

# **Evaluation of the Centralized Clinical Placement System (CCPS) and the Centralized Faculty Resource Center (CFRC)**

Renaë Waneka, MPH, Joanne Spetz, PhD, & Jennifer Kaiser  
Center for California Health Workforce Studies  
Center for the Health Professions  
University of California, San Francisco

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The Gordon and Betty Moore Foundation commissioned the Center for California Health Workforce Studies and the Center for the Health Professions at the University of California, San Francisco to conduct an external evaluation of the Centralized Clinical Placement System (CCPS) and the Centralized Faculty Resource Center (CFRC). These systems were created as part of the Bay Area Nursing Resource Center with the intention of addressing issues related to the nursing shortage in the Bay Area.

This evaluation report follows the format of the previous interim reports and focuses on the following research questions.

1. How have CCPS and CFRC been received by users: nursing schools, clinical placement sites, and nursing faculty applicants?
2. Have clinical placement slots and the placement of nursing students in those slots increased since the implementation of CCPS?
3. Has CFRC had an impact on the number of nursing faculty?
4. Has nursing student enrollment increased due to CCPS and/or CFRC?

## **Final Round of Interviews**

The goal for the final round of interviews was to interview 10 nursing faculty applicants and representatives from 20 nursing programs and 15 clinical sites. For interviews with nursing schools at this final stage, the researchers focused on RN programs in the five-county Bay Area that is central to the BIMNI. Schools with the greatest enrollment increase since 2004 were prioritized. Clinical sites in the five-county Bay Area also were of the greatest interest, as were hospitals that had growth in the number of clinical placement hours filled between 2006 and 2007, as determined by an analysis of CCPS data. Nursing faculty applicants who posted or updated resumes on CFRC between May 2008 and October 2008 were contacted for interviews.

The primary goals for this round of interviews were to learn the role of CCPS and CFRC in program expansion, and whether CCPS had increased availability of clinical placement slots. In this round of interviews, we wanted to talk with nursing program deans and directors to learn more about how they view the systems and whether the systems were an integral part of planning for program expansion; this focus was the same as in the second round of interviews.

CCPS and CFRC users were contacted by email or by phone. After three attempts without a response from the user, the user was considered unreachable. In previous rounds of interviews, users were contacted sequentially; when a site refused to participate or did not respond, we contacted another replacement site. In this final round of interviews, we contacted all eligible sites at the beginning of the recruitment phase. We contacted 26 clinical sites, for which 12 interviews were completed. Twenty-five nursing programs were approached for participation, of which 15 agreed to participate. We sent email to 29 people who had submitted resumes to CFRC, of whom five agreed to an interview.

### Participation in Final Interviews

Interview Group	Number of Interviews			Rate of Participation*
	Intended	Contacted	Interviewed	
Nursing programs	20	25	15	60.0%
Clinical sites	15	26	12	46.2%
Faculty applicants	10	29	5	17.2%

\* rate of participation = (interviewed)/(# contacted)

Clinical sites that did not participate in the interviews often expressed an interest but an interview could not be scheduled due to busy schedules that did not allow time for an interview during the study period. At several hospitals, there had been staff changes, and the person contacted was not sure who should be interviewed. Nursing deans and directors that did not participate typically did not respond to our requests. One nursing program director refused to participate because her school no longer used CCPS, and another expressed an interest in participating but could not be scheduled before the interview period ended. Most faculty applicants did not respond to repeated email and telephone contacts. Although a few initially expressed interest, they did not respond to further communication.

### Centralized Clinical Placement System

Bay Area nursing schools and clinical placement sites began using CCPS to place students for their spring 2006 clinical rotations. Some of the schools and sites were involved with beta testing the system and used it in earlier placement cycles.

#### (1) How has CCPS been received by nursing schools and clinical placement sites?

##### *Nursing Schools*

Seven of the 15 nursing school deans and directors we interviewed had favorable impressions of CCPS (47%), six were mixed in their views (40%), and two had unfavorable impressions (13%). The share of those interviewed with generally positive views of CCPS increased as compared with the second round of interviews.

The schools with positive views of CCPS are taking advantage of its features, and six of the seven interviewees with positive perceptions think CCPS is worth the user fees. All of these deans and directors said their partner hospitals require use of CCPS, with the exception of a few hospitals. Most of the schools with favorable impressions felt comfortable using the system,

although one person said phone calls to customer service are often needed to help with specific functions. In previous interview cycles, deans and directors who like CCPS reported less time spent on placements than the old paper-based system. In this interview cycle, those with positive views of CCPS said they had not seen changes in the time required to use the system over the past year. Six of the seven schools reported that they had been rejected for a placement request made through CCPS, but all of these had an understanding of the reason for the rejection and had found accommodations at other hospitals.

Six of the seven programs with positive views had expanded in recent years. Five of the seven used CCPS to see if they could accommodate growth and two specifically said they used a combination of CCPS and phone calls to secure placements. Three said they believed CCPS facilitated enrollment growth for their schools or for the region; in the previous round of interviews, all of the schools with positive views thought CCPS has supported nursing education expansion.

The deans and directors who have mixed views of the system tend to be comfortable using the system, but are not certain that CCPS has facilitated nursing program growth. These programs all reported that their programs had grown over the previous few years. None of these programs thought CCPS had contributed to regional growth in RN education, although three said they used CCPS to either determine potential for growth while planning program expansions, or to secure new placements. These findings may indicate that nursing program deans and directors are separating their personal use of CCPS from the broader impact of the system. The other three schools said they knew that their partner hospitals would be willing to take more students, and thus they did not have a need to use CCPS. Two of those with mixed views find the system to be “cumbersome” or “not user friendly,” even though they do not have difficulty using it. Half reported that the time they spend using the system is decreasing, likely reflecting their increasing comfort with it; the other half said the time commitment has not changed. Several noted that hospitals delay the overall placement process by not entering their data on time, or not responding to requests in a timely fashion. These deans and directors with mixed views of CCPS tend to think the system is not worth the user fees charged. Four of the six schools with mixed views said they had trouble paying the user fee, or anticipated having trouble in the near future, while one said the fee was not problematic. Four of those with mixed views think the system is not worth the fee, or that they are paying the fee only because they are required to use CCPS by hospitals.

The two schools with unfavorable impressions said they do not think the value of CCPS warrants the user fee, and that they have difficulty finding funds for the fee. Both programs reported that they have grown in recent years, and that CCPS was not used to facilitate program expansion. Both expressed frustration that they had been rejected from long-standing placements, due to perceived competition from other schools. Neither program said they used CCPS to identify new placements to replace the lost spaces.

#### *Comfort with CCPS*

Seven of the 15 nursing program deans and directors interviewed indicated that they are comfortable using CCPS for their clinical placements. Three of these interviewees also noted that their ease of using the system has improved over time; as one person noted, “Every year it’s getting easier.” Five of the people we interviewed said they do not use the system and instead delegate clinical placements to a faculty or staff colleague. Three people indicated that they are

not comfortable with the system, and still find it challenging to use. They find that they have difficulty using the system, and often have to call the customer support service. One interviewee noted that the system is used only twice a year; the lack of frequent use may contribute to the discomfort of some users.

Even those who report a high degree of comfort with the system noted some areas of frustration or challenge. Several noted that they have to learn new functions when a feature is added to the system. Others reported that they continue to call hospitals to discuss and confirm placements, and a few people expressed nostalgia for the “old way” of scheduling clinical placements. One user reported that she was scheduling a large number of placements when the system timed out her session and erased her data; her frustration was reflected by her saying, “We just don’t have time for all this stuff.”

### *Growth*

Nearly all of the deans and directors we interviewed attribute increased enrollments to grants and hospital partnerships. CCPS continues to be an important factor in accommodating growth. Nearly half of the schools (7 of 15) said they have used or would use CCPS as a tool to identify potential placement availability and forecast how much growth is feasible. Four schools (27%) reported that they used CCPS to find placements for additional nursing students. Three of the 15 deans and directors we interviewed believe CCPS has contributed to enrollment growth in the San Francisco Bay Area, representing 20% of these schools. Nearly all interviewees felt that a call was still necessary to secure a placement or build a relationship with a hospital that had not previously placed students from their school.

### *Staff Time Commitment*

Five of the schools interviewed (33%) thought that CCPS was less of a staff commitment than the old method of clinical placement. It takes less time as they become more familiar with it and as inputting data decreases. They no longer have to import all of the cohorts and only have to add new ones. Several of the deans and directors who think there have not been time savings noted that some hospitals do not respond to requests quickly, and others reported that they still must make phone calls to secure new or different placements.

### *Reports: Use and Functionality*

Many of the deans and directors had suggestions for improvement of data, complained about data presentation, or said they create their own reports. One person noted that the report on historical placements is useful.

### *Historical Placements*

All of the deans and directors we interviewed said most or all of the hospitals at which they place their students require use of CCPS. Eleven of the 15 schools reported that they had been rejected for a request for either a new or historical placement, and two said they had not yet been rejected for any request.

Rejections of historical placements were a source of substantial frustration and even anger among deans and directors. Several of those interviewed observed that placements are largely based on relationships, and that it is difficult for schools when those relationships change. A few schools said they had difficulty replacing lost placements. Several said that when placements were rejected – especially historical placements – they called the hospital to negotiate alternative

placements. Schools generally reported that they find it difficult to use CCPS to find alternative placements after a rejection.

Several interviewees were happy that CCPS now lists historic placements, and a few said they would like to see this expanded with clearer reporting and more transparency. One person said that it can be confusing to modify a historic placement, because it can appear that two different requests are being made. Although it is recognized that CCPS cannot be blamed for incidents when hospitals elect to cancel a historical placement in favor of a new one, some schools have found themselves frustrated with CCPS when a rejection occurs. Several schools believe that hospitals are favoring baccalaureate nursing programs, and thus, associate degree programs are at greater risk of losing historic placements. The rapid growth of partnerships between schools and hospitals, often facilitated by grant funding, changed many longstanding relationships.

#### *Preceptorship placements*

CCPS has recently added a function to place students in preceptorships. This feature was used by 6 of the 15 schools (40%). Two of the programs that used the preceptorship function in the first year are unsure if they will continue to do so. Not all hospitals are using CCPS for this function, and thus there are “hundreds” of students who need preceptorships and comparatively few placements available through CCPS. Moreover, CCPS is designed to facilitate firm commitments, but schools reported that students often are pursuing several potential placements and finalize their plans at a late date. CCPS does not accommodate this type of flux easily. Conversely, many hospitals find it difficult to confirm placements early, particularly when they are facing economic constraints. Thus, most schools continue to rely on telephone contact and other direct communication.

#### *Customer Support Service*

All of those interviewed were pleased with the customer support service, as has been the case for previous interviews. Training is viewed favorably and reported to be thorough and well-designed. Several schools noted that they are happy that CINHC is involved with and supporting CCPS, because they perceive CINHC positively and feel assured that CINHC will work to ensure that their interests are met.

#### *User Fees*

Five of the deans and directors we interviewed (33%) think CCPS is worth paying for, 27% feel like they have to pay the user fees in order to get placements, and 2 programs said they definitely do not think the system is worth the fee. Many interviewees expressed frustration that hospitals require them to use the system. Some questioned how high the fees are, noting that they use the system only twice a year. Others said they would need to see a breakdown of the cost of managing the system to determine whether the fees paid by hospitals are fair. Five of the deans and directors reported that they had trouble paying the user fee, and three more anticipated difficulty when current grants end.

#### *Clinical Placement Sites*

Clinical placement sites had more favorable views of the system than nursing schools: 10 of 12 (83%) had a favorable impression of the system and the remainder had a neutral impression. All of the 10 clinical placement sites with favorable impressions reported that they are taking more students now than a few years ago, and eight of these attribute this increase to CCPS. Hospitals

attributed growth to a combination of increased placements from schools with long-standing relationships and placements from new partners. CCPS improves visibility of available placements and helps schools use non-traditional placement times, such as evenings and weekends. Seven of the hospitals reported that new schools have contacted them because they saw availability on CCPS, and two noted that they had new requests from private LVN education programs. Several of the hospitals noted that they now cannot take more student placements, because CCPS helped them fill all potential spaces.

Clinical sites with favorable impressions like CCPS because it reduces their time spent on phone calls and emails. They also liked having a centralized mechanism where they can input their information for schools to view. The online system is more organized, reduces paper, and streamlines the clinical placement process. All of the hospitals except one require schools to place students through CCPS. These hospitals agree that CCPS is worth the user fee, or have no opinion about the fee.

The two clinical sites with neutral impressions did not have any particular difficulty using the system, but also did not view the system as beneficial. One of these two sites thought the system had resulted in more requests for placements and more ultimate placements, but that hospital does not require schools to use CCPS to place students and believes using CCPS is more time-consuming than the old system of placement. The other site thought CCPS had not led to an increase in placements or placement requests, even though it does require that schools use CCPS and finds the system easy to use.

#### *Staff Time Commitment*

Eight of the twelve hospitals thought CCPS takes less time than the previous clinical placement method. Several interviewees noted that continuing improvements to the system have made it easier to work with each year. Most hospitals appreciate having all the placements in one place, and one person noted that the addition of the feature that shows requests from all schools at once saved her time and was a substantial improvement. Hospitals like the ability to see historical placements, and most of these hospitals think they spend less time on the phone negotiating placements.

One hospital reported that they find using CCPS to be more time-consuming than the old method. This person has not been interested in accepting placements from new schools, and admitted that she lets new requests time out without responding. Any growth in placements at her hospital has come from growth at the incumbent schools. For this hospital, such growth could have occurred without CCPS, because all increases in placements were discussed by phone before being approved through CCPS. Another hospital reported that even though all data are computerized, telephone and email contact can be intensive in order to approve, decline, or negotiate placements.

#### *Placement rejections and historical placements*

Most hospitals reported that they reject placement requests, particularly when a new school makes a request. In some cases, a school with a previous relationship might make a request for a new clinical area or for expansion of a current area that cannot be accommodated due to lack of space at the hospital. Some clinical areas are in high demand, such as psychiatry, and these requests are more likely to be rejected. Several hospitals noted that they have rejected requests from LVN programs, particularly those based in proprietary schools.

Hospitals like the recently added feature to view historical placements, and hospitals reported that they prefer to maintain these historical relationships. Two hospitals said they had recently rejected a request for a historical placement, and one said they had rejected a historical placement in the past. One of these reported that they worked out an alternative arrangement, and that such a rejection would be related to changes in the clinical setting, such as the closing or resizing of a unit. The other hospital noted that the definition of a historical placement can be unclear, and that one “historical” placement might be bumped for another. Most hospitals do not consider new requests by hospitals that have previously placed students to be “historical.”

#### *Reports: Use and Functionality*

Seven of 12 hospitals said they use at least some of the reports available in CCPS. The most commonly used report is that which produces a placement calendar, with five hospitals using this. One hospital said they use the placement request summary, and one views placement availability at other hospitals. Several users said they would like the calendar report to be improved. They state that when there are multiple groups of students coming to multiple units, the calendar does not display the student-unit match in a way that is useful. The calendar also does not indicate how many students are in each unit; several interviewees would like to have this added. Two hospitals said they have difficulty printing the calendar so that it can be posted. Eight hospitals reported that they create their own reports based on CCPS data. These reports are used to summarize data on school contacts and instructors, create calendars with all the desired data, count the number of students, and compare student days across facilities.

#### *Preceptorship placements*

Six of the 12 hospitals we interviewed used the new preceptorship placement system. All of these hospitals thought the preceptorship placement system had problems, and they had mixed views as to whether the system would be valuable in the long-term. Hospitals reported several difficulties using the system. Two hospitals said that before CCPS they did not have preceptorship spaces that they could list in advance; rather, they would identify preceptors and placements based on student requests. Hospitals reported that in the past instructors and advisors would contact potential preceptors directly and make personalized arrangements. The CCPS preceptorship system forces a structure on preceptorship placements that at present might not match the way these placements naturally occur. Several hospitals expressed frustration about difficulties matching students to posted spaces, inability to plan far enough in advance for CCPS to be feasible, and changing requests and commitments. One hospital said they are not sure they will continue to use CCPS for preceptorship placements.

#### *User Fees*

Seven of the 12 hospitals explicitly said they think CCPS is worth paying for, while two did not find it worth the money. The remainder did not know anything about the fee because it was not paid from their own budget; in fact, many interviewees said that the fees were supported by their Chief Nursing Officer, financial department, or hospital system office, and thus they did not have to make a decision themselves about whether to pay the fee. Five interviewees noted that there has been some question in their organization about whether they could afford the fee, and two noted that there was some debate about whether the fee should be paid by their regional hospital system or by the local hospital.

#### *Customer Support Service*

All of those interviewed were very impressed with the customer support service. Six respondents said they had used customer support in the past year, and all were very pleased with the timely and helpful responses.

*Suggested improvements*

The majority of nursing schools and clinical placement sites thought CCPS was well-designed and reported that they are comfortable using it. Hospitals and schools were pleased with improvements that have been made to the system over time. Nonetheless, some of the users felt the system remained a little clumsy and not as intuitive as it could be. Although CCPS users requested the addition of preceptorship placements, few of them found this new functionality as useful as they had hoped. Several hospitals and schools wanted improvements to the reporting functions, and others want the system to collect even more data.

Schools and hospitals made several recommendations for improving CCPS. A list of common recommendations for system improvement is included in the table below.

<b>Recommendations for CCPS Improvement</b>
<p>School suggestions</p> <ul style="list-style-type: none"> <li>• Change pricing</li> <li>• Improve preceptorship placement system, including allowing for different starting and ending dates, and addressing difficulty of long-term planning</li> <li>• Store clinical records for the students, with information that hospitals commonly request from students</li> <li>• Add community health placements and advanced practice placements</li> <li>• Increase transparency of placement rejections and acceptances, and improve accuracy of listings of available placements</li> </ul> <p>Hospital suggestions</p> <ul style="list-style-type: none"> <li>• Report(s) on number of students, number of students by school, list of schools, and number of hours or days of student time</li> <li>• More training opportunities</li> <li>• Improve preceptorship placement system, including making preceptor placements have less lead time</li> <li>• Create templates for introduction and orientation emails</li> <li>• Student contact information should be somewhere in CCPS other than the comments section</li> <li>• Improve schedule calendar</li> </ul>

*(2) Have clinical placement slots and the placement of nursing students in those slots increased since the implementation of CCPS?*

Analysis of the number of hospitals that accept students by clinical department and by shift can illustrate changes in clinical placements since the implementation of CCPS. The Chief Nursing Officers (CNO) Survey, conducted by the Hospital Association of Southern California, the California Institute on Nursing and Health Care, and the UCSF Center for the Health

Professions, contains hospital-level data on nursing student placements by clinical area and shift that can be compared to clinical placement data in CCPS. Data from the 2004 CNO Survey were compared to clinical placement data available in CCPS from 2006 through 2009.

In the first interim report, only hospitals that reported placing students in 2004 and 2006 were included in the analysis. This method reduced the number of hospitals included in the analysis and may have disguised trends in the clinical placement of students. Therefore, the second interim report and this analysis include clinical placement data from all hospitals that reported accepting students in the given year. Forty-four hospitals reported placing students in 2004, 49 hospitals in 2006, 53 in 2007, 52 in 2008, and 49 in 2009. All data are presented as percents so that they can be compared over time. Although data from the 2005 CNO Survey were also available, the response rate for this survey was too low to be included in the analysis. Since the deadline for hospitals to accept or decline all fall and winter 2009 clinical placement requests was 4/24/2009, and data from these requests were downloaded on 4/27/2009, more placements may have been secured after the data were downloaded. Therefore, 2009 clinical placement data presented may not represent all 2009 placements.

Data in the table below indicate the share of Bay Area hospitals that reported accepting students in different departments varies by year. Although it appears that most departments had a smaller share of hospitals accepting students in 2009 compared to 2004, this drop is likely due to the change in how these data were collected rather than to an actual drop in the share of hospitals accepting students. In 2004, the data were collected with the CNO Survey. This survey asks respondents to check a box if they accepted students in a department, while the data from 2006 through 2009 are downloaded from CCPS. Since CCPS provides data on the actual number of students placed in a department over a specific time period, it may be more accurate than asking the CNO if students were on the unit. However, some schools reported that they secure some of their clinical placements outside of CCPS, indicating that CCPS may underestimate the number of clinical placements reported from 2006 through 2009. Tabulating these data in other ways may help us better understand the trends in clinical placements since 2004.

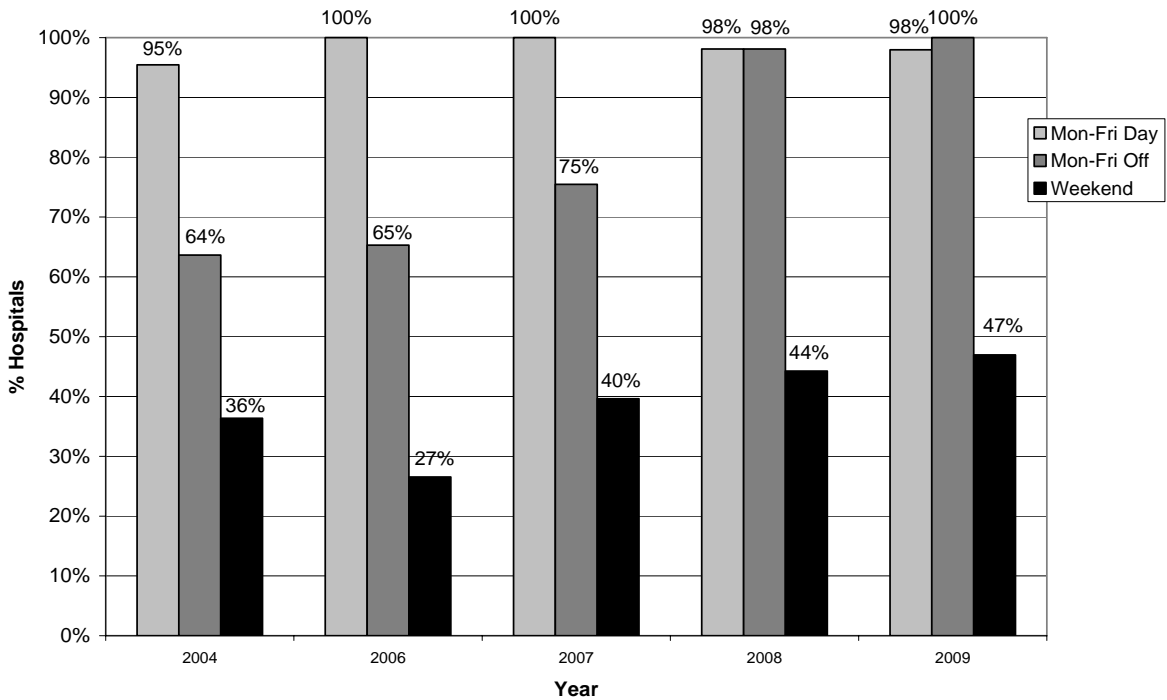
<b>Percentage of Hospitals with Students by Clinical Department, 2004 to 2009</b>					
<b>Department</b>	<b>2004</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Medicine/Surgery	93%	96%	92%	92%	88%
Obstetrics	59%	45%	47%	50%	47%
Critical Care	59%	29%	28%	29%	47%
Emergency	45%	14%	17%	19%	22%
Pediatrics	20%	35%	26%	27%	29%
Perioperative	52%	20%	23%	21%	20%
Post Acute	57%	24%	23%	33%	31%
Psychiatry	30%	29%	25%	31%	27%
Other	43%	43%	43%	54%	49%
<b># of Hospitals with Students</b>	<b>44</b>	<b>49</b>	<b>53</b>	<b>52</b>	<b>49</b>

\*2005 data are unreliable and not included.

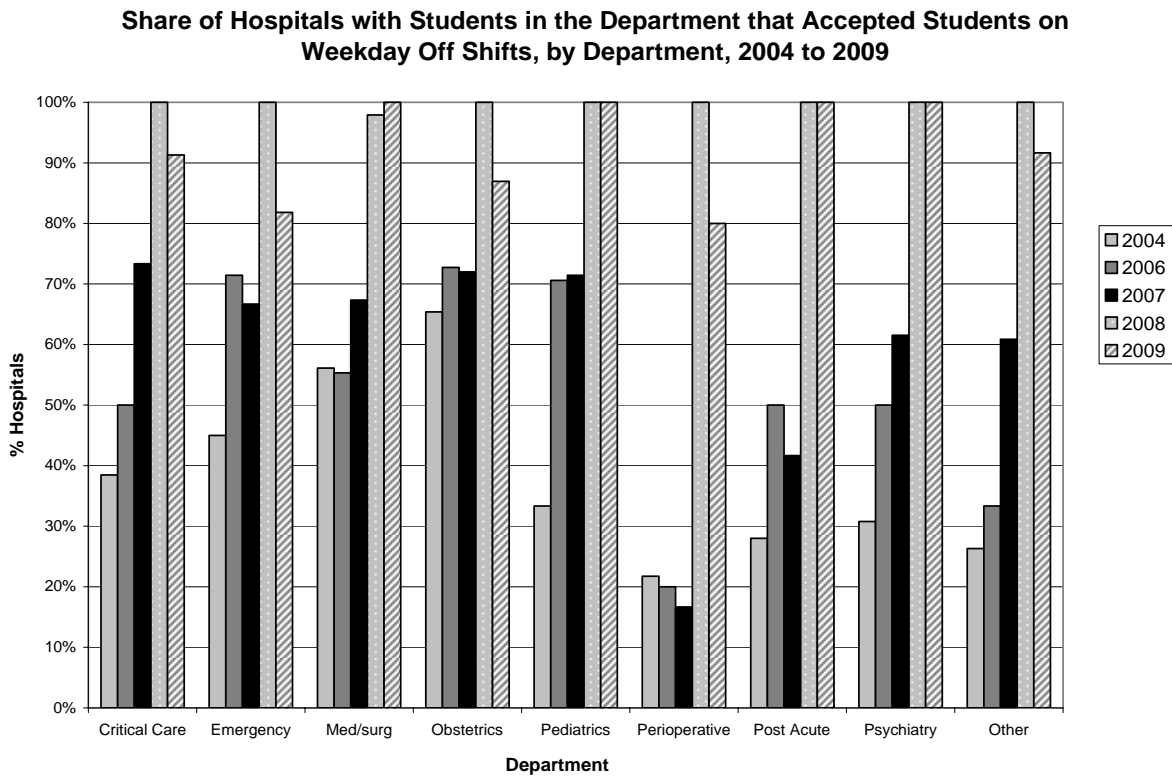
\*\* - Includes all hospitals that reported data in the given year, does not exclude those without student placements in other years.

Since 2004, the share of hospitals that took students during non-traditional times (weekday off shifts and weekends) increased. Of hospitals that accepted students for clinical placements, only 64% of them accepted students during weekday off shifts in 2004, while all of them accepted students on these shifts in 2009. The share of hospitals that reported students working on weekends increased from 36% in 2004 to 47% in 2009.

**Share of Hospitals with Students by Shift, 2004 to 2009**

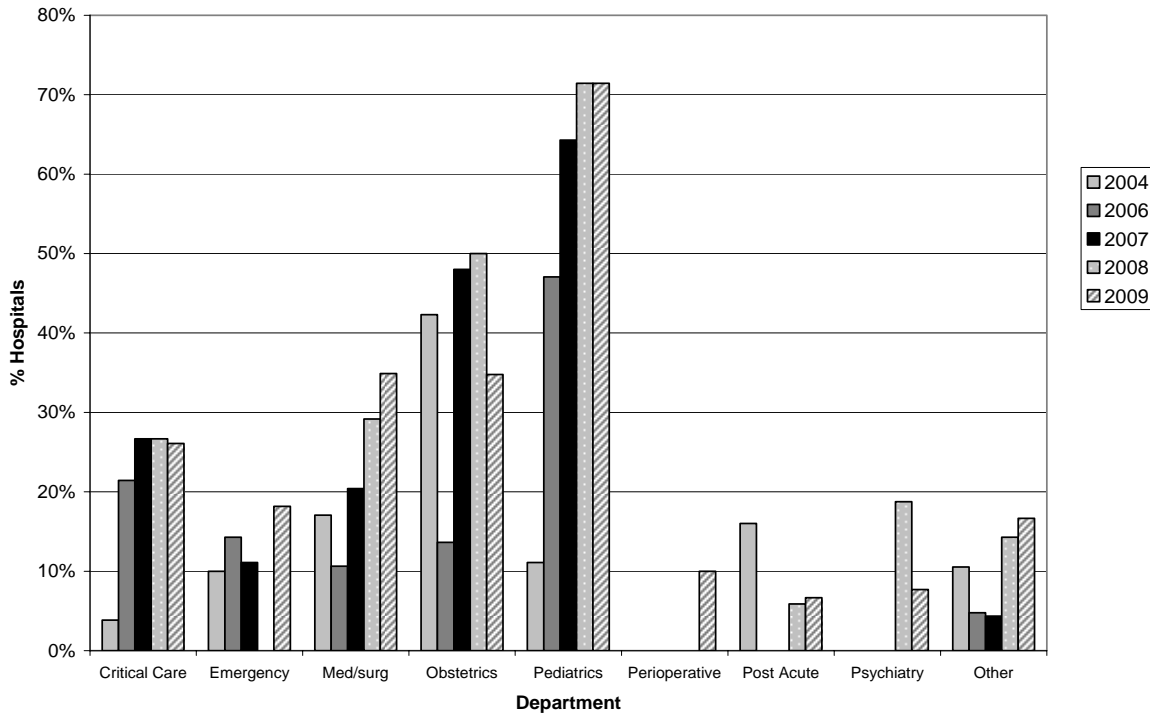


The graph below shows that a greater share of departments accepted students during weekday off shifts in 2009 than in 2004. Between 2007 and 2008, the share of hospitals with students in the department that accepted students during weekday off shifts increased dramatically in all departments. This growth indicates a greater utilization of weekday off shifts for clinical placements in departments that traditionally accepted students during weekday day shifts. The small drop in utilization of these spaces in 2009 is likely due to schools and hospitals still finalizing 2009 schedules in CCPS rather than to an actual drop in utilization of these clinical placement slots. Although increases occurred in all departments, pediatrics, perioperative, post-acute, psychiatry, and other departments had the greatest growth over the six-year period.

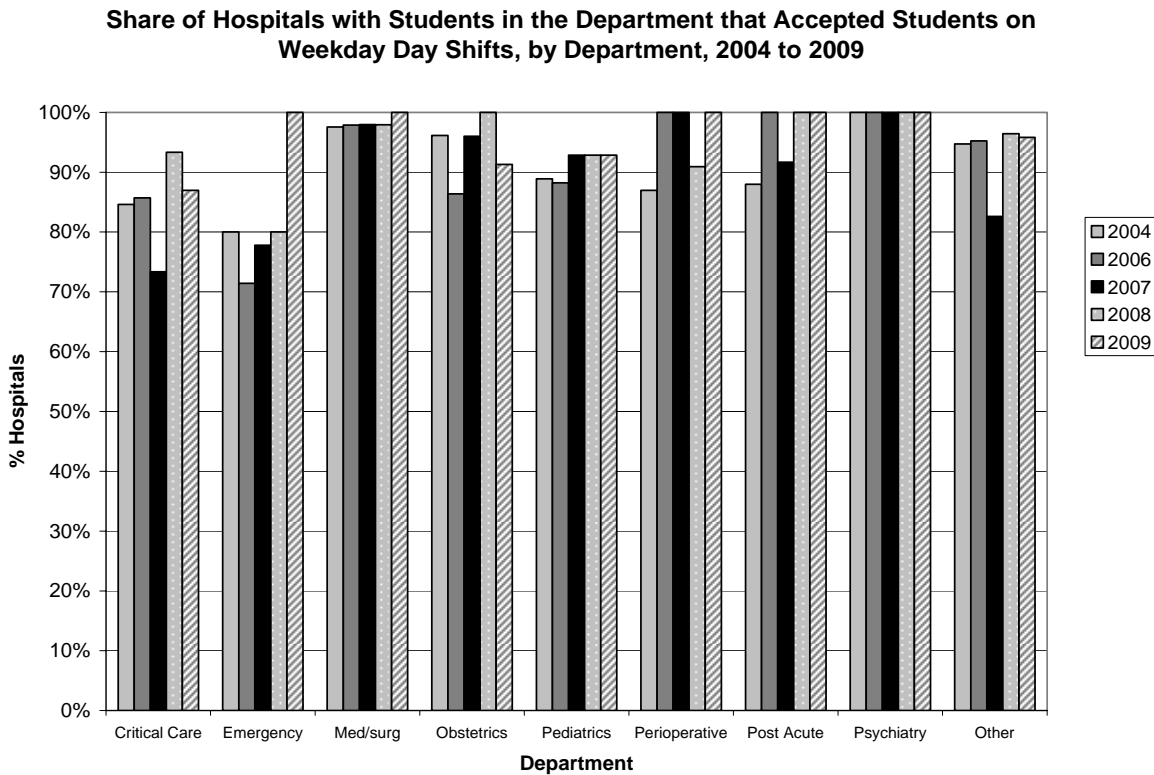


Since 2004, the share of departments accepting students on the weekends has increased as well. Although increases occurred in most departments, critical care, medicine/surgery, pediatrics, perioperative, and psychiatry had the greatest growth over the six-year period. The share of hospitals accepting students in pediatrics on the weekends had the most remarkable increase during the time period shown, from 11% in 2004 to 71% in 2009.

**Share of Hospitals with Students in the Department that Accepted Students on Weekend Shifts, by Department, 2004 to 2009**



The percentage of hospitals offering traditional day shifts has seen little fluctuation since 2004. With small changes in the percentage of hospitals offering day shifts and large increases in the share of hospitals offering non-traditional shifts, it is plausible that hospitals are expanding capacity by maintaining traditional day shifts and creating additional placements for students on weekday off shifts and weekends.



In addition to looking at the percentage of hospitals with students by department and shift, data from CCPS can be used to compare the number of hours that students participate in clinical placements each week. Even though these data are not available for the 2004 baseline year, the change from 2006 to 2009 can illustrate growth in placements over time. CCPS may be one of many factors contributing to the increase in placements.

From 2006 to 2009, the total number of weekly student hours placed using CCPS more than doubled. The number of weekly student hours by department shows that all departments had an overall increase in the number of weekly student hours between 2006 and 2009. Emergency, obstetrics, and other departments had the greatest overall increases in weekly student hours.

<b>Number of Weekly Student Hours Placed by Department, 2006 to 2009</b>					
Department	2006	2007	2008	2009	% Change, 2006 to 2009
Medicine/Surgery	31,104	43,656	86,368	69,708	124.1%
Obstetrics	11,398	18,710	39,903	32,824	188.0%
Critical Care	4,606	5,408	13,672	11,959	159.6%
Emergency	342	520	2,176	1,546	352.0%
Pediatrics	10,542	14,088	26,468	25,624	143.1%
Perioperative	807	912	2,370	1,809	124.2%
Post Acute	5,136	7,084	13,940	10,232	99.2%
Psychiatry	7,852	11,292	18,402	16,476	109.8%
Other	2,685	5,079	12,621	10,793	302.0%
<b>Total</b>	<b>74,472</b>	<b>106,749</b>	<b>215,920</b>	<b>180,971</b>	<b>143.0%</b>

The number of weekly student hours by shift shows dramatic increases in weekly student hours in (1) medicine/surgery and obstetrics on weekend shifts, (2) perioperative, emergency and other departments on weekday off shifts, and (3) emergency and other departments during weekday day shifts. The only decline in the number of weekly student hours between 2006 and 2009 was in the emergency department on weekends. Overall, the greatest increases in weekly student hours occurred on the weekday off shifts.

<b>Percent Change in Number of Weekly Student Hours by Department and Shift, 2006 to 2009<sup>1</sup></b>				
Department	Mon-Fri Day Shift	Mon-Fri Off Shift	Weekend Shift	% Change Overall
Medicine/Surgery	108.6%	576.2%	666.1%	124.1%
Obstetrics	193.0%	530.5%	451.4%	188.0%
Critical Care	108.8%	512.5%	54.6%	159.6%
Emergency	407.0%	705.4%	-29.4%	352.0%
Pediatrics	86.2%	448.4%	190.2%	143.1%
Perioperative	165.0%	830.6%	NA*	124.2%
Post Acute	100.7%	458.0%	NA*	99.2%
Psychiatry	114.1%	249.1%	NA*	109.8%
Other	211.3%	1128.8%	NA*	302.0%
<b>Total % Change</b>	<b>123.4%</b>	<b>514.1%</b>	<b>343.8%</b>	<b>143.0%</b>
<b>Total Change in Number of Weekly Student Hours</b>	<b>61,846</b>	<b>119,764</b>	<b>16,023</b>	<b>106,499</b>

\*- These departments did not have students on weekend shifts in 2006 or 2007.

<sup>1</sup> Raw data used to calculate these percentages are provided in the Appendix. Since different hospitals are represented in each year of data, comparison of raw numbers across the years is not recommended.

(3) Has nursing student enrollment increased due to CCPS?

Data from the Board of Registered Nursing (BRN) Annual School Report illustrate changes in enrollment from 2004 to 2008. In the first interim report, one of the Bay Area nursing schools was excluded from the analysis since it did not participate in the first clinical placement cycle through CCPS. This school now uses CCPS, was included in the analysis for the second interim report, and is included in this analysis as well.

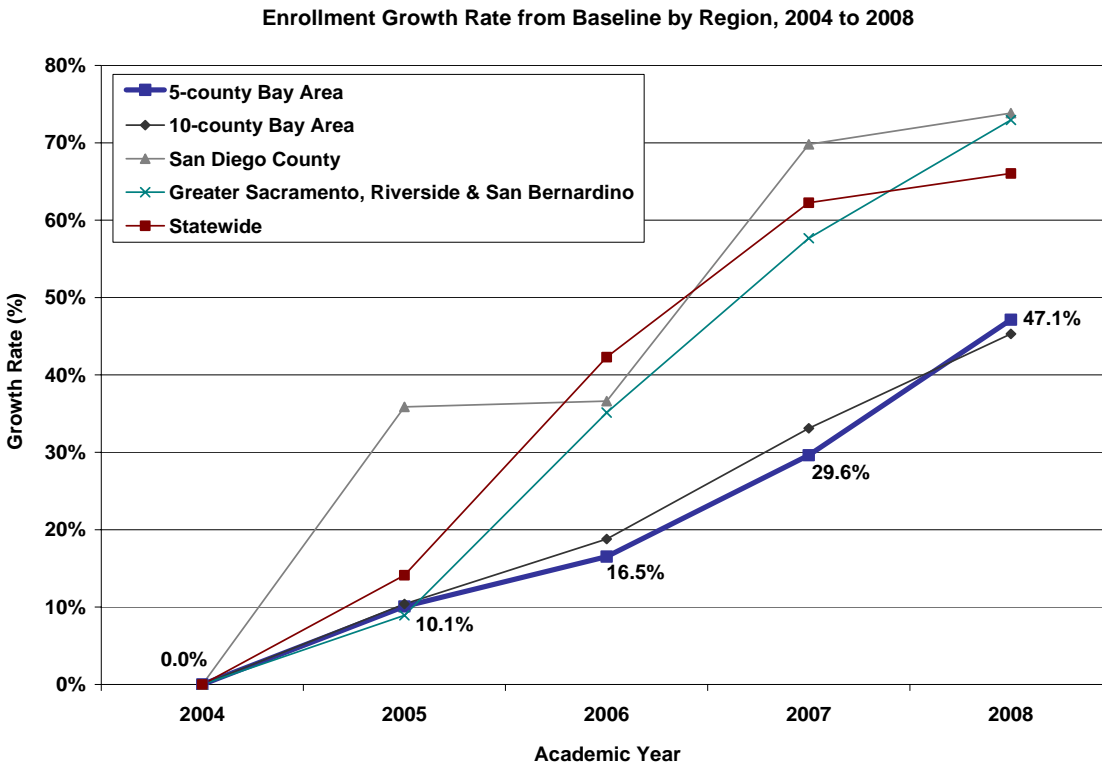
In addition to enrollment data for the 5-county Bay Area, data for the 10-county Bay Area, San Diego County, a combined group that includes Greater Sacramento, Riverside and San Bernardino, and all of California are also included in this analysis. Comparing the central five counties with the expanded Bay Area shows nursing student enrollments throughout the CCPS service area. San Diego County also uses a centralized clinical placement system. Since the San Diego clinical placement system has been in use since 1996, it may illustrate potential effects of the CCPS on Bay Area nursing enrollments. Direct comparison of the Bay Area with San Diego County may be misleading since the longevity of the clinical placement system within a community may moderate its effect on nursing student enrollment. Greater Sacramento, Riverside and San Bernardino were combined for a third comparison group since these regions were not using a centralized clinical placement system in 2006. Since some nursing schools and hospitals in Riverside and San Bernardino counties now participate in a clinical placement system managed by the Regional Health Occupation Resource Center (RHORC), these counties may no longer serve as an adequate control region. Now that counties and regions of comparable size and character to the Bay Area are using clinical placement systems, there is no adequate region to serve as a control for changes that may be influenced by CCPS in the Bay Area. Statewide data indicate changes in the state overall and can provide additional perspective on enrollment changes in the Bay Area.

*Changes in New Student Enrollment*

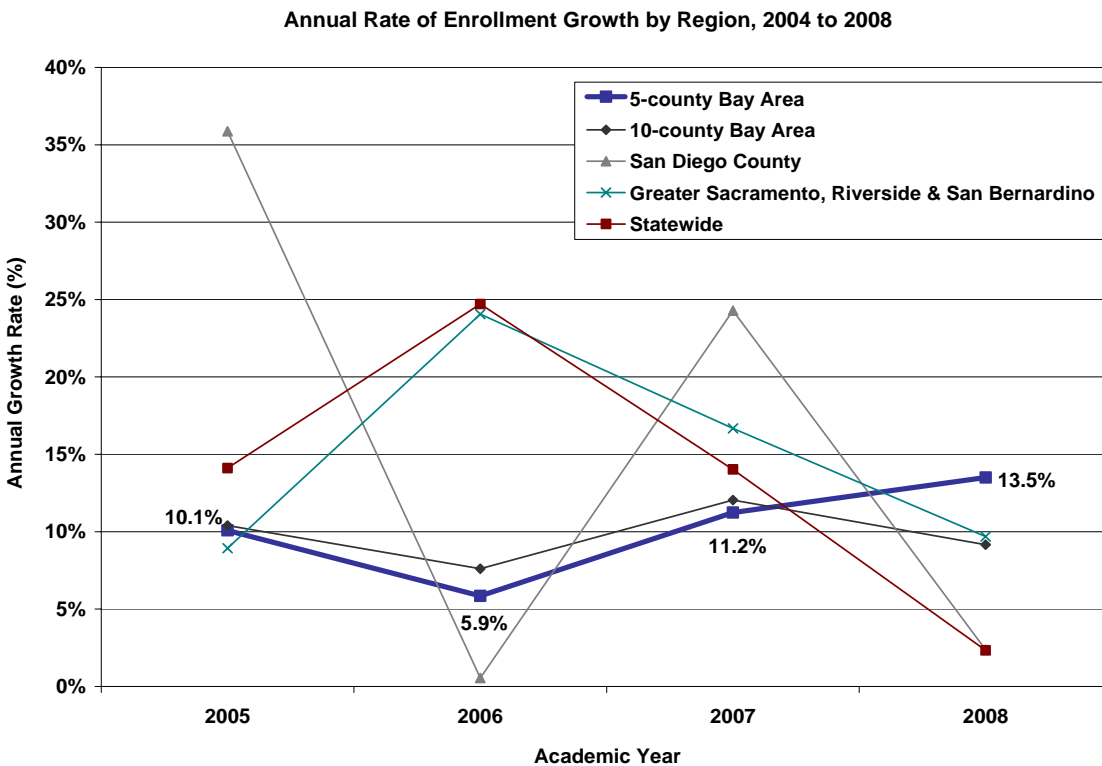
From 2004 to 2008, new student enrollments in nursing programs increased by 47.1% in the 5-county Bay Area, 45.3% in the 10-county Bay Area, 73.8% in San Diego County, 73.0% in Greater Sacramento, Riverside and San Bernardino, and 66.0% statewide.

<b>New Student Enrollments by Region, 2004 to 2008</b>						
Region	2004	2005	2006	2007	2008	% Change, 2004 to 2008
5-county Bay Area	1,428	1,572	1,664	1,851	2,101	47.1%
10-county Bay Area	1,894	2,091	2,250	2,521	2,752	45.3%
San Diego County	669	909	914	1,136	1,163	73.8%
Greater Sacramento, Riverside & San Bernardino	1,198	1,305	1,619	1,889	2,072	73.0%
Statewide	7,924	9,042	11,276	12,857	13,157	66.0%

The chart below shows the cumulative growth in enrollment from baseline (2004) to 2008. Bay Area nursing schools experienced less proportional growth in enrollment over the five-year time period than other regions studied.



The chart below shows that annual growth in enrollment in the 5-county Bay Area increased from 5.9% in 2006 to 13.5% in 2008. Between 2007 and 2008, schools in the 5-county Bay Area experienced the greatest proportional growth in enrollment of any of the regions shown.



### *Barriers to Increasing Student Enrollment*

In 2008, lack of clinical placement sites and qualified faculty were reported as the most prominent barriers to program expansion in the 5-county Bay Area and the other regions studied, as shown in the table below.

<b>Percentage of Nursing Schools with Common Barriers to Program Expansion, 2008</b>				
<b>Region</b>	<b>Barriers</b>			
	<b>Faculty</b>	<b>Space</b>	<b>Funding</b>	<b>Clinical Sites</b>
5-county Bay Area	<b>94.4%</b>	50.0%	61.1%	77.8%
10-county Bay Area	<b>88.5%</b>	61.5%	61.5%	76.9%
San Diego County	63.6%	54.5%	45.5%	<b>81.8%</b>
Greater Sacramento, Riverside & San Bernardino	<b>93.3%</b>	66.7%	53.3%	86.7%
Statewide	75.6%	56.3%	58.0%	<b>77.3%</b>

Over the past five years, nursing schools in the 5-county Bay Area have reported lack of clinical sites and unqualified faculty as the most prominent barriers to program expansion. Although the share of schools in the 5-county Bay Area that reported clinical sites as a barrier to program

expansion increased from 64.7% in 2007 to 77.8% in 2008, a smaller share of schools reported this barrier in 2008 (77.8%) than in 2005 (81.3%).

<b>Percentage of Schools with Common Barriers to Program Expansion, 5-county Bay Area, 2004 - 2008*</b>					
<b>Barrier</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Faculty	75.0%	100.0%	87.5%	64.7%	94.4%
Space	56.3%	56.3%	50.0%	47.1%	50.0%
Funding	62.5%	75.0%	87.5%	41.2%	61.1%
Clinical Sites	--*	81.3%	75.0%	64.7%	77.8%
Number of Schools	16	16	16	17	18

\*These data were not collected in 2004.

Data by year for other regions show that the share of schools that reported a lack of clinical sites as a barrier to program expansion varied over the last four years. Statewide data indicate that the share of schools with clinical sites as a barrier to program expansion is about the same in 2008 (77.3%) as it was in 2005 (77.5%).

<b>Percentage of Schools with Clinical Sites as a Barrier to Program Expansion, 2005 - 2008*</b>				
<b>Region</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
5-county Bay Area	81.3%	75.0%	64.7%	77.8%
10-county Bay Area	79.2%	79.2%	56.0%	76.9%
San Diego County	80.0%	70.0%	63.6%	81.8%
Greater Sacramento, Riverside & San Bernardino	71.4%	80.0%	93.3%	86.7%
Statewide	77.5%	80.0%	66.7%	77.3%

\*These data were not collected in 2004.

### *The Effects of Funding on Student Enrollment*

Since funding is a common barrier to program expansion, calculating the number of enrollment spaces created per \$1000 in funding from hospitals can illustrate whether schools in the Bay Area are relying on CCPS to find additional clinical space and increasing their enrollment more with less money. Data on the amount of funding received from hospitals were retrieved from the 2004 and 2005 CNO Surveys and the 2004-05 through 2007-08 BRN Annual School Reports. The 2005 data from the CNO Survey and the BRN Annual School Report were compared. If the dollar amounts given to schools varied in the data sets, the data provided in the BRN Annual School Report were used. Since a school may have multiple hospitals providing financial support, and not all hospitals completed the CNO Survey, the financial data from the schools may be more reliable. If CCPS is helping nursing programs increase enrollment with less money, we would expect fewer funding dollars needed for an increase in one enrollment space.

The current data show that schools in the 5-county and 10-county Bay Area enrolled more new students per funding dollar than the Greater Sacramento, Riverside and San Bernardino region and statewide. CCPS may have been one of the factors impacting the increase in enrollment in the Bay Area with less money.

<b>Hospital Funding per New Enrollment Slot by Region, 2004 to 2008</b>			
Region	Hospital Funding, 2004 to 2008	Change in Enrollment, 2004 to 2008	Funding per New Enrollment Slot
5-county Bay Area	\$ 11,747,289	673	\$ 17,455
10-county Bay Area	\$ 14,110,165	858	\$ 16,445
San Diego County	\$ 8,432,561	494	\$ 17,070
Greater Sacramento, Riverside & San Bernardino	\$ 16,466,172	874	\$ 18,840
Statewide	\$ 94,814,565	5,233	\$ 18,119

In addition to funding provided by hospitals, several schools in the 5-county Bay Area received BIMNI funding to increase enrollment. As shown, the number of new students enrolled in nursing programs in the 5-county Bay Area increased by 47.1% (n=673), from 1,428 students in 2003-04 to 2,101 students in 2007-08. BIMNI grants funded 253 of these new student enrollments. Therefore, a 29.4% (n=420) increase in new student enrollment since 2003-04 can be attributed to factors other than the direct use of BIMNI grants to expand enrollment. Some of this expansion may be attributable to CCPS.

**BIMNI and Non-BIMNI Funded New Student Enrollments in the 5-County Bay Area, 2004 to 2008**

	Enrollment			Enrollment	
	2003-04	2007-08	Change, 04-08	BIMNI Funded	Non-BIMNI Funded
BIMNI funded schools	682	994	312	253	59
Non-BIMNI funded schools	746	1,107	361	0	361
Total	1,428	2,101	673	253	420

*The Relationship between School Impressions of CCPS and Student Enrollments*

The first round of interviews showed that schools with favorable impressions of CCPS and its ability to facilitate program expansion had dramatic increases in new student enrollment compared with schools that had opposing views. The relationship between enrollment increases and overall impressions of CCPS were not as dramatic in either the second or third round of interviews. In the third and final round of interviews, schools with favorable impressions of CCPS had a smaller increase in enrollment (46.7%) than those with mixed impressions of the system (48.8%) and a greater increase in enrollment than schools with unfavorable impressions of CCPS (41.8%).

Although a small share of schools (21%) thought that CCPS directly facilitated program expansion, half of the schools interviewed thought CCPS served as a tool that promoted program expansion by other methods, including grant funding and hospital partnerships. Enrollment growth from 2004 to 2008 was most dramatic in schools that thought CCPS played a role in

program expansion (74.8%). Schools that thought CCPS did not play a role in expansion or were unsure about whether CCPS played a role had smaller increases in enrollment over the same time period. These data suggest that CCPS, in combination with other efforts, help schools increase enrollment.

<b>Change in New Student Enrollment in the 5-county Bay Area According to School Impressions of CCPS</b>			
	<i>2003-2004 Enrollment</i>	<i>2007-2008 Enrollment</i>	<i>% Change in Enrollment, 2004 to 2008</i>
<b>Overall impression of CCPS</b>			
Favorable (50%)	718	1,053	46.7%
Mixed (36%)	406	604	48.8%
Unfavorable (14%)	153	217	41.8%
<b>CCPS directly facilitates program expansion</b>			
Yes (21%)	159	224	40.9%
No (50%)	688	1,141	65.8%
Unknown (29%)	430	509	18.4%
<b>CCPS plays a role in program expansion</b>			
Yes (50%)	535	935	74.8%
No (36%)	424	560	32.1%
Unknown (14%)	318	379	19.2%

Schools interviewed represent 88.7% (n=597) of the total increase in new student enrollment (n=673) in the 5-county Bay Area since 2004 and 81.9% (n=344) of the growth funded by efforts other than direct BIMNI funding (n=420). Of the schools interviewed, half of them thought CCPS has played or will play a role in facilitating program expansion. These schools were responsible for 59.4% (n=400) of the 673 new students in the 5-county Bay Area, which represents a 28.0% increase in enrollment over the 2004 baseline of 1,428 students. Since BIMNI directly funded some of these enrollments, focusing on non-BIMNI funded enrollments shows that schools that thought CCPS played or plays a role in program expansion had a 15.3% (n=218) increase in enrollment over the 2004 baseline of 1,428 students. Schools that were not interviewed represent 5.3% (n=76) of the non-BIMNI funded enrollment growth over the 2004 baseline. Since their current impressions of CCPS and its impact on program expansion are unknown, their enrollment expansion may have been positively influenced by the system. Therefore, it is likely that somewhere between 15.3% (n=218) and 20.6% (n=294) of the total change in new student enrollment from 2004 to 2008 may have been positively influenced by CCPS.

<b>New Student Enrollment in the 5-county Bay Area</b>				
	Enrollment			
	2003-2004	2007-2008	Change, 2004 to 2008	Non-BIMNI Funded
<b>5-county Bay Area</b>	<b>1,428</b>	<b>2,101</b>	<b>673</b>	<b>420</b>
Schools interviewed	1,277	1,874	597	344
CCPS plays a role in expansion	535	935	400	218
Schools <u>not</u> interviewed	151	227	76	76

## Centralized Faculty Resource Center

According to the 2005-06 and 2006-07 BRN Annual School Reports, low faculty salaries and lack of qualified applicants were the most common barriers to recruiting nursing faculty. CFRC was initiated to help identify and recruit faculty applicants to nursing schools. Interested applicants and nursing schools began using the system in March 2006.

### (1) How has the CFRC been received by nursing schools and nursing faculty applicants?

#### *Nursing Schools*

Ten of the nursing schools we interviewed (67%) said they had used CFRC as part of their faculty recruitment in the past. Most of these schools said they had posted positions at CFRC, but did not think they received many applicants through the system. Several programs reported that they also searched resumes through the system, but had not experienced much success. Two programs (13%) knew that they had hired at least one person for whom the connection came through CFRC.

Schools that use CFRC noted that some applicants in the system are limited as to where they are looking for work, limiting the usefulness of searching the resumes. Several directors noted that they think some applicants are not actively searching for positions when they apply through the

system, and that old data is not purged. One school noted that they had previously scheduled interviews with applicants from CFRC who had not appeared for the appointment.

Schools use a variety of recruiting strategies. Six schools said they constantly recruit faculty, while four schools limit recruiting to certain times of the year. Several said they are frequently contacted by recent master's and doctoral graduates who are seeking faculty positions. Common recruiting methods include posting on the college or university's website, advertising in newspapers and professional journals, relying upon word of mouth, calling colleagues at nursing schools and hospitals for recommendations, marketing brochures, and using internet sites such as monster.com and craigslist.org.

Three of the 15 schools interviewed (20%) said they may use CFRC in the future, if the need arises, and one said they definitely would use CFRC. Six schools reported that they think many potential faculty do not know about CFRC, limiting its usefulness. A number of schools said they have not had much need to hire, because they have low turnover among current faculty and their programs are not presently growing. Two programs noted that they are able to recruit new clinical faculty from their own pool of master's program graduates. There was a common sentiment that the usefulness of CFRC is limited, and that it is not clear that CFRC will supplant current recruiting strategies.

### *Nursing Faculty Applicants*

We contacted 29 people who had applied as faculty through CFRC, and successfully interviewed only five. Most of the people we contacted did not respond to us, despite being offered a gift card to thank them for their time. We think this lack of interest in discussing CFRC reflects some of the difficulties noted by nursing schools – many applicants may not be serious about looking for a faculty position.

Nursing faculty applicants heard about CFRC through a variety of methods, including word of mouth, from fliers distributed at a medical center, online searches, regional conferences, and from teachers or nursing program directors. All of these applicants were seeking part-time teaching positions, with some seeking didactic teaching and others focused on clinical teaching. Most were willing to travel between 10 and 50 miles for a position. Two of the applicants also used other online sites to search for a position, while the other three relied upon CFRC and personal contacts to find a position. Four of the five said they would recommend CFRC to others looking for nursing faculty positions.

All of the nursing faculty applicants interviewed thought CFRC was user-friendly and easy to navigate, although one person had difficulty using an older Macintosh computer. Two people noted that they found that the profile structure did not allow them to highlight their expertise well. Teaching experience outside nursing schools and non-teaching academic experience is not highlighted in the profile creation, and these users thought their unique experiences were not well-represented by their CFRC profiles. One of these applicants said she would have liked to have the opportunity to get feedback on how to make her profile more attractive to nursing programs. Applicants would like to be able to sort jobs by specialty area. One person found some broken links and wondered how recently the website had been updated, and another questioned whether positions that had been posted two years prior were still active. It would be

valuable to applicants if postings are regularly purged or organizations are prompted to ensure their postings are accurate. Similarly, applicants suggested that CFRC send automatic emails to faculty applicants to remind them to update their profiles, or periodic newsletters to remind applicants to return to the website.

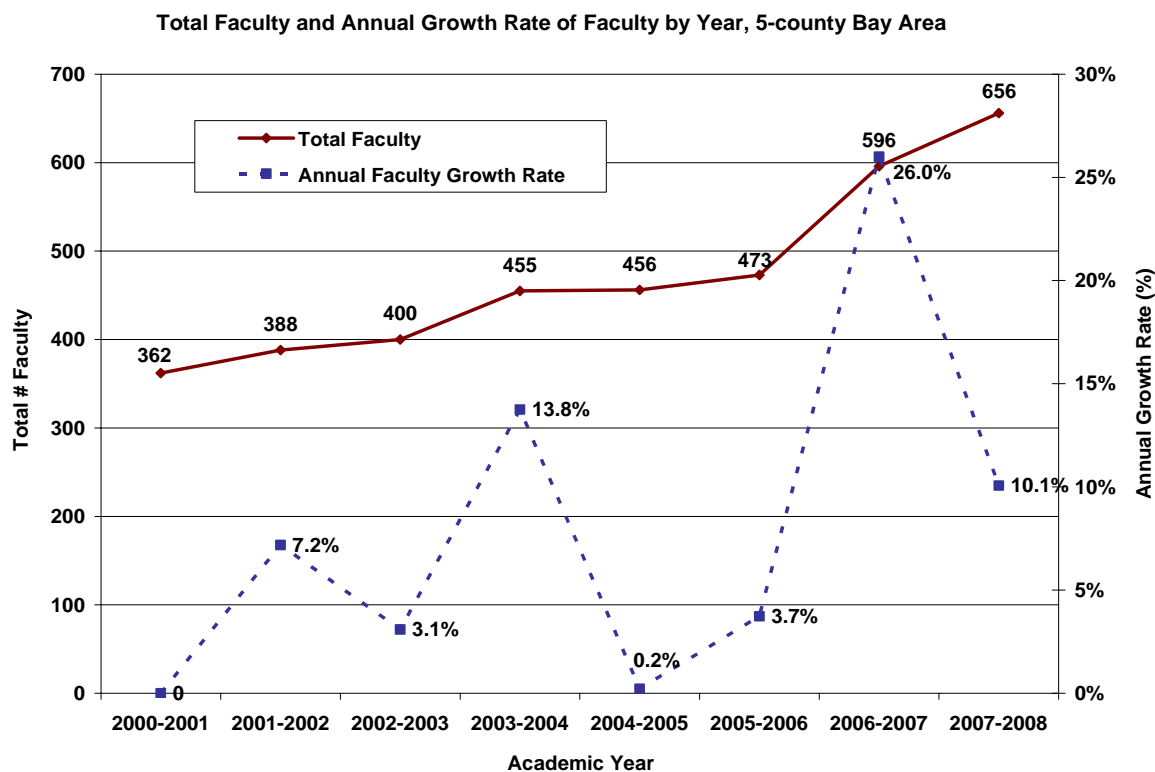
Applicants had mixed results using CFRC for their faculty job searches. Two people reported that they had received queries they believed came from CFRC. One person found a position, but does not know if the opportunity came from CFRC or another application process. Applicants agreed that CFRC has the potential to be a good resource, and that the site should be publicized more.

(2) Has the CFRC had an impact on the number of nursing faculty?

All schools that were interviewed and had used CFRC thought that the system had yet to make an impact on filling nursing faculty vacancies. Those interviewed thought that the system needed more publicity before it could have such an impact.

According to interviews with nursing schools, CFRC has had a limited impact on filling faculty vacancies. Users of CFRC said that word of mouth, nursing journals, craigslist.org and other avenues were more effective in recruiting and hiring nursing faculty. There was optimism related to the system and many suggestions that more publicity and advertising could help recruit well-qualified candidates and make CFRC the “Craigslist of nursing.” Many of those interviewed on behalf of CFRC are in the nursing department and commented that they often receive resumes from Human Resources and do not use CFRC directly. When they receive the resumes, it is not always clear whether they were retrieved from CFRC or from elsewhere. However, the second round of interviews indicated that school representatives were more aware of CFRC and whether they had received resumes from there. The final round of interviews indicated that most schools recruited faculty through nurses or nursing program directors who recommend a faculty candidate. Many schools thought CFRC did not produce desired results.

The total number of nursing faculty in the 5-county Bay Area increased by 44.2%, from 455 in 2004 to 656 in 2008. The chart below shows that the largest increase in the number of faculty occurred between 2006 and 2007.



Growth in the number of faculty by region shows that San Diego County had the greatest growth in total faculty from 2004 to 2008. In comparison to other regions studied, the Bay Area regions had less growth in total faculty over the five-year period.

Total Faculty by Region, 2004 to 2008						
Region	2004	2005	2006	2007	2008	% Change in Faculty, 2004 to 2008
5-county Bay Area	455	456	473	596	656	44.2%
10-county Bay Area	579	652	652	802	855	47.7%
San Diego County	184	266	265	323	379	106.0%
Greater Sacramento, Riverside & San Bernardino	347	386	364	498	525	51.3%
Statewide	2,207	2,432	2,723	3,282	3,471	57.3%

Comparing faculty vacancy rates by region shows that the 5-county Bay Area had the highest vacancy rate (12.6%) in 2006. Since then, the faculty vacancy rate in the 5-county Bay Area decreased by 8.8 percentage points, to 3.8% in 2008. The vacancy rate in the region is now less than the statewide vacancy rate of 4.7%.

<b>Faculty Vacancy Rates by Region, 2004 to 2008</b>					
Region	2004	2005	2006	2007	2008
5-county Bay Area	3.8%	5.6%	12.6%	5.4%	3.8%
10-county Bay Area	3.5%	5.5%	10.7%	4.8%	3.5%
San Diego County	5.2%	6.0%	3.6%	5.6%	3.6%
Greater Sacramento, Riverside & San Bernardino	1.4%	1.3%	3.2%	2.9%	4.0%
Statewide	3.7%	6.0%	6.6%	5.9%	4.7%

Since CFRC does not contain data on the number or share of faculty positions filled through the system, and schools did not know how many faculty were hired as a result of CFRC, changes in faculty vacancies and the total number of nursing faculty could not be directly associated with CFRC.

(3) Has nursing student enrollment increased due to CFRC?

Most of the nursing schools interviewed thought CFRC did not have a measurable impact on increasing nursing student enrollment. Additional funding was the most common prerequisite for increasing program enrollment. If the additional funding is available, programs would accept the funds, increase enrollment and then worry about finding faculty for those students. Of those interviewed, ten schools (67%) reported using CFRC as part of their faculty recruitment efforts. Only two schools (13%) knew that they had hired a new faculty person from CFRC.

Since CFRC was released to the public on March 1, 2006, the 2006-07 school year is the first year that CFRC could have impacted student enrollments. Therefore, the 2005-06 academic year serves as baseline.

Between 2005-06 and 2007-08, there was a 26.3% increase in new student enrollment in the 5-county Bay Area. Although some of this growth may be attributable to CFRC, interviews with schools indicate that CFRC was not a factor in program expansion. With more publicity and upgrades to search functionality, the CFRC may become more of a factor in increasing nursing student enrollments.

<b>New Student Enrollments by Region, 2006 to 2008</b>				
Region	2006	2007	2008	% Change, 2006 to 2008
5-county Bay Area	1,664	1,851	2,101	26.3%
10-county Bay Area	2,250	2,521	2,752	22.3%
San Diego County	914	1,136	1,163	27.2%
Greater Sacramento, Riverside & San Bernardino	1,619	1,889	2,072	28.0%
Statewide	11,276	12,857	13,157	16.7%

## Conclusions

### CCPS

- The majority of nursing schools and clinical placement sites thought CCPS was well-designed and reported that they are more comfortable using it now than they were at its inception. Hospitals and schools were pleased with improvements that have been made to the system over time, even though they continue to have suggestions for improving it.
- CCPS users continue to request improvements in system functionality and reporting. Although CCPS users requested the addition of preceptorship placements, few of them found this new functionality as useful as they had hoped. Several hospitals and schools wanted improvements to the reporting functions, and others wanted the system to collect even more data. Improving these features of the system may lead to increased reliance on CCPS for finding and securing more clinical placements.
- From 2004 to 2009, there was an increase in the percentage of hospitals that took students during non-traditional times (weekday off shifts and weekends). A greater percentage of hospitals accepted students in high-demand clinical areas such as pediatrics and psychiatry in 2009 than they did in 2004.
- The analysis of weekly student hours shows that all clinical departments had an increase in placements from 2006 to 2009. The most dramatic increase in weekly student hours over the time period occurred in the emergency department.
- There was a 47.1% (n=673) increase in enrollment in the 5-county Bay Area from 2004 to 2008. Although BIMNI program expansion grants directly funded some of these enrollments, 29.4% (n=420) of the change in new student enrollments can be attributed to factors beyond these grants. Analysis of the interview data suggests that CCPS may have helped facilitate between 15.3% (n=218) and 20.6% (n=294) of the total increase in enrollment since 2004.

There are many factors affecting enrollment growth at nursing programs in the Bay Area. Schools interviewed reported lack of clinical placements for students, lack of faculty, physical space constraints, state budget cuts, and the need for additional funding as reasons that inhibit expansion of their programs. Overall, nursing schools thought that CCPS, in combination with other efforts, helped facilitate program expansion.

### CFRC

- Interviews with deans and directors of nursing schools in the Bay Area indicate that CFRC is not a major resource for finding and hiring qualified faculty applicants. Deans and directors rely on recommendations from other nurses or nursing faculty to find highly qualified applicants for their available faculty positions.

- We also found that fewer nursing faculty applicants posted complete profiles on CFRC in 2009 than in 2007. These findings suggest that applicants use other methods to search for and find faculty positions in the Bay Area.
- Although increasing publicity of CFRC, clearing old applicant profiles, and improving search techniques may improve the use of the system, it currently does not fulfill the need of nursing schools to identify and hire qualified faculty.

## Appendix

Included here are raw data tables to accompany and further inform percentages used in the core report. Since all hospitals that reported data in the given year were used in reporting the percentages, different hospitals are represented in each year. Therefore, direct comparison of the raw data from year to year is not recommended.

Number of Hospitals with Students by Clinical Department, 2004 to 2009*					
Department	2004	2006	2007	2008	2009
Medicine/Surgery	41	47	49	48	43
Obstetrics	26	22	25	26	23
Critical Care	26	14	15	15	23
Emergency	20	7	9	10	11
Pediatrics	9	17	14	14	14
Perioperative	23	10	12	11	10
Post Acute	25	12	12	17	15
Psychiatry	13	14	13	16	13
Other	19	21	23	28	24
Total # of Hospitals	44	58	57	52	49

\*2005 data are unreliable and not included.

<b>Number of Bay Area Hospitals with Students by Shift and Clinical Department, for Those Accepting Students in the Department, 2004 to 2009*</b>																
Department	2004			2006			2007			2008			2009			
	M-F Day Shift	M-F Off Shift	Wkend Shift	M-F Day Shift	M-F Off Shift	Wkend Shift	M-F Day Shift	M-F Off Shift	Wkend Shift	M-F Day Shift	M-F Off Shift	Wkend Shift	M-F Day Shift	M-F Off Shift	Wkend Shift	
Med/Surg	40	23	7	46	26	5	48	33	10	47	47	14	43	43	15	
Obstetrics	25	17	11	19	16	3	24	18	12	26	26	13	21	20	8	
Critical Care	22	10	1	12	7	3	11	11	4	14	15	4	20	21	6	
Emergency	16	9	2	5	5	1	7	6	1	8	10	0	11	9	2	
Pediatrics	8	3	1	15	12	8	13	10	9	13	14	10	13	14	10	
Perioperative	20	5	0	10	2	0	12	2	0	10	11	0	10	8	1	
Post Acute	22	7	4	12	6	0	11	5	0	17	17	1	15	15	1	
Psychiatry	13	4	0	14	7	0	13	8	0	16	16	3	13	13	1	
Other	18	5	2	20	7	1	19	14	1	27	28	4	23	22	4	
# of Hospitals with Students	42	28	16	49	32	13	53	40	21	51	51	23	48	49	23	

\*2005 data are unreliable and not included. \*\*- Includes all hospitals that reported data in the given year, does not exclude those without student placements in other years.

<b>Number of Weekly Student Hours by Department and Shift, 2006 to 2009</b>																
Department	Mon-Fri, Day Shift				Mon-Fri, Off Shift				Weekend Shift				Overall			
	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009
Med/Surg	22,350	30,118	57,088	46,623	8,290	11,970	74,476	56,056	864	3,464	6,432	6,619	31,104	43,656	86,368	69,708
Obstetrics	6,814	11,278	23,703	19,968	4,424	6,528	32,283	27,892	888	3,232	8,018	4,896	11,398	18,710	39,903	32,824
Critical Care	2,910	2,340	8,738	6,075	1,696	3,028	12,578	10,388	678	832	1,004	1,048	4,606	5,408	13,672	11,959
Emergency	230	224	1,360	1,166	112	288	1,976	902	102	8	--*	72	342	520	2,176	1,546
Pediatrics	6,510	8,546	14,356	12,120	3,584	4,198	19,964	19,656	2,128	3,328	6,736	6,176	10,542	14,088	26,468	25,624
Perioperative	647	768	2,018	1,713	160	144	1,954	1,489	--*	--*	--*	96	807	912	2,370	1,809
Post Acute	3,536	5,772	9,996	7,096	1,600	1,312	12,420	8,928	--*	--*	64	64	5,136	7,084	13,940	10,232
Psychiatry	5,076	7,308	12,098	10,870	2,776	3,984	16,136	9,690	--*	--*	412	160	7,852	11,292	18,402	16,476
Other	2,029	3,309	7,701	6,317	656	1,762	10,685	8,061	--*	--*	1,424	1,552	2,685	5,079	12,621	10,793
<b>Total</b>	<b>50,102</b>	<b>69,663</b>	<b>137,058</b>	<b>111,948</b>	<b>23,298</b>	<b>33,214</b>	<b>182,472</b>	<b>143,062</b>	<b>4,660</b>	<b>10,864</b>	<b>24,090</b>	<b>20,683</b>	<b>74,472</b>	<b>106,749</b>	<b>215,920</b>	<b>180,971</b>
<b>Total Change</b>	<b>61,846</b>				<b>119,764</b>				<b>16,023</b>				<b>106,499</b>			
<b>% Change</b>	<b>123.4%</b>				<b>514.1%</b>				<b>343.8%</b>				<b>143.0%</b>			

\*- These departments did not have students on weekend shifts in 2006 or 2007. \*\*- Includes all hospitals that reported data in the given year, does not exclude those without student placements in other years.