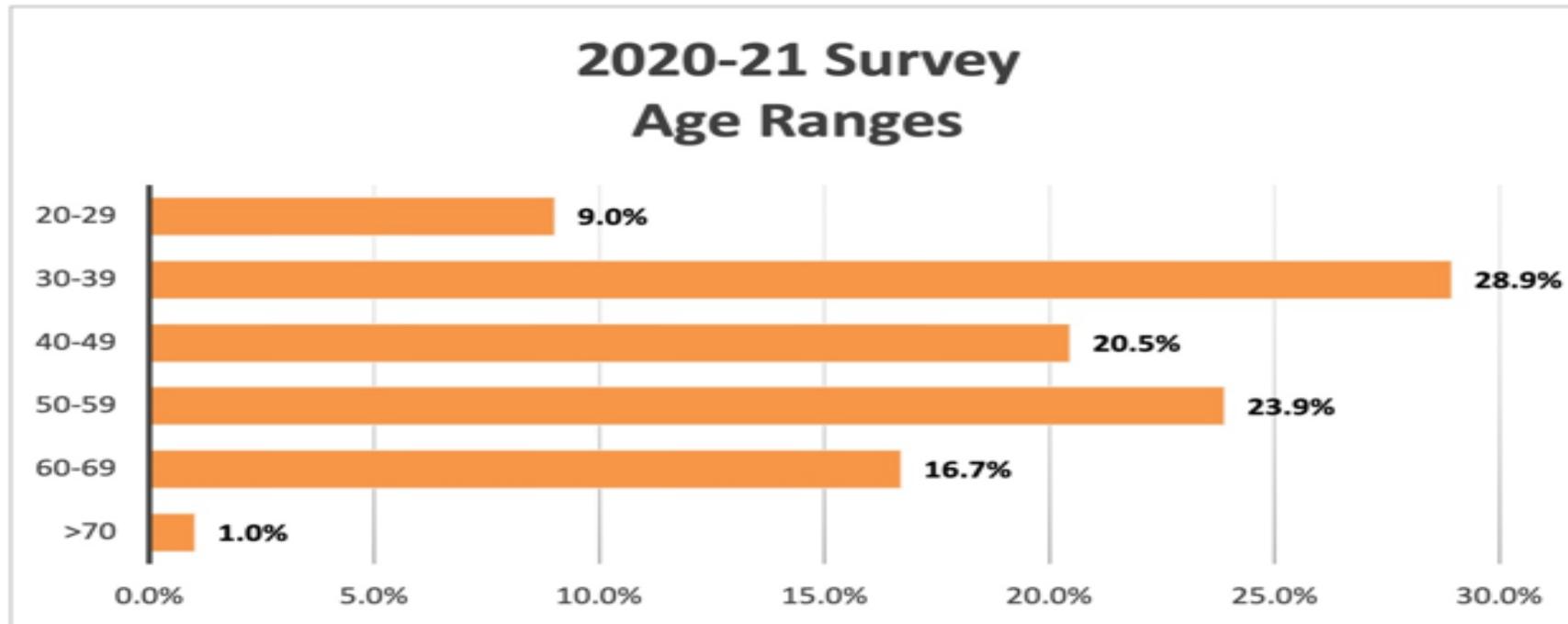


Filename: Figure1.jpg

Figure 1. A total of 2,691 CCPs answered this question; 17 skipped it. Of those who responded, 61.6% (n=1,659) identify as “Male;” 38.0% (n=1,022) identified as “Female;” and 0.4% (n=10) identified as “Other.”



Filename: Figure2.jpg

Figure 2. A total of 2,647 CCPs answered this question; 61 skipped it. Of those who responded, 9.0% (n=238) were in the 20-29- age range; 28.9% (n=764) were in the 30-39 age range; 20.5% (n=540) were in the 40-49 age range; 23.9% (n=631) were in the 50-59 age range; 16.7% (n=441) were in the 60-69 age range; and 1.0% (n=27) were in the >70 age range. There were 6 responses ommitted due to incomptable data input from respondents.

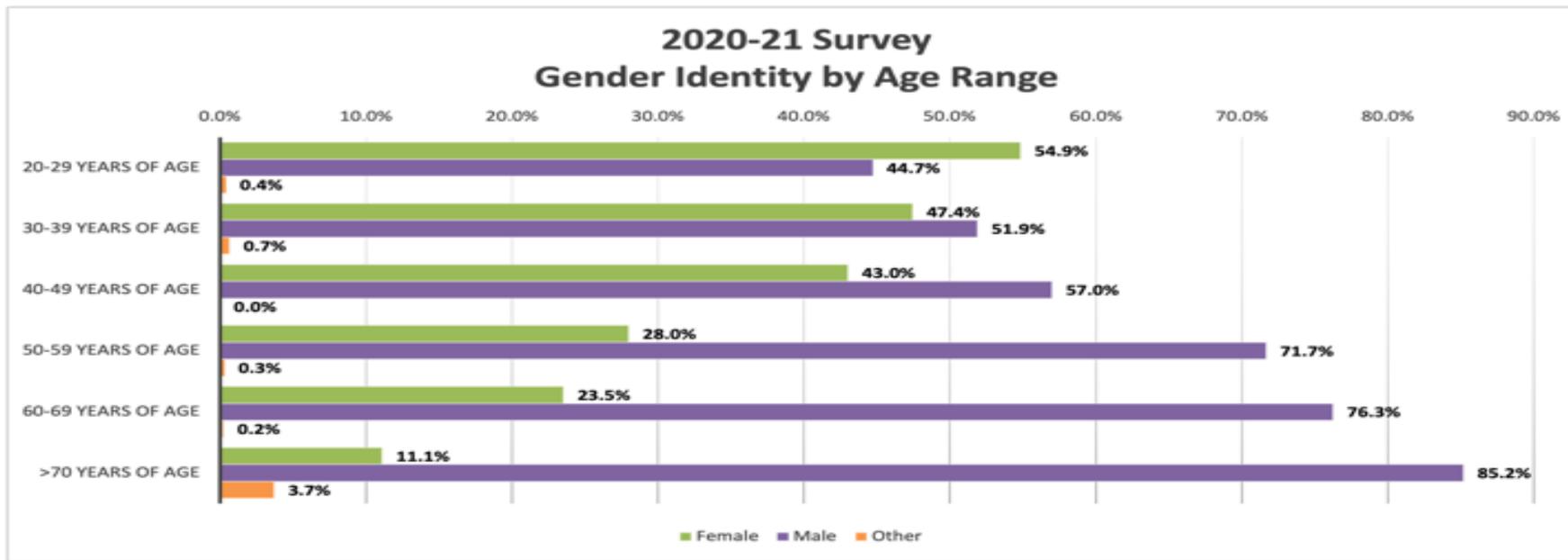
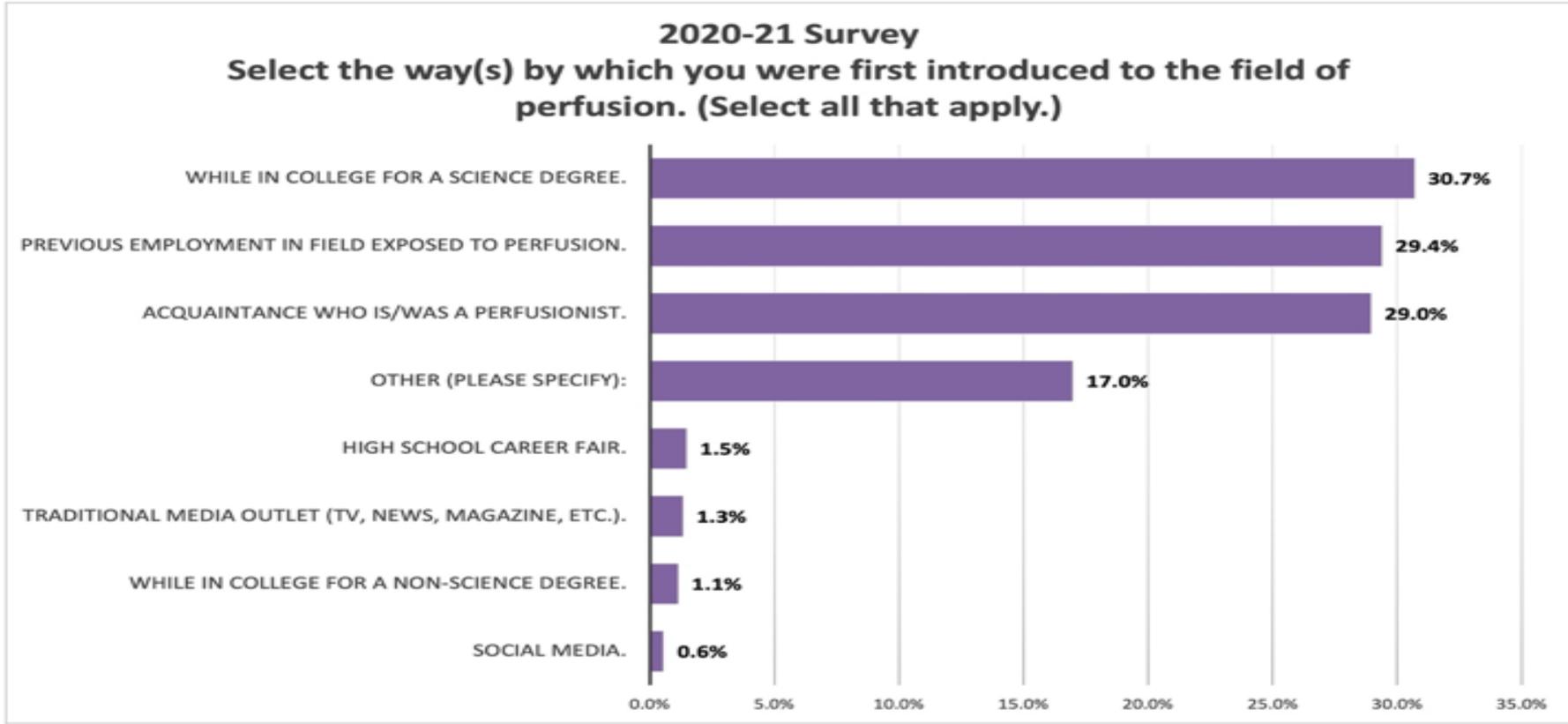
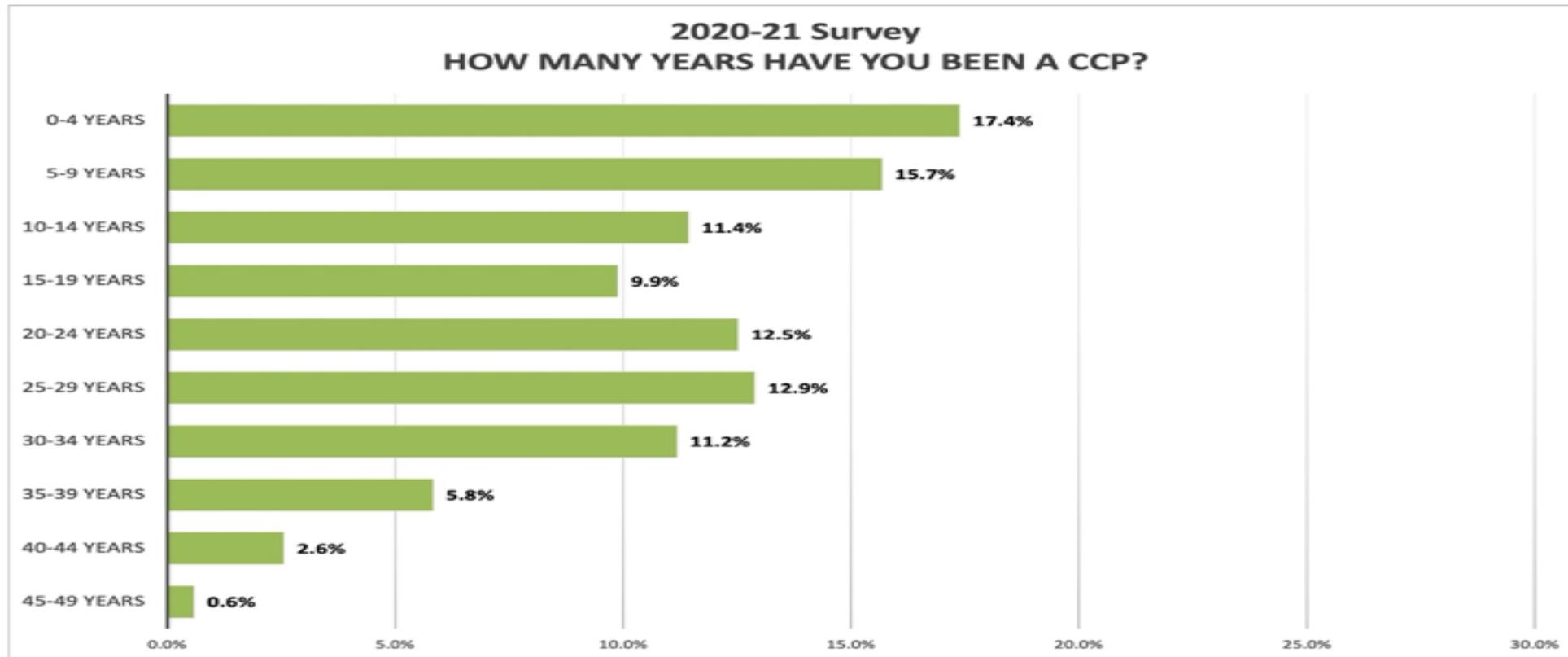


Figure 2-1. When comparing Gender Identity by Age Range, there were a total of 2,627 CCPs computable responses. **20-29 Years of Age:** 9.0% (n=237) of the total CCP respondents with 54.9% (n=130) in this range identifying as “female,” 44.7% (n=106) identifying as “male,” and 0.4% (n<10) identifying as “other.” **30-39 Years of Age:** 29.0% (n=763) of the total CCP respondents with 47.4% (n=362) in this range identifying as “female,” 51.9% (n=396) identifying as “male,” and 0.7% (n<10) identifying as “other.” **40-49 Years of Age:** 20.4% (n=537) of the total CCP respondents with 43.0% (n=231) in this range identifying as “female,” 57.0% (n=306) identifying as “male,” and 0.0% (n=0) identifying as “other.” **50-59 Years of Age:** 23.8% (n=625) of the total CCP respondents with 28.0% (n=175) in this range identifying as “female,” 71.7% (n=448) identifying as “male,” and 0.3% (n<10) identifying as “other.” **60-69 Years of Age:** 16.7% (n=438) of the total CCP respondents with 23.5% (n=103) in this range identifying as “female,” 76.3% (n=334) identifying as “male,” and 0.2% (n<10) identifying as “other.” **>70 Years of Age:** 1.0% (n=27) of the total CCP respondents with 11.1% (n<10) in this range identifying as “female,” 85.2% (n=23) identifying as “male,” and 3.7% (n<10) identifying as “other.”



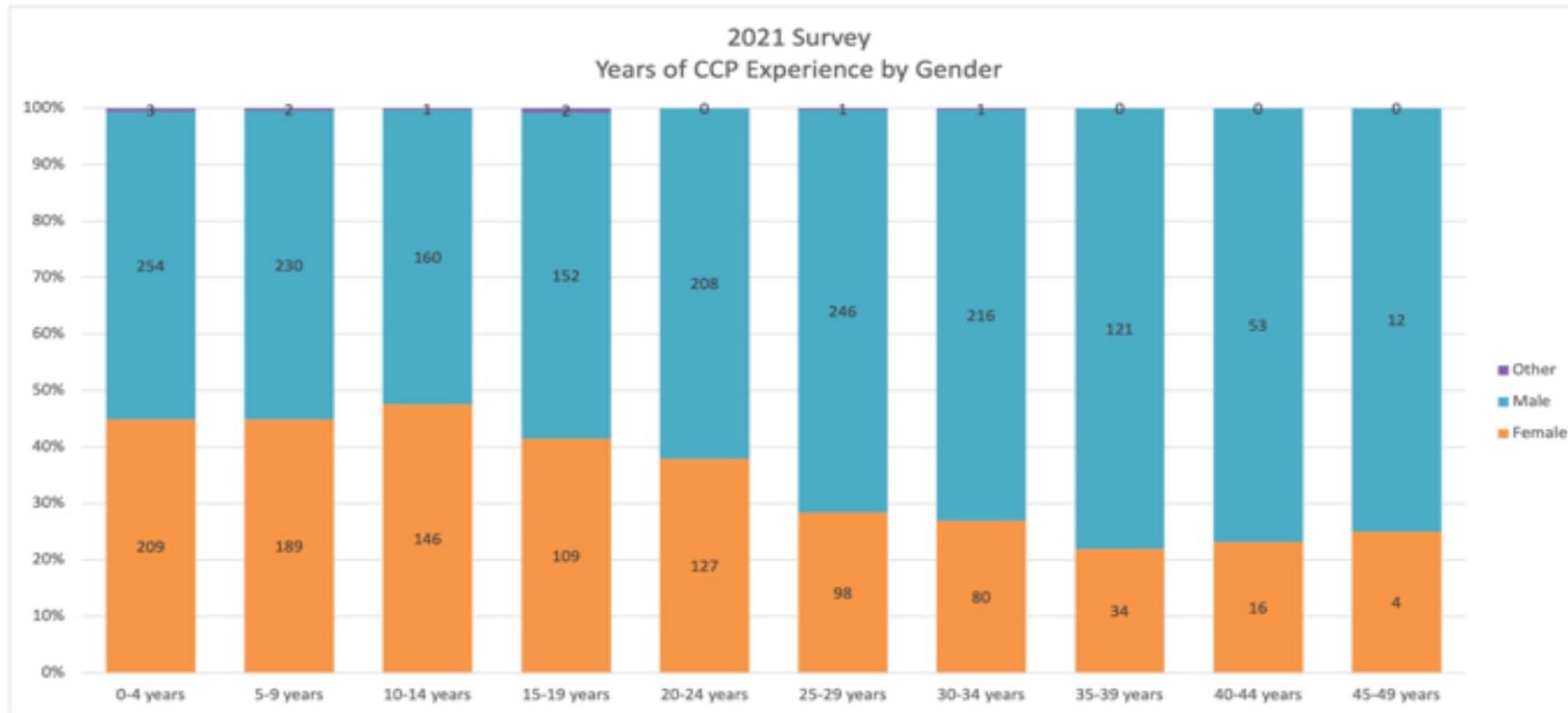
Filename: Figure3.jpg

Figure 3. A total of 2,697 CCPs answered this question; 11 skipped it. There were 30.7% (n=828) of CCPs that indicated that they were introduced to the field of perfusion “while in college for a science degree;” 29.4% (n=793) “previous employment in field exposed to perfusion;” 29.0% (n=781) by an “acquaintance who is/was a perfusionist;” 17.0% (n=458) “other (please specify);” 1.5% (n=40) at a “high school fair;” 1.3% (n=36) through “traditional media outlet (TV, news, magazine, etc.);” 1.1%(n=31) “while in college for a non-science degree;” and 0.6% (n=15) via “social media.”



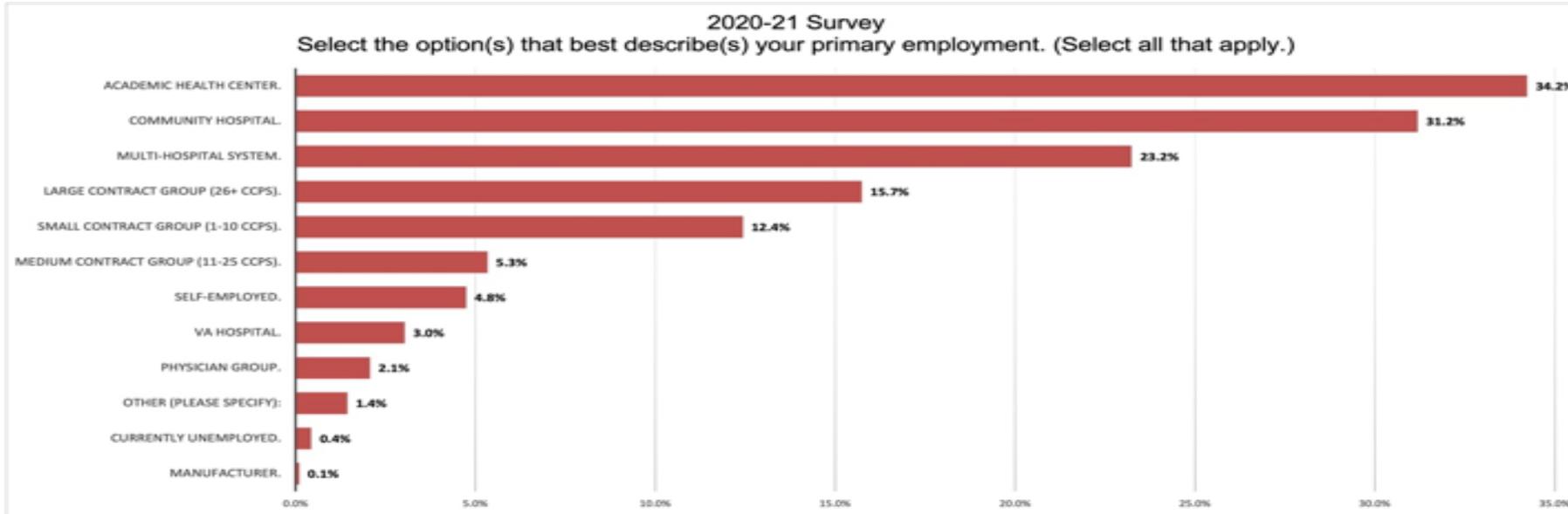
Filename: Figure4.jpg

Figure 4. A total of 2,691 CCPs answered this question in the 2020-21 Survey; 17 skipped it. The 2020-21 CCP respondents had the following breakdown for years of experience as a CCP: 17.4% (n=468) have 1-4 years experience; 15.7% (n=422) have 5-9 years experience; 11.4% (n=308) have 10-14 years experience; 9.9% (n=266) have 15-19 years experience; 12.5% (n=337) have 20-24 years experience; 12.9% (n=347) have 25-29 years experience, 11.2% (n=301) have 30-34 years experience, 5.8% (n=157) have 35-39 years experience, 2.6% (n=69) have 40-44 years experience, and 0.6% (n=16) have 45-49 years of experience.



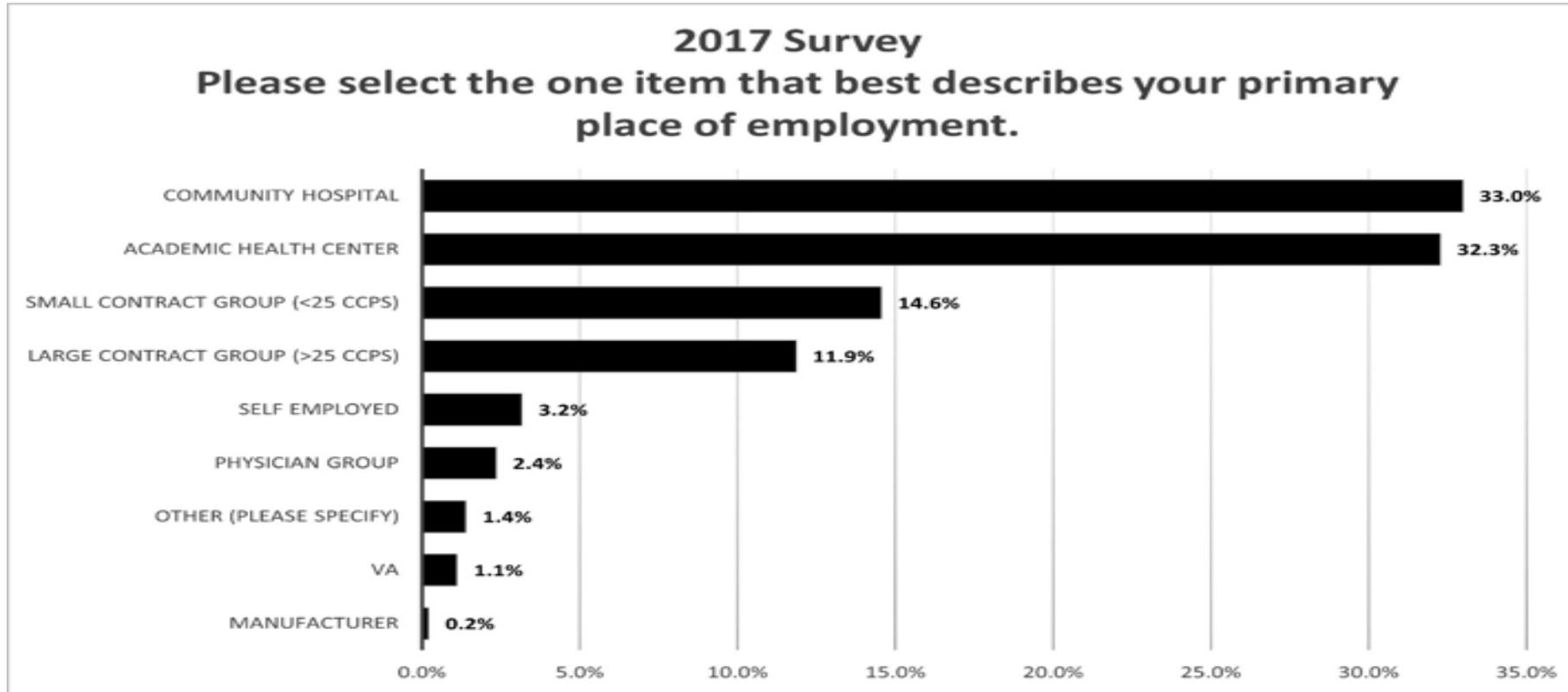
Filename: Figure4-1.jpg

Figure 4-1. A total of 2674 CCPs responded for both years of experience and gender identity, 34 either skipped or provided incomplete data for comparison. The 2020-21 CCP respondents were broken down by a range of years of experience, and the gender identity within each range was compared.



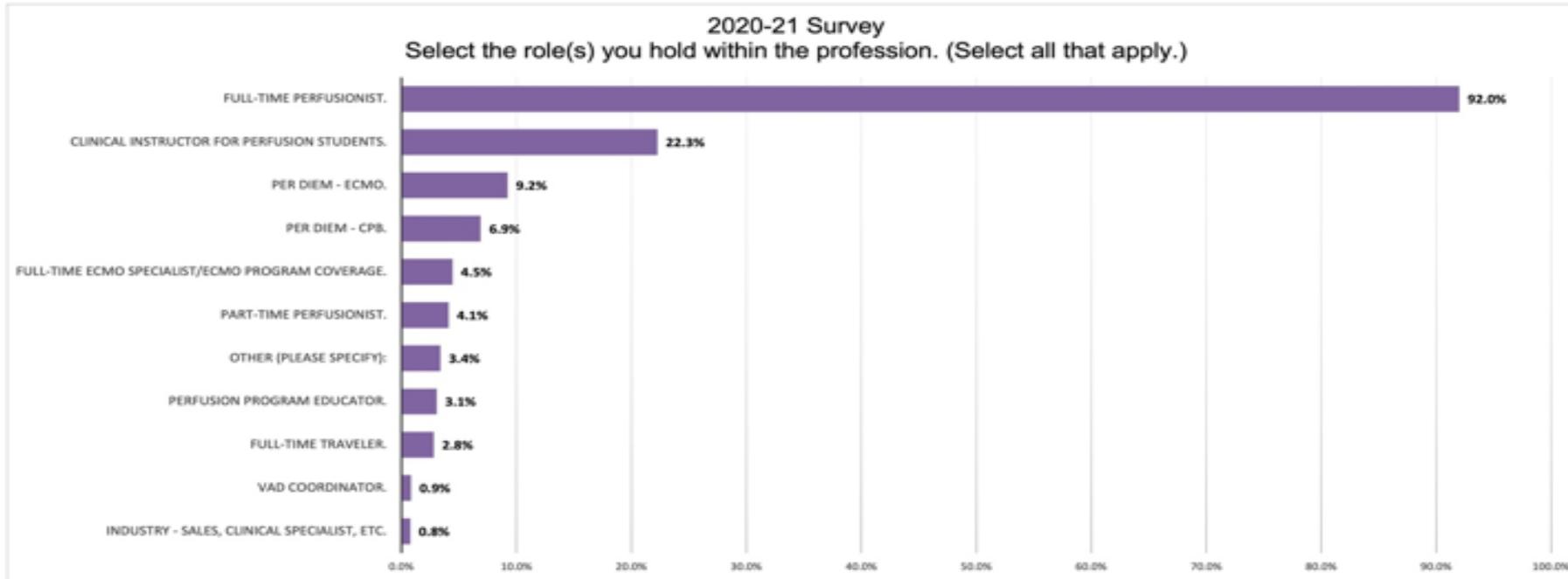
Filename – Figure5.jpg

Figure 5. A total of 2,693 CCPs answered this question; 15 skipped it. The 2020-21 CCP respondents could select all primary employment options that applied to them. The following is a breakdown of data for 2020-21 primary employment: 34.2% (n=922) selected “academic health center;” 31.2% (n=840) selected “community hospital;” 23.2% (n=626) selected “multi-hospital system” (this was not an option on the 2017 survey); 15.7% (n=424) selected “large contract group (26+ CCPs);” 12.4% (n=335) selected “small contract group (1-10 CCPs);” 5.3% (n=144) selected “medium contract group (11-25 CCPs)” (this was not an option on the 2017 survey); 3.0% (n=82) selected “VA hospital;” 2.1% (n=56) selected “physician group;” 0.1% (n=3) selected “manufacturer;” 4.8% (n=128) selected “self-employed;” 1.5% (n=39) selected “other;” and 0.4% (n=12) selected “currently unemployed” (this was not an option on the 2017 survey).



Filename: Figure5-1.jpg

Figure 5.1. A total of 3,218 CCPs answered this question in 2017; 8 skipped it. The 2017 CCP respondents were asked to select the one item that best represented their primary employment. The following is a breakdown of data for 2017 primary employment: 33.0% (n=1,062) selected “community hospital;” 32.3% (n=1,039) selected “academic health center;” 14.6% (n=469) selected “small contract group (<25 CCPs);” 11.9% (n=382) selected “large contract group (>25 CCPs);” 3.2% (n=102) selected “self-employed;” 2.4% (n=76) selected “physician group;” 1.1% (n=36) selected “VA;” 1.4% (n=45) selected “other;” and 0.2% (n=7) selected “manufacturer.”

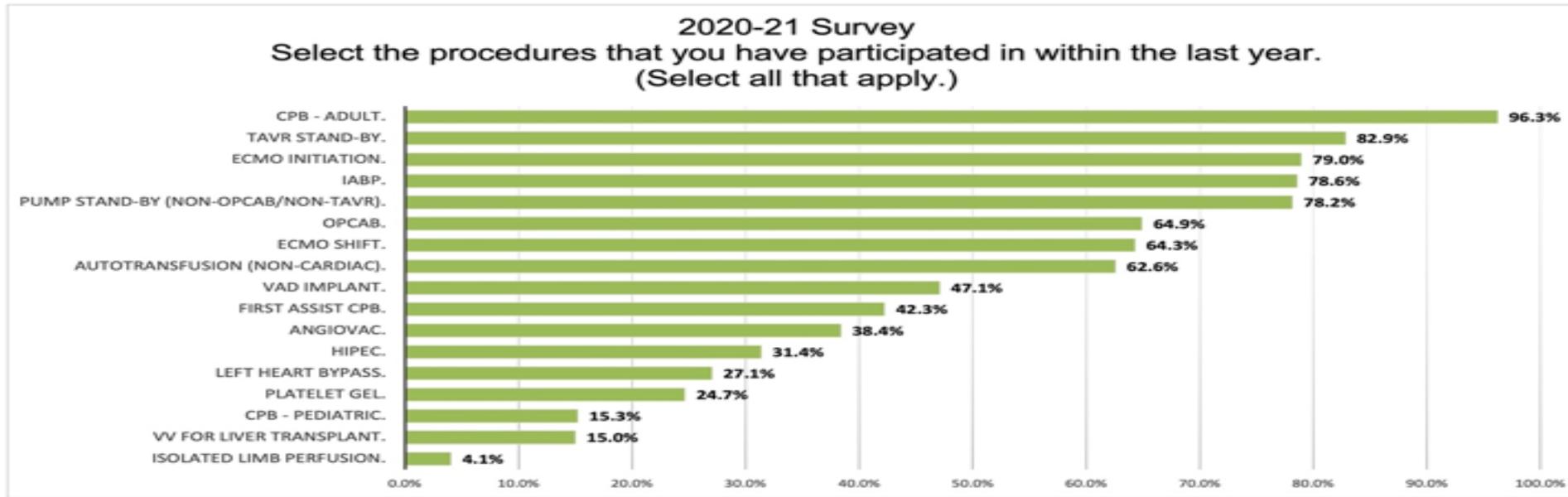


Filename: Figure6.jpg

Figure 6. A total of 2,692 CCPs answered this question; 16 skipped it. The 2020-21 CCP respondents could select all primary employment options that applied to them. The following is a breakdown of data for 2020-21 roles held within the profession: 92.0% (n=2477) selected “full-time perfusionist;” 22.3% (n=600) selected “clinical instructor for perfusion students;” 9.2% (n=249) selected “per diem – ECMO;” 6.9% (n=186) selected “per diem CPB;” 4.5% (n=120) selected “full-time ECMO specialist/ECMO program coverage;” 4.1% (n=111) selected “part-time perfusionist;” 3.4%(n=92) selected “other;” and 3.1% (n=83) selected “perfusion program educator,” 2.8% (n=76) selected “full-time traveler;” 0.9% (n=23) selected “VAD coordinator,” and 0.8% (n=21) selected “industry – sales, clinical specialist, etc

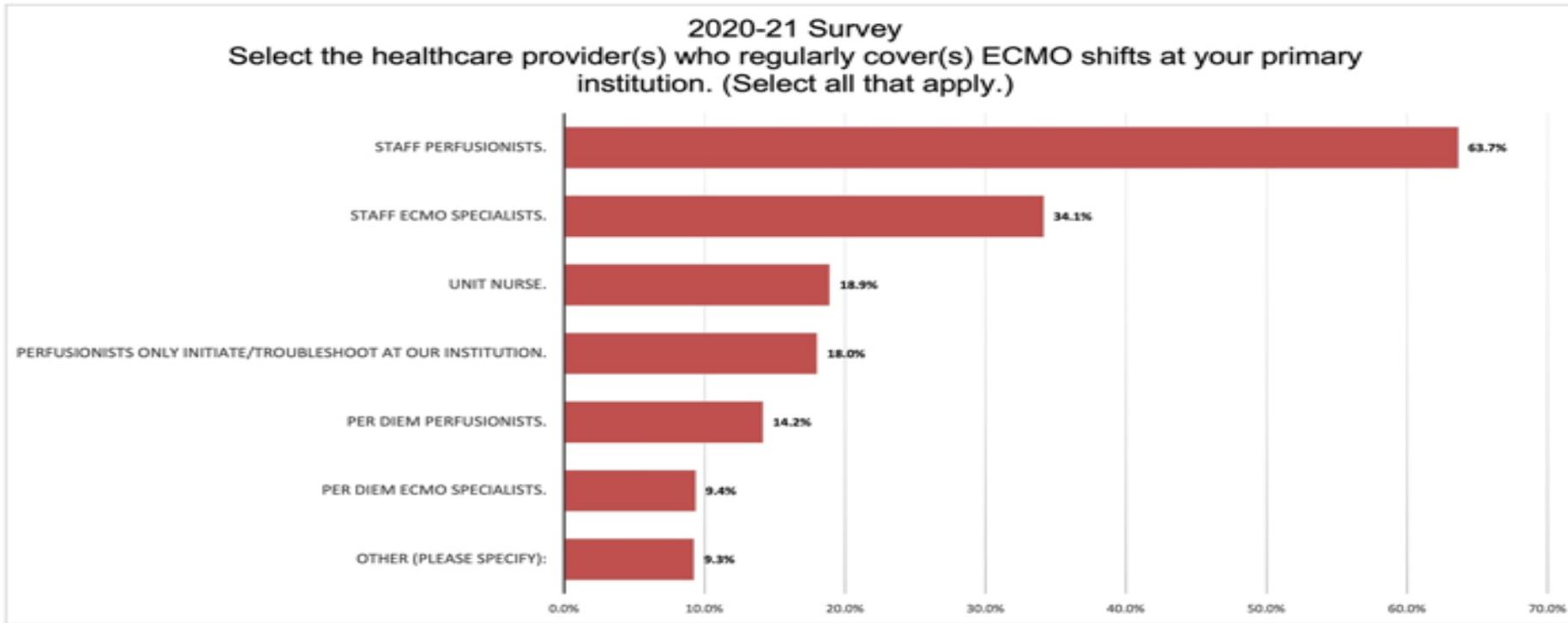
Alternative Roles Selected by Full-time Perfusionists	Count	Percentage
<i>Full-time Perfusionist</i>	2477	92.0%
Clinical Instructor for perfusion students	573	23.1%
Per diem ECMO Specialist	185	7.5%
Per diem Perfusionist (CPB)	114	4.6%
Full-time ECMO Specialist/ECMO program coverage	112	4.5%
Other	74	3.0%
Perfusion program educator	67	2.7%
Full-time traveler Perfusionist	31	1.3%
VAD Coordinator	21	0.8%
Part-time Perfusionist	19	0.8%
Industry (sales, clinical specialist, etc.)	15	0.6%

Table 2 The 2020-21 CCP respondents who selected Full-time Perfusionists (n=2,477) also selected these roles within the profession, comprising 1211 additional positions.



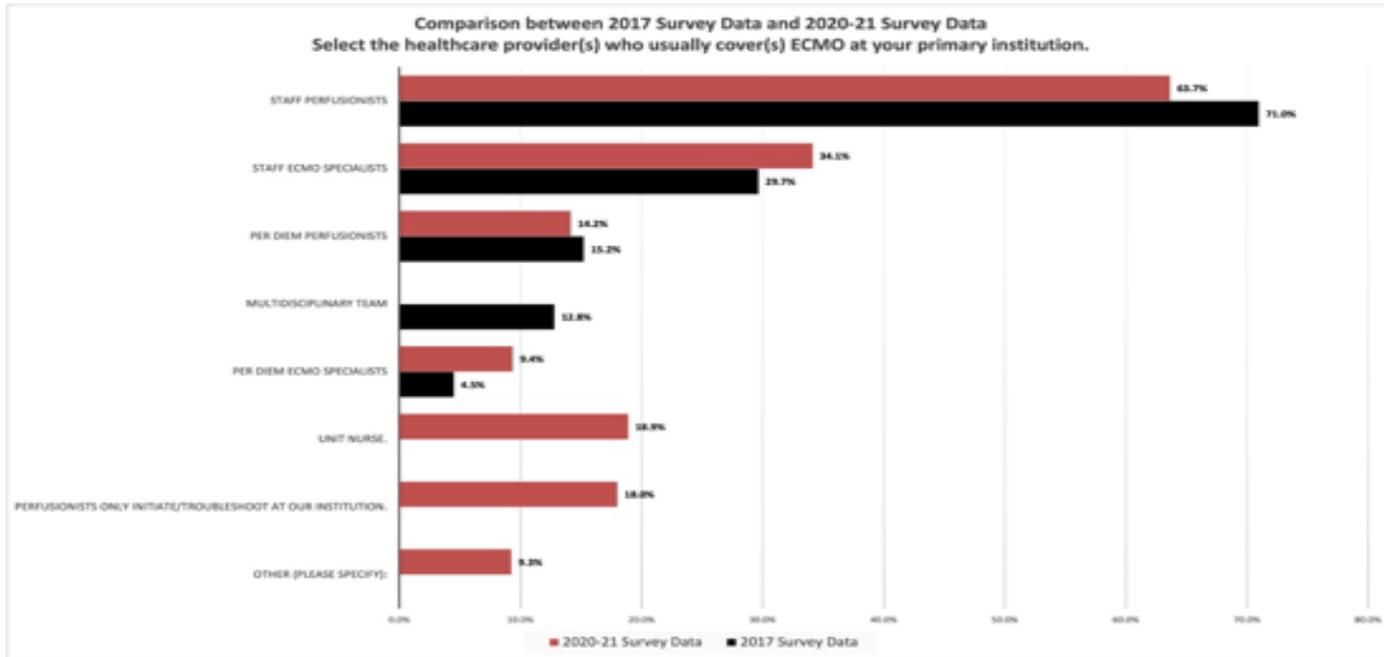
Filename: Figure7.jpg

Figure 7. A total of 2,695 CCPs answered this question regarding procedures participated in during the past year; 13 skipped it. Of those who responded, 96.3% (n=2,594) have participated in “CPB – adult;” 82.9% (n=2233) have participated in “TAVR stand-by;” 79.0% (n= 2128) have participated in “ECMO initiation;” 78.6% (n=2,118 have participated in “IABP.” 78.2% (n=2,107) have participated in “Pump stand-by (non-OPCAB/non-TAVR);” 64.9% (n=1750) have participated in “OPCAB;” 64.3% (n=1733) have participated in “ECMO shift;” 62.6% (n=1687) have participated in “Autotransfusion (non-cardiac);” 47.1% (n=1270) have participated in “VAD implant;” 42.3% (n=1,139) have participated in “First assist CPB;” 38.4% (n=1035) have participated in “Angiovac™;” 31.4% (n=846) have participated in “HIPEC;” 27.1% (n=729) have participated in “Left heart bypass;” 24.7% (n=665) have participated in “Platelet gel;” 15.3% (n=411) have participated in “CPB – pediatric;’ 15.0% (n=405) have participated in “VV for liver transplant;” and 4.1% (n=110) have participated in “Isolated limb perfusion.”



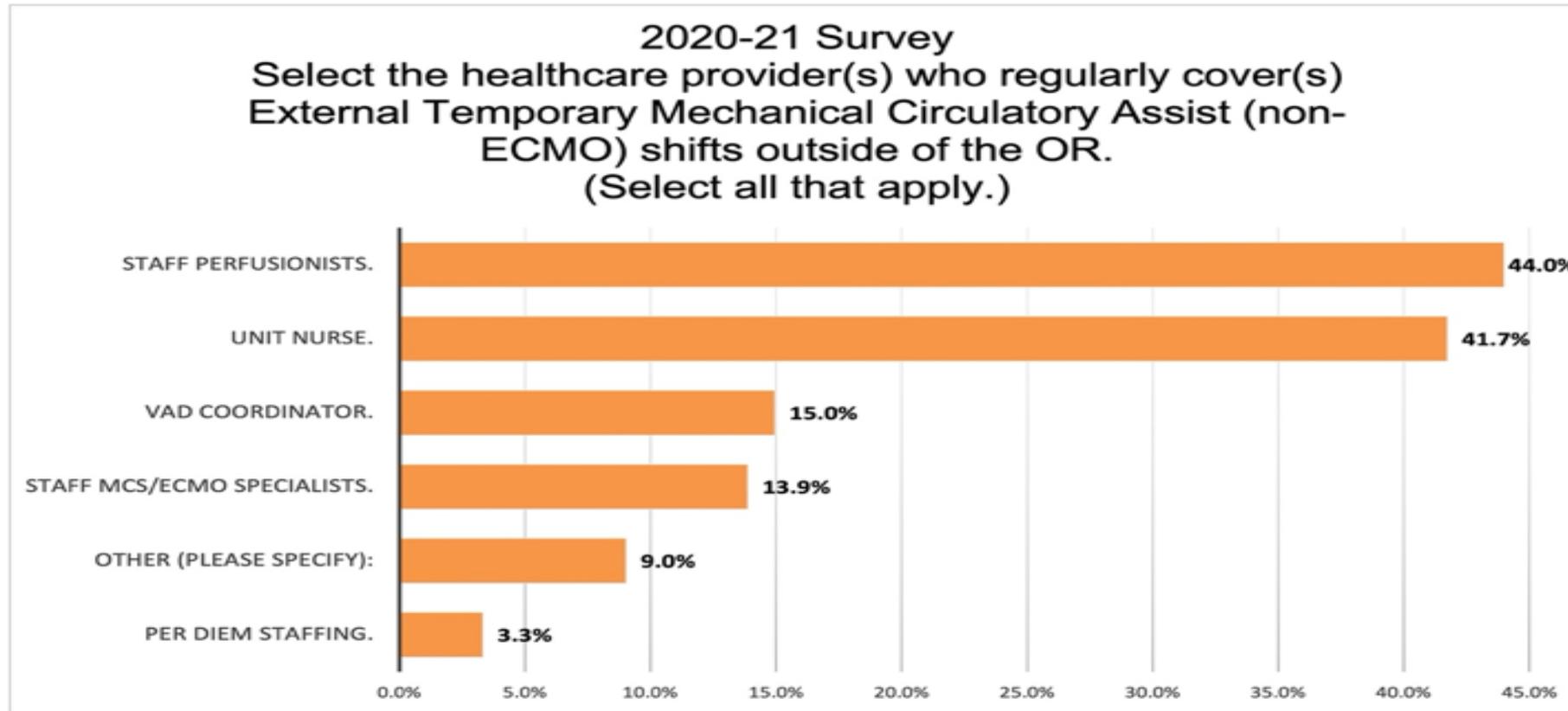
Filename – Figure8

Figure 8. A total of 2,592 CCPs answered this question regarding who regularly covers ECMO shifts at primary institution; 116 skipped it. Of those who responded, 63.7% (n=1650) selected “Staff perfusionists;” 34.1% (n=885) selected “Staff ECMO specialists;” 18.9% (n=490) selected “Unit nurse;” 18.0% (n=467) selected “Perfusionists only initiate/troubleshoot at our institution;” 14.2% (n=367) selected “Per diem perfusionists;” 9.4% (n=243) selected “Per diem ECMO specialists;” and 9.3% (n=240) selected “Other.”



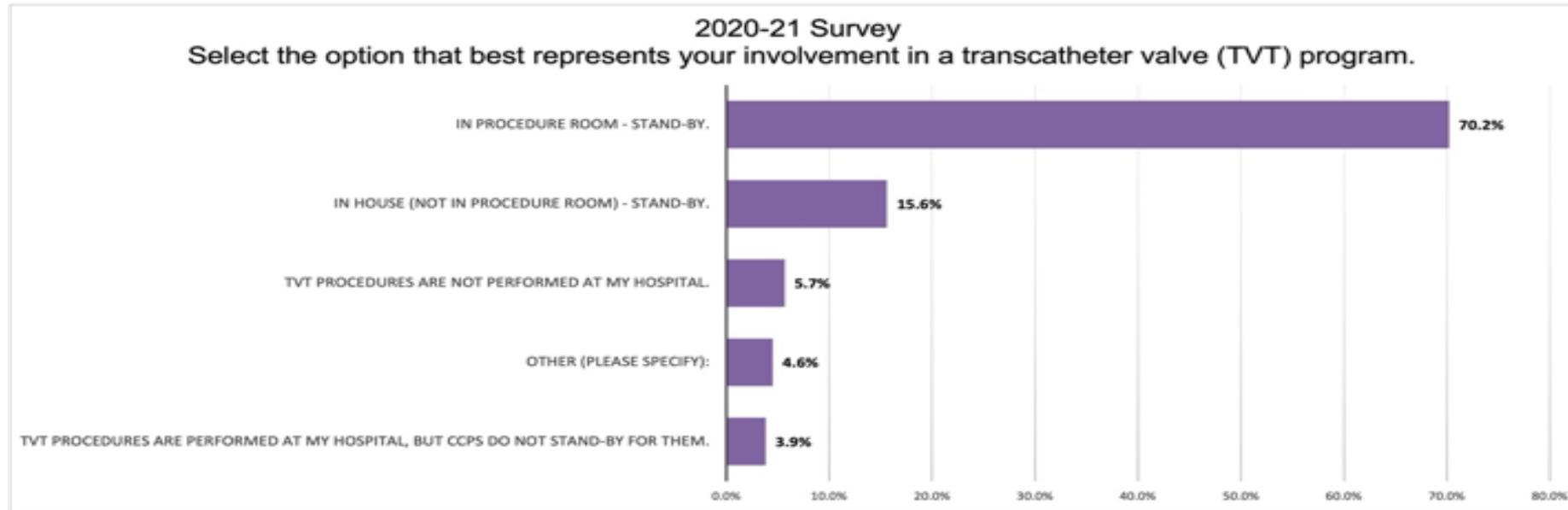
Filename: Figure8-1.jpg

Figure 8-1. The top bars signify the 2020-2021 respondents. The bottom bars compare the data from the 2017 survey. In 2017, a total of 2,592 CCPs answered a question similar to the 2020-2021 item regarding who regularly covers ECMO shifts at primary institution; 634 skipped it. Of those who responded, 71.0% (n=1,840) selected “staff perfusionists;” 29.7% (n=769) selected “staff ECMO specialists;” 15.2% (n=395) selected “per diem perfusionists;” 12.8 % (n=332) selected “multidisciplinary team;” 4.5% (n=117) selected “per diem ECMO specialists.”



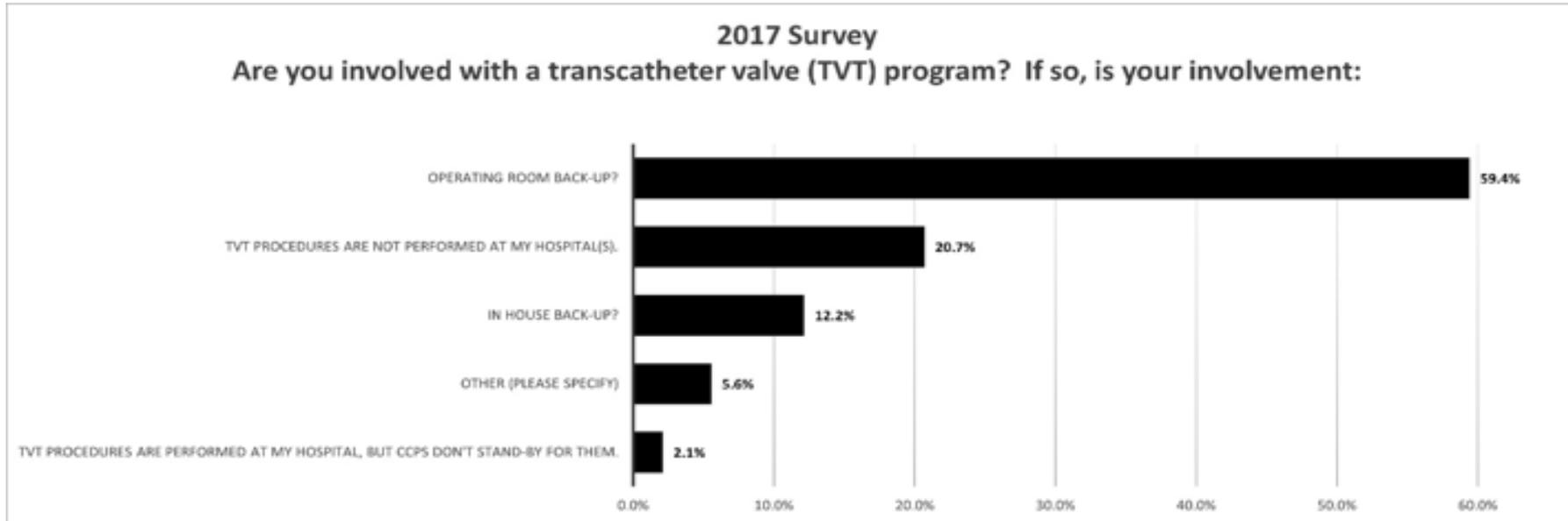
Filename: Figure9.jpg

Figure 9. A total of 2,401 CCPs answered this question regarding who regularly covers non-ECMO shifts outside of the OR; 307 skipped it. Of those who responded, 44.0% (n=1,056) selected “Staff perfusionists;” 41.7%(n=1002) selected “Unit nurse;” 15.0% (n=359) selected “VAD coordinator;” 13.9% (n=333) selected “Staff MCS/ECMO specialists;” 9.0% (n=217) selected “Other (please specify);” and 3.3% (n=80) selected “Per diem staffing.”



Filename: Figure10.jpg

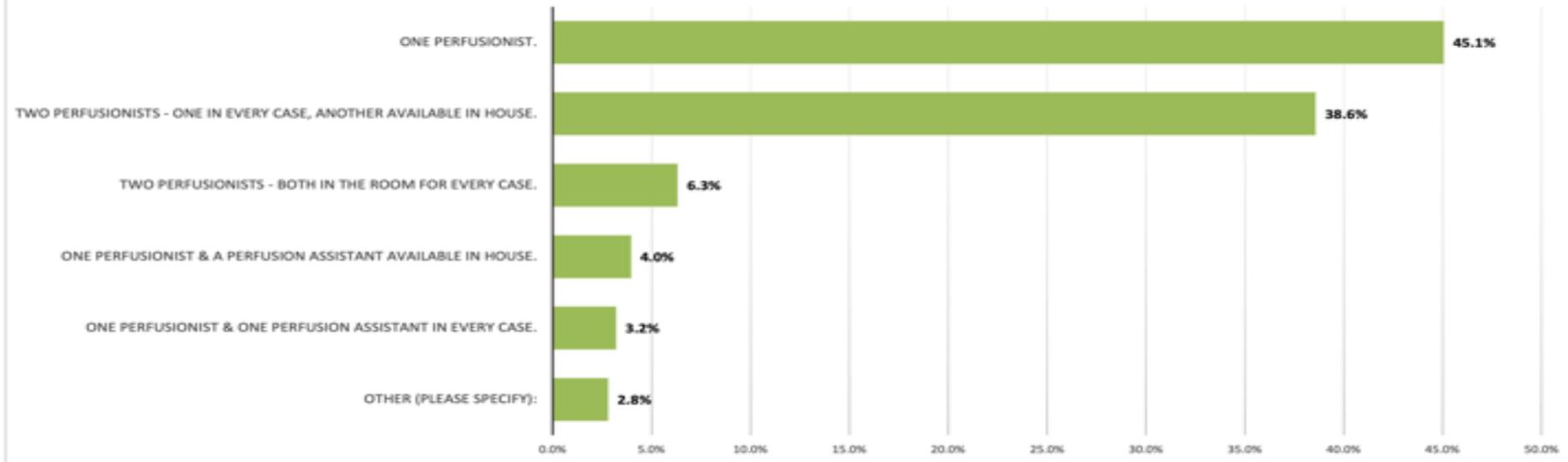
Figure 10. A total of 2,615 CCPs answered this question regarding involvement in a transcatheter valve (TVT) program; 93 skipped it. Of those who responded, 70.2% (n=1,837) selected “In procedure room – stand-by;” 15.6% (n=409) selected “In house (not in procedure room) – stand-by;” 5.7% (n=149) selected “TVT procedures are not performed at my hospital;” 4.6% (n=119) selected “Other (please specify);” and 3.9 % (n=101) selected “TVT procedures are performed at my hospital, but CCPs do not stand-by for them.”



Filename: Figure10-1.jpg

Figure 10-1. A total of 2,911 CCPs answered this 2017 question regarding involvement in a transcatheter valve (TVT) program; 307 skipped it. Of those who responded, 59.4%(n=1,730) selected “operating room back-up?;” 20.7% (n=603) selected “TVT procedures are not performed at my hospital;” 12.2% (n=354) selected “in house back-up?;” 5.6% (n=162) selected “Other (please specify);” and 2.1% (n=62) selected “TVT procedures are performed at my hospital, but CCPs do not stand-by for them.”

2020-21 Survey
Select the type of coverage available for a regularly scheduled CPB case at your primary place of employment.

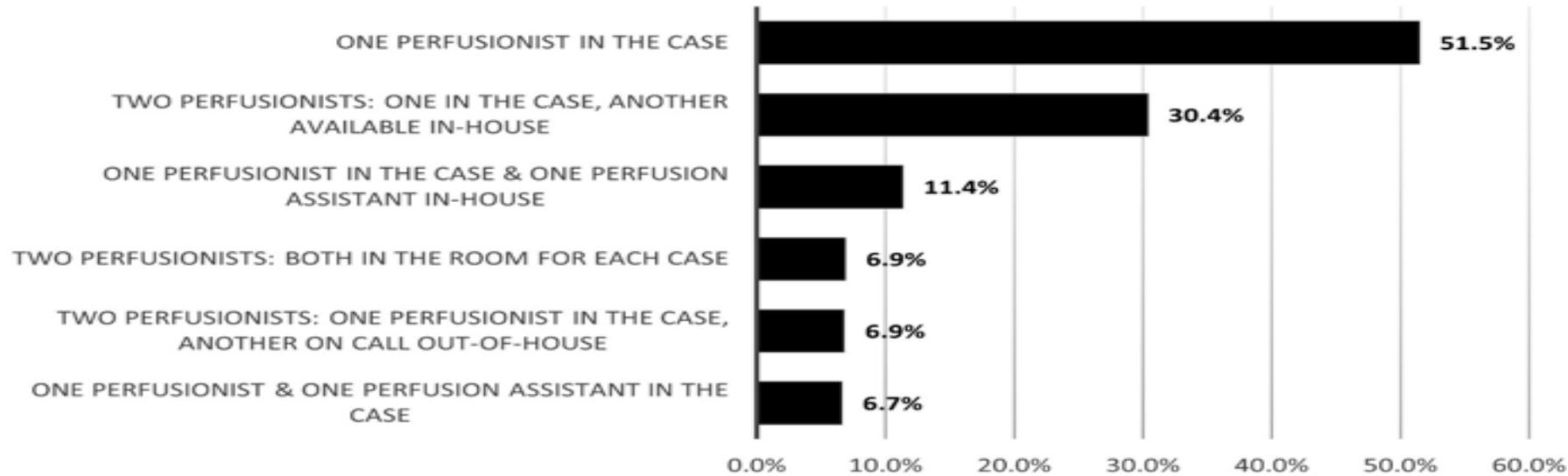


Filename: Figure11.jpg

Figure 11. A total of 2,669 CCPs answered this question regarding coverage available for a regularly scheduled CPB case at primary place of employment; 39 skipped it. Of those who responded, 45.1% (n=1203) selected “One perfusionist;” 38.6% (n=1030) selected “Two perfusionists – one in every case, another available in house;” 6.3% (n=169) selected “Two perfusionists – both in the room for every case;” 4.0%(n=106) selected “One perfusionist and a perfusion assistant available in house;” 3.2% (n=86) selected “One perfusionist and one perfusion assistant in every case;” and 2.8% (n=75) selected “Other (please specify).”

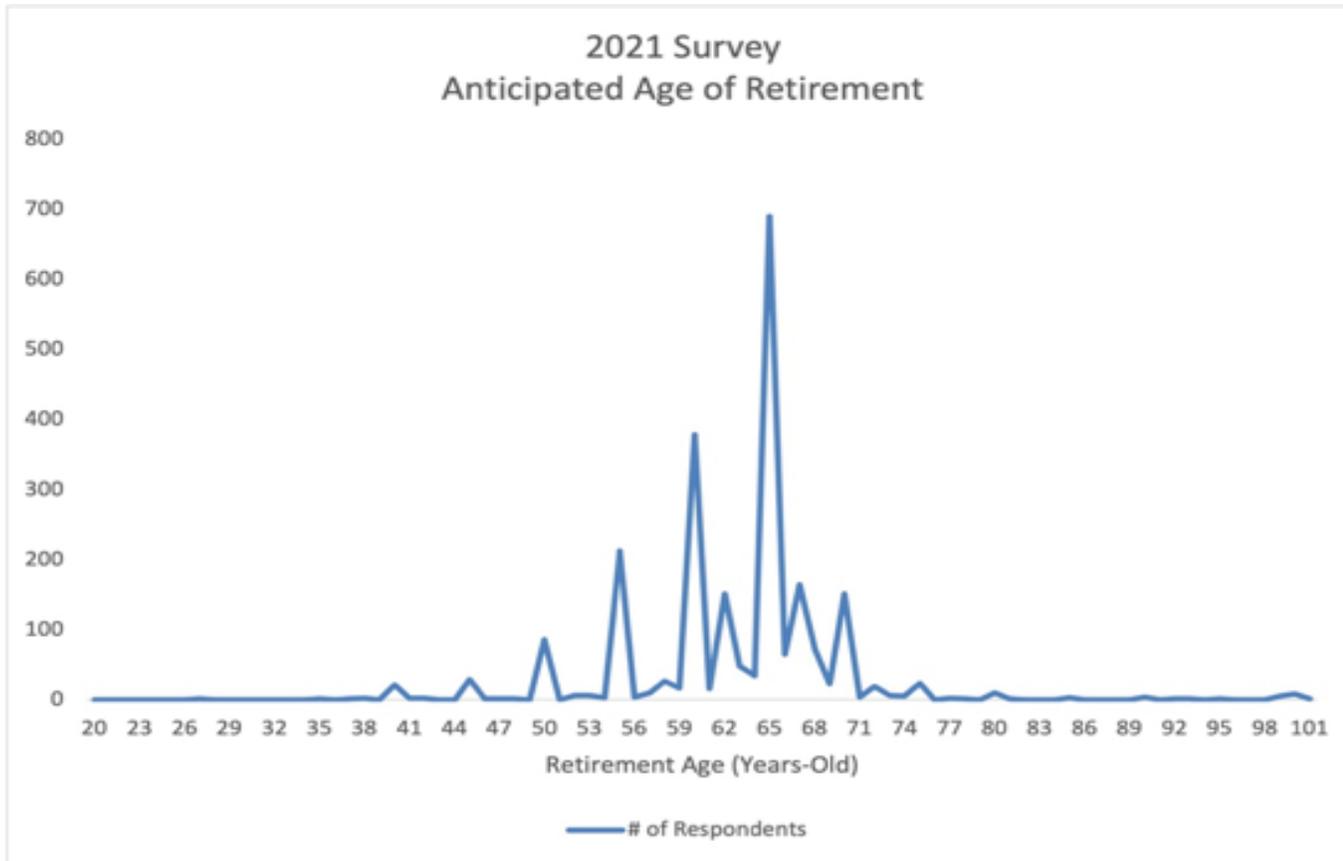
2017 Survey

How are scheduled CPB Cases staffed by perfusion within your department?



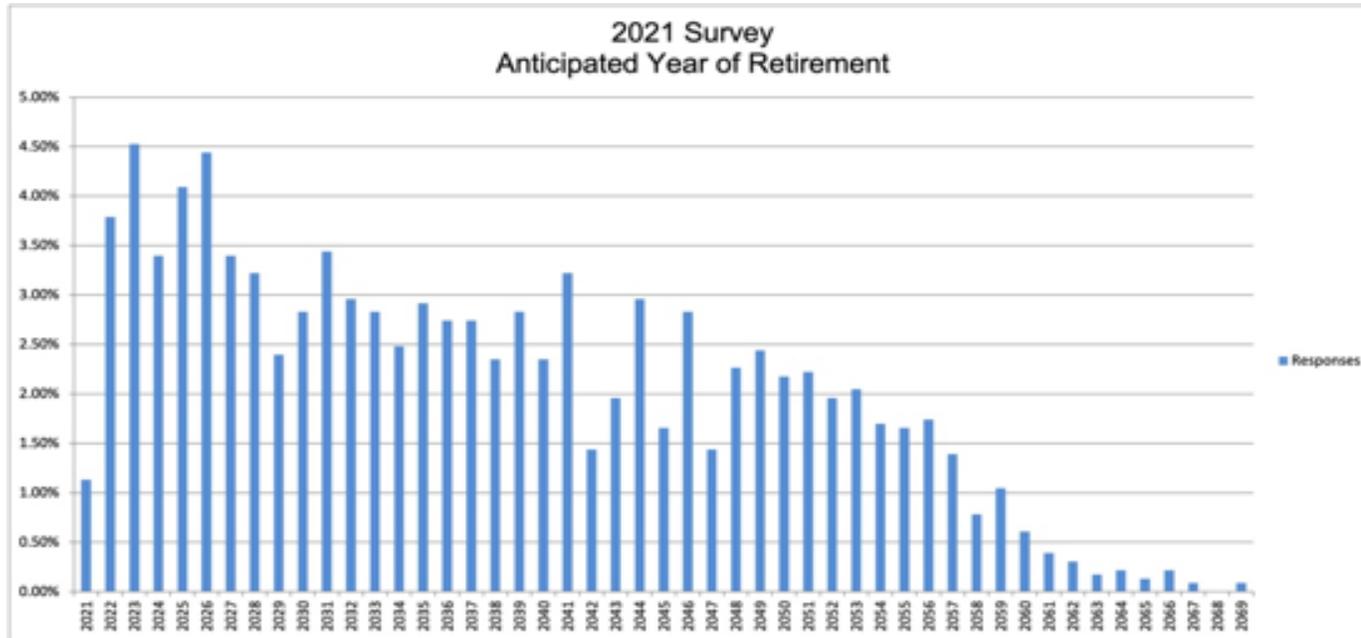
Filename: Figure11-1.jpg

Figure 11-1. A total of 2,934 CCPs answered this 2017 question regarding coverage available for a regularly scheduled CPB case at primary place of employment; 292 skipped it. Of those who responded, 51.5% (n=1,512) selected "one perfusionist in the case;" 30.4% (n=893) selected "two perfusionists: one in the case, another available in-house;" 11.4% (n=335) selected "one perfusionist in the case & one perfusionist assistant in-house;" 6.9% (n=203) selected "two perfusionists: both in the room for each case;" 6.9% (n=201) selected "two perfusionists: one perfusionist in the case, another on call out-of-house;" and 6.7% (n=195) selected "one perfusionist & one perfusion assistant in the case."



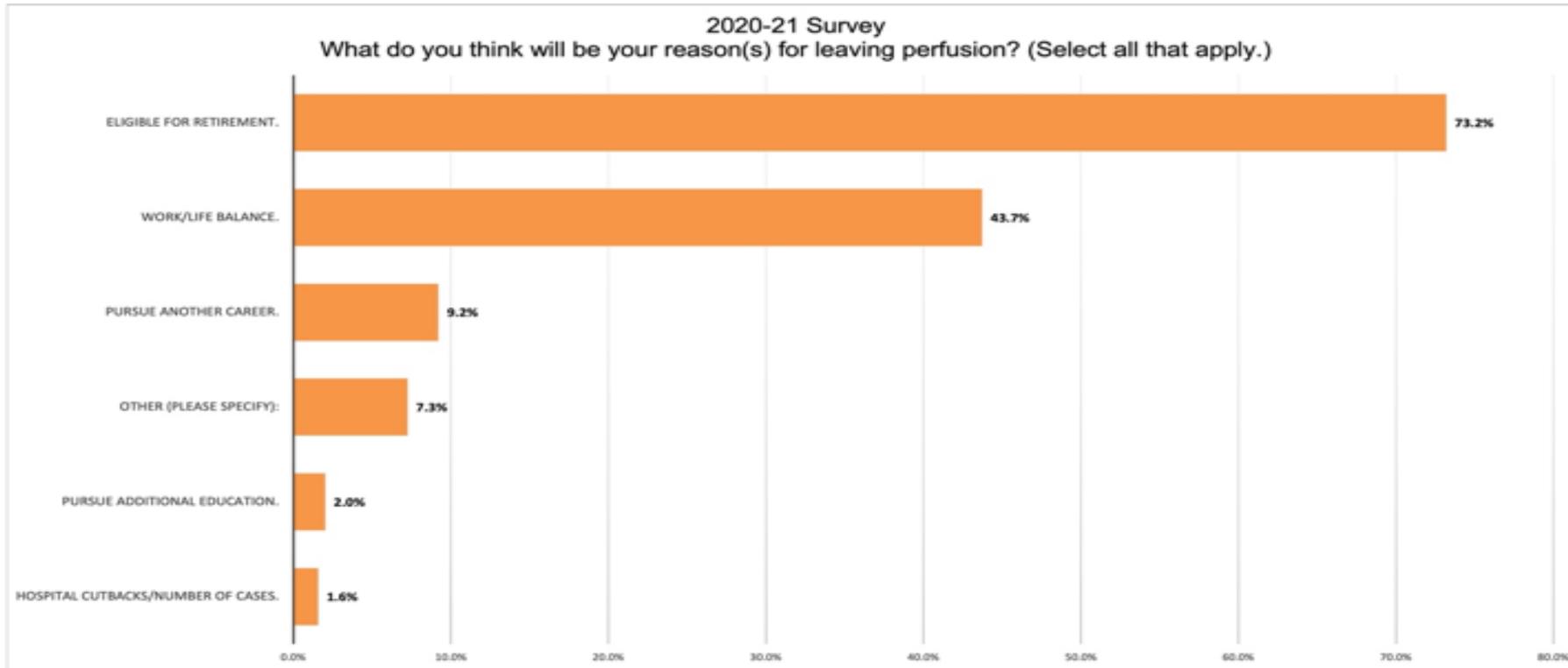
Filename: Figure12Age.

Figure 12. There were 2592 initial respondents to this question, with 116 CCPs skipping it. After reviewing the data, 269 responses were omitted due to text (alpha) entries rather than numerical submissions, date range submissions, or clear indications of unsure answer. This allowed for 2323 data points to be entered for a response rate of 85.8%.



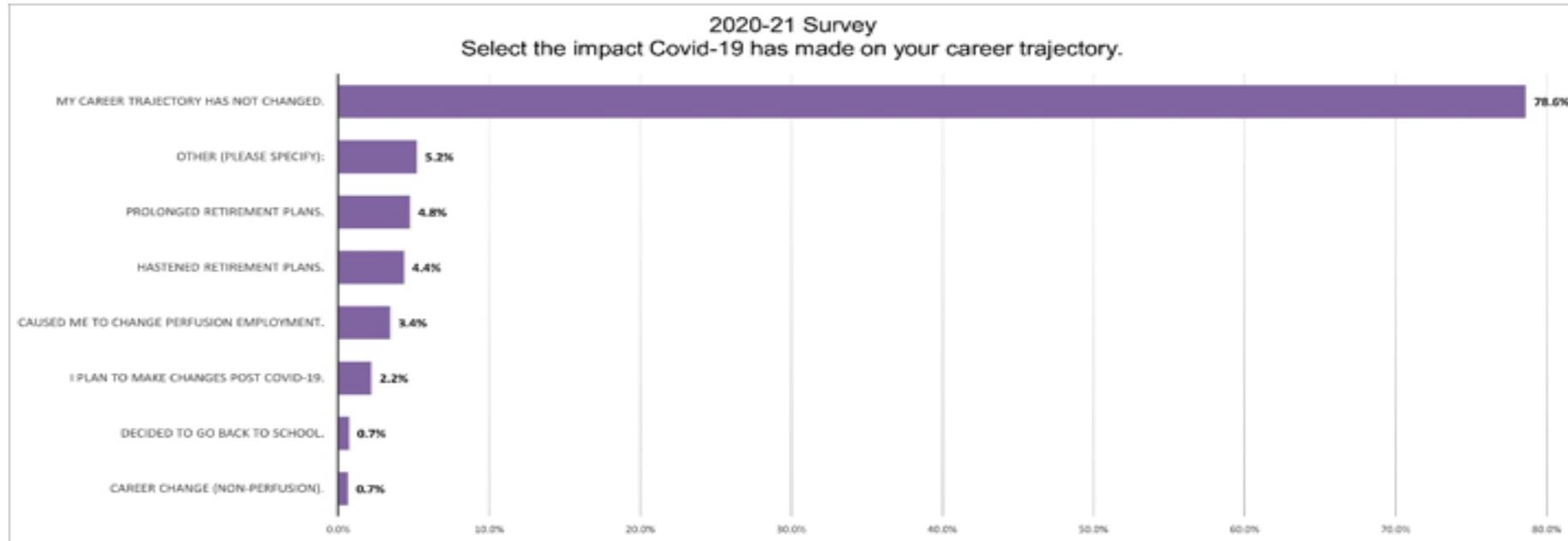
Filename: Figure12-1.jpg

Figure 12-1. A total of 2297 responses were input into figure 12-1. The anticipated year of retirement represented on this chart was created using Question 2: Age, and Question 13: What age do you expect to retire. The difference of these two values in years was added to 2021 to calculate the year each of the respondents would be retiring based on their answers. After reviewing the data, 411 responses were omitted due incomplete or incorrect data submission.



Filename: Figure13.jpg

Figure 13. A total of 2,657 CCPs answered this question regarding anticipated number of years before retiring; 51 skipped it. Of those who responded, 73.9% (n=1,963) selected “Eligible for retirement;” 43.7% (n=1162) selected “Work/life balance;” 9.2% (n=245) selected “Pursue another career;” 7.3% (n=193) selected “Other (please specify);” 2.0% (n=54) selected “Pursue additional education;” and 1.6% (n=42) selected “Hospital cutbacks/number of cases.”



Filename: Figure14.jpg

Figure 14. A total of 2,611 CCPs answered this question regarding anticipated number of years before retiring; 97 skipped it. Of those who responded, 78.5% (n=2,050) selected “My career trajectory has not changed;” 5.3% (n=137) selected “Other (please specify).” 4.7% (n=123) selected “Prolonged retirement plans;” 4.4% (n=115) selected “Hastened retirement plans;” 3.5% (n=90) selected “Caused me to change perfusion employment;” 2.3% (n=59) selected “I plan to make changes post Covid-19;” 0.8% (n=20) selected “Decided to go back to school;” and 0.7% (n=17) selected “Career change (non-perfusion).”