MERRITT HAWKINS
an AMN Healthcare company

White Paper Series

Examining topics affecting the recruitment and retention of physicians and advanced practice professionals

CRNA Supply, Demand and Recruiting Trends

A resource provided by Merritt Hawkins, the nation's leading physician search and consulting firm and a company of AMN Healthcare (NYSE: AMN), the largest healthcare workforce solutions company in the United States.

Corporate Office:
Merritt Hawkins
8840 Cypress Waters Blvd #300
Dallas, Texas 75019
800-876-0500

Eastern Regional Office:
Merritt Hawkins
100 Mansell Court East
Suite 500
Roswell, GA 30076
800-306-1330

www.merritthawkins.com

Introduction

Merritt Hawkins, the nation's leading physician and advanced practitioner search and consulting firm, produces a series of surveys, white papers, speaking presentations and other resources intended to provide insight into various healthcare staffing and recruiting trends.

Topics for which Merritt Hawkins has provided data and analyses include physician compensation, physician practice metrics, physician practice plans and preferences, rural physician recruiting recommendations, physician retention strategies, physician visa requirements, and the economic impact of physicians, among a variety of others.

This white paper examines supply, demand and recruiting trends pertaining to Certified Registered Nurse Anesthetists (CRNAs).

CRNAs: History and Current Role

Certified Registered Nurse Anesthetists (CRNAs) trace their origin in the U.S. to the pioneering work of Alice Magaw, "the mother of anesthesia," who collaborated successfully with Dr. Charles Mayo of the Mayo Clinic at the end of the 19th Century.

The first educational programs for CRNAs were established in 1909, and participation in the profession and its overall impact on healthcare accelerated in World War I, during which CRNAs were the primary providers of anesthesia (though nurses provided anesthesia to wounded soldiers as early as the Civil War).

CRNAs have served in every war since and the names of two CRNAs are engraved on the Vietnam War Memorial in Washington, D.C. Today, CRNAs continue to be the primary providers of anesthesia care to U.S. military personnel on the front lines, serving in ships, aircraft and evacuation teams around the globe.

CRNAs provide anesthesia in collaboration with surgeons, anesthesiologists, dentists, podiatrists, and other qualified healthcare professionals. When anesthesia is administered by a nurse anesthetist, it is recognized as the practice of nursing; when administered by an anesthesiologist, it is recognized as the practice of medicine. Regardless of whether their educational background is in nursing or medicine, all anesthesia professionals give anesthesia the same way.

CRNAs are the primary providers of anesthesia care in rural America, enabling health care facilities in many medically underserved areas to offer obstetrical, surgical, pain management and trauma stabilization services. In some states, CRNAs are the sole providers in nearly 100% of rural hospitals and they are the sole anesthesia providers in about two-thirds of rural hospitals nationally.

CRNAs practice in every setting in which anesthesia is delivered, including traditional hospital surgical suites and obstetrical delivery rooms; critical access hospitals; ambulatory surgical centers; the offices of dentists, podiatrists, ophthalmologists, plastic surgeons, and pain management specialists; and U.S. military, Public Health Services, and Department of Veterans Affairs healthcare facilities.

CRNAs administer more than 49 million anesthetics to patients each year in the United States, according to the American Association of Nurse Anesthetists (AANA) 2019 Member Profile Survey, and are well established nationally as a key component of the clinical team.

Educational Requirements

According to the AANA, the minimum education and experience required to become a CRNA include:

- A baccalaureate or graduate degree in nursing or other appropriate major.
- An unencumbered license as a registered professional nurse and/or APRN in the United States or its territories and protectorates.
- A minimum of one-year full-time work experience, or its part-time equivalent, as a registered nurse in a critical care setting within the United States, its territories, or a U.S. military hospital outside of the United States. The average experience of RNs entering nurse anesthesia educational programs is 2.9 years.
- Graduation with a minimum of a master's degree from a nurse anesthesia educational program accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs. As of August 2019, there were 121 accredited nurse anesthesia programs in the United States and Puerto Rico utilizing 1,870 active clinical sites; 91 nurse anesthesia programs are approved to award doctoral degrees for entry into practice.
- Nurse anesthesia programs range from 24-51 months, depending on university requirements. Programs include clinical settings and experiences. Graduates of nurse anesthesia educational programs have an average of 9,369 hours of clinical experience.
- Some CRNAs pursue a fellowship in a specialized area of anesthesiology such as chronic pain management following attainment of their degree in nurse anesthesia.

Certification: Before they can become CRNAs, graduates of nurse anesthesia educational programs must pass the National Certification Examination.

Recertification: A recertification program called the Continued Professional Certification (CPC) Program, which is administered by the National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA), is based on eight-year periods comprised of two four-year cycles and officially began on Aug. 1, 2016. In addition to practice and license requirements, the CPC Program includes four main components: 60 Class A CE credits or traditional continuing education credits; 40 Class B credits or professional development activities; completion of Core Modules in four content areas, including airway management technique, applied clinical pharmacology, human physiology and pathophysiology, and anesthesia equipment and technology (recommended but not required); and pass a comprehensive examination every eight years."

It takes 7.8 to 8.5 calendar years of education and experience to become a CRNA, according to the AANA. CRNAs must complete all state-mandated continuing education for registered nurses in addition to the requirements set forth by the NBCRNA. Requirements vary by state and hospital and may change from year to year. Depending on the CRNA's initial certification date, the NBCRNA requires 40 - 60 credit hours every four years.

As of February 2019, there were 121 accredited nurse anesthesia programs in the United States utilizing more than 1,800 active clinical sites; 88 nurse anesthesia programs are approved to award doctoral degrees for entry into practice.

Scope of Practice

CRNAs are unusual in that their practice of anesthesia is recognized as both a nursing and a medical specialty unified by the same standards of care.

According to the AANA web site, “nurse anesthesia practice may include performing a comprehensive history and physical; conducting a pre-anesthesia evaluation; obtaining informed consent for anesthesia; developing and initiating a patient-specific plan of care; selecting, ordering, prescribing and administering drugs and controlled substances; and selecting and inserting invasive and noninvasive monitoring modalities. CRNAs provide acute, chronic and interventional pain management services, as well as critical care and resuscitation services; order and evaluate diagnostic tests; request consultations, and perform point-of-care testing. CRNAs plan and initiate anesthetic techniques, including general, regional, local, and sedation. Anesthetic techniques may include the use of ultrasound, fluoroscopy and other technologies for diagnosis and care delivery, and to improve patient safety and comfort. Nurse anesthetists respond to emergency situations using airway management and other techniques; facilitate emergence and recovery from anesthesia; and provide post-anesthesia care, including medication management, conducting a post-anesthesia evaluation, and discharge from the post-anesthesia care area or facility.”

Independent Practice

Federal law requires that CRNAs practice under the supervision of a licensed physician, usually a surgeon or anesthesiologist. However, in 2001, a new rule promulgated by the Centers for Medicare and Medicaid Services (CMS) was created that allows states to "opt-out" of the federal requirement for physician supervision of CRNAs. The rule applies to hospitals and ambulatory surgery centers meeting three criteria. States must:

1) Consult the state boards of medicine and nursing about issues related to access to and the quality of anesthesia services in the state
2) Determine that opting out is consistent with state law
3) Determine that opting out is in the best interests of the state’s citizens

To date, 17 states have opted out of the federal physician supervision requirement, including:

- Iowa
- Nebraska
- Idaho
- Kansas
- Minnesota
- New Hampshire
- New Mexico
- North Dakota
- Washington
- Alaska
- Oregon
- Montana
- South Dakota
- Wisconsin
- California
- Colorado
- Kentucky

Additional states do not have supervision requirements in state law and are eligible to opt-out should the governors elect to do so. Other states have various laws and regulations outlining the extent to which CRNAs must collaborate with physicians or work under their supervision.

A 2010 article in *Health Affairs* found that mortality and complication rates for CRNA-administered anesthesia were similar before and after certain states opted out of physician supervision requirements. A study in *Medical Care* in 2016 reported finding no difference in the odds of complications from anesthesia due to CRNA scope of practice laws or delivery models.

CRNA Supply and Demand

CRNAs being hired into new positions generally assume one or more of five primary roles, including:

- Care in the operating room
- Services for outpatient procedures
- Care in the emergency room
- Managing pain
- Administration of epidurals

CRNAs typically practice in the following settings.

- Hospital surgical suites
- Ambulatory surgery centers
- Obstetrical delivery rooms
- Critical access hospitals
- Prisons
- Facilities of the Public Health Service, Veterans Affairs, and military bases
- Offices of specialists like plastic surgeons, ophthalmologists, podiatrists, and dentists

The CRNA workforce

Below are several data points regarding the current CRNA workforce:

- According to the AANA, there are approximately 49,000 CRNAs in active practice in the U.S., excluding students and those who are not in active patient care roles.
- Approximately 2,400 CRNAs graduate from training each year, pass the National Certification Exam and join the workforce.
- 40% of CRNAs are men, compared to 10% of nurses generally
- The average age of CRNAs is approximately 45.
- According to the U.S. Bureau of Labor Statistics, job growth for CRNAs is projected to be 26% between 2018 and 2028, well above the national average

Factors Driving Demand

Merritt Hawkins has observed a growing demand among our clients for CRNAs over the last several years that reflects an overall growth in the need for anesthesiology and other forms of specialty care nationwide.

The Association of American Medical Colleges (AAMC), in its April 2019 report on physician supply and demand, projects a shortage of up to 122,000 physicians by 2032. This includes a shortage of up to 55,000 primary care physicians, but an even greater shortage of up to 77,000 medical specialists.

The shortage of specialists is driven largely by population aging. Approximately 10,000 Americans turn 65 every day, and this age cohort utilizes medical services at a considerably higher rate than younger age groups. People 65 and older visit a physician at three times the rate of those 30 and younger, according to the CDC. While seniors represent only 14% of the population, they generate 37.4% of diagnostic tests and treatments and 34% of inpatient procedures, many of which require anesthesia, the CDC reports. The U.S. Census Bureau reports that in 2035, there will be 78 million seniors and 77 million children 17 or under, projecting that for the first time in U.S. history senior citizens will outnumber children.

Merritt Hawkins' search engagements reflect the growing need for specialty care. In our *2019 Review of Physician and Advanced Practitioner Recruiting Incentives*, Merritt Hawkins reported that 78% of our search engagements over the previous 12 months were for specialists, up from 67% four years ago.

More Elective Procedures, Cost Control

Utilization of specialty services, including anesthesia, also has been driven upward by years of economic growth following the 2007/08 recession, which has given patients the option of undergoing more elective procedures requiring anesthesia. The proliferation of sites of service providing consumer convenience, such as urgent care centers, and the rise of hospital outpatient services, also drives the utilization of procedures requiring anesthesia. Demand for CRNA services, in particular, is further driven by the lack of anesthesia providers in rural areas, which are often entirely reliant on CRNAs.

The continual effort of healthcare facilities to cope with rising costs and flat or declining reimbursement also stimulates demand for CRNAs, who are paid considerably less than anesthesiologists (see the section on CRNA Compensation below) while providing many of the same services. Outcomes data generally are positive for CRNAs indicating they are a fit for emerging quality/value-based reimbursement models.

More data and analysis regarding the growing demand for specialty care, including anesthesia, is included in the Merritt Hawkins' white paper *Physician Supply Considerations, the Emerging Shortage of Medical Specialists.*

Anesthesiologists and CRNAs in the Top Ten

A clear indicator of the rise in demand for anesthesia services is provided in Merritt Hawkins' 2019 *Incentive Review* referenced above, in which both anesthesiology and CRNA were included in our list of top 20 most requested search assignments. Anesthesiology and CRNA have not both been included in the top 20 since 2009.

Given the demographic and related trends reviewed above, demand for CRNAs is likely to remain robust for the foreseeable future.

CRNA Compensation

Various sources track compensation/average income for CRNAs. Data from some of these sources are cited below

Source	Average Annual Income/CRNA
Merritt Hawkins 2019 Incentive Review	$197,000
Medscape 2018 APRN Compensation Report	$192,000
AANA 2017 Compensation and Benefits Survey	$186,014
Medical Group Management Assn. 2019 Comp Report	$174,105 (average) $191,383 (75th%tile)
Bureau of Labor Statistics 2018 data	$169,450

Merritt Hawkins' data differs from other sources cited above in that we report starting salaries offered to CRNAs and physicians, rather than total pre-tax annual compensation. In general, Merritt Hawkins' averages are usually lower than that of other sources, though our CRNA numbers are higher, underscoring the current strong demand for these professionals.

By comparison, the average starting salary for anesthesiologists as tracked by Merritt Hawkins is $404,000. The average income for anesthesiologists is $459,485, as tracked by the Medical Group Management Association (MGMA) and $436,404 as tracked by the American Medical Group Association (AMGA).

CRNA Recruiting Recommendations

The recruiting process for CRNAs closely mirrors the recruiting process for physicians in terms of strategies, time and resource allocation. Considerable effort may be required to recruit candidates who are an enduring match for the healthcare facilities seeking them. Front end preparation, appropriate candidate parameters, clear lines of communication among stakeholders, a positive working environment, responsiveness and a sense of urgency are all essential elements common to physician and CRNA searches.

The following are several factors to consider specific to CRNA recruitment.

- Recruit CRNAs with the same aggressiveness and commitment you would when recruiting physicians. Like physicians, CRNAs have many options to choose from today. Bring your opportunity to the market as quickly as possible and be just as responsive to candidates.
- Keep in mind that CRNA recruiting is made more difficult by the fact that CRNAs have many locum tenens/1099 opportunities to choose from, and many CRNAs have a mindset similar to that of emergency medicine physicians in that they are seeking the most positive shift schedules for the highest compensation. You may have to make clear why a permanent position is a more attractive option for them.
- Offer clinical autonomy. Allow CRNAs to practice independently to the highest extent of their licensure and limit physician oversight, when necessary, to the minimum required. Practice autonomy may be the single most important factor CRNAs consider when evaluating practice opportunities. Avoid “physician-only” cases such as nerve blocks and epidurals, where possible.
- Offer flexibility. Schedule flexibility is of growing importance to physicians and CRNAs, 60% of whom are women who may be in their child-rearing years and require a family-friendly schedule. Call, providing it is reasonable, is acceptable to most candidates. Fewer hours and less call may not be a requirement, as long as there is flexibility for CRNAs to have time off when needed.
- Be competitive. CRNAs rarely relocate for an average salary, particularly if they are being recruited from locum tenens work to a permanent practice. In today’s market, even opportunities located in major metro areas must be reasonably competitive.

To these guidelines should be added others that are common to physician recruiting, such as have a clear time frame for when a decision on candidates will be made (avoid “comparison shopping”), have a contract or offer letter ready, involve the spouse/significant other in the process and the interview, and keep lines of communication open post-interview to ensure a timely resolution to the search.

About Merritt Hawkins

Established in 1987, Merritt Hawkins is the leading physician search and consulting firm in the United States and is a company of AMN Healthcare (NYSE: AMN), the largest healthcare workforce solutions organization in the nation. Merritt Hawkins' provides physician and advanced practitioner recruiting services to hospitals, medical groups, community health centers, telehealth providers, and many other types of entities nationwide.

The thought leader in our industry, Merritt Hawkins, produces a series of surveys, white papers, books, and speaking presentations internally and also produces research and thought leadership for third parties. Organizations for which Merritt Hawkins has completed research and analysis projects include **The Physicians Foundation, the Indian Health Service, Trinity University, the American Academy of Physician Assistants, the Association of Academic Surgical Administrators, and the North Texas Regional Extension Center.**

This is one in a series of Merritt Hawkins' white papers examining a variety of topics directly or indirectly affecting the recruitment and retention of physicians and advanced practice professionals, including physician assistants (PAs) and nurse practitioners (NPs).

Additional Merritt Hawkins' white papers include:

- Physician Supply Considerations: The Emerging Shortage of Medical Specialists
- Physician Emotional Intelligence: Going Beyond "A-Type" Personalities
- Ten Keys to Enhancing Physician/Hospital Relations: A Guide for Hospital Leaders
- Rural Physician Recruiting Challenges and Solutions
- Psychiatry: "The Silent Shortage"
- NPs and PAs: Supply, Distribution, and Scope of Practice Considerations
- The Physician Shortage: Data Points and State Rankings
- RVU FAQ: Understanding RVU Compensation in Physician Employment Agreements
- The Economic Impact of Physicians
- International Physicians and Immigration Requirements: An FAQ
- The Growing Use and Recruitment of Hospitalists
- Staffing and Recruiting Considerations in Emergency Medicine

For additional information about Merritt Hawkins' services, white papers, speaking presentations or related matters, contact:

Corporate Office:
Merritt Hawkins
8840 Cypress Waters Blvd #300
Dallas, Texas 75019
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100 Mansell Court East
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