

⁷ Native Americans and those of other undefined racial/ethnic groups comprise less than 5% of the current general population and nursing workforce in the region. Since these racial/ethnic groups show little change within the next 50 years, these groups were excluded from the charts and tables in this section of the report.

Chart 7 shows small increases in diversity of the Central Coast's RN workforce over the next 50 years, with Whites still comprising more than 60% of the workforce in 2060. These projections suggest that there will continue to be greater diversity in the general population than among nurses in the Central Coast.

Since these projections use past changes in diversity among nursing school graduates and graduation rates by race to predict future diversity, it is possible that diversity among nursing school graduates may change in ways not reflected in the data. It is also possible that factors not included in the model will add increased diversity to the nursing workforce.

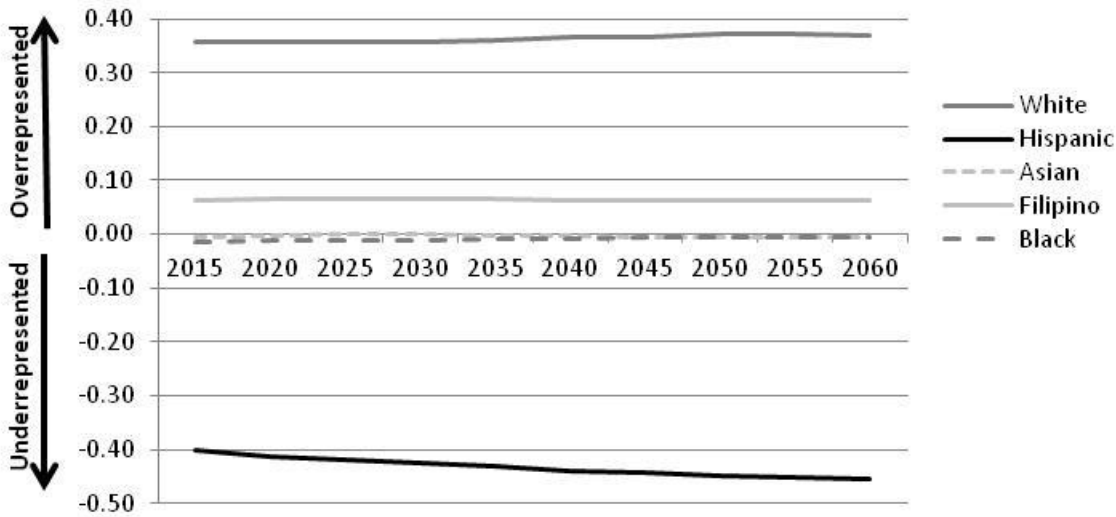
Chart 7. Projected Racial Composition of Central Coast RNs, 2012-2060



Sources: BRN Survey of RNs, 2012; BRN Annual Schools Report, 2008-2012

When combining the projections of RNs and the general population, the data suggest that Hispanics will continue to be underrepresented in the nursing workforce, Blacks will be slightly underrepresented until 2060, non-Filipino Asians will become slightly underrepresented in 2050, and all other racial groups will be overrepresented in comparison to the general population. Chart 8 shows that Hispanics are less represented in the RN workforce than in the general population and that this disparity is projected to become more pronounced over time.

Chart 8. Projected Difference between RNs and the General Population by Race, Central Coast, 2015-2060



Sources: BRN Survey of RNs 2012; BRN Annual Schools Survey; CA Department of Finance 2010

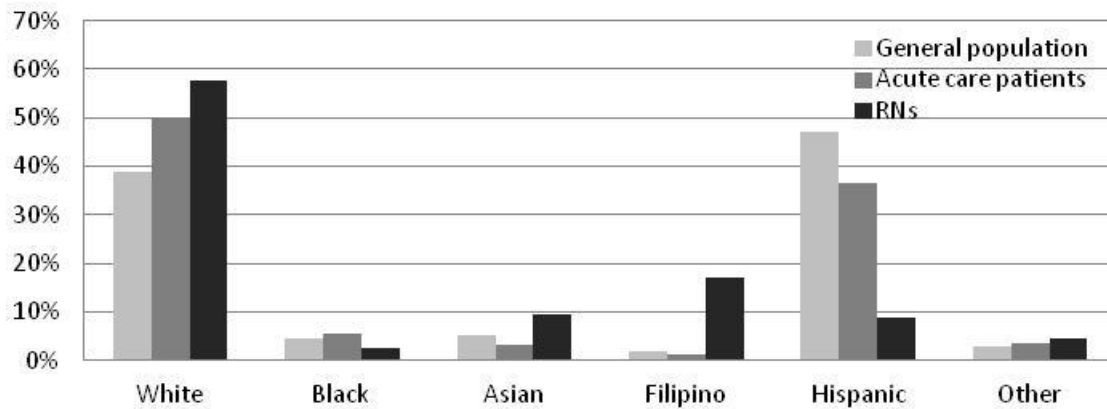
Central Valley

The Central Valley represents Alpine, Amador, Calaveras, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, San Joaquin, Stanislaus, Tulare and Tuolumne counties.

Current Data

Chart 1 shows the overrepresentation of White, Asian, Filipino and Other RNs and the underrepresentation of Black and Hispanic RNs in comparison to both the patient population and the general population.

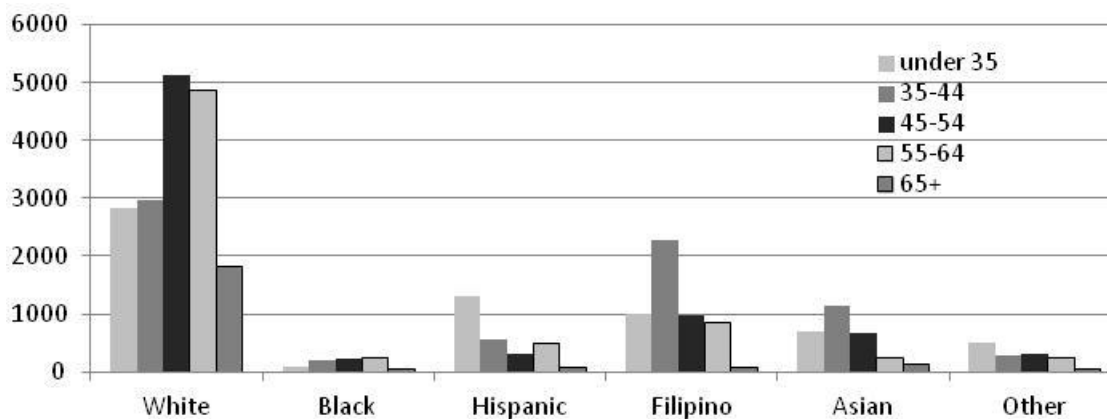
Chart 1. Racial Composition, Central Valley



Sources: Census, 2010; OSHPD Patient Discharge Data, 2010; BRN Survey of RNs, 2012

With the majority of White RNs older than 44 years of age, and larger numbers of younger RNs in other racial groups, these data show an increased diversity among younger nurses.

Chart 2. Racial Composition of RNs by Age, Central Valley, 2012



Source: BRN Survey of RNs 2012

The overall employment rate of Central Valley nurses under the age of 55 has decreased slightly since 2010 (from 96% in 2010 to 93% in 2012). While all Blacks reported being employed in 2010 and 2012, Hispanics reported a 15 percentage point decline in employment rate during the same time period, resulting in the lowest employment rate (83%) of any racial group in 2012. Improving employment rates for Hispanics may help address the gap between Hispanics in the nursing workforce and those in the general population.

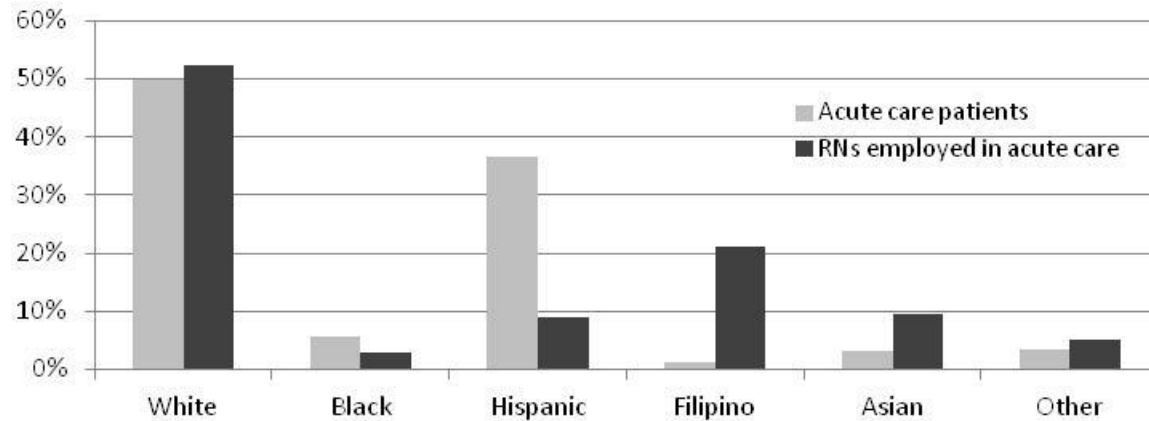
Table 1. Share of Central Valley RNs Less than 55 Years of Age Working in Nursing, by Race

Race	2010	2012
White	96%	92%
Black	100%	100%
Hispanic	98%	83%
Filipino	98%	96%
Asian	91%	96%
Other	100%	93%
Total	96%	93%

Source: BRN Survey of RNs, 2010 & 2012

Since the majority of RNs work in the acute care setting, taking a closer look at this setting shows a much greater share of Hispanic acute care patients than nurses working in that setting and a slightly greater share of Blacks.

Chart 3. Racial Distribution of Acute Care Patients and RNs Employed in Acute Care, Central Valley



Sources: OSHPD Patient Discharge Data 2010, BRN Surveys of RNs 2012

Student data from RN programs provide insight into the diversity of new nurses. There has been an overall increase in diversity among RN graduates in the Central Valley since 2003, suggesting an increase in diversity among nurses over time. Table 2 shows an increase in the share of non-Filipino Asians and those of other undisclosed racial groups and a slight increase in the share of Blacks completing RN programs in the region.

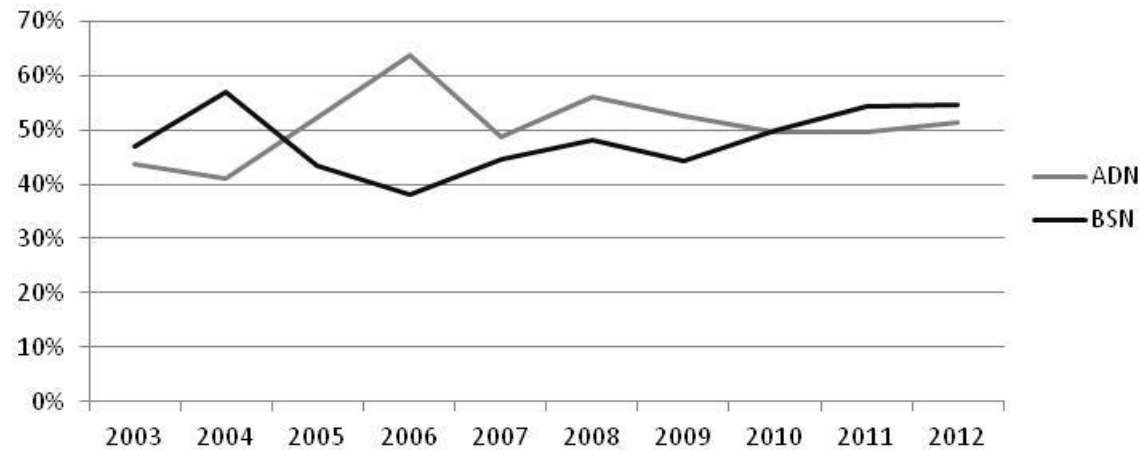
Table 2. Racial Composition of the Central Valley's RN Program Graduates, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	9%	12%	10%	11%	11%	19%	12%	14%	13%	17%
Black	3%	6%	5%	7%	3%	3%	5%	4%	4%	6%
Filipino	8%	7%	9%	11%	8%	8%	10%	9%	7%	5%
Hispanic	23%	18%	26%	26%	26%	23%	25%	22%	26%	23%
White	56%	56%	50%	43%	52%	45%	48%	47%	46%	43%
Other race	1%	1%	0%	2%	0%	1%	1%	5%	4%	6%
Ethnic Minorities	44%	44%	50%	57%	48%	55%	52%	53%	54%	57%

Source: BRN Annual School Report, 2003-2012

Chart 4 shows that BSN programs have been responsible for the increased diversity among new RN graduates in the region since 2006.

Chart 4. Ethnic Minorities among the Central Valley's RN Program Graduates by Degree Earned, 2003-2012



Source: BRN Annual Schools Report, 2003-2012

Looking at new student enrollments shows an increase in diversity since 2005. Over the past four years, the share of non-Filipino Asians and those of other undisclosed races have increased, while the shares of Hispanics and Blacks have remained relatively constant and the shares of Filipinos and Whites have decreased.

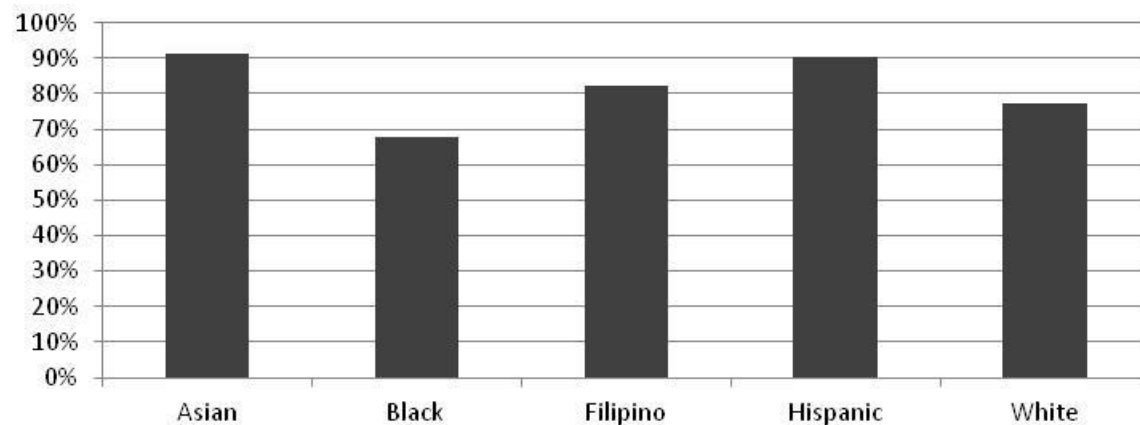
Table 3. Racial Composition of New Student Enrollments in the Central Valley's RN Programs, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	9%	10%	12%	14%	14%	11%	13%	12%	14%	16%
Black	5%	5%	4%	6%	5%	6%	6%	5%	6%	5%
Filipino	9%	9%	7%	12%	10%	7%	8%	6%	7%	4%
Hispanic	22%	24%	23%	21%	22%	24%	25%	24%	25%	23%
White	53%	52%	52%	47%	49%	51%	47%	46%	44%	43%
Other race	1%	1%	1%	1%	1%	1%	1%	7%	4%	8%
Ethnic Minorities	47%	48%	48%	53%	51%	49%	53%	54%	56%	57%

Source: BRN Annual School Report, 2003-2012

The five-year average completion rates¹ by race indicate that Hispanic students in the Central Valley had an average completion rate of 90%, a higher rate than Black, White and Filipino students in the region. These data suggest that increased Hispanic enrollments will likely lead to comparable shares of Hispanic RN graduates. Improving lower completion rates among Blacks may help further increase the diversity among RN graduates.

Chart 5. Average RN Program Completion Rate by Race, Central Valley, 2008-2012



Source: BRN Annual Schools Report, 2008-2012

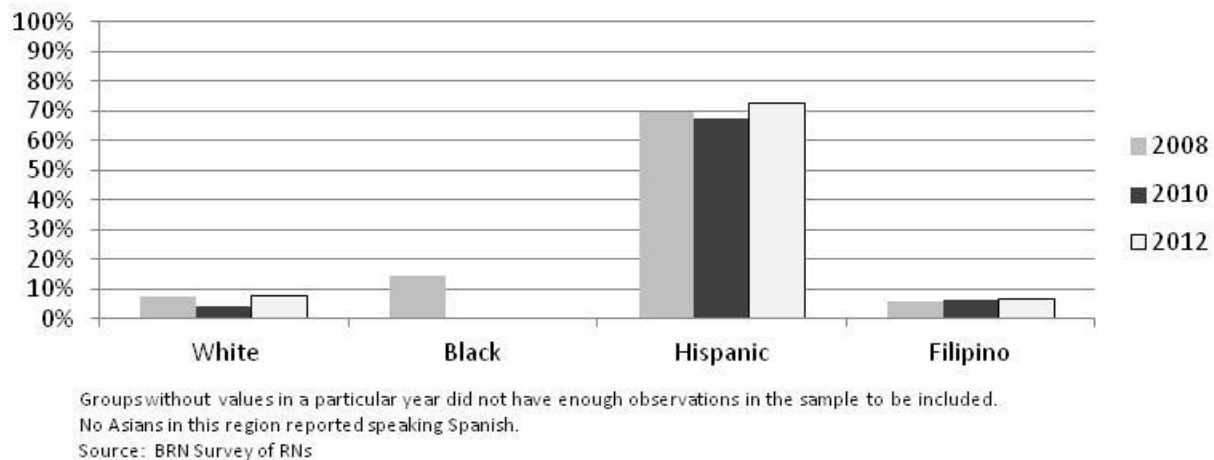
Although the racial composition of RNs may not match the population, language abilities of RNs indicate whether nurses can provide some aspects of culturally competent care, regardless of race.

¹ Since student-level data are unavailable, completion rates are calculated using total new student enrollments and completions by race, and it is assumed that it takes a newly enrolled nursing student two years to complete the program.

Data from the 2010 Census indicate that 34% of people in the Central Valley speak Spanish at home and that 54% of these Spanish speakers also speak English very well.² On average, younger Spanish speakers have better English language skills than their older counterparts³, suggesting that Spanish language skills among RNs may become less of a concern in providing culturally competent care to Hispanics over time.

Chart 6 shows that the majority of Central Valley RNs fluent in Spanish identify as Hispanic and that the shares of Hispanic, White and Filipino RNs fluent in Spanish are at their highest levels since 2008. However, no Black RNs reported Spanish language fluency in 2010 or 2012, and the overall share of Central Valley RNs that speak Spanish has remained around 12% over this time period (12.5% in 2008, 11.6% in 2010 and 12.8% in 2012).⁴ With only 15% of Central Valley RNs identifying as Hispanic or fluent in Spanish and 47% of the population in the region identifying as Hispanic in 2012, Spanish language skills among RNs in the region do not compensate for the underrepresentation of Hispanics in the nursing workforce in comparison to the population.

Chart 6. Share of Central Valley RNs Fluent in Spanish



² These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data. Central Valley estimates do not include Alpine, Amador, Calaveras, Inyo, Madera, Mariposa, Mono or Tuolumne counties, since there were insufficient data for those counties to produce estimates.

³ Of Spanish speakers in the Central Valley, 76% of those 5 to 17 years of age speak English very well, while 47% of those 18-64 years of age and 37% of those 65 years of age and older have similar English language skills (Census, 2010).

⁴ In the first analysis and report published in May 2012, the reported share of Central Valley RNs that speak Spanish failed to account for RNs who only speak English. The accurate share of all Central Valley RNs that speak Spanish – regardless of how many languages they speak – is 12%, as reported here.

Data from the 2010 Census also indicate that 5% of people in the Central Valley speak an Asian or Pacific Island language at home and that 55% of them also speak English very well.⁵ Since 7% of Central Valley RNs speak an Asian language other than Tagalog, and the small share of non-Filipino Asians in the region speaks English well⁶, the data suggest that recruiting RNs with Asian language skills is not a high priority for this region.

The data shown thus far illustrate that Hispanic and Black RNs are currently underrepresented in comparison to the population in the region. With little change in the shares of Hispanics enrolling in and completing RN programs in the Central Valley over the last few years, the high completion rates for Hispanic nursing students and the large share of fluent Spanish speakers in the region are unlikely to bridge the gap in representation of Hispanics in the nursing workforce. Spanish language skills of non-Hispanic RNs may provide some culturally competent care for Hispanic patients, but the difference in racial composition between the population and the nursing workforce remains.

As with Hispanics, representation of Blacks among new nursing students and nursing program graduates in the region has remained relatively constant over the past five years. These data in combination with the historically low completion rates of Blacks attending RN programs in the region suggest that Blacks will continue to be underrepresented in the nursing workforce in the region over the next several years.

⁵ These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

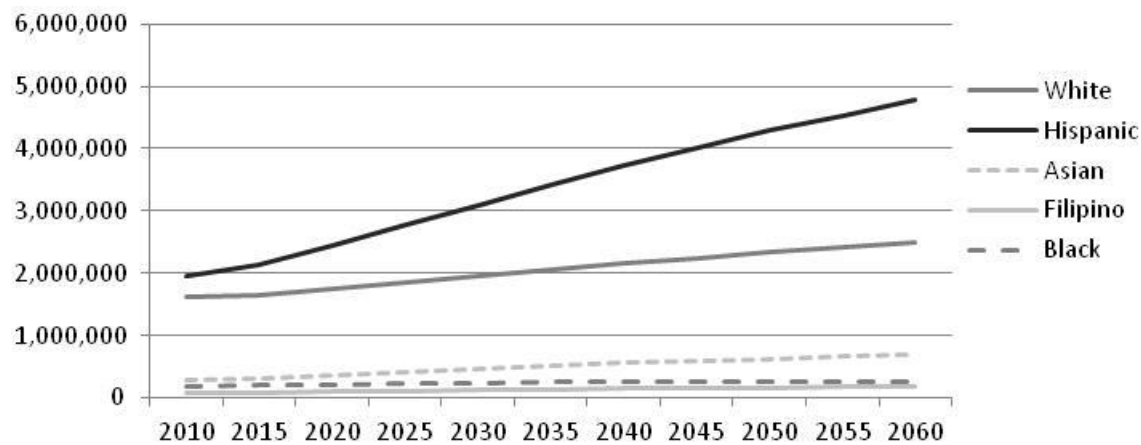
⁶ Of Asian or Pacific Island language speakers in the Central Valley, 72% of those 5 to 17 years of age speak English very well, while 54% of those 18-64 years of age and 30% of those 65 years of age and older have the similar English language skills (Census, 2010).

Population Projections

Current data show that Hispanics and Blacks are underrepresented in the nursing workforce. Projecting the racial composition of RNs and the general population over the next 50 years allows us to show how these populations may change over time and whether additional steps to increase the diversity of the nursing workforce should be prioritized.

Population projections⁷ provided by the California Department of Finance suggest that the number of Hispanics in the Central Valley is projected to grow dramatically over the next fifty years. Chart 7 shows that the number of Hispanics in the Central Valley has already surpassed the number of Whites in the region.

Chart 7. Projected Racial Composition of the Central Valley's Population, 2010-2060



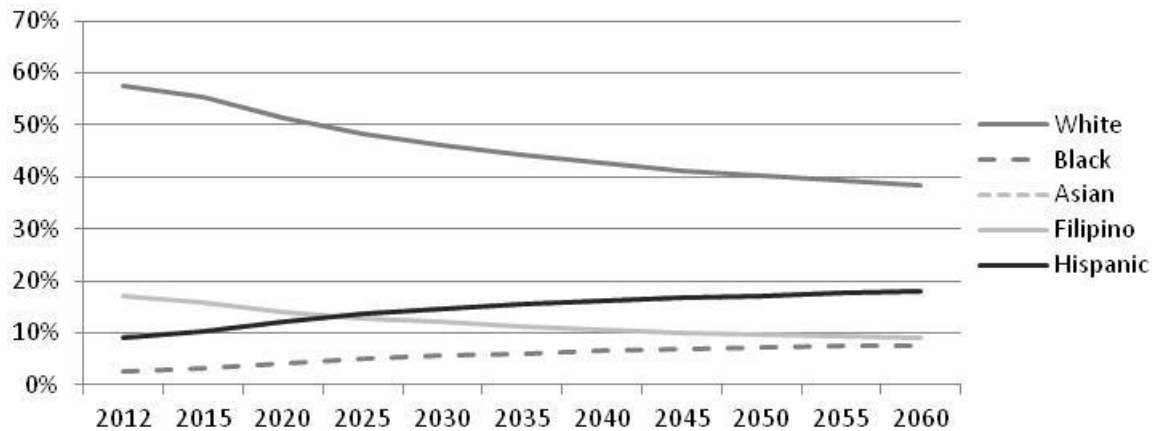
Source: CA Department of Finance

⁷ Native Americans and those of other undefined racial/ethnic groups comprise less than 5% of the current general population and nursing workforce in the region. Since these racial/ethnic groups show little change within the next 50 years, these groups were excluded from the charts and tables in this section of the report.

The RN workforce in California is projected to become more diverse over the next 50 years, as the share of White and Filipino nurses decrease and the share of Asian and Hispanic nurses increase⁸. However, these projections suggest that there will continue to be greater diversity in the general population than among California nurses.

Since these projections use past changes in diversity among nursing school graduates and graduation rates by race to predict future diversity, it is possible that diversity among nursing school graduates may change in ways not reflected in the data. It is also possible that factors not included in the model will add increased diversity to the nursing workforce.

Chart 8. Projected Racial Composition of Central Valley RNs, 2012-2060

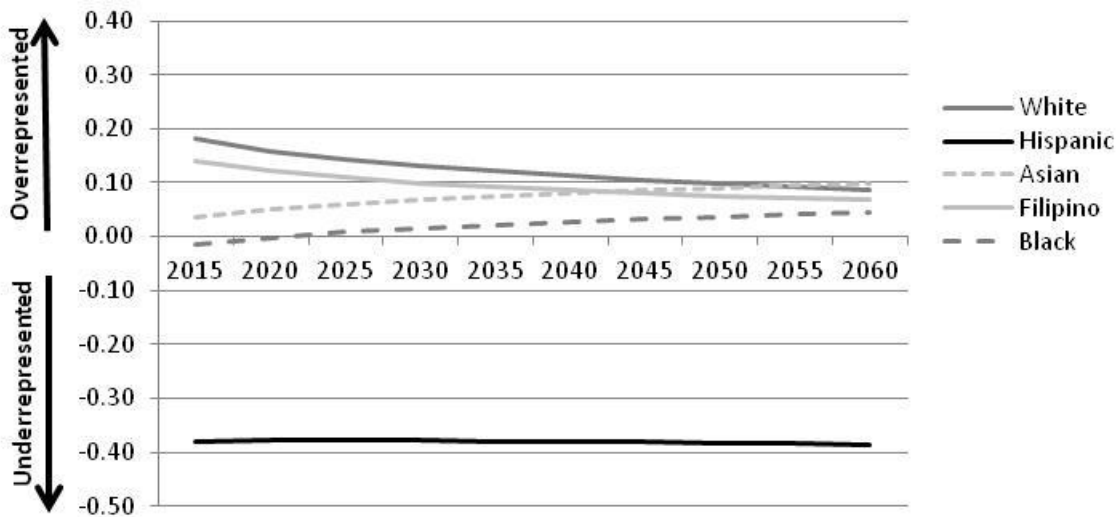


Sources: BRN Survey of RNs, 2012; BRN Annual Schools Report, 2008-2012

⁸ Asian and Hispanic nurses have the same expected growth rate over the next 50 years. Therefore, the Asian and Hispanic lines in Chart 8 overlap.

When combining the projections of RNs and the general population, the data suggest that Hispanics will continue to be underrepresented in the nursing workforce, Blacks will become equally represented by 2020, and all other racial groups will be overrepresented in comparison to the general population.

Chart 9. Projected Difference between RNs and the General Population by Race, Central Valley, 2015-2060



Sources: BRN Survey of RNs 2012; BRN Annual Schools Survey; CA Department of Finance 2010

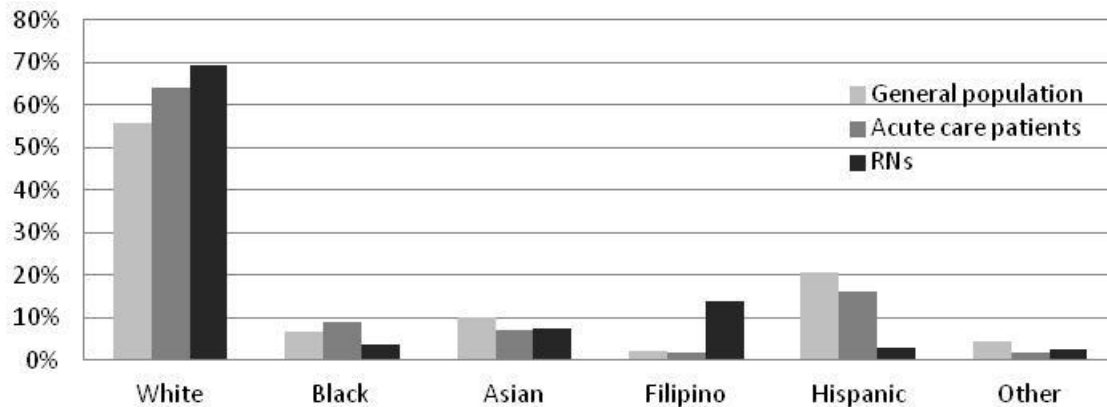
Greater Sacramento

Greater Sacramento represents El Dorado, Placer, Sacramento, Sutter, Yolo and Yuba counties.

Current Data

Chart 1 shows the overrepresentation of White and Filipino RNs and the underrepresentation of Black and Hispanic RNs in comparison to both the patient population and the general population. Asian RNs and RNs of other undisclosed racial groups are slightly overrepresented in the patient population but underrepresented in comparison to the general population.

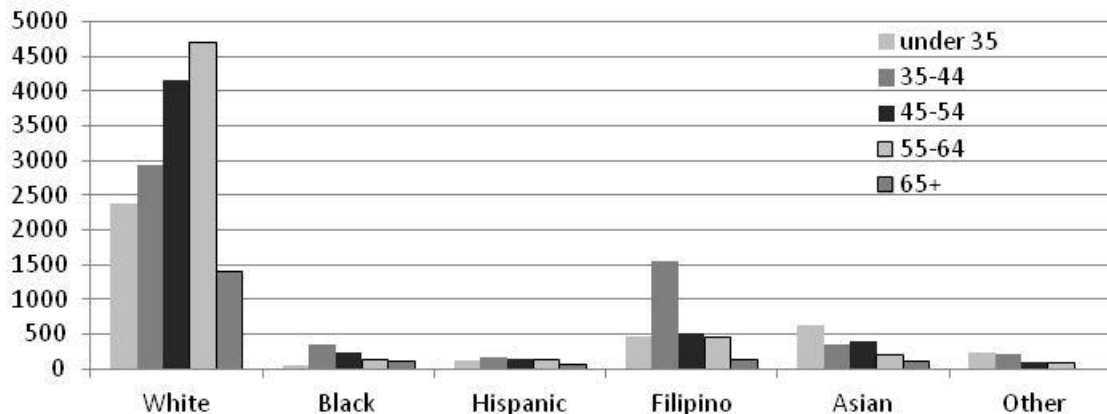
Chart 1. Racial Composition, Greater Sacramento



Sources: Census, 2010; OSHPD Patient Discharge Data, 2010; BRN Survey of RNs, 2012

With the majority of White RNs older than 44 years of age, and larger numbers of younger RNs in other racial groups, these data show an increased diversity among younger nurses.

Chart 2. Racial Composition of RNs by Age, Greater Sacramento, 2012



Source: BRN Survey of RNs 2012

While the overall employment rate of Greater Sacramento nurses under the age of 55 has decreased slightly since 2010 (from 94% in 2010 to 92% in 2012), employment rates of Black and Hispanic nurses increased during the same time period, to 100% and 93% respectively. In 2012, the employment rate among Asian RNs (85%) was the lowest of any racial group in the region. Higher employment rates among Black and Hispanic RNs may help shrink the gap between Blacks and Hispanics in the nursing workforce and those in the general population. Increasing the employment rate among Asian RNs and RNs of other undisclosed racial groups may help address the gap between non-Filipino Asians in the nursing workforce and those in the general population.

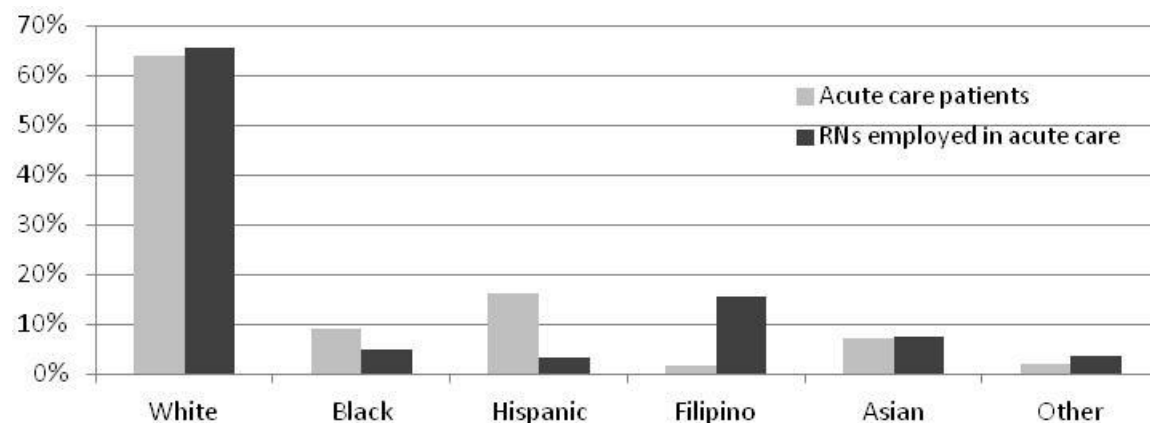
Table 1. Share of Central Valley RNs Less than 55 Years of Age Working in Nursing, by Race

Race	2010	2012
White	92%	92%
Black	95%	100%
Hispanic	87%	93%
Filipino	100%	95%
Asian	94%	85%
Other	100%	89%
Total	94%	92%

Source: BRN Survey of RNs, 2010 & 2012

Since the majority of RNs work in the acute care setting, taking a closer look at this setting shows a greater share of Hispanic and Black acute care patients than nurses working in that setting.

Chart 3. Racial Distribution of Acute Care Patients and RNs Employed in Acute Care, Greater Sacramento



Sources: OSHPD Patient Discharge Data 2010, BRN Surveys of RNs 2012

Student data from RN programs provide insight into the diversity of new nurses. Overall racial diversity among RN program graduates in Greater Sacramento has been at its highest over the last three years.¹ While the shares of non-Filipino Asians and those of other undefined races have increased over time, the shares of other ethnic minorities have declined.

Table 2. Racial Composition of the Greater Sacramento's RN Program Graduates, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	8%	10%	9%	8%	11%	10%	13%	12%	8%	12%
Black	6%	4%	4%	5%	3%	5%	3%	5%	6%	5%
Filipino	7%	8%	7%	9%	9%	12%	5%	6%	8%	3%
Hispanic	11%	7%	10%	8%	9%	9%	8%	7%	10%	8%
White	66%	71%	70%	68%	65%	63%	71%	59%	62%	60%
Other race	1%	1%	1%	2%	2%	0%	1%	12%	6%	12%
Ethnic Minorities	34%	29%	30%	32%	35%	37%	29%	41%	38%	40%

Source: BRN Annual School Report, 2003-2012

Table 3 shows that diversity among new students in RN programs increased from 2004 to 2008, decreased in 2010 and 2011, and increased again in 2012. The shares of Asian and Black students and those of other undisclosed races enrolling in RN programs are the highest in ten years, while the shares of Filipino and Hispanic students have decreased.

Table 3. Racial Composition of New Student Enrollments in Greater Sacramento's RN Programs, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	8%	11%	11%	13%	15%	12%	15%	7%	10%	18%
Black	5%	5%	5%	6%	6%	4%	6%	5%	6%	8%
Filipino	9%	6%	9%	9%	11%	18%	10%	7%	6%	1%
Hispanic	12%	11%	9%	10%	8%	11%	11%	6%	8%	7%
White	65%	66%	65%	62%	59%	55%	56%	69%	65%	59%
Other race	1%	1%	1%	1%	1%	1%	1%	6%	5%	7%
Ethnic Minorities	35%	34%	35%	38%	41%	45%	46%	31%	35%	41%

Source: BRN Annual School Report, 2003-2012

Although the racial composition of RNs may not match the population, language abilities of RNs indicate whether nurses can provide some aspects of culturally competent care, regardless of race.

Data from the 2010 Census indicate that 13% of people in Greater Sacramento speak Spanish at home and that 58% of these Spanish speakers also speak English very well.² On average, younger Spanish speakers

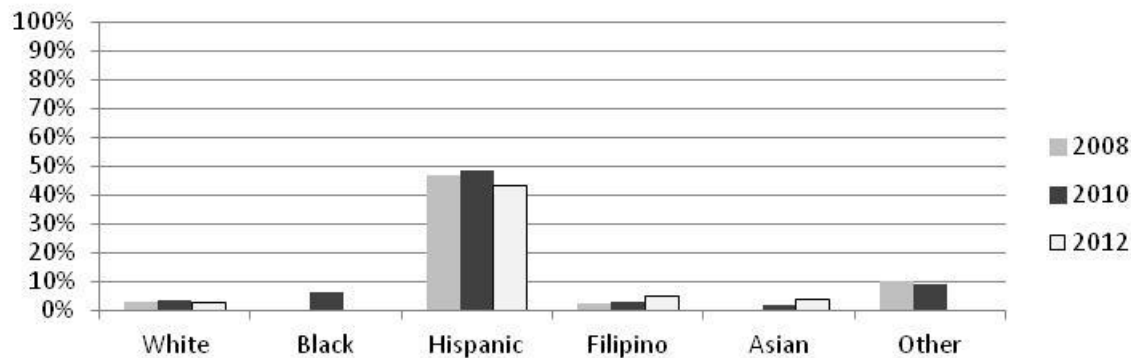
¹ Since race was not reported, or was reported as "other race", for a large share of students in this region over the last four years, 5-year average completion rates by race were considered unreliable and are not included.

² These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data. Greater Sacramento estimates do not include El Dorado, Sutter or Yuba counties, since there were insufficient data for those counties to produce estimates.

have better English language skills than their older counterparts³, suggesting that Spanish language skills among RNs may become less of a concern in providing culturally competent care to Hispanics over time.

Chart 4 shows that the majority of Greater Sacramento RNs fluent in Spanish identify as Hispanic and that the shares of Hispanics, Whites, and RNs of other undisclosed races fluent in Spanish are at their lowest levels since 2008. No Black RNs reported Spanish language fluency in 2008 or 2012, and the overall share of Greater Sacramento RNs that speak Spanish has remained around 5% over this time period (4% in 2008, 5% in 2010 and 4% in 2012).⁴ With only 6% of Greater Sacramento RNs identifying as Hispanic or fluent in Spanish and 21% of the population in the region identifying as Hispanic in 2012, Spanish language skills among RNs in the region do not compensate for the underrepresentation of Hispanics in the nursing workforce in comparison to the population.

Chart 4. Share of Greater Sacramento RNs Fluent in Spanish



Groups without values in a particular year did not have enough observations in the sample to be included.
Source: BRN Survey of RNs

Data from the 2010 Census indicate that 8% of people in Greater Sacramento speak an Asian or Pacific Island language at home and that 53% of them also speak English very well.⁵ On average, those of younger age groups have better English language skills than their older counterparts⁶, suggesting that Asian or Pacific Island language skills among RNs may become less of a concern in providing culturally competent care to non-Filipino Asians over time. In addition, the share of Greater Sacramento RNs fluent in an Asian language other than Tagalog has increased from 3% in 2008 to 5% in 2012. These data suggest that the

³ Of Spanish speakers in Greater Sacramento, 76% of those 5 to 17 years of age speak English very well, while 54% of those 18-64 years of age and 39% of those 65 years of age and older have similar English language skills (Census, 2010).

⁴ In the first analysis and report published in May 2012, the reported share of Greater Sacramento RNs that speak Spanish failed to account for RNs who only speak English. The accurate share of all Greater Sacramento RNs that speak Spanish – regardless of how many languages they speak – is 6%, as reported here.

⁵ These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

⁶ Of Asian or Pacific Island language speakers in Greater Sacramento, 70% of those 5 to 17 years of age speak English very well, while 54% of those 18-64 years of age and 30% of those 65 years of age and older have the similar English language skills (Census, 2010).

increased fluency in Asian languages among RNs combined with the better English language skills among younger non-Filipino Asians may improve culturally competent care for non-Filipino Asian patients.

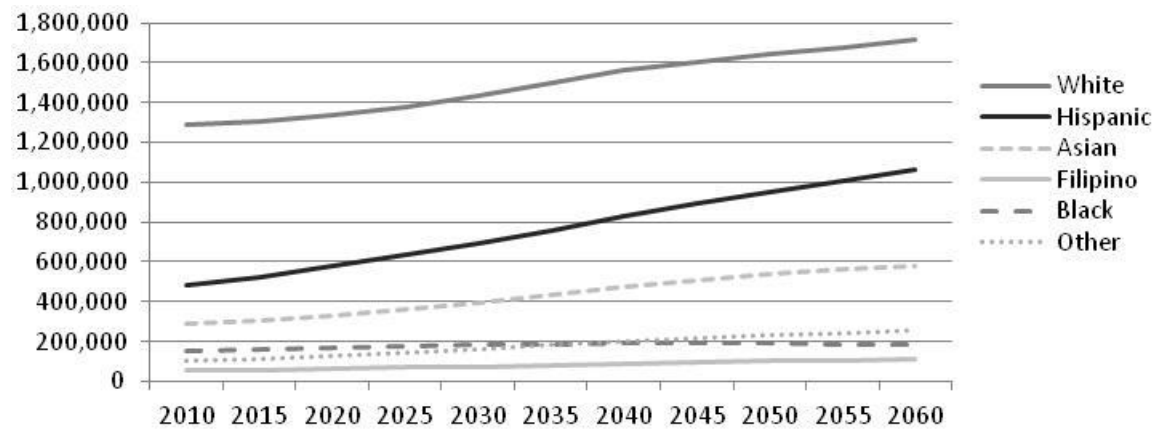
The data shown thus far illustrate that Black, Hispanic, Asian and RNs of other undisclosed races are underrepresented in comparison to the general population in Greater Sacramento. Racial composition of new nurses graduating from Greater Sacramento RN programs and recent RN student enrollments in these programs suggest that these disparities will continue over the next several years. Spanish language skills of non-Hispanic RNs may provide some culturally competent care for Hispanic patients, but the difference in racial composition between the population and the nursing workforce remains.

Population Projections

Current data show that Hispanics and Blacks are underrepresented in the nursing workforce in comparison to the patient population in Greater Sacramento. Projecting the racial composition of RNs and the general population over the next 50 years allows us to show how these populations may change over time and whether additional steps to increase the diversity of the nursing workforce should be prioritized.

Population projections provided by the California Department of Finance suggest that the number of Hispanics and non-Filipino Asians in Greater Sacramento are projected to grow dramatically over the next fifty years. The number of Whites in the region is also projected to grow and remain greater than the number of Hispanics, while the numbers of those of other undisclosed racial groups are projected to grow moderately and the numbers of Filipinos and Blacks in the region are projected to stay about the same.

Chart 5. Projected Racial Composition of the Greater Sacramento's Population, 2010-2060

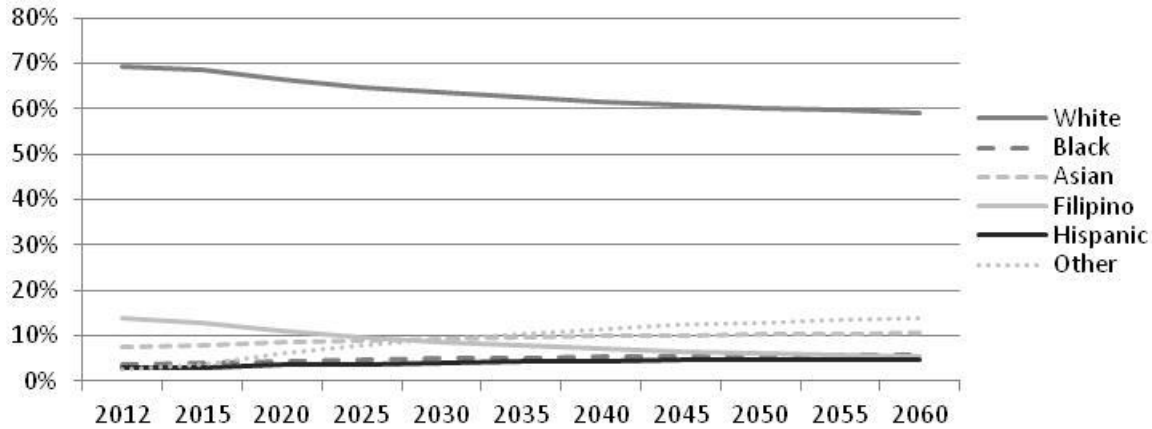


Source: CA Department of Finance

The RN workforce in Greater Sacramento is projected to become more diverse, with increases in the share of non-Filipino Asians and those of other undisclosed racial groups, moderate increases among Blacks and Hispanics, and decreases in the shares of White and Filipino nurses. However, these projections suggest that there will continue to be greater diversity in the general population than among nurses in the region.

Since these projections use past changes in diversity among nursing school graduates and graduation rates by race to predict future diversity, it is possible that diversity among nursing school graduates may change in ways not reflected in the data. It is also possible that factors not included in the model will add increased diversity to the nursing workforce.

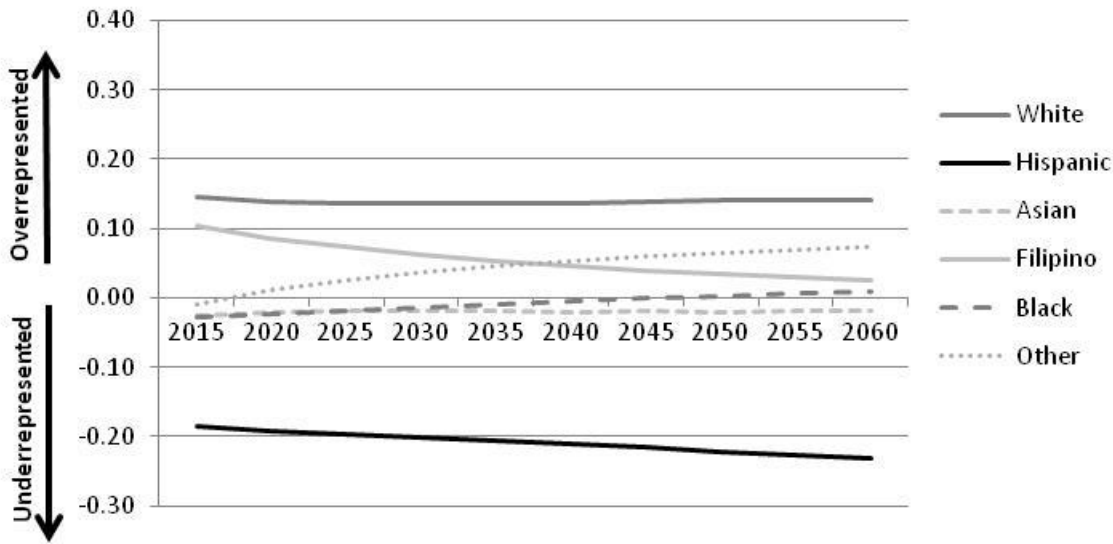
Chart 6. Projected Racial Composition of Greater Sacramento RNs, 2012-2060



Sources: BRN Survey of RNs, 2012; BRN Annual Schools Report, 2008-2012

When combining the projections of RNs and the general population, the data in Chart 7 suggest that Hispanics will continue to be underrepresented – and become more underrepresented – in the nursing workforce over time, Blacks will become equally represented by 2040, non-Filipino Asians will remain slightly underrepresented, Filipinos will become more equally represented and those of other undisclosed races will become more overrepresented in comparison to the general population.

Chart 7. Projected Difference between RNs and the General Population by Race, Greater Sacramento, 2015-2060



Sources: BRN Survey of RNs 2012; BRN Annual Schools Survey; CA Department of Finance 2010

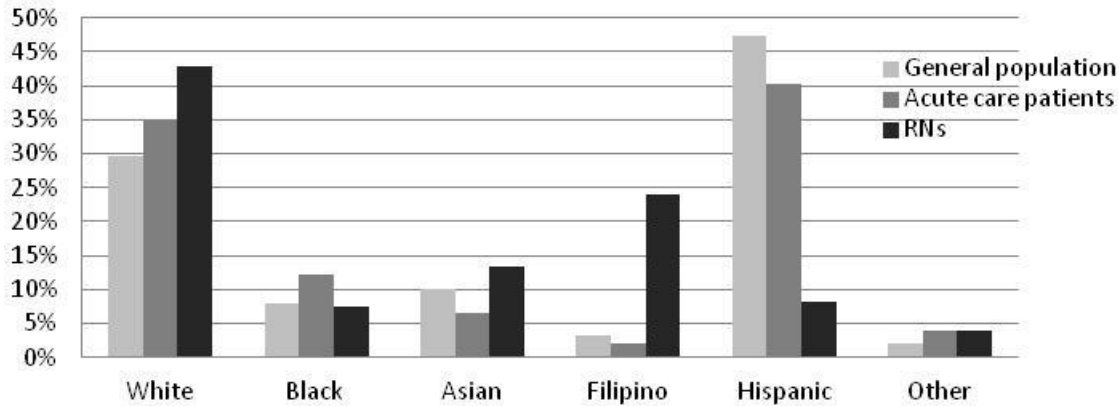
Los Angeles Area

The Los Angeles Area represents Los Angeles and Ventura counties.

Current Data

Chart 1 shows the overrepresentation of White, Asian and Filipino RNs, a slight underrepresentation of Black RNs and a large underrepresentation of Hispanic RNs in comparison to both the patient population and the general population.

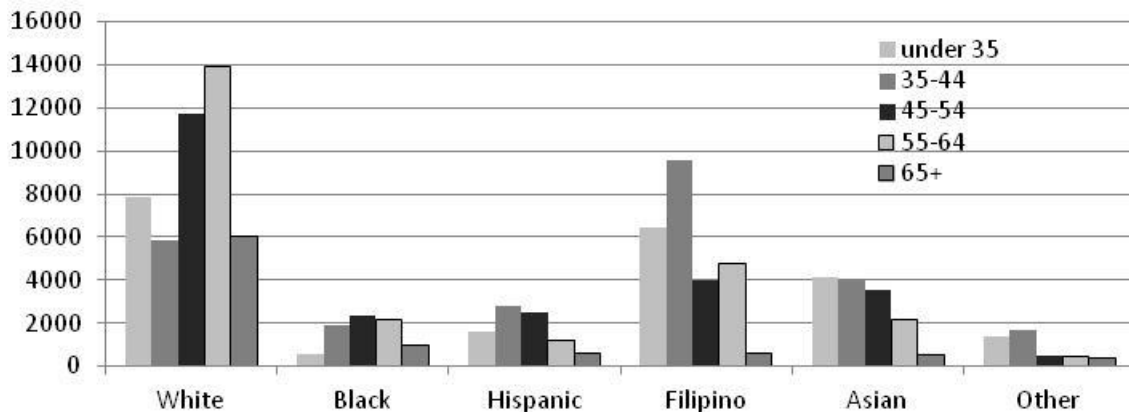
Chart 1. Racial Composition, Los Angeles Area



Sources: Census, 2010; OSHPD Patient Discharge Data, 2010; BRN Survey of RNs, 2012

While the majority of White RNs are older than 44 years of age and there is increased diversity among younger nurses in the Los Angeles Area, the number of Hispanic and Black RNs remains low in comparison to the general population of the region.

Chart 2. Racial Composition of RNs by Age, Los Angeles Area, 2012



Source: BRN Survey of RNs 2012

The overall employment rate of Los Angeles Area nurses under the age of 55 has decreased slightly since 2010 (from 92% in 2010 to 89% in 2012). Employment rates among all racial groups except non-Filipino Asians decreased during this time period. In 2012, the employment rates were highest among Asian (93%) and Black (92%) RNs and lowest among Whites (88%), Hispanics (88%) and RNs of other undisclosed racial groups (88%). Higher employment rates among Black and Hispanic RNs may help shrink the gap between Blacks and Hispanics in the nursing workforce and those in the general population.

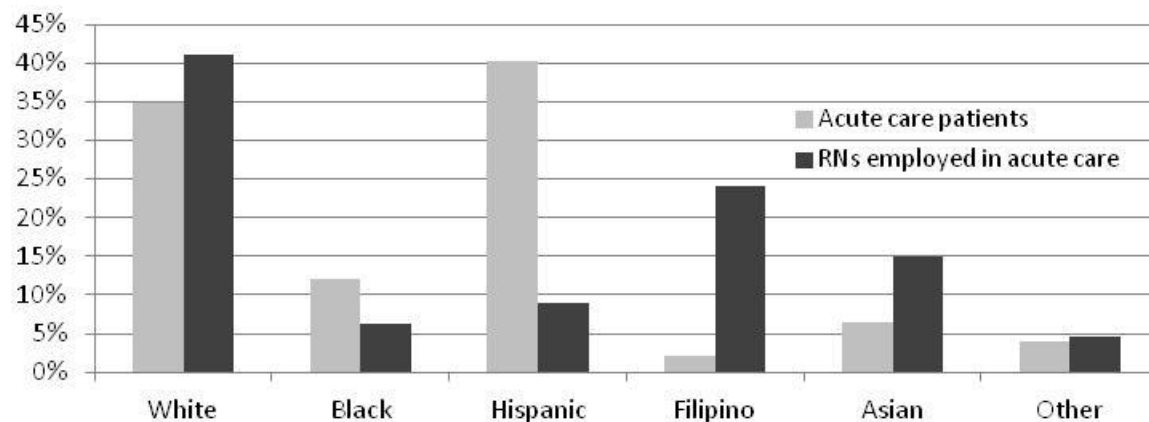
Table 1. Share of Los Angeles RNs Less than 55 Years of Age Working in Nursing, by Race

Race	2010	2012
White	89%	88%
Black	100%	92%
Hispanic	94%	88%
Filipino	95%	89%
Asian	89%	93%
Other	91%	88%
Total	92%	89%

Source: BRN Survey of RNs, 2010 & 2012

Since the majority of RNs work in the acute care setting, taking a closer look at this setting shows a greater share of Black and Hispanic acute care patients than nurses working in that setting.

Chart 3. Racial Distribution of Acute Care Patients and RNs Employed in Acute Care, Los Angeles Area



Sources: OSHPD Patient Discharge Data 2010, BRN Surveys of RNs 2012

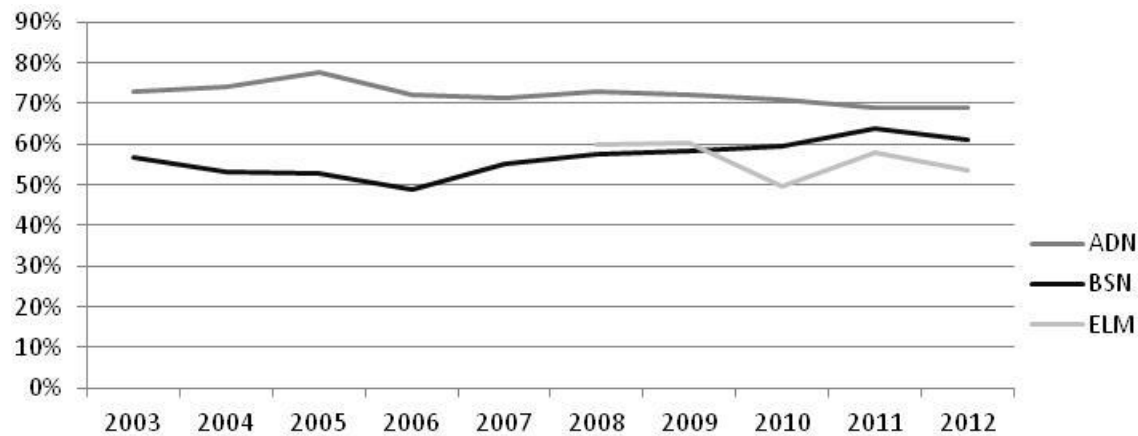
Student data from RN programs provide insight into the diversity of new nurses. Table 2 shows that the share of ethnic minorities among RN program graduates has remained about the same since 2006, but the share of Hispanics and Blacks – the two racial groups most underrepresented in the nursing workforce in comparison to the population – has decreased, while the shares of non-Filipino Asians and those of other undisclosed racial groups have increased. As shown in Chart 4, the increase in diversity in Bachelor (BSN) degree programs since 2005 was offset by declining diversity in Associate (ADN) and Entry-level Master's (ELM) programs.

Table 2. Racial Composition of the Los Angeles Area's RN Program Graduates, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	9%	13%	13%	13%	16%	17%	20%	21%	22%	21%
Black	16%	14%	14%	10%	9%	10%	9%	7%	8%	8%
Filipino	16%	14%	16%	17%	19%	19%	20%	17%	13%	14%
Hispanic	29%	30%	31%	26%	24%	23%	22%	22%	23%	22%
White	30%	30%	26%	32%	32%	31%	29%	30%	31%	32%
Other race	0%	1%	0%	1%	0%	0%	0%	4%	4%	4%
Ethnic Minorities	70%	71%	75%	68%	68%	69%	71%	70%	69%	68%

Source: BRN Annual School Report, 2003-2012

Chart 4. Ethnic Minorities among the Los Angeles Area's RN Program Graduates by Degree Earned, 2003-2012



Source: BRN Annual Schools Report, 2003-2012

Looking at new student enrollments, Table 3 shows that the share of ethnic minorities has stayed relatively constant over the past ten years. During this time, the shares of Hispanics, Blacks and Filipinos have declined, while the shares of non-Filipino Asians and those of other undisclosed racial groups have increased.

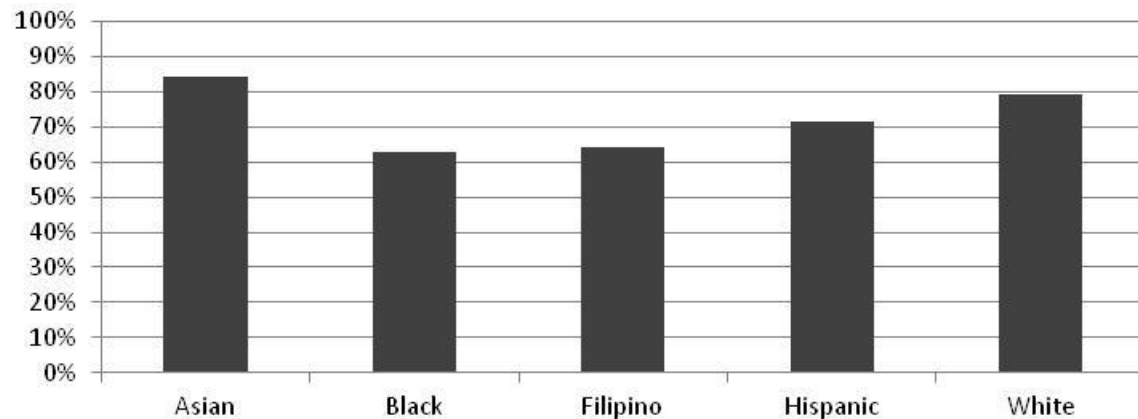
Table 3. Racial Composition of New Student Enrollments in the Los Angeles Area's RN Programs, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	15%	14%	11%	15%	18%	19%	20%	18%	23%	23%
Black	15%	12%	11%	12%	11%	9%	9%	8%	8%	8%
Filipino	15%	17%	22%	19%	20%	19%	19%	18%	14%	14%
Hispanic	27%	26%	23%	25%	23%	23%	24%	22%	21%	21%
White	28%	31%	33%	29%	28%	29%	27%	30%	29%	29%
Other race	0%	0%	0%	0%	0%	0%	0%	3%	3%	4%
Ethnic Minorities	72%	69%	67%	71%	72%	71%	73%	70%	71%	71%

Source: BRN Annual School Report, 2003-2012

The five-year average completion rates¹ by race indicate that a smaller share of Blacks, Filipinos and Hispanics that started nursing programs completed those programs. Addressing lower completion rates may help further increase the diversity among nursing graduates.

Chart 5. Average RN Program Completion Rate by Race, Los Angeles Area, 2008-2012



Source: BRN Annual Schools Report, 2008-2012

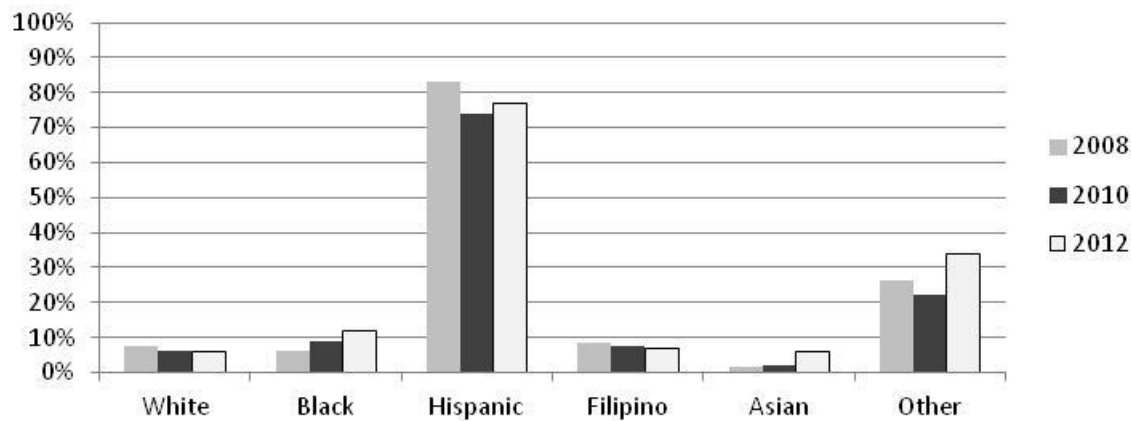
Although the racial composition of RNs may not match the population, language abilities of RNs indicate whether nurses can provide some aspects of culturally competent care, regardless of race.

¹ Since student-level data are unavailable, completion rates are calculated using total new student enrollments and completions by race, and it is assumed that it takes a newly enrolled nursing student two years to complete the program.

Data from the 2010 Census indicate that 39% of people in the Los Angeles Area speak Spanish at home and that 53% of these Spanish speakers also speak English very well.² On average, younger Spanish speakers have better English language skills than their older counterparts³, suggesting that Spanish language skills among RNs may become less of a concern in providing culturally competent care to Hispanics over time.

Chart 6 shows that the majority of Los Angeles Area RNs fluent in Spanish identify as Hispanic and that the shares of Blacks, non-Filipino Asians and RNs of other undisclosed races fluent in Spanish are at their highest levels since 2008. However, the overall share of Los Angeles Area RNs that speak Spanish has remained around 14% over this time period (15% in 2008, 13% in 2010, and 14% in 2012).⁴ With only 16% of Los Angeles Area RNs identifying as Hispanic or fluent in Spanish and 47% of the population in the region identifying as Hispanic in 2012, Spanish language skills among RNs in the region do not compensate for the underrepresentation of Hispanics in the nursing workforce in comparison to the population.

Chart 6. Share of Los Angeles Area RNs Fluent in Spanish



Source: BRN Survey of RNs

Data from the 2010 Census indicate that 10% of people in the Los Angeles Area speak an Asian or Pacific Island language and that 49% of them also speak English very well.⁵ On average, those of younger age groups have better English language skills than their older counterparts⁶, suggesting that Asian or Pacific

² These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

³ Of Spanish speakers in the Los Angeles Area, 79% of those 5 to 17 years of age speak English very well, while 47% of those 18-64 years of age and 27% of those 65 years of age and older have similar English language skills (Census, 2010).

⁴ In the first analysis and report published in May 2012, the reported share of Los Angeles Area RNs that speak Spanish failed to account for RNs who only speak English. The accurate share of all Los Angeles Area RNs that speak Spanish – regardless of how many languages they speak – is 14%, as reported here.

⁵ These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

⁶ Of Asian or Pacific Island language speakers in the Los Angeles Area, 78% of those 5 to 17 years of age speak English very well, while 50% of those 18-64 years of age and 23% of those 65 years of age and older have the similar English language skills (Census, 2010).

Island language skills among RNs may become less of a concern in providing culturally competent to non-Filipino Asians over time. Since 9% of Los Angeles Area RNs speak an Asian language other than Tagalog, and non-Filipino Asians are overrepresented in the nursing workforce, the data suggest that recruiting RNs with Asian language skills is not a priority for this region.

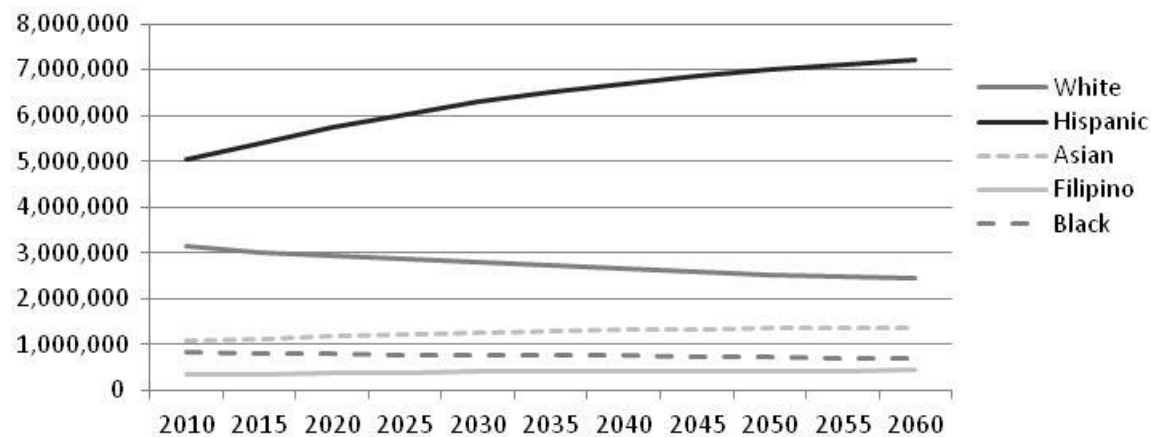
The data shown thus far illustrate that Hispanics are grossly underrepresented in the nursing workforce while Blacks are slightly underrepresented in comparison to the general population in the Los Angeles Area. Racial composition of new nurses graduating from the Los Angeles Area RN programs and recent RN student enrollments in these programs suggest that these disparities will continue over the next several years. Spanish language skills of non-Hispanic RNs may provide some culturally competent care for Hispanic patients, but the difference in racial composition between the population and the nursing workforce remains.

Population Projections

Current data show that Hispanics and Blacks are underrepresented in the nursing workforce. Projecting the racial composition of RNs and the general population over the next 50 years allows us to show how these populations may change over time and whether additional steps to increase the diversity of the nursing workforce should be prioritized.

Population projections⁷ provided by the California Department of Finance suggest that the number of Hispanics in the Los Angeles Area is projected to grow dramatically in the next fifty years, while the number of Whites is projected to decline. The population of all other racial groups is projected to stay about the same.

Chart 7. Projected Racial Composition of the Los Angeles Area's Population, 2010-2060



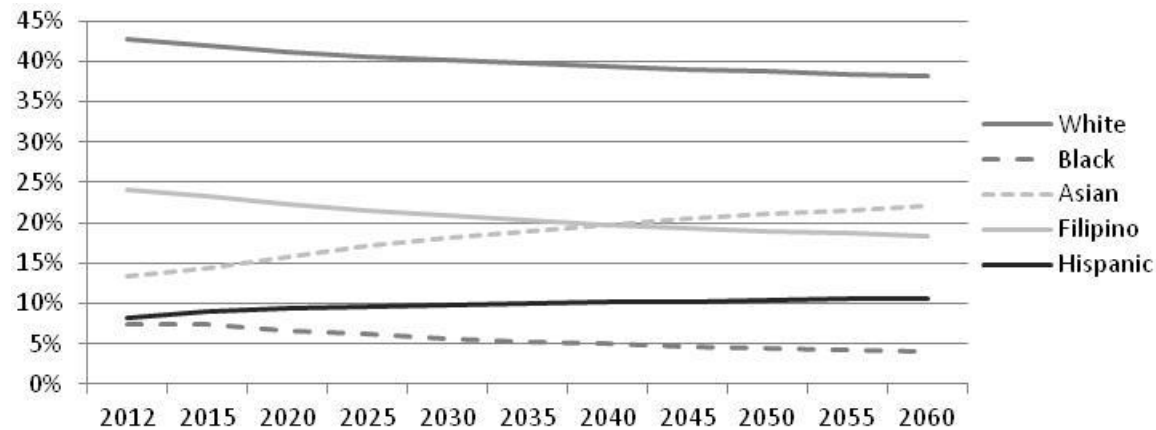
Source: CA Department of Finance

⁷ Native Americans and those of other undefined racial/ethnic groups comprise less than 5% of the current general population and nursing workforce in the region. Since these racial/ethnic groups show little change within the next 50 years, these groups were excluded from the charts and tables in this section of the report.

The RN workforce in the Los Angeles Area is projected to become more diverse, with increasing shares of non-Filipino Asians and decreasing shares of Whites, Filipinos and Blacks. However, these projections suggest that the most underrepresented groups in the nursing workforce in the region – Hispanics and Blacks – will continue to be underrepresented and there will continue to be greater diversity in the general population than among nurses in the region.

Since these projections use past changes in diversity among nursing school graduates and graduation rates by race to predict future diversity, it is possible that diversity among nursing school graduates may change in ways not reflected in the data. It is also possible that factors not included in the model will add increased diversity to the nursing workforce.

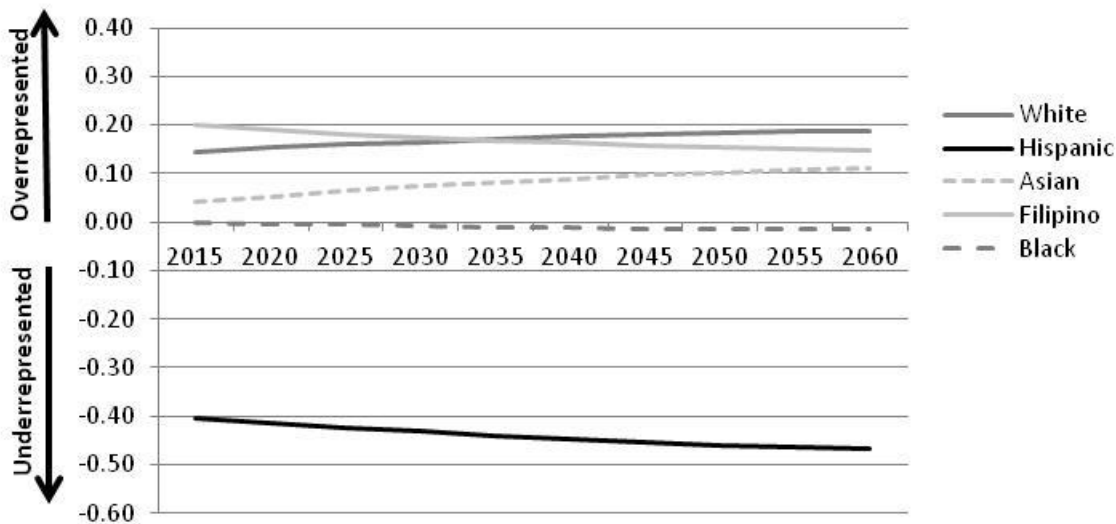
Chart 8. Projected Racial Composition of Los Angeles Area RNs, 2012-2060



Sources: BRN Survey of RNs, 2012; BRN Annual Schools Report, 2008-2012

When combining the projections of RNs and the general population, the data in Chart 9 suggest that Hispanics will continue to be underrepresented – and become more underrepresented – in the nursing workforce over time, while Blacks will remain slightly underrepresented, and all other racial groups will be overrepresented in comparison to the general population.

Chart 9. Projected Difference between RNs and the General Population by Race, Los Angeles Area, 2015-2060



Sources: BRN Survey of RNs 2012; BRN Annual Schools Survey; CA Department of Finance 2010

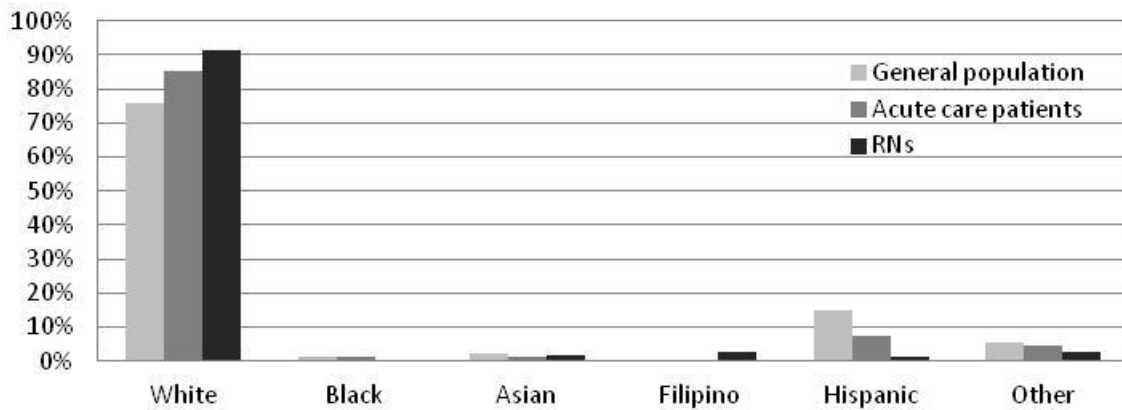
Northern California

Northern California represents Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama and Trinity counties.

Current Data

Chart 1 shows the slight overrepresentation of Whites and Filipinos and the underrepresentation of Blacks, Hispanics and RNs of other undisclosed racial groups in comparison to both the patient population and the general population. Non-Filipino Asian RNs are overrepresented in comparison to the patient population but underrepresented in comparison to the general population.

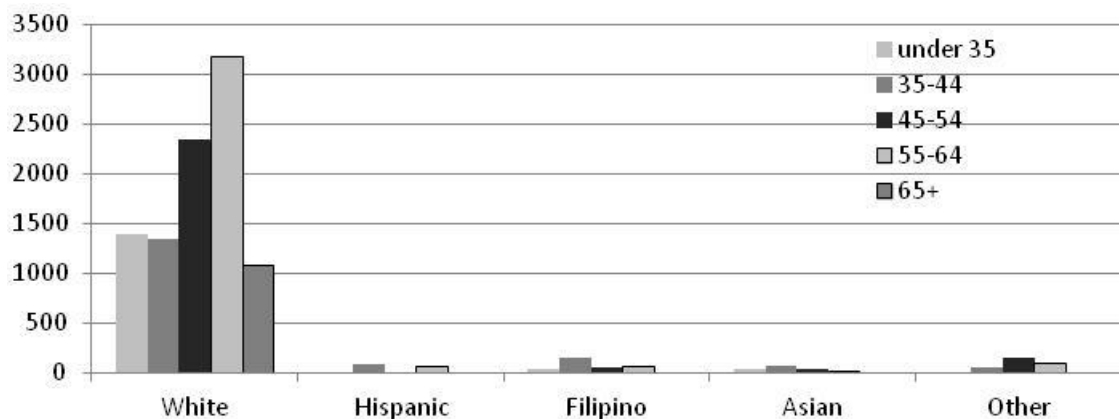
Chart 1. Racial Composition, Northern California



Sources: Census, 2010; OSHPD Patient Discharge Data, 2010; BRN Survey of RNs, 2012

While the majority of White RNs in Northern California are older than 44 years of age, most young nurses in the region are also White, indicating little change in diversity among younger nurses in the region.

Chart 2. Racial Composition of RNs by Age, Northern California, 2012



No Black RNs were reported in the 2012 BRN Survey of RNs in this region.

Source: BRN Survey of RNs 2012

The overall employment rate of Northern California nurses under the age of 55 has remained the same since 2010 (95%). While the employment rate of non-Filipino Asians decreased by ten percentage points since 2010 (100% in 2010 to 90% in 2012), all other racial groups saw their employment rates increase or stay the same. All Hispanics and RNs of other undisclosed races work in nursing, indicating that the unemployed RNs in these racial groups cannot bridge the gap between Hispanics and those of other undisclosed racial groups in the nursing workforce and those in the general population.

Table 1. Share of Northern California RNs Less than 55 Years of Age Working in Nursing, by Race

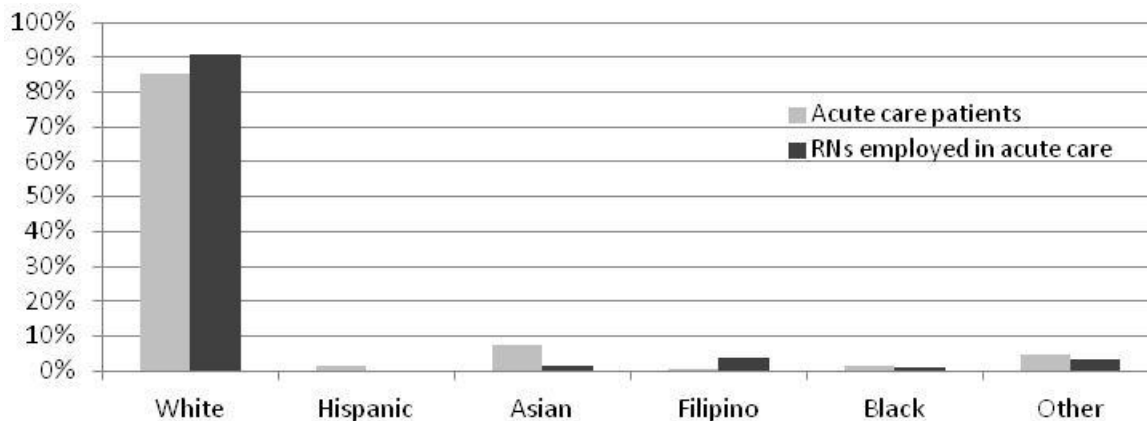
Race	2010	2012
White	95%	96%
Black	100%	NA*
Hispanic	100%	100%
Filipino	87%	90%
Asian	100%	90%
Other	84%	100%
Total	95%	95%

*Not available – No Black RNs reported in 2012 BRN Survey of RNs in this region

Source: BRN Survey of RNs, 2010 & 2012

Since the majority of California RNs work in the acute care setting, taking a closer look at this setting shows a greater share of Hispanics, non-Filipino Asians, Blacks and acute care patients of other undisclosed racial groups than nurses working in that setting.

Chart 3. Racial Distribution of Acute Care Patients and RNs Employed in Acute Care, Northern California



Sources: OSHPD Patient Discharge Data 2010, BRN Surveys of RNs 2012

Student data from RN programs provide insight into the diversity of new nurses. While diversity among graduates of RN programs in Northern California is currently greater than it was in 2004 and 2005, the diversity in the region is comparable to what it was in 2003.

Table 2. Racial Composition of the Northern California's RN Program Graduates, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	5%	6%	0%	0%	2%	2%	1%	5%	7%	5%
Black	0%	0%	1%	0%	0%	4%	0%	1%	2%	1%
Filipino	2%	0%	0%	2%	0%	2%	1%	1%	1%	1%
Hispanic	7%	2%	4%	9%	4%	10%	8%	7%	9%	8%
White	80%	92%	92%	81%	89%	78%	81%	80%	74%	79%
Other race	7%	0%	4%	8%	4%	5%	9%	7%	7%	5%
Ethnic Minorities	20%	8%	8%	19%	11%	22%	19%	20%	26%	21%

Source: BRN Annual School Report, 2003-2012

Table 3 shows large fluctuations in the share of ethnic minorities among new students enrolling in nursing programs in the region over the past ten years. The share of non-Filipino Asians has increased in the last five years, while the share of new students of other undisclosed racial groups has decreased and all other groups have remained about the same during this time period.

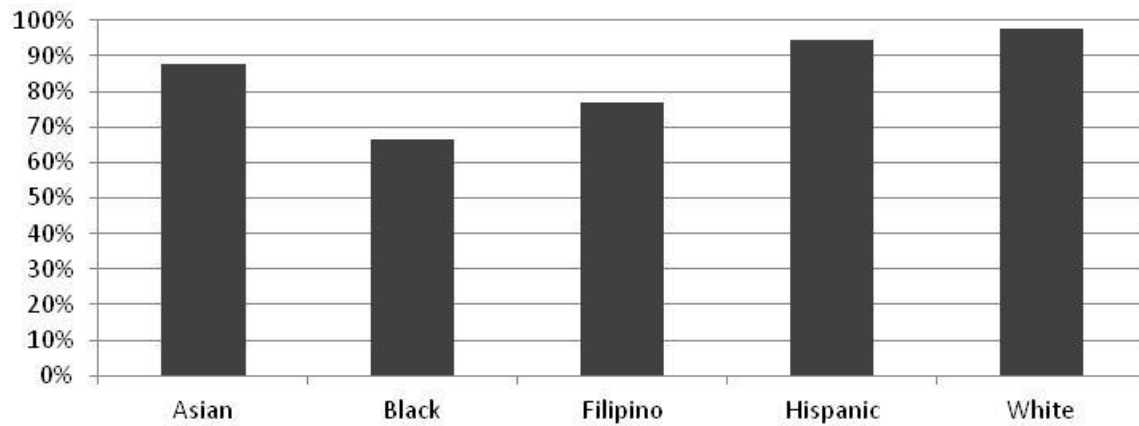
Table 3. Racial Composition of New Student Enrollments in the Northern California's RN Programs, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	3%	4%	0%	3%	0%	3%	4%	8%	5%	7%
Black	2%	3%	1%	1%	2%	2%	2%	1%	2%	2%
Filipino	0%	0%	3%	1%	2%	1%	1%	1%	1%	1%
Hispanic	9%	4%	5%	5%	11%	7%	7%	8%	8%	7%
White	82%	84%	86%	88%	80%	67%	76%	70%	77%	76%
Other race	3%	6%	4%	3%	4%	19%	10%	11%	8%	7%
Ethnic Minorities	18%	16%	14%	12%	20%	33%	24%	30%	23%	24%

Source: BRN Annual School Report, 2003-2012

The five-year average completion rates¹ in Northern California indicate that Black and Filipino nursing students have lower completion rates than Asian, Hispanic and White students in the region.

Chart 4. Average RN Program Completion Rate by Race, Northern California, 2008-2012



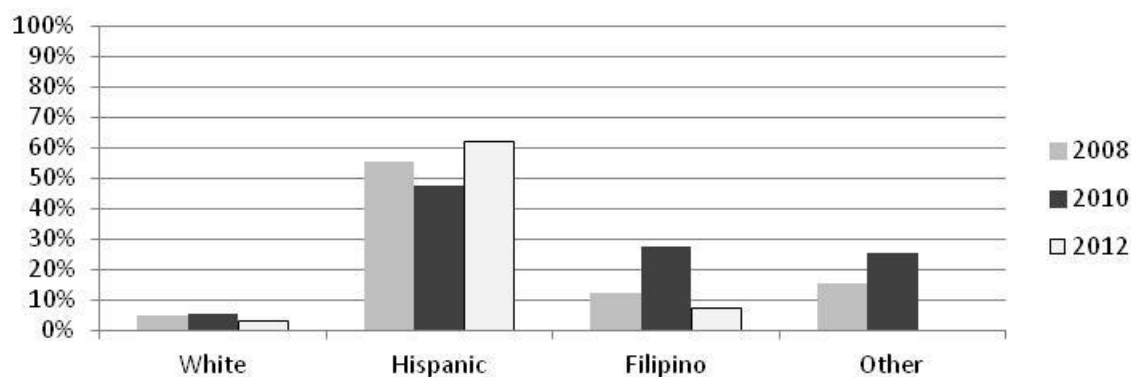
Source: BRN Annual Schools Report, 2008-2012

¹ Since student-level data are unavailable, completion rates are calculated using total new student enrollments and completions by race, and it is assumed that it takes a newly enrolled nursing student two years to complete the program.

Although the racial composition of RNs may not match the population, language abilities of RNs indicate whether nurses can provide some aspects of culturally competent care, regardless of race.

Chart 5 shows that the majority of Northern California RNs fluent in Spanish identify as Hispanic and while the share of Hispanics fluent in Spanish are at their highest level since 2008, fluency in Spanish among other racial groups has declined. The overall share of Northern California RNs that speak Spanish has declined to 4%, from 7% in 2008 and 8% in 2010.² With only 5% of Northern California RNs identifying as Hispanic or fluent in Spanish and 15% of the population in the region identifying as Hispanic in 2012, Spanish language skills among RNs in the region do not compensate for the underrepresentation of Hispanics in the nursing workforce in comparison to the population³.

Chart 5. Share of Northern California RNs Fluent in Spanish*



*None of the Asian or Black RNs in the region reported having Spanish language skills.
Source: BRN Survey of RNs

While many Asian and Filipino RNs in Northern California speak Tagalog or another Asian language, there are so few non-Filipino Asians and Filipinos in both the nursing workforce and the general population in the region that data on these language skills among Asian nurses may be unreliable and are not included.

The data shown thus far illustrate that Hispanic, Black and Asian RNs are currently underrepresented in comparison to the population. Racial composition of RNs entering and graduating from Northern California RN programs suggests that the diversity among the nursing workforce in the region will show little change in the coming years. While Spanish speaking nurses may provide some culturally competent care for Hispanic patients, the difference in racial composition between the population and the nursing workforce remains.

² In the first analysis and report published in May 2012, the reported share of Northern California RNs that speak Spanish failed to account for RNs who only speak English. The accurate share of all Northern California RNs that speak Spanish – regardless of how many languages they speak – is 4% in 2012, as reported here.

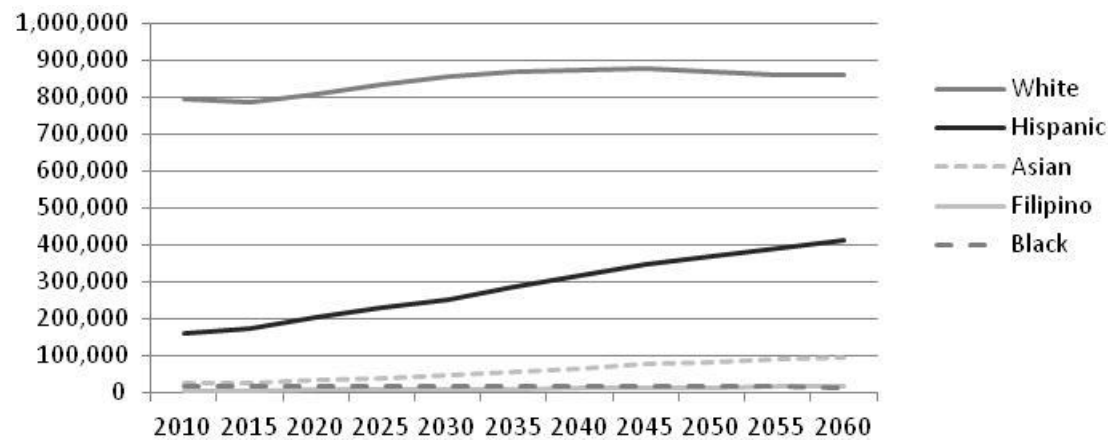
³ Due to the small population in the counties in the Northern California region, data estimates on the share of the region's population that speaks a language other than English at home are not available.

Population Projections

Current data show that Hispanics, Blacks and non-Filipino Asians are underrepresented in the nursing workforce. Projecting the racial composition of RNs and the general population over the next 50 years allows us to show how these populations may change over time and whether additional steps to increase the diversity of the nursing workforce should be prioritized.

Population projections⁴ provided by the California Department of Finance suggest growth in the number of Whites, Hispanics and non-Filipino Asians in Northern California over the next fifty years, while the number of people in other racial groups remains relatively constant over the same time period. Whites are projected to remain the largest share of the population in the region.

Chart 6. Projected Racial Composition of the Northern California's Population, 2010-2060



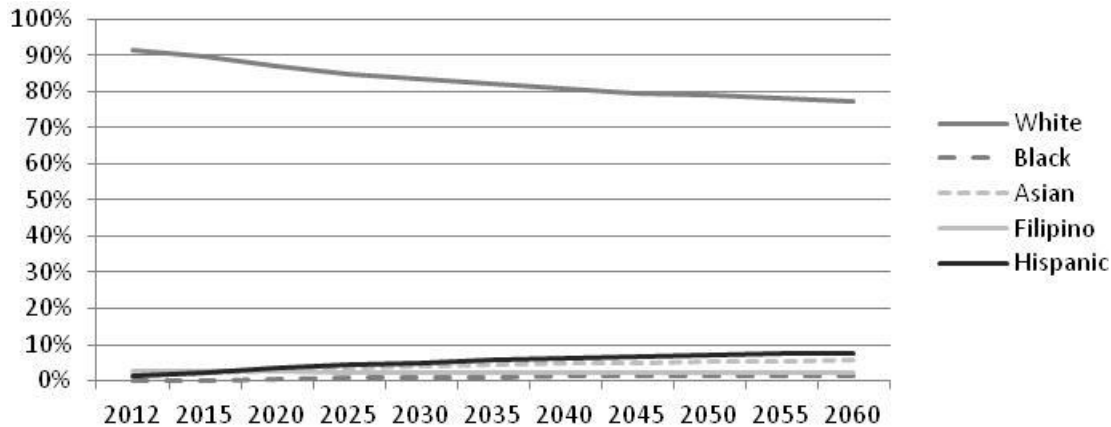
Source: CA Department of Finance

⁴ Those of other undefined racial/ethnic groups comprise less than 5% of the current general population and nursing workforce in the region. Since this racial/ethnic group shows little change within the next 50 years, this group was excluded from the charts and tables in this section of the report.

The share of White RNs in Northern California is projected to decrease over the next fifty years, while the share of RNs in other racial groups is projected to grow slightly, suggesting that there will continue to be greater diversity in the general population than among Northern California nurses.

Since these projections use past changes in diversity among nursing school graduates and graduation rates by race to predict future diversity, it is possible that diversity among nursing school graduates may change in ways not reflected in the data. It is also possible that factors not included in the model will add increased diversity to the nursing workforce.

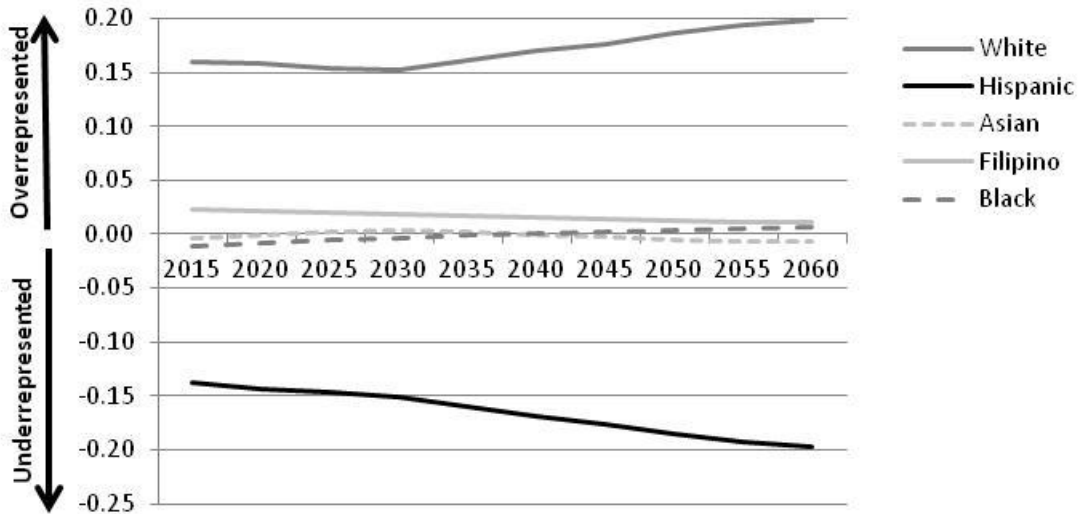
Chart 7. Projected Racial Composition of Northern California RNs, 2012-2060



Sources: BRN Survey of RNs, 2012; BRN Annual Schools Report, 2008-2012

When combining the projections of RNs and the general population, the data suggest that Hispanics will become more underrepresented in the nursing workforce over time, while Blacks will become equally represented by 2030, non-Filipino Asians will be equally represented and Whites and Filipinos will be overrepresented.

Chart 8. Projected Difference between RNs and the General Population by Race, Northern California, 2015-2060



Sources: BRN Survey of RNs 2012; BRN Annual Schools Survey; CA Department of Finance 2010

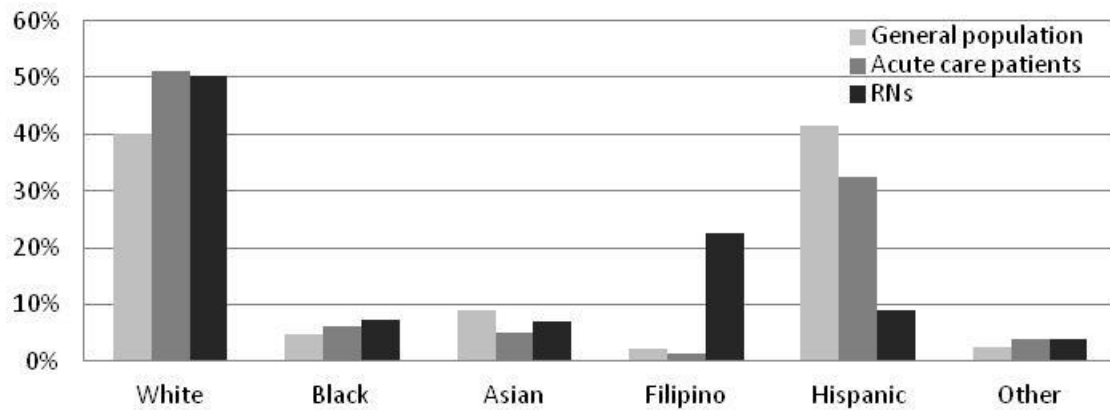
Inland Empire

The Inland Empire represents Orange, Riverside and San Bernardino counties.

Current Data

Chart 1 shows the overrepresentation of Filipinos in the nursing workforce, the slight overrepresentation of Blacks, the underrepresentation of non-Filipino Asians in comparison to the general population, and the underrepresentation of Hispanics in comparison to both the patient population and the general population. Whites are slightly underrepresented in the patient population and overrepresented in comparison to the general population.

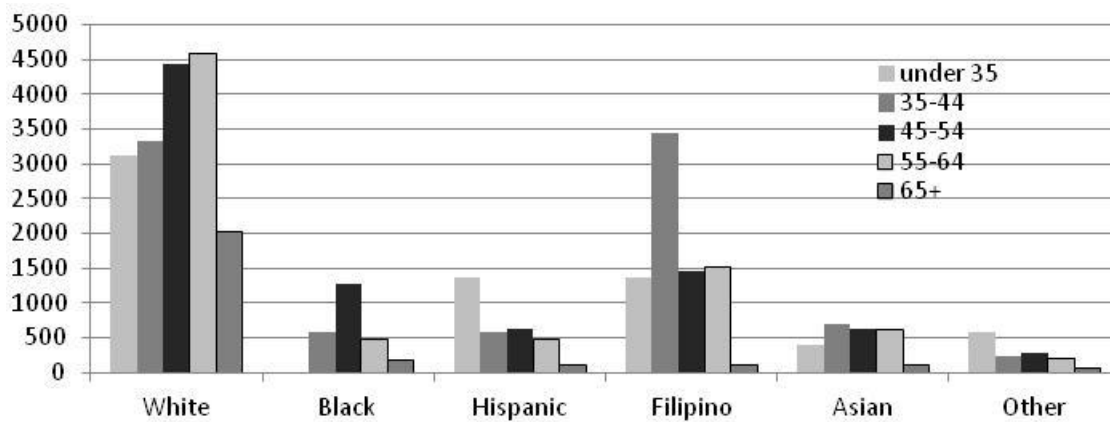
Chart 1. Racial Composition, Inland Empire



Sources: Census, 2010; OSHPD Patient Discharge Data, 2010; BRN Survey of RNs, 2012

With the majority of White RNs older than 44 years of age, and larger numbers of younger RNs in other racial groups, these data show an increased diversity among younger nurses.

Chart 2. Racial Composition of RNs by Age, Inland Empire, 2012



Source: BRN Survey of RNs 2012

The overall employment rate of Inland Empire nurses under the age of 55 increased slightly since 2010 (from 92% in 2010 to 94% in 2012). Employment rates of Hispanics, Filipinos, non-Filipino Asians and RNs of other undisclosed racial groups increased over the last two years, while Whites and Blacks saw declines in their employment rates over the same time period. Higher employment rates among Hispanic and Asian RNs may help shrink the gap between Hispanics and non-Filipino Asians in the nursing workforce and those in the general population.

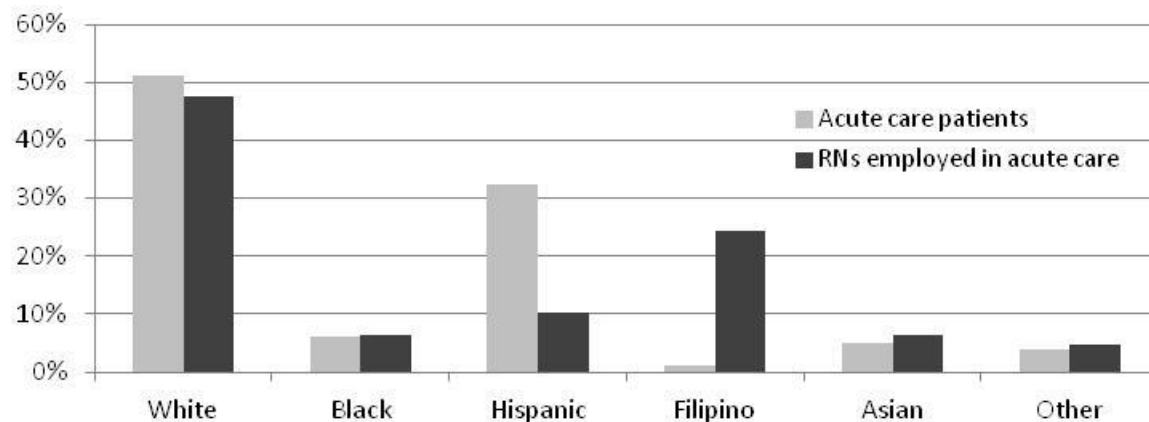
Table 1. Share of Inland Empire RNs Less than 55 Years of Age Working in Nursing, by Race

Race	2010	2012
White	92%	91%
Black	100%	95%
Hispanic	95%	100%
Filipino	92%	96%
Asian	87%	100%
Other	76%	89%
Total	92%	94%

Source: BRN Survey of RNs, 2010 & 2012

Since the majority of RNs work in the acute care setting, taking a closer look at this setting shows a greater share of White and Hispanic acute care patients than nurses working in that setting.

Chart 3. Racial Distribution of Acute Care Patients and RNs Employed in Acute Care, Inland Empire



Sources: OSHPD Patient Discharge Data 2010, BRN Surveys of RNs 2012

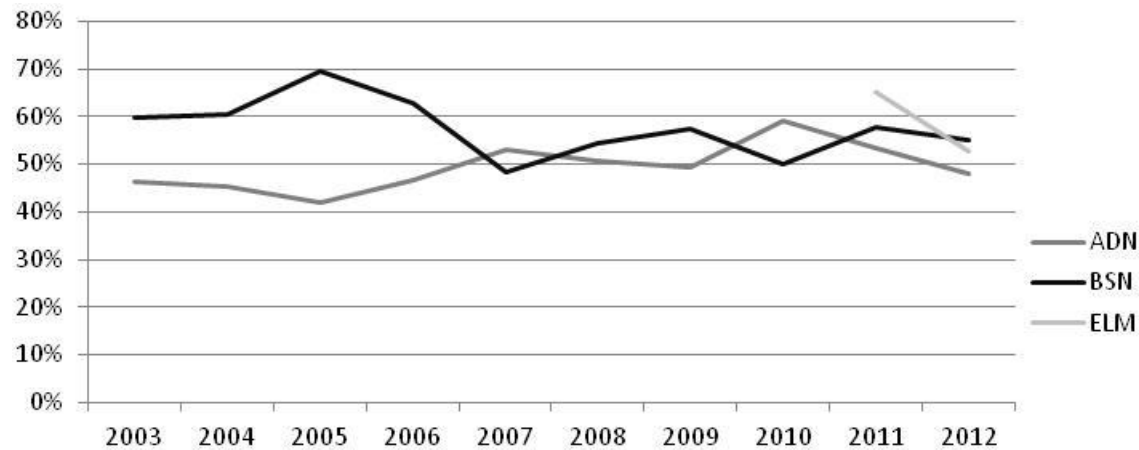
Student data from RN programs provide insight into the diversity of new nurses. There has been an overall increase in diversity among graduates of RN programs in the Inland Empire in the last ten years. Table 2 and Chart 4 show overall declines in diversity in Bachelor (BSN) degree and Entry-level Master's (ELM) programs over the last ten years. While there was an overall increase in racial diversity in Associate (ADN) degree programs during this time period, there has been declining diversity in ADN programs in the region since 2010. RN graduates of Asian, Filipino and other undisclosed races represent the greatest increases in diversity since 2005.

Table 2. Racial Composition of the Inland Empire's RN Program Graduates, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	13%	11%	10%	10%	15%	12%	16%	19%	15%	19%
Black	6%	8%	5%	6%	7%	6%	6%	6%	5%	4%
Filipino	7%	7%	7%	12%	9%	12%	14%	14%	13%	10%
Hispanic	21%	20%	22%	21%	20%	21%	20%	18%	21%	17%
White	52%	52%	56%	51%	48%	49%	44%	40%	41%	45%
Other race	1%	1%	0%	0%	1%	1%	0%	3%	5%	4%
Ethnic Minorities	48%	48%	44%	49%	52%	51%	56%	60%	59%	55%

Source: BRN Annual School Report, 2003-2012

Chart 4. Ethnic Minorities among the Inland Empire's RN Program Graduates by Degree Earned, 2003-2012



Source: BRN Annual Schools Report, 2003-2012

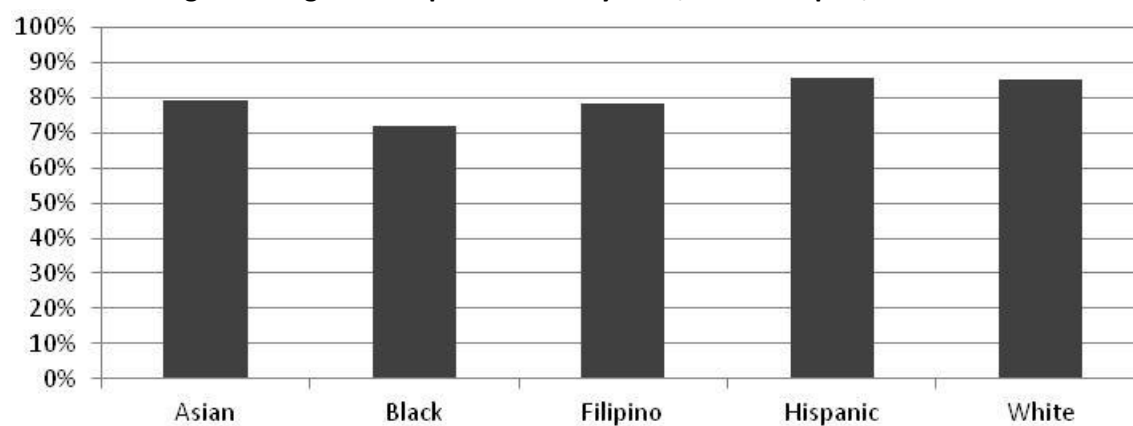
Looking at new student enrollments, Table 3 shows an increasing share of Asian nurses and declining shares of Hispanic, Black and White student enrollments over the past ten years. While the shares of Filipino nurses increased from 2003 to 2010, the share of these nurses has been declining in more recent years. These data coupled with the five-year average completion rates¹ shown in Chart 5 suggest that there will be further declines in the share of Blacks entering the nursing workforce in the region.

Table 3. Racial Composition of New Student Enrollments in the Inland Empire's RN Programs, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	15%	15%	10%	13%	17%	17%	21%	17%	18%	21%
Black	6%	6%	4%	9%	6%	6%	6%	5%	4%	4%
Filipino	8%	6%	10%	12%	12%	12%	16%	19%	14%	9%
Hispanic	23%	24%	27%	21%	19%	18%	19%	17%	20%	20%
White	48%	49%	48%	44%	46%	47%	37%	38%	38%	40%
Other race	1%	1%	1%	1%	1%	1%	1%	5%	6%	5%
Ethnic Minorities	52%	51%	52%	56%	54%	53%	63%	62%	62%	60%

Source: BRN Annual School Report, 2003-2012

Chart 5. Average RN Program Completion Rate by Race, Inland Empire, 2008-2012



Source: BRN Annual Schools Report, 2008-2012

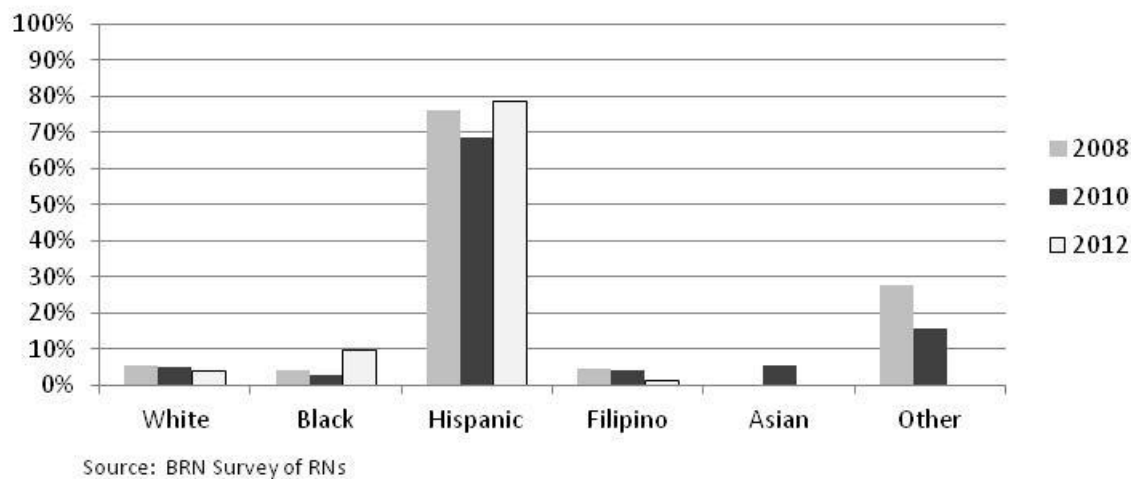
¹ Since student-level data are unavailable, completion rates are calculated using total new student enrollments and completions by race, and it is assumed that it takes a newly enrolled nursing student two years to complete the program.

Although the racial composition of RNs may not match the population, language abilities of RNs indicate whether nurses can provide some aspects of culturally competent care, regardless of race.

Data from the 2010 Census indicate that 31% of people in the Inland Empire region speak Spanish at home and that 55% of these Spanish speakers also speak English very well.² On average, younger Spanish speakers have better English language skills than their older counterparts³, suggesting that Spanish language skills among RNs may become less of a concern in providing culturally competent care to Hispanics over time.

Chart 6 shows that the majority of Inland Empire RNs fluent in Spanish identify as Hispanic and that the shares of Hispanic and Black RNs fluent in Spanish are at their highest levels since 2008. However, the overall share of Inland Empire RNs fluent in Spanish has declined from a high of 15% in 2008 to a low of 11% in 2012.⁴ With only 19% of Inland Empire RNs identifying as Hispanic or fluent in Spanish and 42% of the population in the region identifying as Hispanic in 2012, Spanish language skills among RNs in the region do not compensate for the underrepresentation of Hispanics in the nursing workforce in comparison to the population.

Chart 6. Share of Inland Empire RNs Fluent in Spanish



In addition to Spanish, Tagalog and other Asian languages are commonly spoken among RNs. Since Filipino RNs are overrepresented compared to the general population and the patient population, recruiting RNs

² These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

³ Of Spanish speakers in the Inland Empire, 76% of those 5 to 17 years of age speak English very well, while 49% of those 18-64 years of age and 35% of those 65 years of age and older have similar English language skills (Census, 2010).

⁴ In the first analysis and report published in May 2012, the reported share of Inland Empire RNs that speak Spanish failed to account for RNs who only speak English. The accurate share of all Inland Empire RNs that speak Spanish – regardless of how many languages they speak – is 11% in 2012, as reported here.

who speak Tagalog is not a priority for this region. However, non-Filipino Asians are underrepresented in comparison to the general population in the Inland Empire.

Data from the 2010 Census indicate that 8% of people in the Inland Empire speak an Asian or Pacific Island language at home and that 52% of them also speak English very well.⁵ On average, those of younger age groups have better English language skills than their older counterparts⁶, suggesting that Asian or Pacific Island language skills among RNs may become less of a concern in providing culturally competent to non-Filipino Asians over time. However, only 2% of California RNs speak an Asian language other than Tagalog, and all of them are non-Filipino Asians (100% in 2008, 2010 and 2012). These data suggest that increasing the share of RNs with non-Filipino Asian language skills may improve culturally competent care for non-Filipino Asian patients in the region.

The data shown thus far illustrate that Hispanic and non-Filipino Asian RNs are currently underrepresented in comparison to the general population. Racial composition of students entering and graduating from RN programs in the Inland Empire suggests increases in Asian RNs and little change in the number of Hispanic RNs over the next few years. Spanish language skills of non-Hispanic RNs may provide some culturally competent care for Hispanic patients, but the difference in racial composition between the population and the nursing workforce remains.

⁵ These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

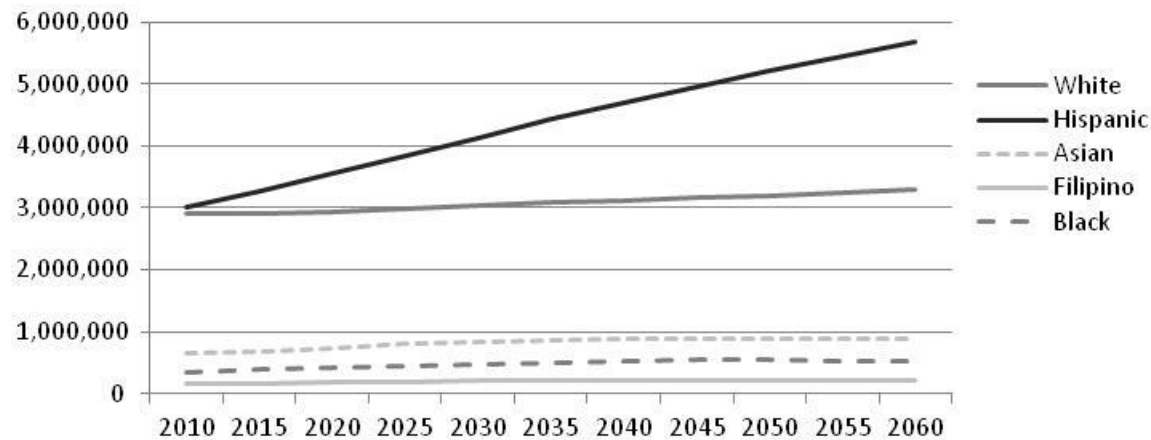
⁶ Of Asian or Pacific Island language speakers in the Inland Empire, 74% of those 5 to 17 years of age speak English very well, while 52% of those 18-64 years of age and 26% of those 65 years of age and older have the similar English language skills (Census, 2010).

Population Projections

Current data show that Hispanics and non-Filipino Asians are underrepresented in the nursing workforce in comparison to the general population in the Inland Empire. Projecting the racial composition of RNs and the general population over the next 50 years allows us to show how these populations may change over time and whether additional steps to increase the diversity of the nursing workforce should be prioritized.

Population projections⁷ provided by the California Department of Finance show that the number of Hispanics in the Inland Empire is projected to grow dramatically over the next fifty years and is already greater than the number of Whites in the region. Other racial groups in the region will have similar populations, or slight increases in population, over the next fifty years.

Chart 7. Projected Racial Composition of the Inland Empire's Population, 2010-2060



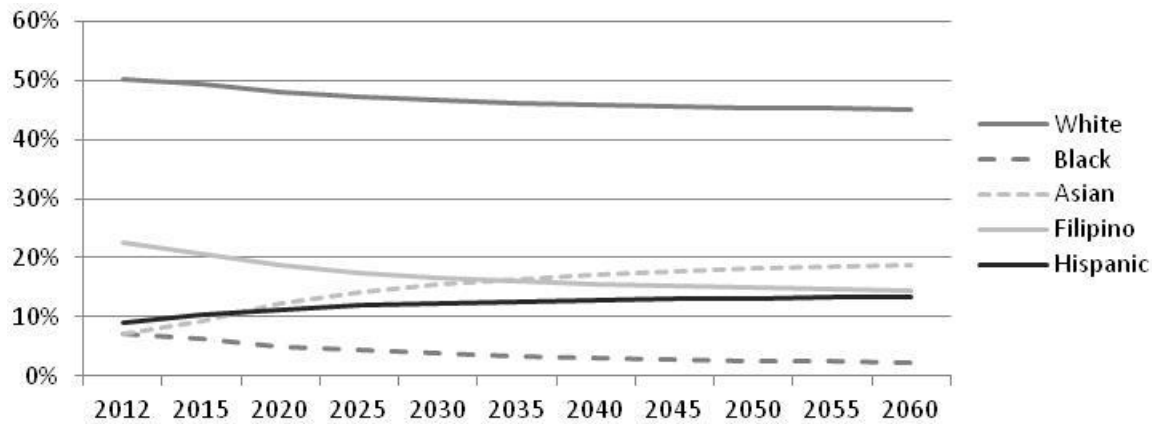
Source: CA Department of Finance

⁷ Native Americans and those of other undefined racial/ethnic groups comprise less than 5% of the current general population and nursing workforce in the region. Since these racial/ethnic groups show little change within the next 40 years, these groups were excluded from the charts and tables in this section of the report.

The RN workforce in the Inland Empire is projected to become more diverse, with White nurses comprising less than half of the workforce by 2015. Non-Filipino Asians and Hispanics are projected to increase their shares in the nursing workforce over the next fifty years, while there is an projected decline in the representation of Blacks. These projections suggest that there will continue to be greater diversity in the general population than among nurses in the Inland Empire.

Since these projections use past changes in diversity among nursing school graduates and graduation rates by race to predict future diversity, it is possible that diversity among nursing school graduates may change in ways not reflected in the data. It is also possible that factors not included in the model will add increased diversity to the nursing workforce.

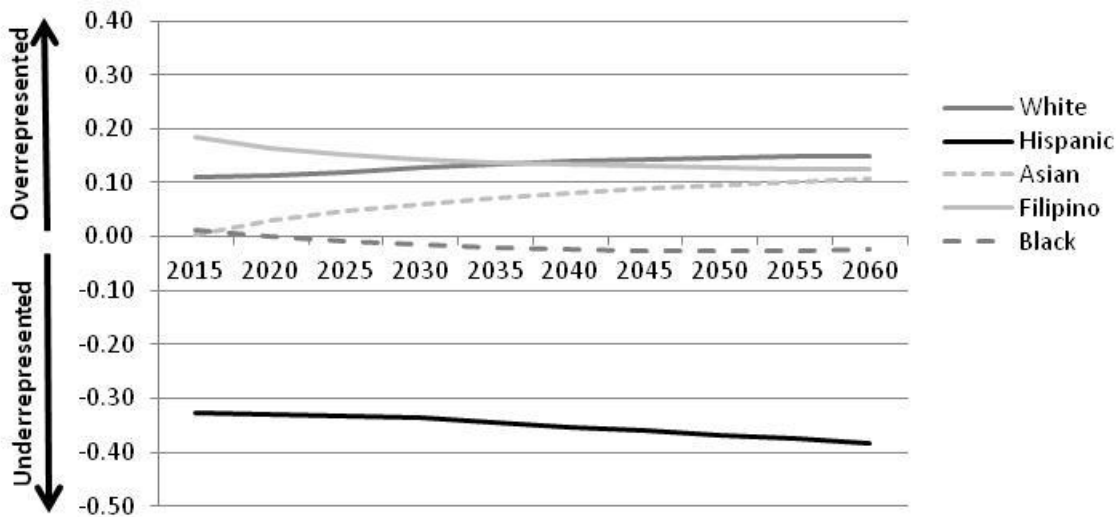
Chart 8. Projected Racial Composition of Inland Empire RNs, 2012-2060



Sources: BRN Survey of RNs, 2012; BRN Annual Schools Report, 2008-2012

When combining the projections of RNs and the general population, the data suggest that Hispanics will continue to be underrepresented – and will become more underrepresented – in the nursing workforce over time, Blacks will become slightly underrepresented by 2025, and all other racial groups will be overrepresented in comparison to the general population.

Chart 9. Projected Difference between RNs and the General Population by Race, Inland Empire, 2015-2060



Sources: BRN Survey of RNs 2012; BRN Annual Schools Survey; CA Department of Finance 2010

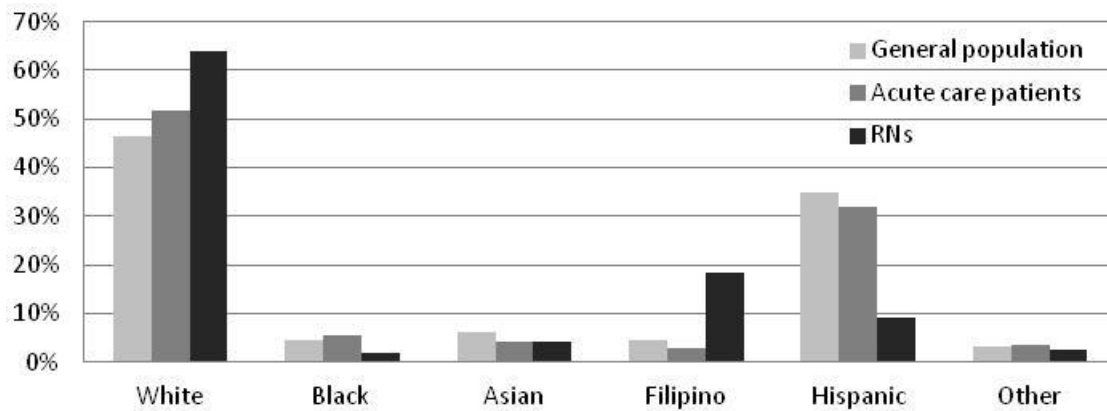
Southern Border

The Southern Border represents Imperial and San Diego counties.

Current Data

Chart 1 shows the overrepresentation of White and Filipino RNs and the underrepresentation of Black and Hispanic RNs in comparison to both the patient population and the general population. Non-Filipino Asian RNs are equally represented in comparison to the patient population but underrepresented in comparison to the general population.

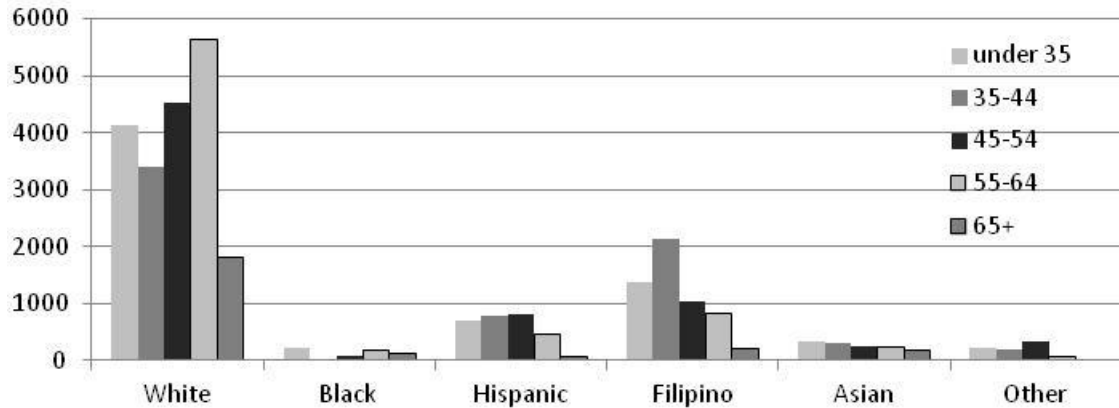
Chart 1. Racial Composition, Southern Border



Sources: Census, 2010; OSHPD Patient Discharge Data, 2010; BRN Survey of RNs, 2012

The majority of White RNs in the region are older than 44 years of age. While the data in Chart 2 show increased diversity among RNs between 35 and 44 years of age, RNs under the age of 35 are less diverse, as indicated by the spike in the number of White RNs in the region.

Chart 2. Racial Composition of RNs by Age, Southern Border, 2012



Source: BRN Survey of RNs 2012

The overall employment rate of Southern Border nurses under the age of 55 has decreased slightly, from 93% in 2010 to 91% in 2012. While Black RNs had an increased employment rate during this time, all other racial groups saw declines. The employment rate among Asian RNs (78%) was the lowest of any racial group in the region. Increasing the employment rate among Hispanic and Asian RNs may help address the gap between Hispanics and non-Filipino Asians in the nursing workforce and those in the general population.

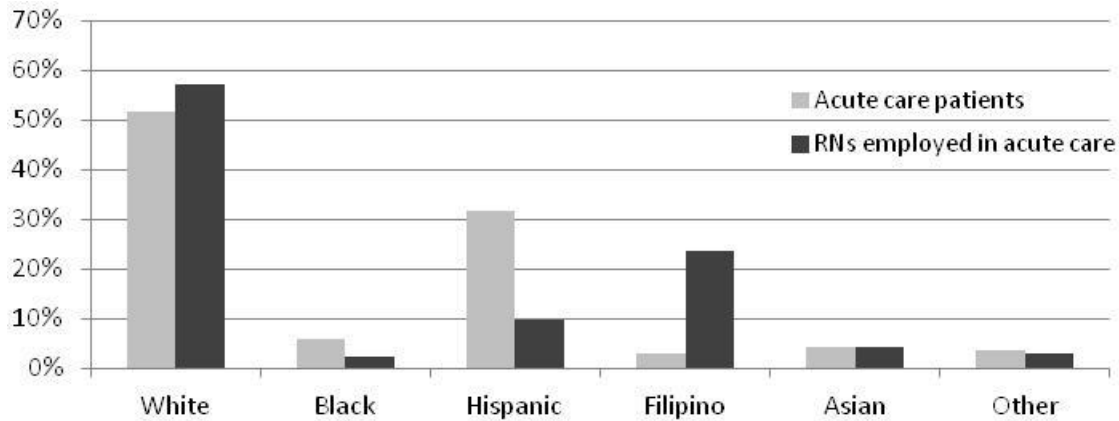
Table 1. Share of Southern Border RNs Younger than 55 Years of Age Working in Nursing, by Race

Race	2010	2012
White	91%	89%
Black	92%	100%
Hispanic	100%	91%
Filipino	99%	98%
Asian	92%	78%
Other	93%	89%
Total	93%	91%

Source: BRN Survey of RNs, 2010 & 2012

Since the majority of RNs work in the acute care setting, taking a closer look at this setting shows a greater share of Blacks, Hispanics and acute care patients of other undisclosed races than nurses working in that setting.

Chart 3. Racial Distribution of Acute Care Patients and RNs Employed in Acute Care, Southern Border



Sources: OSHPD Patient Discharge Data 2010, BRN Surveys of RNs 2012

Student data from RN programs provide insight into the diversity of new nurses. The diversity among RN program graduates in the Southern Border is at its highest in ten years. Non-Filipino Asians had the greatest increase in representation among graduates during the ten-year period, while shares of Blacks have remained about the same, and shares of Hispanics, Filipinos and Whites have declined.

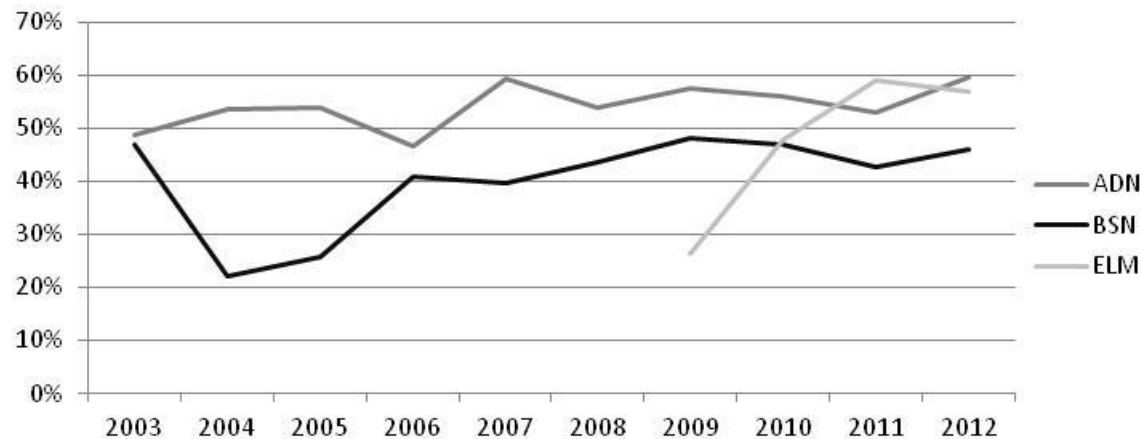
Table 2. Racial Composition of the Southern Border's RN Program Graduates, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	6%	3%	4%	9%	7%	8%	11%	11%	9%	23%
Black	4%	4%	6%	5%	5%	5%	4%	4%	4%	5%
Filipino	17%	13%	14%	13%	20%	20%	19%	17%	18%	11%
Hispanic	20%	21%	22%	15%	19%	16%	20%	17%	17%	14%
White	52%	57%	51%	57%	48%	49%	46%	46%	50%	43%
Other race	1%	1%	4%	1%	1%	1%	1%	4%	2%	3%
Ethnic Minorities	48%	43%	49%	43%	52%	51%	54%	54%	50%	57%

Source: BRN Annual School Report, 2003-2012

Chart 4 shows that both Associate degree (ADN) programs and Entry-level Master's (ELM) degree programs had overall increases in racial diversity over the past ten years. While Bachelor (BSN) degree programs had increases in diversity between 2004 and 2012, the share of ethnic minorities that graduated from these programs in 2012 is about the same as it was in 2003.

Chart 4. Ethnic Minorities among the Southern Border's RN Program Graduates by Degree Earned, 2003-2012



Source: BRN Annual Schools Report, 2003-2012

New student enrollments show that the share of ethnic minorities enrolling in RN programs has declined slightly over the past two years. Since 2005, the share of Hispanics enrolling in RN programs has declined, while the share of Blacks has remained about the same, and the shares of non-Filipino Asians have increased. The share of Filipinos has been declining since 2008.

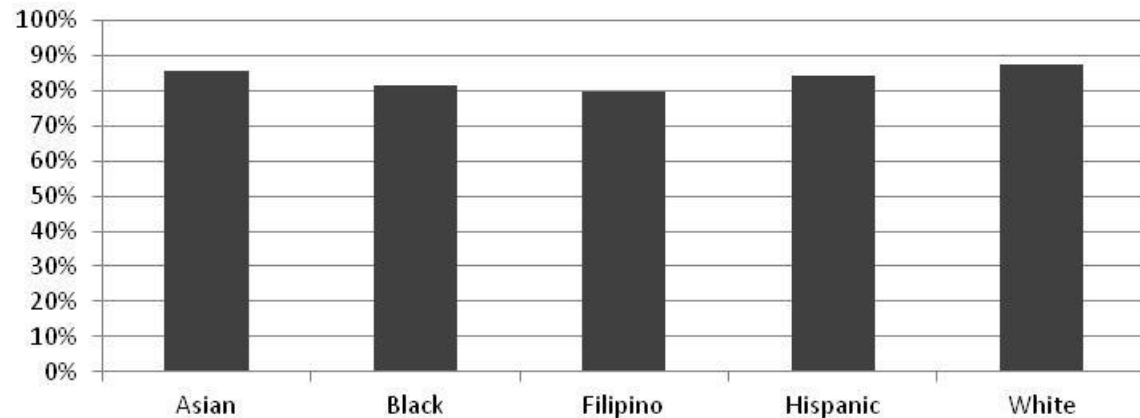
Table 3. Racial Composition of New Student Enrollments in the Southern Border's RN Programs, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Asian	7%	6%	12%	11%	9%	11%	13%	14%	11%	19%
Black	5%	5%	3%	4%	6%	4%	4%	5%	5%	3%
Filipino	15%	14%	12%	14%	22%	21%	20%	15%	16%	12%
Hispanic	21%	21%	25%	16%	19%	18%	17%	18%	17%	14%
White	51%	52%	47%	53%	43%	46%	46%	44%	46%	50%
Other race	1%	2%	1%	1%	1%	1%	1%	5%	5%	2%
Ethnic Minorities	49%	48%	53%	47%	57%	54%	54%	56%	54%	50%

Source: BRN Annual School Report, 2003-2012

With a declining share of new student enrollments and an 84% average completion rate¹, the share of Hispanics RNs in the region is projected to decline over the next two years. Addressing these lower completion rates may help further increase the diversity among nursing graduates.

Chart 5. Average RN Program Completion Rate by Race, Southern Border, 2008-2012



Source: BRN Annual Schools Report, 2008-2012

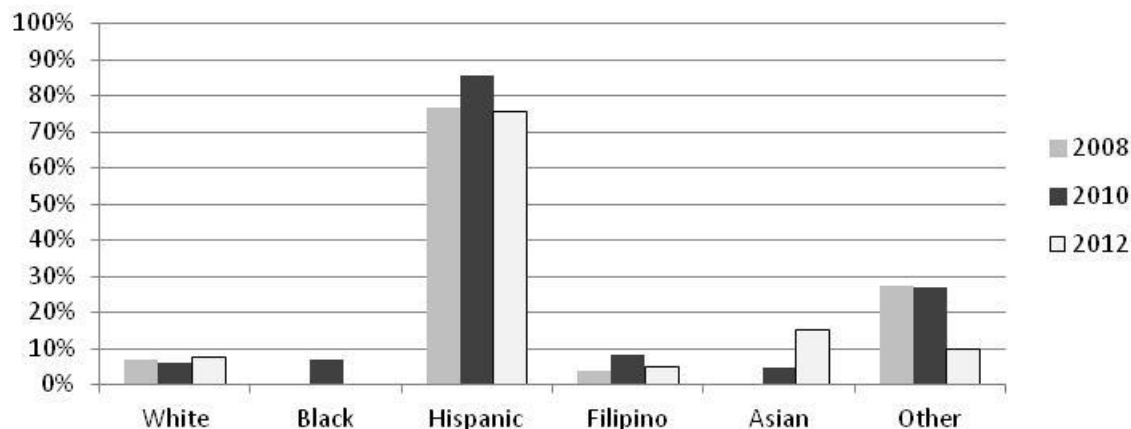
¹ Since student-level data are unavailable, completion rates are calculated using total new student enrollments and completions by race, and it is assumed that it takes a newly enrolled nursing student two years to complete the program.

Although the racial composition of RNs may not match the population, language abilities of RNs indicate whether nurses can provide some aspects of culturally competent care, regardless of race.

Data from the 2010 Census indicate that 25% of people in the Southern Border region speak Spanish at home and that 55% of these Spanish speakers also speak English very well.² On average, younger Spanish speakers have better English language skills than their older counterparts³, suggesting that Spanish language skills among RNs may become less of a concern in providing culturally competent care to Hispanics over time.

Chart 6 shows that the majority of Southern Border RNs fluent in Spanish identify as Hispanic and that the shares of Whites and non-Filipino Asians fluent in Spanish are at their highest levels since 2008. Even though no Black RNs reported Spanish language fluency in 2008 or 2012 and the shares of Hispanic, Filipino and RNs of other undisclosed racial groups fluent in Spanish are less than in previous years, the overall share of Southern Border RNs that speak Spanish has increased slightly since 2008 (11% in 2008, 13% in 2010 and 14% in 2012).⁴ With only 16% of Southern Border RNs identifying as Hispanic or fluent in Spanish and 35% of the population in the region identifying as Hispanic in 2012, Spanish language skills among RNs in the region do not compensate for the underrepresentation of Hispanics in the nursing workforce in comparison to the population.

Chart 6. Share of Southern Border RNs Fluent in Spanish



Source: BRN Survey of RNs

² These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

³ Of Spanish speakers in the Southern Border, 70% of those 5 to 17 years of age speak English very well, while 52% of those 18-64 years of age and 32% of those 65 years of age and older have similar English language skills (Census, 2010).

⁴ In the first analysis and report published in May 2012, the reported share of Southern Border RNs that speak Spanish failed to account for RNs who only speak English. The accurate share of all Southern Border RNs that speak Spanish – regardless of how many languages they speak – is 14% in 2012, as reported here.

In addition to Spanish, Tagalog and other Asian languages are commonly spoken among RNs. Since Filipino RNs are overrepresented compared to the general population and the patient population in the Southern Border, recruiting RNs who speak Tagalog is not a priority for this region. However, non-Filipino Asians are underrepresented in comparison to the general population in the Southern Border, indicating that proficiency in Asian languages other than Tagalog may improve culturally competent care for Asian patients in the region.

Data from the 2010 Census indicate that 8% of people in the Southern Border region speak an Asian or Pacific Island language and that 53% of them also speak English very well.⁵ On average, those of younger age groups have better English language skills than their older counterparts⁶, suggesting that Asian or Pacific Island language skills among RNs may become less of a concern in providing culturally competent to non-Filipino Asians over time. However, only 2% of Southern Border RNs speak an Asian language other than Tagalog, and all of them are non-Filipino Asians (100% in 2008, 2010 and 2012). These data – and the underrepresentation of non-Filipino Asians in the nursing workforce in comparison to the general population in the region – suggest that increasing the share of RNs with non-Filipino Asian language skills may improve culturally competent care for non-Filipino Asian patients.

The data shown thus far illustrate that Hispanic, Asian and Black RNs are currently underrepresented in comparison to the population. Racial composition of new nurses graduating from RN programs in the Southern Border suggests that the share of Asian RN graduates may increase over the next couple of years while the disparities among Blacks and Hispanics may become more pronounced. Spanish language skills of non-Hispanic RNs may provide some culturally competent care for Hispanic patients, but the difference in racial composition between the population and the nursing workforce remains.

⁵ These data are based on estimates generated by the American Community Survey (ACS), which generates publicly available language use estimates based on 2010 Census data.

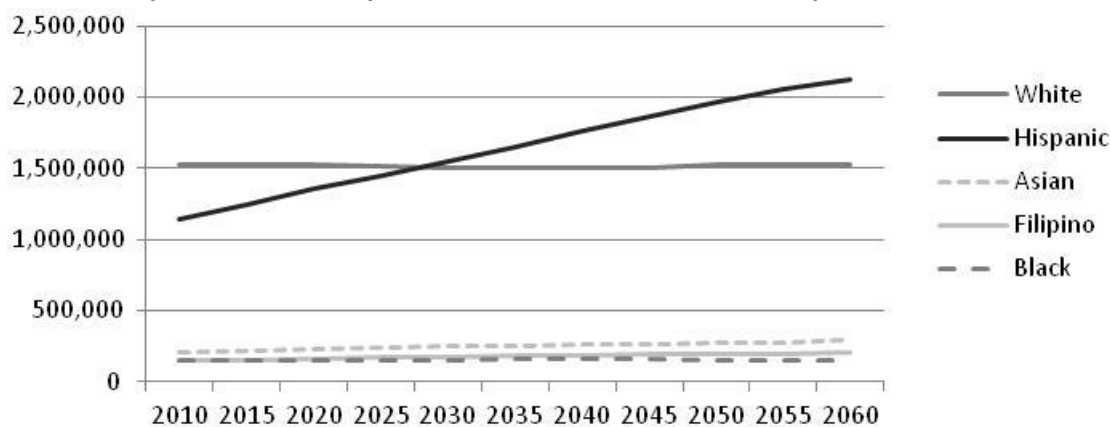
⁶ Of Asian or Pacific Island language speakers in the Southern Border region, 75% of those 5 to 17 years of age speak English very well, while 54% of those 18-64 years of age and 31% of those 65 years of age and older have the similar English language skills (Census, 2010).

Population Projections

Current data show that Hispanics, non-Filipino Asians and Blacks are underrepresented in the nursing workforce. Projecting the racial composition of RNs and the general population over the next 50 years allows us to show how these populations may change over time and whether additional steps to increase the diversity of the nursing workforce should be prioritized.

Population projections⁷ provided by the California Department of Finance suggest that the number of Hispanics in the Southern Border is projected to grow dramatically over the next fifty years and surpass the number of Whites in the region by 2030. The number of all other racial groups is projected to stay about the same.

Chart 7. Projected Racial Composition of the Southern Border's Population, 2010-2060



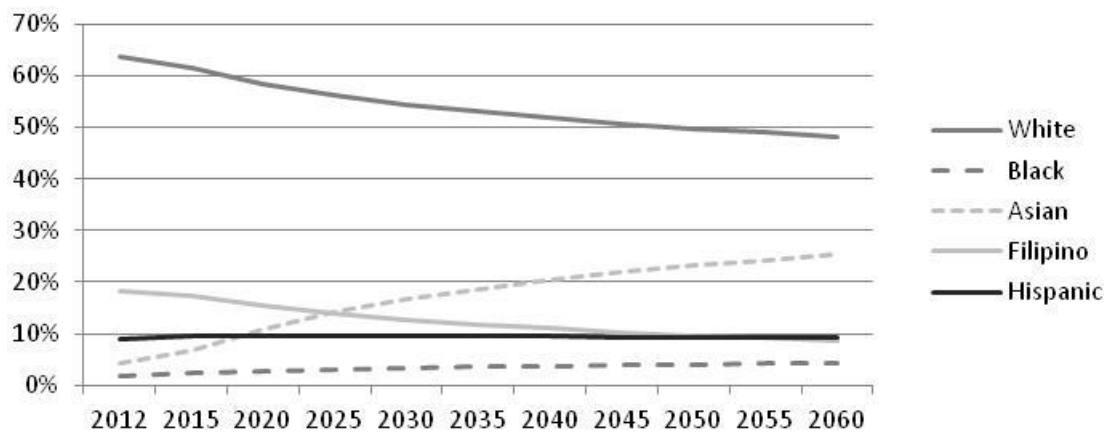
Source: CA Department of Finance

⁷ Those of other undefined racial/ethnic groups comprise less than 5% of the current general population and nursing workforce in the region. Since this racial/ethnic group show little change within the next 50 years, it was excluded from the charts and tables in this section of the report.

The RN workforce in the Southern Border is projected to become more diverse, with an increase in the share of Asian RNs, a slight increase in the share of Black RNs and decreases in the shares of White and Filipino nurses. However, these projections suggest that there will continue to be greater diversity in the general population than among Southern Border nurses.

Since these projections use past changes in diversity among nursing school graduates and graduation rates by race to predict future diversity, it is possible that diversity among nursing school graduates may change in ways not reflected in the data. It is also possible that factors not included in the model will add increased diversity to the nursing workforce.

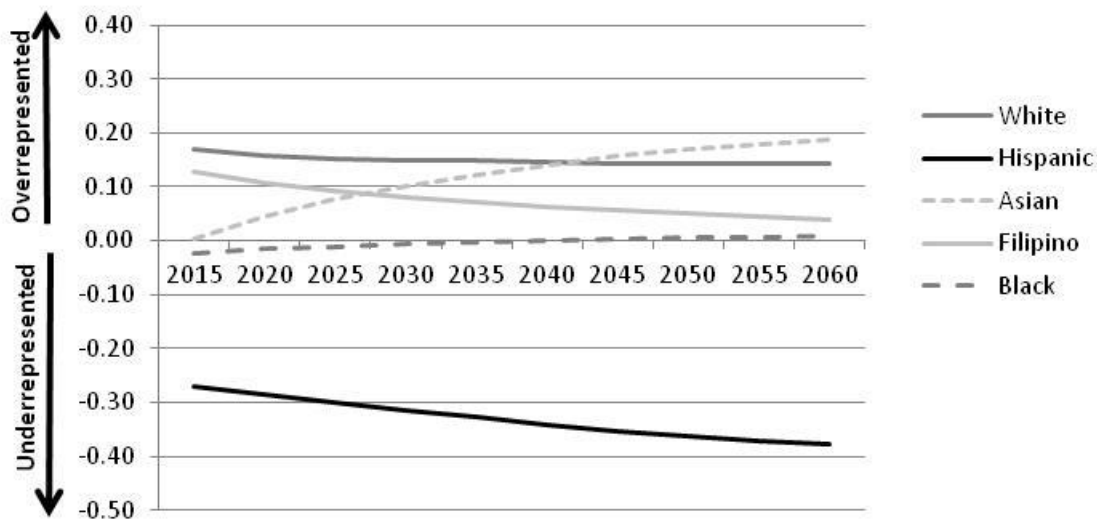
Chart 8. Projected Racial Composition of Southern Border RNs, 2012-2060



Sources: BRN Survey of RNs, 2012; BRN Annual Schools Report, 2008-2012

When combining the projections of RNs and the general population, the data suggest that Hispanics will continue to be underrepresented – and become more underrepresented – in the nursing workforce over time, Blacks will become equally represented by 2035, and all other racial groups will be overrepresented in comparison to the general population.

Chart 9. Projected Difference between RNs and the General Population by Race, Southern Border, 2015-2060



Sources: BRN Survey of RNs 2012; BRN Annual Schools Survey; CA Department of Finance 2010

Appendix

Methods

The following methods were used in this report.

1. Registered Nurses (RNs)
 - a. Current nurses were defined as actively licensed RNs residing in California or in the applicable region. Data from the BRN Survey of RNs 2008, 2010 and 2012 were used to determine characteristics of the current population of nurses.
 - b. For the forecasting of the future nursing workforce, all actively licensed RNs with California addresses in 2013 were used as a baseline (obtained from BRN licensing records). Data from the BRN Survey of RNs 2012 were used as a baseline data for the regional analysis. New student enrollments estimated by the nursing programs in the BRN Annual Schools Report were used to estimate the number of new nurses entering the workforce through 2016. Starting in 2017, it was assumed that the annual growth rate in new nurses graduating from nursing programs in each region was equal to the three-year average growth rate in that region (2010 to 2012). From there, the average graduation rates of new nurses by race and by region from the BRN Annual Schools Report were used to estimate the number of new nurses by race. The forecasting model also assumes that nurses retire at age 65 and that they stay in the same region. While the movement of nurses into and out of California impacts the nursing workforce, these nurses are a small share of the total nursing workforce and were not factored into the model.
2. Acute care patients
 - a. Publicly available patient discharge data from the California Office of Statewide Health Planning and Development (OSHPD) was used for the racial composition of patients. Data from 2010 were the most recently available at the time of the analysis.
 - b. Source:
<http://www.oshpd.ca.gov/HID/Products/PatDischargeData/FrequencyTables/CountyFrequencyIndex.html>
3. General population
 - a. The racial composition of the population by county from the 2010 Census was used for the current population.
 - i. Data on non-Hispanic Filipinos were not available at a county level. Therefore, these data were estimated based on the share of non-Hispanic Filipinos provided in the 2010 Census.
 - b. Language abilities were available through the American Community Survey (ACS) population estimates that were generated from the 2010 Census data.
 - i. Source: factfinder2.census.gov, Table B16004: Age by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over
 - c. The California Department of Finance provides county-level population projections based on data from the 2010 Census.

- i. Source: <http://www.dof.ca.gov/research/demographic/reports/projections/P-2/>, California Department of Finance, Demographic Research Unit, State and County Population Projections by Race/Ethnicity and Age (5-year groups), 2010 through 2060 (as of July 1)

Regions

The regions below match those created for reporting data collected from the BRN Survey of Registered Nurses.

Region	Counties
Bay Area	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma
Central Coast	Monterey, San Benito, San Luis Obispo, Santa Barbara
Central Valley	Alpine, Amador, Calaveras, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, San Joaquin, Stanislaus, Tulare, Tuolumne
Greater Sacramento	El Dorado, Placer, Sacramento, Sutter, Yolo, Yuba
Los Angeles Area	Los Angeles, Ventura
Northern California	Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity
Inland Empire	Orange, Riverside, San Bernardino
Southern Border	Imperial, San Diego