CHCF

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Solving Shortages:
A Snapshot of the Temporary Workforce in California's Safety-Net Hospitals and Clinics

Overview

In the health care system, safety-net facilities — a patchwork of programs and providers that serves Californians with low incomes — struggle with recruiting and retaining staff. These facilities may be more susceptible to provider shortages because of size, location, and pay competition. Given these staffing challenges, the temporary workforce can fulfill short-term needs. Safety-net hospitals are more likely to utilize registry nurses to fill staffing gaps, and high-registry-use safety-net hospitals are more likely to be rural and critical access hospitals. Safety-net clinics are also more likely to utilize contract physicians than other types of contract providers. This snapshot outlines data on key characteristics of vacancies, perceived recruitment challenges, and hiring of registry and contract providers in the safety net.

The data used for this snapshot came from the following sources:

➤ Department of Health Care Access and Information (formerly the Office of Statewide Health Planning and Development) hospital data were used to analyze hospital employment of temporary nursing personnel.

➤ The Hospital Association of Southern California's quarterly survey of hospital human resources managers was utilized to assess hospital employment, turnover, and vacancies.

➤ The most recent University of California, San Francisco (UCSF) survey of hospital chief nursing officers (PDF) provided information about perceptions of the registered nurse labor market in their area, hiring of newly graduated nurses, and use of temporary and traveling nurses.

➤ Department of Health Care Access and Information Annual Utilization Reports of Primary Care Clinics were used to analyze clinic staffing, including of contract personnel, at licensed community and free clinics.

For more information about the data sources, please see the appendix.

Contents

Defining California Safety-Net Hospitals

To categorize hospitals as safety-net hospitals, the authors first identified hospitals that were county government operated, rural, or critical access,* as well as hospitals that were in the top quartile of percentage Medi-Cal and indigent patient days, percentage of charity and bad debt revenue, and percentage of disproportionate share payments. This resulted in a list of 150 hospitals. The authors then narrowed this list to the hospitals most important to providing services to Californians without insurance and those with low incomes:

➤ All county hospitals

➤ Hospitals that were in the top quartile for at least two of the percentage Medi-Cal and indigent patient days, percentage charity and bad debt revenue, or percentage disproportionate share payments

➤ Hospitals that were critical access hospitals and in the top quartile for at least one of the following: percentage Medi-Cal and indigent patient days, percentage charity and bad debt revenue, or percentage disproportionate share payments.

These criteria identified 99 hospitals that the authors categorized as "safety-net hospitals" in this analysis. The remaining 51 hospitals from the initial list were placed in an "intermediate" category, and 174 hospitals were labeled "non-safety-net."

There is no universal consensus on how to define safety-net hospitals.

* "Critical Access Hospitals," Rural Health Information Hub, last reviewed September 3, 2021. Critical access hospital is a designation given to eligible rural hospitals by the Centers for Medicare & Medicaid Services. Congress created the critical access hospital (CAH) designation through the Balanced Budget Act of 1997 (Public Law 105-33) in response to over 400 rural hospital closures during the 1980s and early 1990s. Congress has amended the CAH designation and related program requirements several times through additional legislation.

Characteristics of California Safety-Net Hospitals vs. Other Hospitals, 2018–19

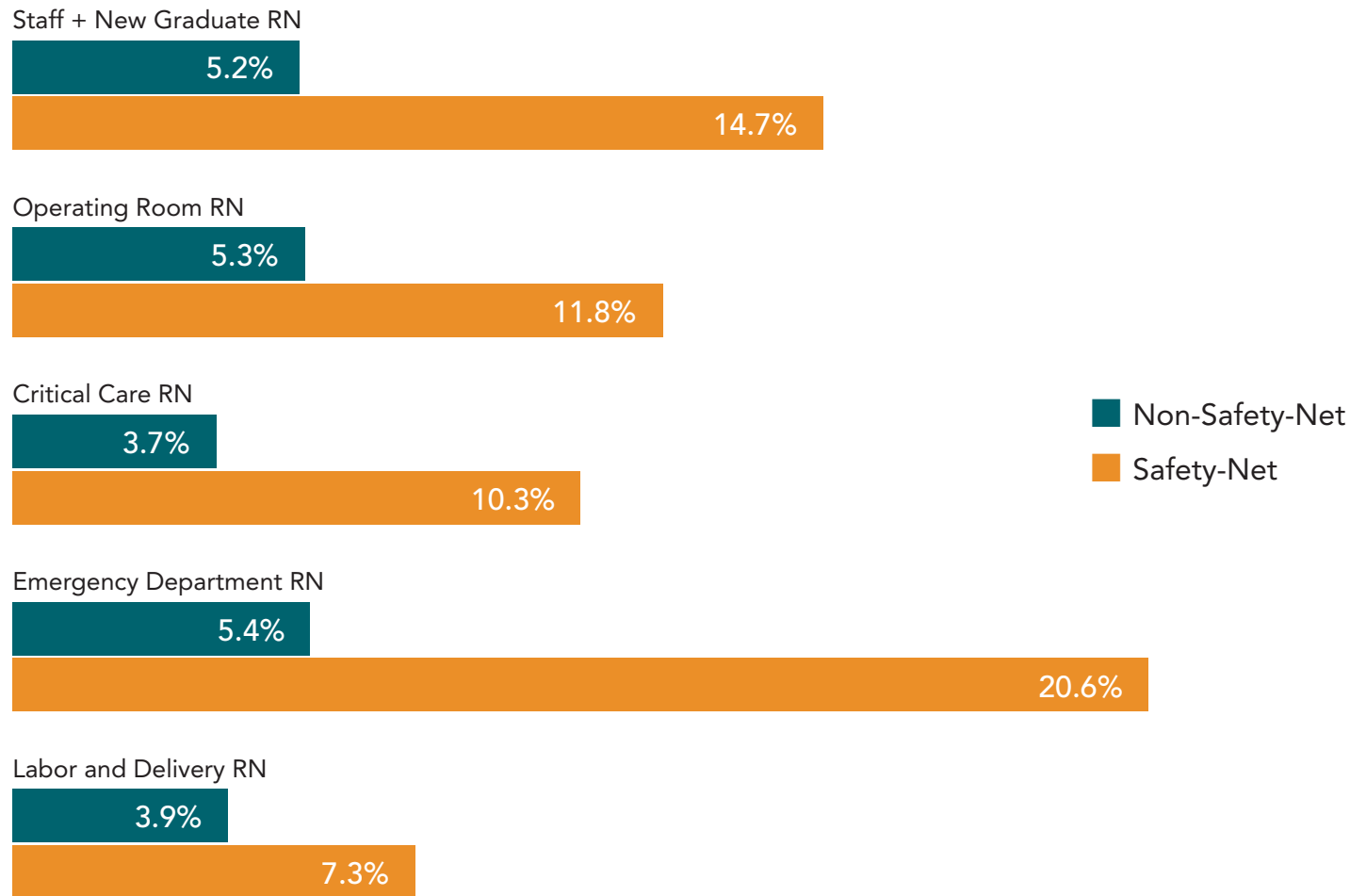| CHARACTERISTIC	SAFETY-NET (n = 99)	INTERMEDIATE (n = 51)	NON-SAFETY-NET (n = 174)
Average available beds	197.5	189.3	259.5
Average staffed beds	136.4	116.9	163.9
Nonprofit religious hospital	7.1%	9.8%	12.1%
Nonprofit secular corporation	25.3%	47.1%	61.5%
Nonprofit other type	2.0%	7.8%	3.4%
For-profit partnership	3.0%	2.0%	2.9%
For-profit corporation	22.2%	19.6%	16.7%
County hospital	18.2%	0.0%	0.0%
District hospital	22.2%	13.7%	3.4%
Rural hospital	17.2%	21.6%	0.0%
Critical access hospital	28.3%	7.8%	0.0%
Medi-Cal and indigent as percentage of patient days	57.6%	39.5%	21.0%
Charity and bad debt as percentage of gross revenue	2.9%	2.3%	1.0%
Disproportionate share payments as percentage of gross revenue	1.8%	0.2%	0.01%

Safety-net hospitals tended to be smaller than non-safety-net hospitals, with an average of 136.4 staffed beds versus 163.9 staffed beds.

Safety-net hospitals were also more often controlled by a for-profit corporation (22.2% vs. 16.7%) than non-safety-net hospitals and less often controlled by nonprofit secular corporations (25.3% vs. 61.5%) or religious organizations (7.1% vs. 12.1%).

Source: Hospital Annual Financial Disclosures (2018-19), Dept. of Health Care Access and Information.

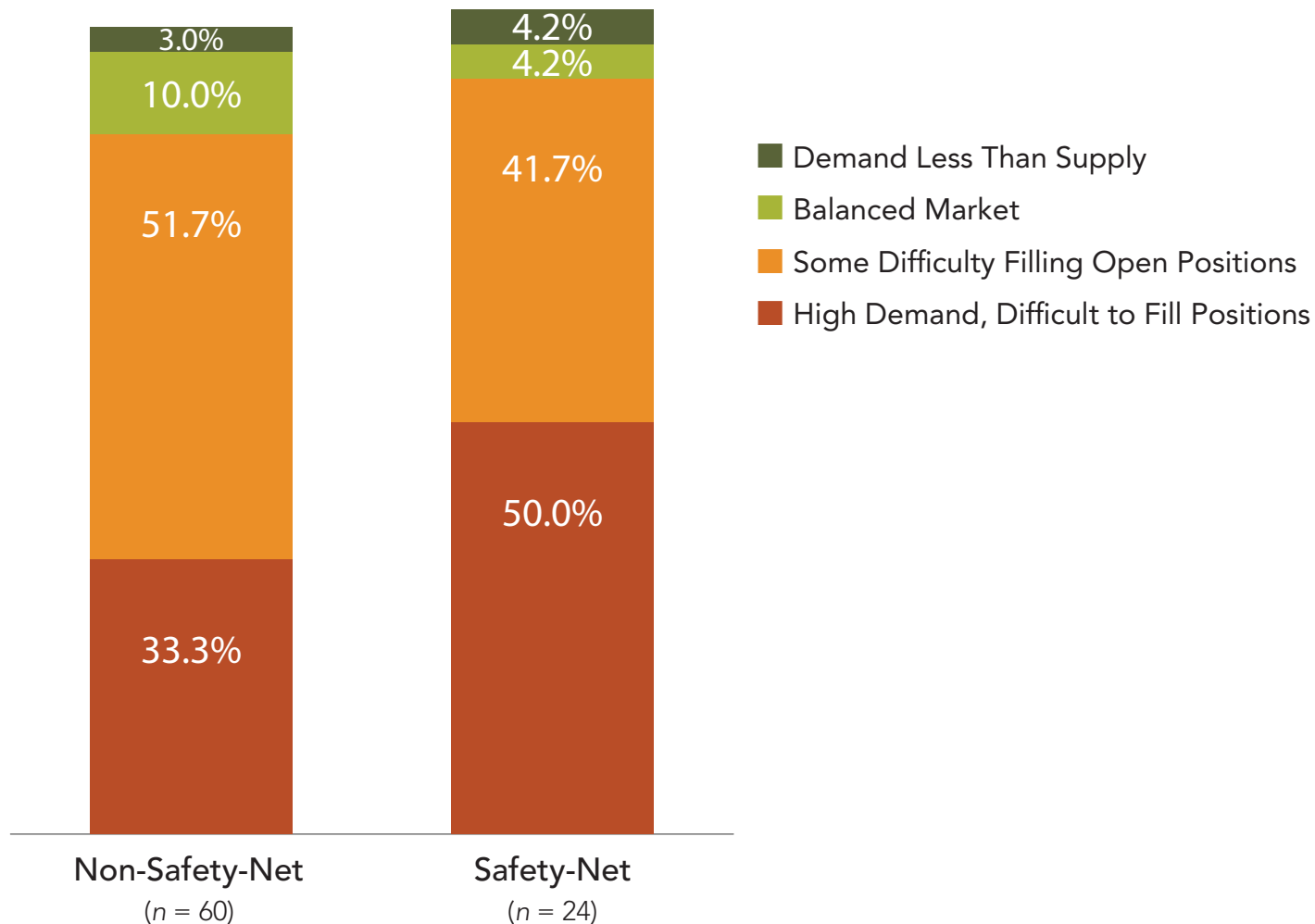# Average RN Vacancy Rates, California Safety-Net vs. Non-Safety-Net Hospitals, Fall 2018

Staff + New Graduate RN
5.2%
14.7%

Operating Room RN
5.3%
11.8%

Critical Care RN
3.7%
10.3%

■ Non-Safety-Net
■ Safety-Net

Emergency Department RN
5.4%
20.6%

Labor and Delivery RN
3.9%
7.3%

Registered nurse (RN) vacancy rates represent the number of unfilled positions relative to all possible RN positions within each department. A higher vacancy rate suggests greater difficulty in filling open positions. In the fall quarter of 2018, RN vacancy rates were higher for California safety-net hospitals than other hospitals for every department, with the highest vacancy rates for emergency department (20.6%) and general staff nurses (including newly graduated RNs) (14.7%).

Notes: Analysis includes 160 non-safety-net hospitals and 35 safety-net hospitals. Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.
Source: Quarterly Vacancy and Turnover Survey (Fall 2018), Hospital Assn. of Southern California.

Perceived Demand for RNs, California Safety-Net vs. Non-Safety-Net Hospitals, 2018–19

Legend:
- ■ Demand Less Than Supply
- ■ Balanced Market
- ■ Some Difficulty Filling Open Positions
- ■ High Demand, Difficult to Fill Positions

Non-Safety-Net (n = 60)
- 3.0%
- 10.0%
- 51.7%
- 33.3%

Safety-Net (n = 24)
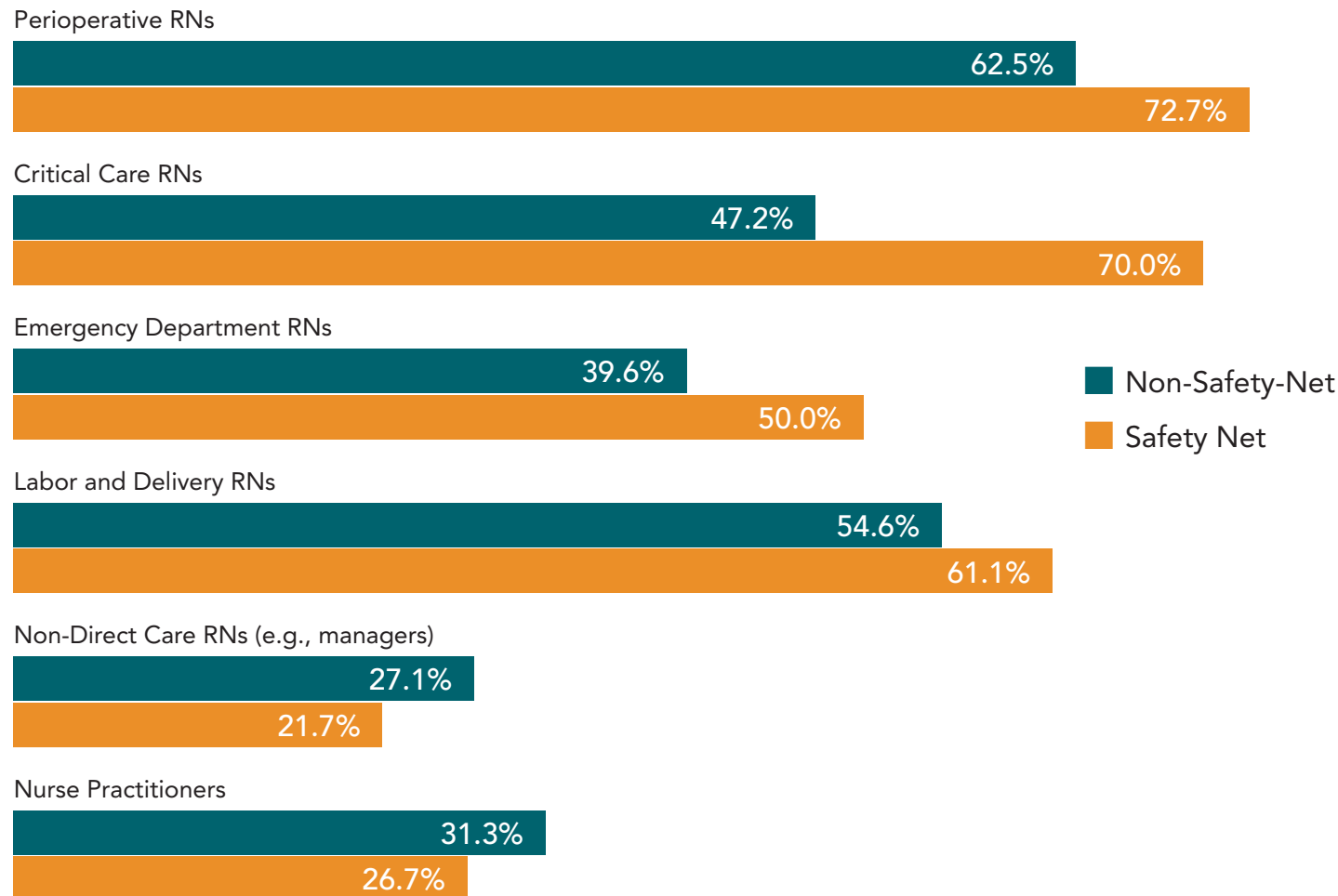- 4.2%
- 4.2%
- 41.7%
- 50.0%

Safety-net hospitals in California more often reported that they faced high demand with difficulty filling open positions for registered nurses (RNs) than did other hospitals (50.0% vs. 33.3%) and less often reported a balanced labor market (4.2% vs. 10.0%).

Note: Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Lela Chu and Joanne Spetz, *Survey of Nurse Employers in California, Fall/Winter 2018-19*, UCSF, April 23, 2020.

Perceived Difficulty Filling Positions, California Safety-Net vs. Non-Safety-Net Hospitals, 2018–19

Percentage Reporting "High Demand: Difficult to Fill Open Positions"

Perioperative RNs
- Non-Safety-Net: 62.5%
- Safety Net: 72.7%

Critical Care RNs
- Non-Safety-Net: 47.2%
- Safety Net: 70.0%

Emergency Department RNs
- Non-Safety-Net: 39.6%
- Safety Net: 50.0%

Labor and Delivery RNs
- Non-Safety-Net: 54.6%
- Safety Net: 61.1%

Non-Direct Care RNs (e.g., managers)
- Non-Safety-Net: 27.1%
- Safety Net: 21.7%

Nurse Practitioners
- Non-Safety-Net: 31.3%
- Safety Net: 26.7%

■ Non-Safety-Net
■ Safety Net

Solving Shortages
RN Staffing

California safety-net hospitals were more likely to report difficulty filling positions for direct care registered nurses (RNs) compared with other other hospitals. However, compared with other hospitals, safety-net hospitals were less likely to report difficulty filling non-direct care RN positions.

Notes: Analysis includes 60 non-safety-net and intermediate hospitals and 24 safety-net hospitals. Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Lela Chu and Joanne Spetz, *Survey of Nurse Employers in California, Fall/Winter 2018-19*, UCSF, April 23, 2020.

Distribution of Average Hourly Rates of Staff Registered Nurses in California Hospitals, 2018–19

	ALL HOSPITALS (*N* = 290)	SAFETY-NET (*n* = 98)	INTERMEDIATE (*n* = 51)	NON-SAFETY-NET (*n* = 141)
Average	$55.44	$48.82	$55.77	$59.92
Standard Deviation	13.65	10.65	12.53	14.11
25th Percentile	$45.93	$43.27	$45.68	$50.61
50th Percentile (median)	$53.66	$47.17	$53.68	$56.78
75th Percentile	$62.62	$54.90	$63.12	$70.93

Solving Shortages
RN Staffing

On average, California safety-net hospitals paid their staff registered nurses lower hourly rates ($48.82) compared to intermediate hospitals ($55.77) and non-safety-net hospitals ($59.92).

Notes: Some hospitals did not report average hourly rates for RNs and thus are not included in the table. Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Hospital Annual Financial Disclosures (2018–19), Dept. of Health Care Access and Information (formerly the Office of Statewide Health Planning and Development).

Use of Registry Nurses in California Hospitals, 2018–19

CHARACTERISTIC	ALL HOSPITALS (N = 324)	SAFETY-NET (n = 99)	INTERMEDIATE (n = 51)	NON-SAFETY-NET (n = 174)
Average	7.6%	9.6%	8.2%	6.2%
Standard Deviation	0.102	0.15	0.104	0.057
25th Percentile	2.1%	2.2%	1.8%	2.2%
50th Percentile (median)	5.3%	5.3%	5.0%	5.3%
75th Percentile	9.2%	12.0%	9.6%	8.7%

Solving Shortages
Registry Use

California safety-net hospitals used more registered nurse (RN) registry hours than their non-safety-net counterparts (9.6% of total RN staffing on average vs. 6.2%).

Note: Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Hospital Annual Financial Disclosures (2018–19), Dept. of Health Care Access and Information (formerly the Office of Statewide Health Planning and Development).

Distribution of Average Hourly Rates of Registry Nurses in California Hospitals, 2018–19

	ALL HOSPITALS (N = 266)	SAFETY-NET (n = 86)	INTERMEDIATE (n = 48)	NON-SAFETY-NET (n = 132)
Average	$76.66	$71.69	$76.39	$79.99
Standard Deviation	20.24	19.16	20.27	20.39
25th Percentile	$64.94	$59.91	$62.25	$69.66
50th Percentile (median)	$77.60	$74.65	$75.16	$81.01
75th Percentile	$89.21	$85.00	$89.79	$93.31

Solving Shortages
Registry Use

Similar to the pattern observed for staff nurse hourly rates, California safety-net hospitals also had the lowest average hourly rates for registry or traveling nurses ($71.69) than intermediate hospitals ($76.39) and non-safety-net hospitals ($79.99).

Notes: These rates are not reported for hospitals that did not employ registry nurses, and thus the number of hospitals included is lower than for staff registered nurse rates. Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Hospital Annual Financial Disclosures (2018–19), Dept. of Health Care Access and Information (formerly the Office of Statewide Health Planning and Development).

High- vs. Low-Registry-Use Hospitals in California, 2018–19

	ALL HOSPITALS (N = 324)	SAFETY-NET (n = 99)	INTERMEDIATE (n = 51)	NON-SAFETY-NET (n = 174)
Top Quartile of High-Registry-Use Hospitals	81 (25.0%)	33 (33.3%)	13 (25.5%)	35 (20.1%)
All Other Hospitals	243 (75.0%)	66 (66.7%)	38 (74.5%)	139 (79.9%)

Safety-net hospitals make up a larger proportion of hospitals classified as "high registry use," which means those hospitals for which the percentage of registred nurse (RN) hours provided by registry nurses is greater than the statewide 75th percentile (33.3% vs. 20.1%).

Note: Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Hospital Annual Financial Disclosures (2018–19), Dept. of Health Care Access and Information (formerly the Office of Statewide Health Planning and Development).

Characteristics of California High-Registry-Use Safety-Net Hospitals, 2018–19
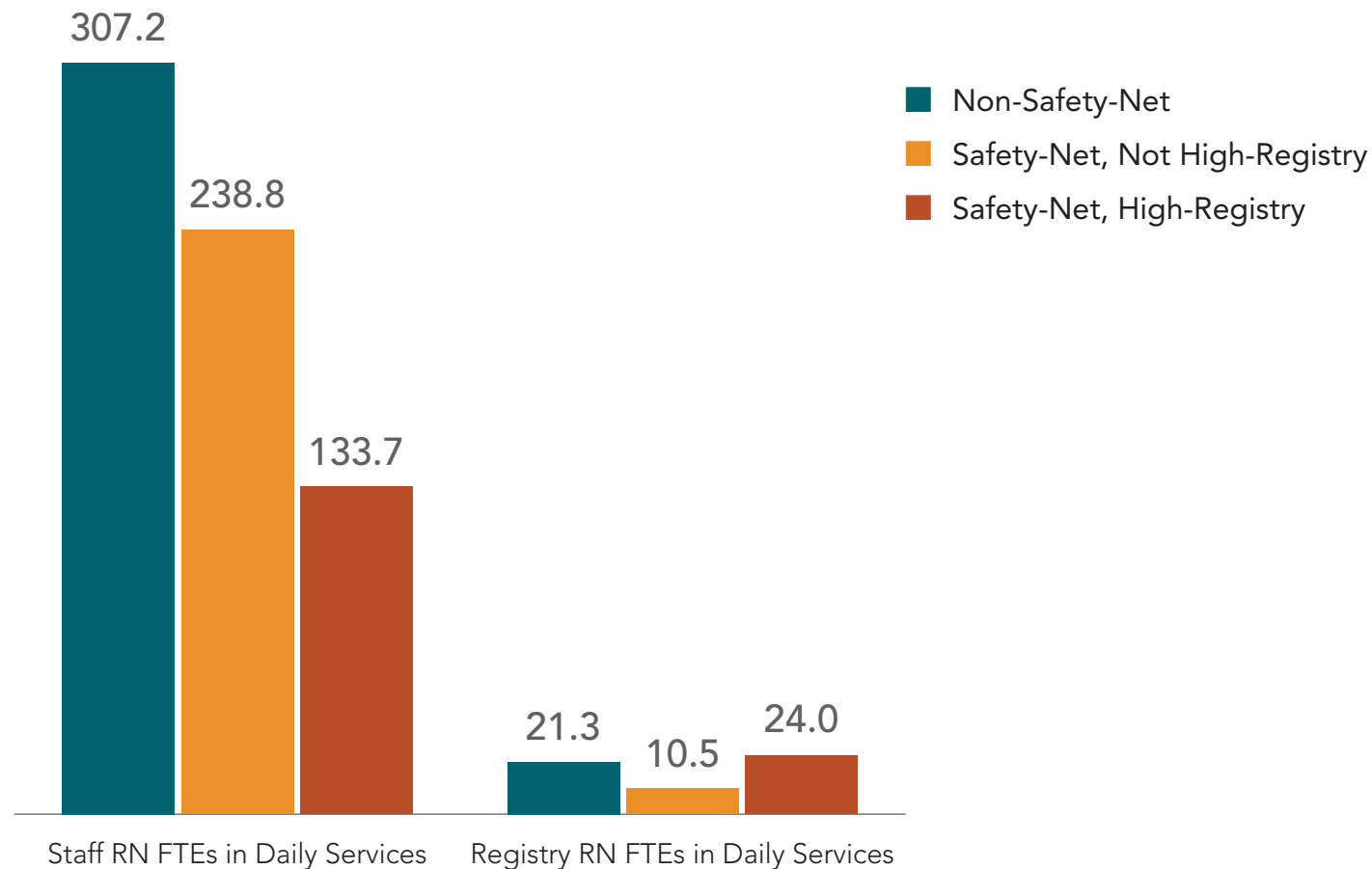
Rural and Critical Access Hospital Status

Legend:
- Safety-Net, Not High-Registry (orange)
- Safety-Net, High-Registry (dark red)

Rural Hospital
- 13.6%
- 24.2%
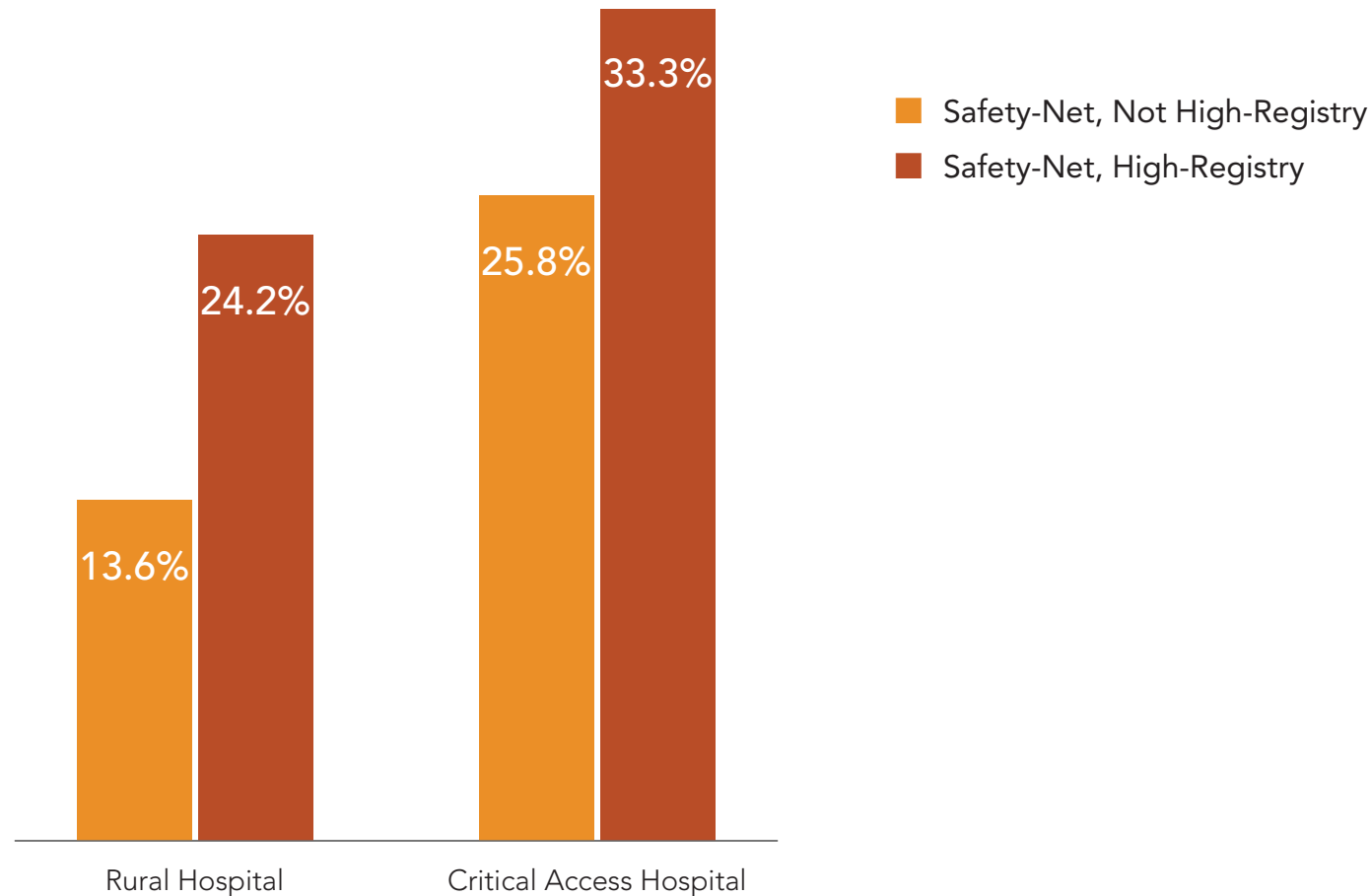
Critical Access Hospital
- 25.8%
- 33.3%

High-registry-use safety-net hospitals in California were more often rural (24.2% vs. 13.6%) and more often critical access hospitals (33.3% vs. 25.8%) compared with other safety-net hospitals that were not high-registry-use hospitals. High-registry-use safety-net hospitals were also more often operated by investor-owned corporations, nonprofit corporations, and hospital districts (not shown).

Notes: Based on 66 non-high-registry safety-net hospitals and 33 high-registry safety-net hospitals. Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Hospital Annual Financial Disclosures (2018–19), Dept. of Health Care Access and Information (formerly the Office of Statewide Health Planning and Development).

California High-Registry-Use Safety-Net Hospitals: FTE Employment of Staff and Registry Nurses, 2018–19

307.2

238.8

133.7

■ Non-Safety-Net

■ Safety-Net, Not High-Registry

■ Safety-Net, High-Registry

21.3   10.5   24.0

Staff RN FTEs in Daily Services   Registry RN FTEs in Daily Services

Solving Shortages
Registry Use

High-registry-use safety-net hospitals on average had fewer full-time equivalent (FTE) staff nurses (133.7 FTEs) than safety-net hospitals that did not fall into the high-registry-use category (238.8 FTEs) and non-safety-net hospitals (307.2 FTEs). This is not surprising given that safety-net hospitals that have a high use of registry nurses tend to be smaller than safety-net hospitals that do not have high use of registry nurses. However, even with their smaller size, high-registry-use safety-net hospitals used more registry registered nurse (RN) FTEs than non-safety-net hospitals (24.0 FTEs vs. 21.3 FTEs).

Average RN Vacancy Rates in California High-Registry-Use Safety-Net Hospitals, 2018

Staff + New Graduate

5.6%

6.5%

■ Safety-Net, Not High-Registry

■ Safety-Net, High-Registry

Operating Room RN

15.2%

4.6%

Critical Care RN

11.6%

8.0%

Emergency Department RN

10.1%

46.4%

Labor and Delivery RN

7.6%

6.7%
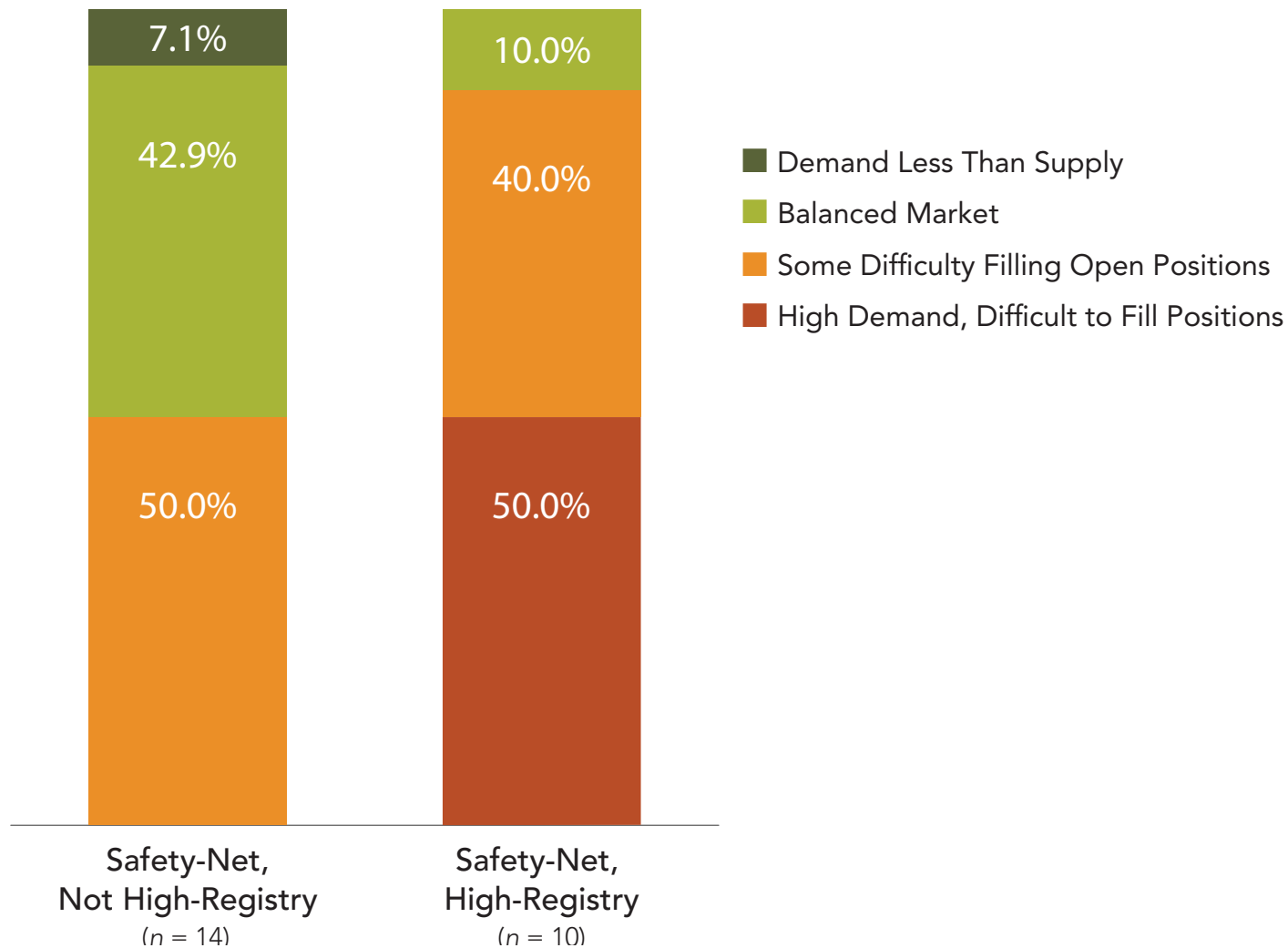
High-registry-use safety-net hospitals did not have consistently higher registered nurse (RN) vacancy rates than other safety-net hospitals. However, for emergency department positions, there was a higher vacancy rate for high-registry-use safety-net hospitals (46.4% vs. 10.1%). This is consistent with data indicating that safety-net hospitals in general had the highest vacancy rates in the emergency department.

Notes: Thirteen of the 40 safety-net hospitals that responded to the HASC survey were high-registry users. Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Healthcare Workforce Survey, Fall 2018, Hospital Assn. of Southern California.

Perceived Demand for RNs Overall in California High-Registry-Use Safety-Net Hospitals, 2018–19
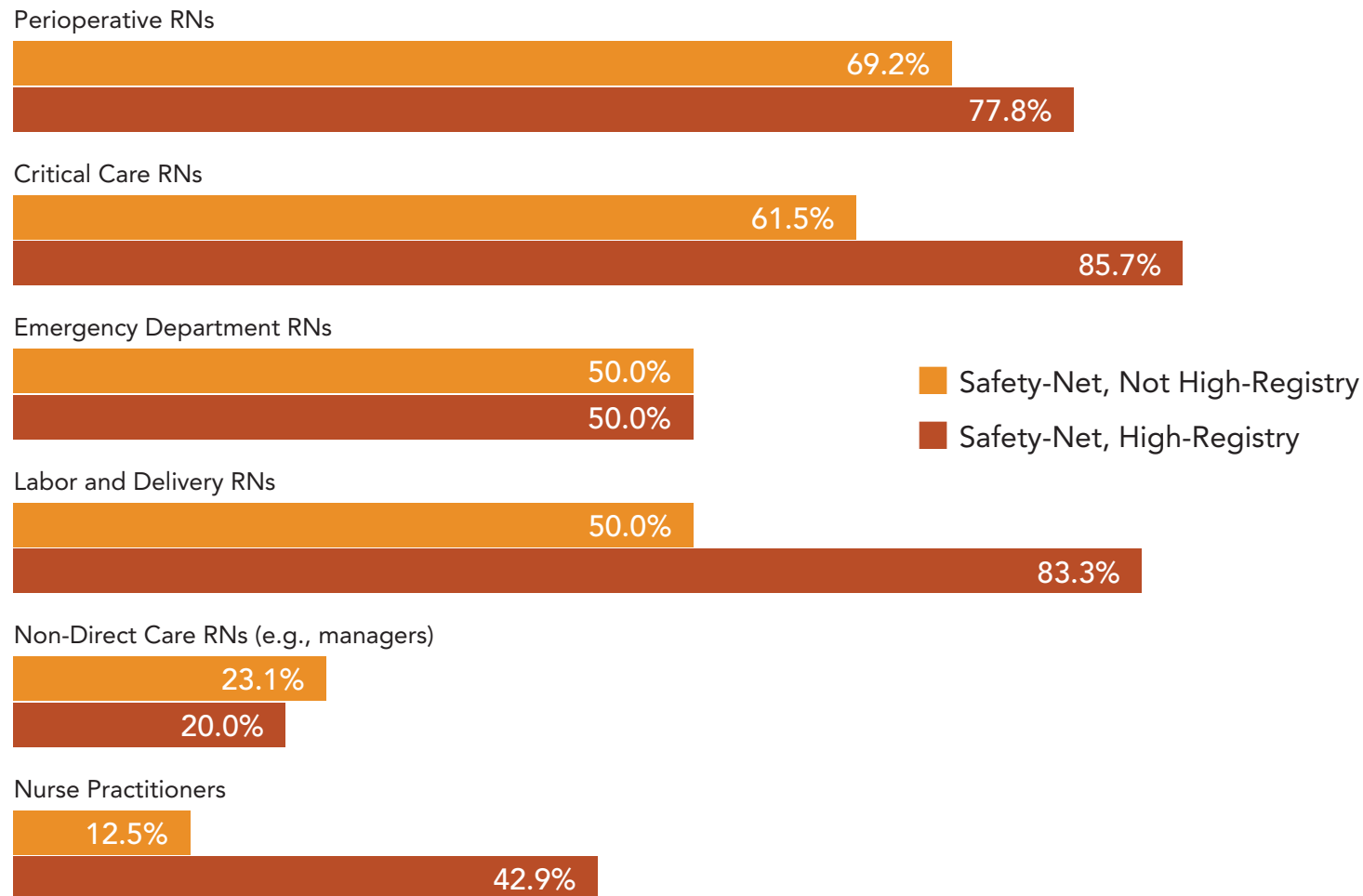
High-registry-use safety-net hospitals in California reported greater difficulty filling open registered nurse (RN) positions than other safety-net hospitals, with 50% saying they faced high demand and that it was difficult to fill positions, while no non-high-registry-use hospitals reported this level of difficulty filling positions.

Safety-Net, Not High-Registry
(*n* = 14)
- 7.1%
- 42.9%
- 50.0%

Safety-Net, High-Registry
(*n* = 10)
- 10.0%
- 40.0%
- 50.0%

- ■ Demand Less Than Supply
- ■ Balanced Market
- ■ Some Difficulty Filling Open Positions
- ■ High Demand, Difficult to Fill Positions

Note: Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Lela Chu and Joanne Spetz, *Survey of Nurse Employers in California, Fall/Winter 2018-19*, UCSF, April 23, 2020.

Perceived Difficulty Filling Positions, California High-Registry-Use Safety-Net Hospitals, 2018–19

Percentage Reporting "High Demand: Difficult to Fill Open Positions"

Perioperative RNs
- 69.2%
- 77.8%

Critical Care RNs
- 61.5%
- 85.7%

Emergency Department RNs
- 50.0%
- 50.0%

■ Safety-Net, Not High-Registry
■ Safety-Net, High-Registry

Labor and Delivery RNs
- 50.0%
- 83.3%

Non-Direct Care RNs (e.g., managers)
- 23.1%
- 20.0%

Nurse Practitioners
- 12.5%
- 42.9%

Source: Lela Chu and Joanne Spetz, *Survey of Nurse Employers in California, Fall/Winter 2018-19*, UCSF, April 23, 2020.

Solving Shortages
Registry Use

High-registry-use safety-net hospitals more often reported high demand for registered nurses (RNs) and also more often reported difficulty filling positions for RNs compared with other other safety-net hospitals, particularly for perioperative RNs, critical care RNs, labor and delivery RNs, and nurse practitioners.

Average Spending on Registered Nurse Staffing in California Hospitals, 2018–19

In millions

	NON-SAFETY-NET	SAFETY-NET, NOT HIGH-REGISTRY	SAFETY-NET, HIGH-REGISTRY
Staff RN Expenditures	$32.2	$21.1	$12.3
Registry RN Expenditures	$2.5	$1.5	$3.1
Percentage of Overall RN Expenditures Spent on Registry RNs	7.8%	6.9%	24.9%

Solving Shortages
Registry Use

California safety-net hospitals with high registry expenditures averaged $12.3 million per year in staff registered nurse (RN) wages and nearly $3.1 million per year in registry nurse expenditures, or 24.9% of total expenditures. Other safety-net hospitals had higher spending on staff nurses but less spending on registry nurses, or 6.9% of total expenditures.

Note: Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Hospital Annual Financial Disclosures (2018–19), Dept. of Health Care Access and Information (formerly the Office of Statewide Health Planning and Development).

Defining California Safety-Net Clinics

California clinics are included in this snapshot if they are either community clinics or free clinics, classifications assigned by the Office of Statewide Health Planning and Development (now the Department of Health Care Access and Information). Community and free clinics serve patients with low incomes and Medicaid coverage, and thus are considered safety-net providers. Clinics identified as nonoperational during 2019, clinics with missing data across all metrics, as well as clinics with duplicate entries spanning two reporting periods were removed. Using these criteria, the overall data set was narrowed to 1,161 clinics.

Contract Provider Staffing in California Safety-Net Clinics, 2019

	PHYSICIANS	NPS	PAS	PHYSICIANS, NPS & PAS COMBINED	RNS	LVNS	RNS & LVNS COMBINED	TOTAL
Clinics with Contract Providers (N = 1,161)								
Number of Clinics with Contract Providers	374	174	132	441	24	8	29	457
Percentage of Clinics with Contract Providers Relative to All Clinics	32.2%	15.0%	11.4%	38.0%	2.1%	0.7%	2.5%	39.4%
Contract Provider Staffing (in FTEs)								
Average	0.31	0.08	0.04	0.43	0.01	0.01	0.02	0.45
Standard Deviation	1.77	0.35	0.25	1.96	0.11	0.14	0.18	1.97
75th Percentile	0.10	0.00	0.00	0.23	0.00	0.00	0.00	0.28
Maximum	44.95	6.60	4.84	45.20	1.63	4.55	4.55	45.20

Solving Shortages
Safety-Net Clinics and Clinician Staffing

Only 39.4% of all clinics used any contract providers. Of those, clinics hired more contract physician full-time equivalents (FTEs) than nurse practitioner (NP), physician assistant (PA), registered nurse (RN), and licensed vocational nurse (LVN) FTEs on average (0.31 FTEs) and at the 75th percentile (0.10 FTEs).

Notes: The combined data represent unique clinics — that is, clinics that used more than one type of contract provider were counted only once. Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Annual Utilization Reports of Primary Care Clinics (2019), Dept. of Health Care Access and Information (formerly the Office of Statewide Health Planning and Development).

Contract Provider Staffing in California Safety-Net Clinics, 2019

In FTEs

	PHYSICIANS	NPS	PAS	PHYSICIANS, NPS & PAS COMBINED	RNS	LVNS	RNS & LVNS COMBINED	TOTAL
High-Contract-Use (n = 291) (%)	341.32 (95.7%)	85.45 (97.8%)	50.61 (97.2%)	477.38 (96.2%)	16.00 (99.3%)	6.55 (99.2%)	22.55 (99.3%)	499.93 (96.3%)
Non-High-Contract-Use (n = 870) (%)	15.50 (4.3%)	1.94 (2.2%)	1.48 (2.8%)	18.92 (3.8%)	0.12 (0.7%)	0.05 (0.8%)	0.17 (0.7%)	19.09 (3.7%)
All Clinics (N = 1,161)	356.82	87.39	52.09	496.30	16.12	6.60	22.72	519.02

Out of 1,161 safety-net clinics in California, 291 represent the top quartile of clinics that used the most contract providers in terms of FTEs and are referred to as "high-contract-provider users" in this snapshot. These 291 clinics utilized 96.3% of all contract provider FTEs.

Notes: *NP* is nurse practitioner; *PA* is physician assistant; *RN* is registered nurse; *LVN* is licensed vocational nurse. Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Annual Utilization Reports of Primary Care Clinics (2019), Dept. of Health Care Access and Information (formerly the Office of Statewide Health Planning and Development).

Contract Provider Staffing in High-Contract-Use Safety-Net Clinics, California, 2019

Contract Provider Staffing in High-Contract-Provider-Use Safety-Net Clinics (in FTEs)

	PHYSICIANS	NPS	PAS	PHYSICIANS, NPS & PAS COMBINED	RNS	LVNS	RNS & LVNS COMBINED	TOTAL
Average	1.17	0.29	0.17	1.64	0.05	0.02	0.08	1.72
Standard Deviation	3.39	0.66	0.47	3.65	0.22	0.28	0.35	3.65
50th Percentile (median)	0.48	0.00	0.00	0.80	0.00	0.00	0.00	0.86

High-Contract-Provider-Use Safety-Net Clinics (N = 291)

	PHYSICIANS	NPS	PAS	PHYSICIANS, NPS & PAS COMBINED	RNS	LVNS	RNS & LVNS COMBINED	TOTAL
Number of Clinics with Contract Providers	240	134	100	276	23	7	28	291
Percentage of Clinics with Contract Providers Relative to All High-Use Clinics	82.5%	46.0%	34.4%	94.8%	7.9%	2.4%	9.6%	100.0%

Solving Shortages
Safety-Net Clinics and Clinician Staffing

For all California safety-net clinics in the "high-contract-provider-use" category, physicians were the most common contract provider type on average (1.17 FTEs) and at the median in terms of FTEs.

Additionally, physicians were the most used contract provider type across the 291 high-contract-use clinics. Of these 291 clinics, 240 (82.5%) hired contract physicians.

Notes: *NP* is nurse practitioner; *PA* is physician assistant; *RN* is registered nurse; *LVN* is licensed vocational nurse. The combined data represent unique clinics — that is, clinics who used more than one type of contract provider were counted only once. Please see "Defining California Safety-Net Hospitals" on page 2 and "Appendix: Data Sources" on page 21 for details on the criteria authors used to categorize hospitals for this snapshot and how data were accessed.

Source: Annual Utilization Reports of Primary Care Clinics (2019), Dept. of Health Care Access and Information (formerly the Office of Statewide Health Planning and Development).

Appendix: Data Sources

Four key data sources were used as part of this analysis.

Data from the **Department of Health Care Access and Information** (formerly the Office of Statewide Health Planning and Development) were used to analyze hospital employment of temporary nursing personnel. The most recent data available are for hospital fiscal years ending between July 1, 2018, and June 30, 2019. The data thus span 2017 through 2019, depending on when hospitals' fiscal years ended.

The **Hospital Association of Southern California (HASC)** conducts a quarterly survey of hospital human resources managers about hospital employment, turnover, and vacancies. The HASC survey asks respondents to report the numbers of full-time, part-time, and per-diem registered nurses (RNs) they employ in each of several units and departments. The survey also requests information about the numbers of vacancies in each of these departments. These data were analyzed from fall 2018 to align with the Department of Health Care Access and Information data. Forty of the 241 hospitals in the HASC survey were safety-net hospitals.

The **University of California, San Francisco (UCSF)** conducts a survey of hospital chief nursing officers (CNOs) every 12–18 months. The CNO survey asks respondents to report their perceptions of the RN labor market in their area, hiring of newly graduated nurses, and use of temporary and traveling nurses. The most recent data are from fall/winter 2018–19, with 125 respondents. Thirty of the 125 hospitals in the UCSF CNO survey were safety-net hospitals.

Data from the **Annual Utilization Reports of Primary Care Clinics**, which are reported by licensed community and free clinics to the Department of Health Care Access and Information, were used to analyze clinic staffing, including of contract personnel. The most recent data available are for the calendar year 2019. These data provide information about the number of full-time equivalent staff for physicians, physician assistants, nurse practitioners, nurse midwives, behavioral health professionals, clinical support staff (e.g., licensed vocational nurses, medical assistants, registered nurses), and administrative staff. For each of the types of staff, the number of salaried, contract, and volunteer full-time equivalents are reported. The data set also has information about the services provided by the clinic, insurance coverage of patients, race/ethnicity of patients, age distribution of patients, income of patients, and languages spoken by staff and patients. Additional information is available about the numbers of encounters and contacts by type of provider, principal diagnosis, and type of service provided (e.g., evaluation and management, counseling, vaccination). Community and free clinics serve patients with low incomes and Medicaid coverage and thus are considered to be safety-net providers.

About the Authors

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