2019

Utah's Physician Assistant Workforce

A Study on the Supply and Distribution of PAs in Utah

The Utah Medical Education Council

UTAH'S PHYSICIAN ASSISTANT WORKFORCE, 2019:

A STUDY IN THE SUPPLY AND DISTRIBUTION OF PHYSICIAN ASSISTANTS IN UTAH

The Utah Medical Education Council

State of Utah

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THE UTAH MEDICAL EDUCATION COUNCIL

The Utah Medical Education Council (UMEC) was created in 1997 out of a need to secure and stabilize the state's supply of healthcare clinicians. The enabling legislation authorized the UMEC to conduct healthcare workforce research, to advise on Utah's healthcare training needs, and to influence graduate medical education financing policies. In addition, UMEC facilitates the training of healthcare professionals in rural areas of the state. The UMEC is presided over by an eight-member board appointed by the Governor to bridge the gap between the healthcare workforce industry and educational interests.

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EXECUTIVE SUMMARY

There is a consistent growth over time for the Physician Assistant (PA) workforce in Utah, with an increase from 1,167 licenses in 2014 to 1,541 licenses in 2018. The overall growth rate of the workforce is 32.1% and about 89.4% of the licensed PAs are actively working in Utah. The Bureau of Labor Statistics (BLS) reports that the growth of PAs is projected to increase much faster than the average growth of other occupations. Class sizes have increased over the past years in both the University of Utah Physician Assistant Program (UPAP) and the Rocky Mountain University of Health Professions Physician Assistant Program (RMUPAP). Both have recently contributed to more students in Utah. With further openings, Utah likely will retain more students within the state. Increasing opportunities for clinical training, in addition to their didactic training, within the state will further strengthen this likelihood.

A critical component of rural healthcare delivery is attributed to PAs that have been serving in rural areas over time. Recent studies have found that PAs serving in rural areas remained consistent, and that their quality of care is comparable to physicians and nurse practitioners (Barnes, Richards, McHugh, & Martsolf, 2018). About 5.2% of Utah PAs work in Federally Qualified Community Health Centers, which is a higher percentage than nurse practitioners (2.0%) (Utah Medical Education Council, 2017).

The majority of PAs are working in settings such as solo or group physician practices (57.8%), but mainly in group practices. However, a decrease of PAs in hospital settings occurred from 2014 to 2018, going down from 25.6% to 22.3%, respectively.

Slightly less than half of the workforce is below 40 years old (45.5%). With a younger population steadily entering the workforce, only 7.7% of the workforce plan to retire in the next five years and about 32.9% plan on waiting at least 16-25 years to retire.

Utah PAs are also experiencing an increase in wages. There is about a 9% increase in median PA salary compared to what was reported in 2014 after adjusting for inflation. The Utah average salary of $117,161 is about $9,000 higher than the national average of $108,430 (United States Department of Labor, Bureau of Labor Statistics, 2018). However, it is more comparable when examining median differences of $111,415 for Utah compared to $115,000 nationally (NCCPA: National Commission on Certification of Physician Assistants, 2018).

Although the rate of Utah PAs working in primary care is declining over time, the national average of PAs in primary care is still lower compared to the percentage of Utah PAs working in primary care. Utah's PA workforce has 40% working in primary care compared to 26% of the national workforce. The top two most prevalent specialties include Family Medicine with Urgent Care (17.7%) and Family Medicine (14.5%), which are both under primary care. Rounding out the top five specialties are Orthopedics (9.3%), Emergency Medicine (4.9%), and Dermatology (4.2%).

Geographically, Utah PAs seem evenly distributed across the state. Although there are no reported PAs in Beaver, Garfield, Juab, Kane, and Piute counties, there has been a shift of increasing PAs into counties with no reported PAs from the last report. For example, Morgan County did not have any reported PAs in 2014 but has gone up to two PA providers currently. The geographic distribution of PAs in Utah seems to closely match the general population of Utah, with 12.6% of PAs working in rural counties compared to 10% of the general population living in those areas.

The average hours per week a Utah PA works has gone down from 41.2 hours in 2014 to 38 hours in 2018. PAs in Utah are also working fewer hours on average compared to the national average of 40.4 hours per week. Part-time (defined as less than 36 hours per week), includes 26.0% of Utah's PA workforce whereas

full-time (defined as more than 36 hours per week) includes 74.0%. A higher percentage of females work less than 36 hours (67.6%) compared to males (32.4%).

Assuming that the current PA to population per 100,000 ratio of 48.7 should be maintained, the UMEC projects that the PA workforce should grow by 301 licensed PAs over the next 10 years. Compared to the nation, Utah is above the national average ratio of 39.9 PAs per 100,000 population. It is estimated (based on the last three years average) that there could be 1,260 additional PAs added to the workforce by 2028 along with 1,070 additional FTEs. The two training programs in Utah have also increased their class sizes since 2014 and could provide 55 additional PAs annually. It will be vitally important to track retention of PA graduates from Utah programs into the state's workforce. Continued research into employment and distribution of PAs is also important, especially where the profession's primary care focus and specialties intersect with the availability to meet the needs of low income and rural populations.

INTRODUCTION AND BACKGROUND

Over the past two decades, the Utah Medical Education Council (UMEC) has produced workforce reports for different medical professions in the state of Utah. These reports assess supply, demand, and education factors on the health workforce, with the intention to contribute value to health professions, policymakers, and health service researchers as an essential resource in identifying Utah's healthcare training and policy needs. Workforce supply reports for physician assistants (PAs) have been conducted in previous years, beginning in 2000 as a combined report with Advanced Practice Registered Nurses (APRNs). The PA workforce analysis became its own report in 2005 and was subsequently produced in 2010 and 2014.

Utah's PA profession has been increasing steadily over the last decade. Although the rate at which the profession has grown has declined in recent years, there is still an ongoing demand for PAs throughout the country (United States Department of Labor, Bureau of Labor Statistics, 2018) (Cawley & Hooker, 2013). The role a PA takes is vital to healthcare since they can work across both primary and specialty care settings. These roles are expanding due to physician shortages, along with the push to increase access to care (Hoff, Carabetta, & Collinson, 2017). With this expansion, PAs can disseminate into areas that are in most need of health care, such as underserved areas with a lack of specialists or primary care providers.

This report will cover the PA workforce supply in Utah by providing analysis of the workforce demographics, practice characteristics, and projections of future supply and demand.

METHODOLOGY

License Data

The UMEC was provided with every PA license in the state by the Utah Division of Occupational and Professional Licensing (DOPL). There are currently 1,541 PAs holding active licenses in Utah as of May 2018.

Design of Survey Instrument

The previous 2014 PA survey was revised and analyzed to closely match questions from the American Academy of Physician Assistants (AAPA) and the National Minimum Data Set. The current 2018 PA survey had extensive revisions such as cutting down and rephrasing questions, and reformatting and identifying

similar response options. As an example, the 2014 PA survey had questions regarding multi-disciplinary care teams, whereas the current 2018 PA survey does not.

The revisions were made based on feedback from the PA advisory committee, and preliminary survey trials that were presented to their colleagues. This field testing of survey dissemination would help capture a more accurate approach to data collection along with identifying other issues that may not have been foreseen from previous revisions and feedback.

Data Collection

Mailings for the survey were first sent in August 2018. For those that had not responded, a second mailing was sent in October 2018. The last mailing took place in December 2018 and was sent to those that still had not responded. Consecutively, data collection ended in January 2019. There were a total of 750 surveys returned for a 48.8% response rate. The confidence interval of 95% was +/-2.6%, due to such a high response rate. A weight factor of 2.046 was applied to the data to account for non-respondents.

Data Entry and Analysis

SNAP survey software was used to process and scan in data from the 2018 PA Workforce Survey. UMEC staff took care of data entry and cleanup in-house. Cleaned data was then imported into SPSS and Tableau for statistical analysis. Analysis began in February 2019.

Survey Limitations

UMEC defines full-time status as 36 hours or more per week, but other individuals or work sites may define it differently (e.g., 32 hours or more per week). The survey asks for information regarding practice location and work hours, but not specifically if the worker is full-time or part-time at their primary and secondary practice location. In turn, the data may not accurately match the respondent's self-identified definition of work status.

There is also a question about providing services in any language other than English. The question does not specify whether interpreters, translators, or translation software are used or if the PA provides language services themselves. In future surveys, the question may be revised to capture a better representation of PAs that can speak languages other than English.

Since questions and response options were revised to match the National Minimum Data Set back in 2014, the current 2018 PA survey would not be able to match up to results from 2008 for longitudinal comparisons. For example, there are currently more options for practice specialty in both 2014 and 2018's PA survey compared to 2008's. With more changes, fewer comparisons can be made to older PA workforce reports without some assumptions made about how to combine or separate categories.

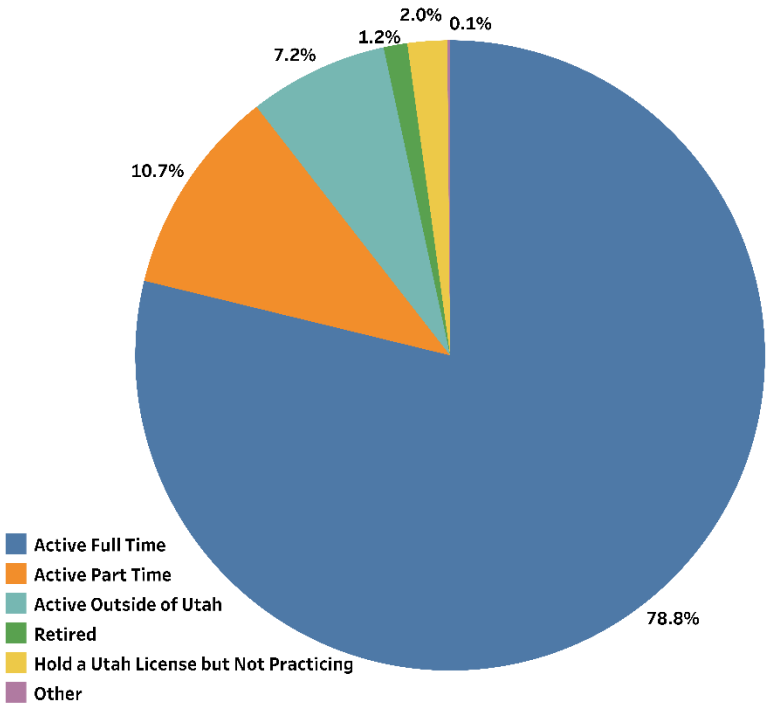
LICENSED IN UTAH

There were 1,541 active PA licenses in the state of Utah as of May 2018. From the time of the last report in 2014, there has been an increase of 374 licenses. The growth in licenses from 2014 was 32.1% for an 8.0% annual growth rate.

Utah License Breakdown

Of the 1,541 PAs licensed in Utah, 1,357 (89.4%) indicated that they provided services in Utah. This is a slight increase from 1998 and 2003 (85%), but a slight decrease compared to 90.7% in 2008. However, there is still an increase from the 2014 PA workforce report that indicated 86.1% provided services in Utah.

Figure 1: Work Status



WORKFORCE DEMOGRAPHICS

A rapid growth of the PA workforce in Utah is occurring. Of all licensed PAs, 89.4% (1,357) indicate that they are providing services in the state. All analyses will be reported based on the 1,357 licensed Utah PAs providing clinical services in the state.

Background

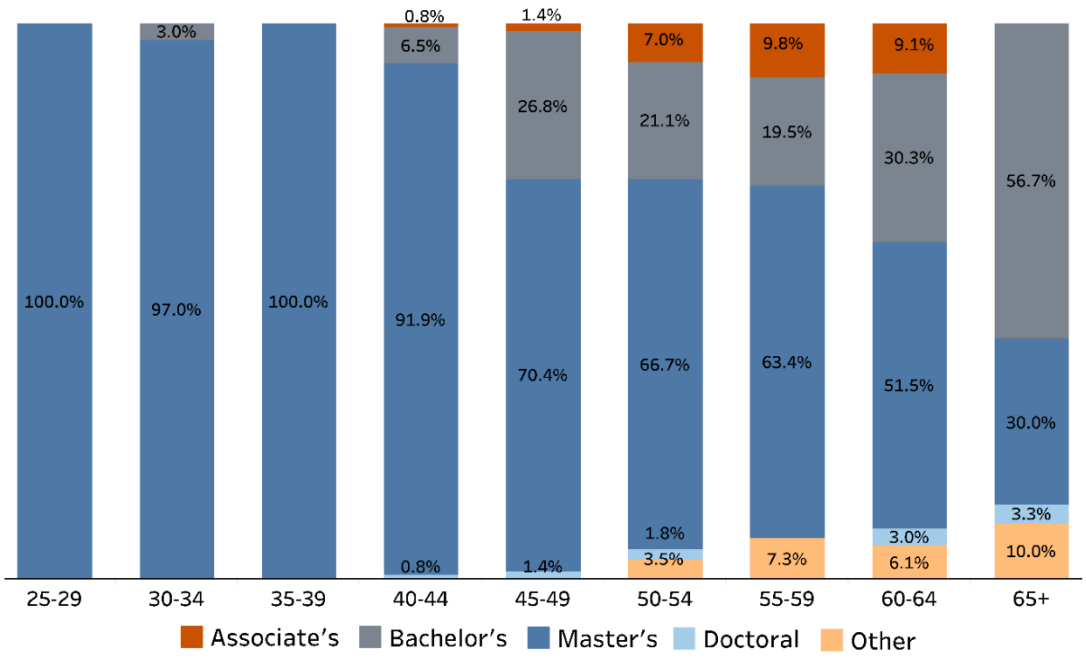
There has been a slight growth in PAs that spent the majority of their childhood in Utah. In 2014, 61.0% of PAs indicated being raised in Utah, and that increased to 62.1% (477) in 2018. Outside of Utah, the top states that PAs grew up in include: California (5.9%, 45), Idaho (5.1%, 39), Colorado (2.1%, 16), Arizona (1.9%, 14), and Oregon and Washington (1.6%, 12 each). As compared to 2014, the lower percentages in these states suggest that PAs working in Utah are coming from a broader number of states.

A majority of PAs reported that they primarily grew up in a suburban area (52.5%, 698), while the remaining half reported that they grew up in a rural (26.2%, 348) or urban (21.3%, 282) area.

Education Background

The amount of PAs reporting that a master's degree is the highest PA degree they obtained is steadily increasing each year. Compared to the last report, PAs obtaining a master's degree has gone up from 74.2% to 83.9% (1,130). However, PAs earning a PA certificate has gone down significantly, from 29.6% in 2008 to 5.1% in 2014 and now to 1.5% (20) in 2018. The decrease in PA certificates is no surprise as PA programs are now requiring master's level training. As seen in Figure 2, degree types vary more for those 45 and over.

Figure 2: Highest Degree Obtained by Age Group



The percent of PAs that graduated from Utah programs increased from 36.8% in 2014 to 37.4% (503) in 2018. This was expected as Rocky Mountain University's first PA cohort graduated in 2017. Additionally, Utah Valley University plans on introducing a PA program that will add even more students in the near future. With new programs and further expansion in class sizes, ongoing increases in PAs graduating from Utah programs are expected. For outside training, the states with a high amount of graduating PAs that practice in Utah include: Arizona (7.8%, 104), Pennsylvania (5.6%, 76), Idaho (5.4%, 74), and California (4.5%, 61).

Table 1: Top 5 PA Training Locations for Utah's PA Workforce

State	Count	Percentage
Utah	503	37.4%
Arizona	104	7.8%
Pennsylvania	76	5.6%
Idaho	74	5.4%
California	61	4.5%

Table 2: Training Location by State of Origin

Training Location	Raised in Utah	Raised Out of State
Utah	24.3% (186)	11.8% (90)
Out of State	37.7% (289)	26.2% (201)

With newer private PA institutions opening up in recent years, the number of PAs being trained in private schools is steadily increasing. Compared to the last report, PAs graduating from a private institution has gone up from 36.3% in 2014 to 42.8% (542) in 2018.

Race/Ethnicity

In past reports, Caucasians have been the majority of Utah's PA workforce, and this has increased from 88.6% in 2014 to 93.8% (1,240) in 2018. All minorities appear to be underrepresented when comparing the PA workforce to Utah's population. For example, Asian (1.7%), American Indian (0.6%), and Pacific Islander (0.5%) PAs fall slightly below their share of Utah's overall population. On the other hand, PAs in Utah are slightly higher in the "other" race category at 3.0%. It is worth noting that those in the "other" category tend to be multi-racial and may consist of being mixed with Caucasian. Although Hispanic PAs in Utah increased from 3.3% in 2014 to 5.4% in 2018, it is still low compared to Utah's population at 14.0%. Hispanics are still the largest underrepresented group of Utah PAs. When examining national numbers, however, Utah's PA population seems to be similar for Hispanics, American Indians, and Pacific Islanders (NCCPA: National Commission on Certification of Physician Assistants, 2018).

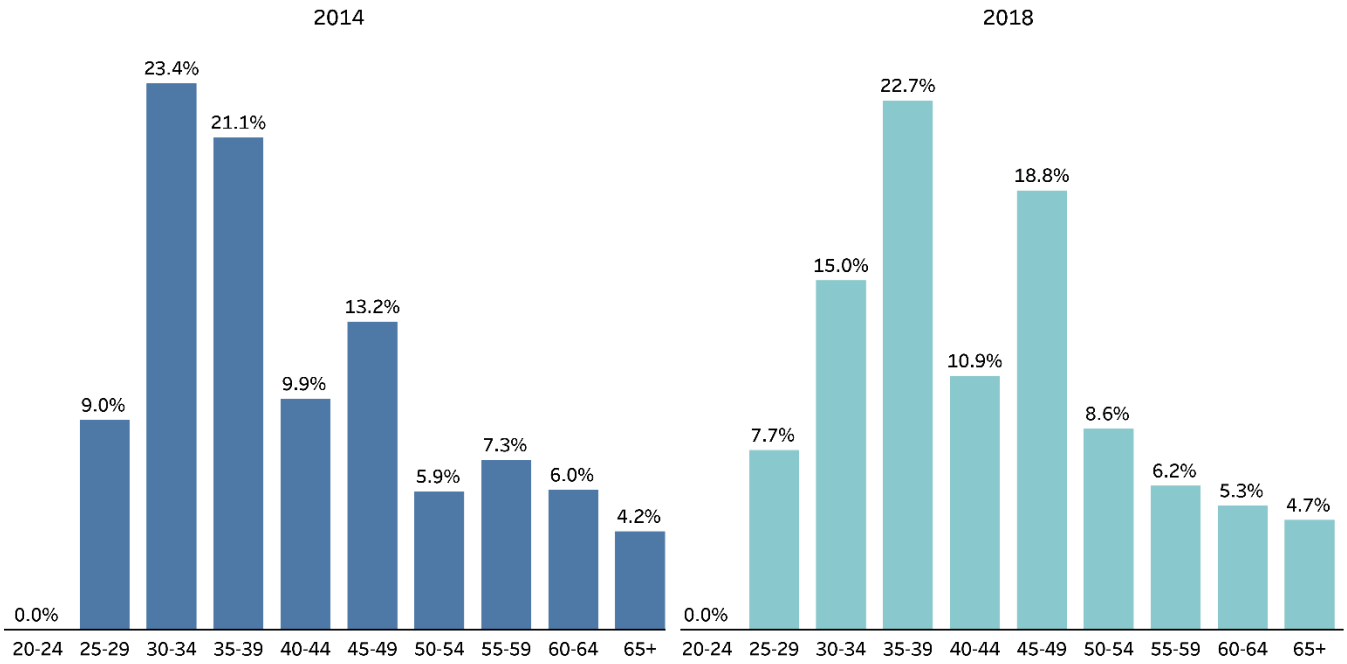
Table 3: PA Workforce and Utah Population by Race/Ethnicity

Race/Ethnicity	PA 2018	Utah 2018	National PAs 2018 (NCCPA)*
Caucasian	93.8%	90.9%	86.9%
Asian	1.7%	2.6%	5.8%
Other	3.0%	2.5%	3.0%
American Indian	0.6%	1.5%	0.4%
African American	0.5%	1.4%	3.6%
Pacific Islander	0.5%	1.0%	0.3%
Hispanic	5.4%	14.0%	6.3%

Age

Utah's PA workforce has a mean age of 43.1, which is not much different from 2014's mean age of 41.8. The median age for Utah PAs was 41 in 2008, and that decreased to 38 in 2014. However, the median age is back to 41 today. When examining national figures, the median age for Utah PAs is a bit higher compared to a median of 38 years nationally (NCCPA: National Commission on Certification of Physician Assistants, 2018).

Figure 3: Age Distribution of Utah PAs 2014 and 2018



Overall, most age groups are steadily increasing in size from 2014 to 2018. The age cohort with the largest increase in size is between ages 50 and 54 while age cohorts between 30 and 34 decreased the most in size.

Table 4: PA Workforce by Age 2014 and 2018

Age Cohort	2014 %	2018 %	% Change
20-24	0.0%	0.0%	0.0%
25-29	9.0%	7.7%	-14.4%
30-34	23.4%	15.0%	-35.9%
35-39	21.1%	22.7%	7.6%
40-44	9.9%	10.9%	10.1%
45-49	13.2%	18.8%	42.4%
50-54	5.9%	8.6%	45.8%
55-59	7.3%	6.2%	-15.1%
60-64	6.0%	5.3%	-11.7%
65+	4.2%	4.7%	11.9%
Total	100%	100%	NA

The average age for PAs at the time of graduation has gone up to 31.7 years, compared to 30.9 years in 2014. When grouping by ages, a total of 546 (41.8%) PAs graduated between the ages of 25 and 29. PAs that graduated at age 30 or older made up about 58.2% (761) of the total population.

When examining the average number of years since graduation, there has been a decrease from 11.6 years in 2014 to 10.4 years in 2018. More than half of the PA workforce in Utah has less than ten years of experience (55.5%, 743). We are seeing a slight decrease in years of experience, and this may be due to

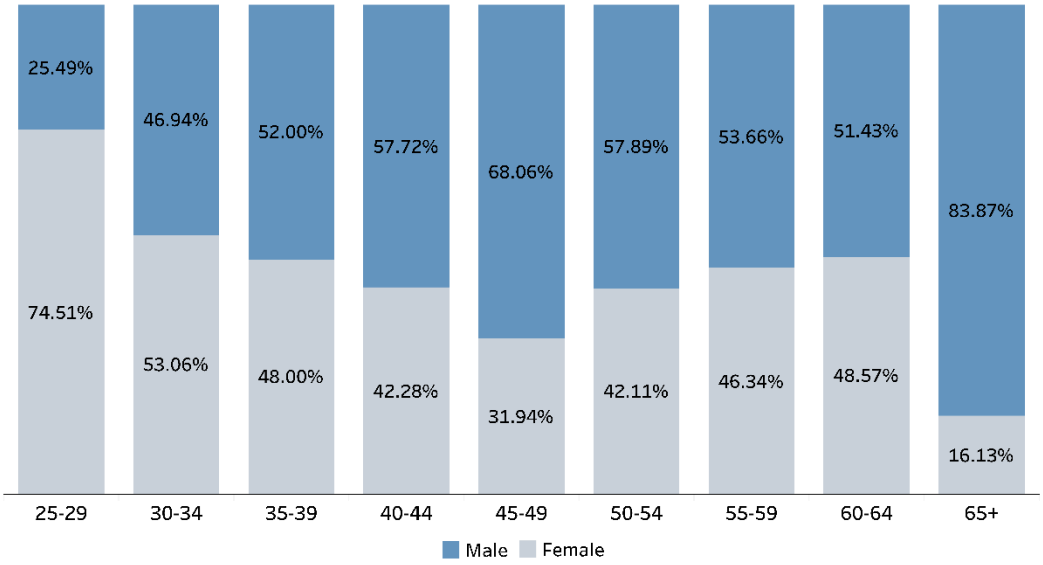
more PAs entering the workforce. Male PAs have more years of experience compared to female PAs. For instance, males have an average of 11.7 years of experience, while female PAs have 8.8 years of experience. Additionally, the majority of PAs that have more than 15 years of experience are males (32.0%, 230) compared to 16.7% (102) of female PAs.

Gender

The majority of the national PA workforce is female, growing from 67.3% in 2014 to 68.8% in 2018 (NCCPA: National Commission on Certification of Physician Assistants, 2018). Although Utah's female PA workforce is lower than the national PA workforce, Utah mirrors the national trend of a growing female workforce. The percent of female PAs has gone up from 41.6% in 2014 to 45.6% in 2018.

Female PAs under 40 years of age make up about 53.6% (331) of the female PA workforce in comparison to 38.5% (281) of males that make up the male PA workforce. We see that this is a decrease from 64.3% reported in 2014, but the overall amount of female PAs is continuously increasing. Although male PAs contribute to a higher proportion of the workforce overall, there is a shift as older PAs retire while younger PAs enter the workforce. In turn, the shift may contribute to a more balanced ratio of gender in the workforce.

Figure 4: Gender by Age Cohort



PRACTICE CHARACTERISTICS

Geographic Distribution

Five of Utah's 29 counties lack practicing PAs (Beaver, Garfield, Juab, Kane, and Piute counties). Overall, 23 counties with practicing PAs are experiencing an increase compared to the last report, except for Duchesne, San Juan, Sanpete, and Uintah counties. The county with the highest percentage increase was Summit County (82.4%), from 17 PAs in 2014 to 31 PAs in 2018. The urban county with the greatest

increase of PAs was Washington County by 65.4% (86). Below is a table outlining the growth of PAs in each county between 2014 and 2018.

Table 5: PA Distribution by County

County	2014 Count	2018 Count	% Change
Beaver	2	NR	
Box Elder	9	12	33.33%
*Cache	33	43	30.30%
Carbon	7	8	14.29%
Daggett	NR	2	
*Davis	74	102	37.84%
Duchesne	11	6	-45.45%
Emery	4	6	50.00%
Garfield	2	NR	
Grand	4	8	100.00%
Iron	17	25	47.06%
Juab	NR	NR	
Kane	2	NR	
Millard	NR	2	
Morgan	NR	2	
Piute	NR	NR	
Rich	2	2	0.00%
*Salt Lake	482	663	37.55%
San Juan	15	14	-6.67%
Sanpete	9	6	-33.33%
Sevier	4	8	100.00%
Summit	17	31	82.35%
Tooele	18	23	27.78%
Uintah	6	4	-33.33%
*Utah	138	188	36.23%
Wasatch	NR	2	
*Washington	52	86	65.38%
Wayne	2	4	100.00%
*Weber	70	100	42.86%
Not reported	22	8	-72.73%
Total	~1,005	~1,357	35.02%

*Urban county

Note: Counts are based on weights and do not add up exactly to the total due to rounding

Since 2014, there has been a slight decline in the share of PAs working in rural counties (13% in 2014, 12.6% in 2018). The general population, however, is also experiencing a proportional decrease of people living in rural counties with less than 10% of Utah's population making up rural areas (Rural Planning Group, 2017). When looking at the specific number of PAs in rural counties, we see that there is actually an increase from 134 PAs in 2014 to 170 in 2018, giving us an overall increase of 26.9%. The population ratios of PAs to the Utah population in rural counties have actually increased overall.

Figure 5: 2018 Rural Population and Rural Workforce

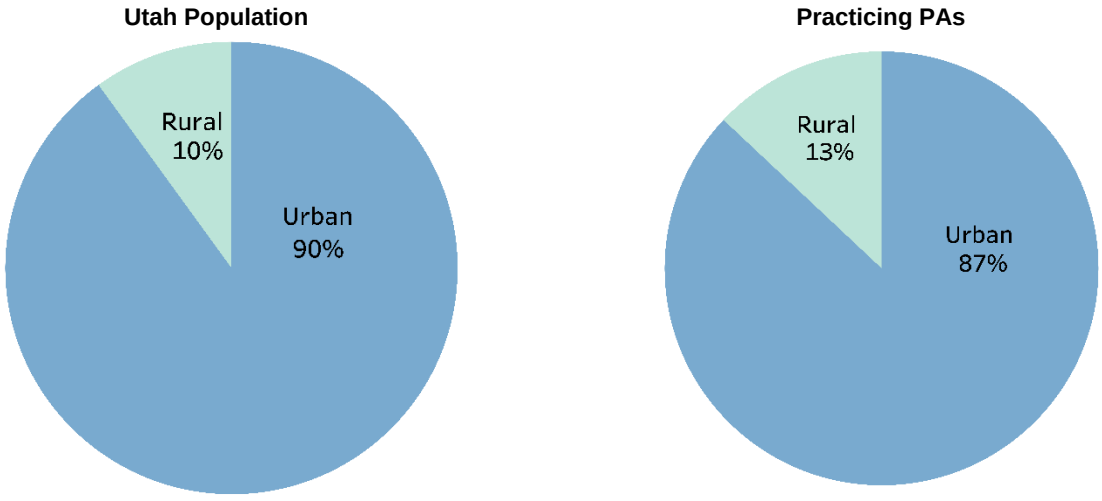


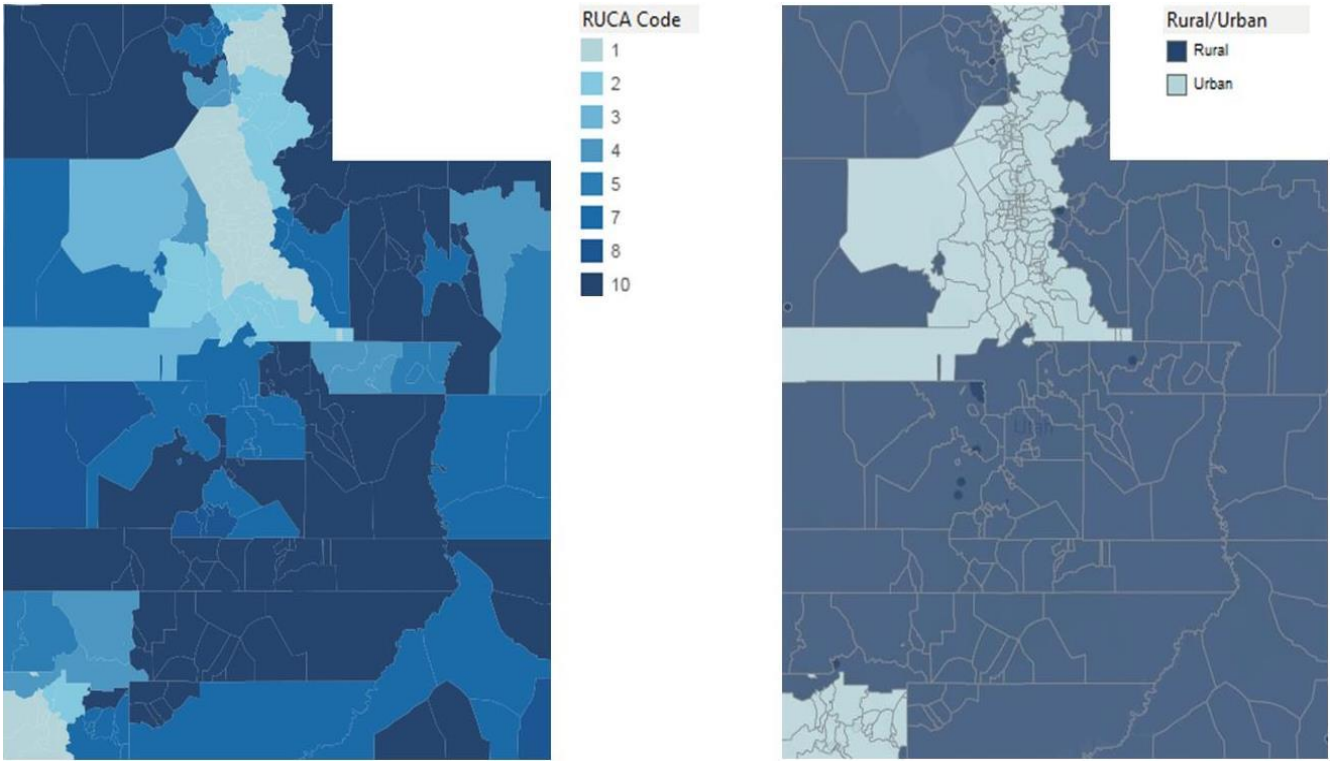
Table 6: Utah and PA Population Distribution by County

County	Utah Population	PA Population
Beaver	0.2%	0.0%
Box Elder	1.7%	0.9%
Cache	4.0%	3.2%
Carbon	0.7%	0.6%
Daggett	0.0%	0.2%
Davis	11.1%	7.6%
Duchesne	0.7%	0.5%
Emery	0.3%	0.5%
Garfield	0.2%	0.6%
Grand	0.3%	1.8%
Iron	1.7%	0.9%
Juab	0.4%	0.0%
Kane	0.2%	0.0%
Millard	0.4%	0.2%
Morgan	0.4%	0.2%
Piute	0.1%	0.0%
Rich	0.1%	0.2%
Salt Lake	35.9%	49.1%
San Juan	0.5%	0.2%
Sanpete	1.0%	0.5%
Sevier	0.7%	0.6%
Summit	1.3%	2.3%
Tooele	2.2%	1.7%
Uintah	1.2%	0.3%
Utah	20.1%	13.9%
Wasatch	1.0%	0.2%
Washington	5.4%	6.4%
Wayne	0.1%	0.3%
Weber	8.0%	7.4%

An alternative approach to measure rural and urban areas is going by the rural-urban commuting area (RUCA) codes that use zip codes to break down rural and urban areas. Through RUCA codes, we can measure population density, urbanization, and daily commuting (United States Department of Agriculture, Economic Research Service, 2014). Refer to Appendix B for a detailed table outlining RUCA codes and definitions with Utah examples.

RUCA codes can be broken down into ten different categories with subdivisions that include urban, large rural, small rural, or isolated small rural areas. The codes can also be simplified into two basic urban and rural categories (Skillman, Oct 2012). Therefore, RUCA codes become supplementary to UMEC's traditional breakdown of rural and urban counties by providing a more enhanced description of the geographic distribution. Figure 8 shows a map outlining the specific RUCA codes in each county, alongside an interrelated map of the binary rural and urban breakdown of the state.

Figure 6: Utah RUCA Code and Census Designated Rural/Urban Areas Maps



In terms of RUCA codes, the PA population seems to align similarly with Utah's population except for counties that don't have any practicing PAs. The tables below display the geographic distribution using RUCA codes and counties to compare the Utah population to the practicing PA population. Although both the Utah and PA population seem to be evenly distributed, there has also been an increasing shift of PAs practicing in rural areas to more urbanized areas by RUCA codes. For example, metropolitan core areas (RUCA code 1) have increased from 81.2% in 2014 to 85.6% (1,158) in 2018. On the other hand, the state is experiencing a decrease of PAs in the most rural areas (RUCA code 10) compared to 2014.

Table 7: PA Distribution by RUCA Code

RUCA Code	Utah Population	PA Population
1	79.9%	85.6%
2	4.7%	3.0%
3	0.5%	0.2%
4	5.8%	4.9%
5	0.1%	0.0%
6	0.0%	0.0%
7	5.3%	3.2%
8	0.3%	0.3%
9	0.0%	0.0%
10	3.4%	2.6%

About 26.2% (348) of PAs grew up in a rural environment and of that, 33.1% practice in rural areas. For PAs that grew up in a suburban environment (52.5%, 698), 5.9% practice in rural areas. The remaining 21.3% (282) of PAs grew up in an urban environment, but only 3.6% of them practice in rural areas.

Table 8: PA Distribution by Area

Upbringing Area	Practice in Urban Area	Practice in Rural Area
Rural	66.9%	33.1%
Urban	96.4%	3.6%
Suburban	94.1%	5.9%

When examining gender differences, we see that there is a higher percentage of men choosing to practice in rural areas. For PAs who grew up in a rural environment, we see that 44.3% (88) of men and 18.6% (27) of women chose to practice in a rural area. The overall PA workforce includes 15.6% (113) of men and 9.3% (57) of women that are currently practicing in a rural area. The rural workforce itself is made up of 66.3% males and 33.7% females in its entirety. Compared to the last report, there is a slight increase of female PAs working in rural areas.

Regarding age, the mean age of PAs working in rural areas is 43.3 years while the median is 41 years. Compared to the state average and median, they are similar.

Specialty

About 40% (530) of PAs are working in a primary care specialty (Family Medicine, Family Medicine with Urgent Care, OB/GYN, General Internal Medicine, and General Pediatrics) while 60% (796) are working in specialty care.

The national share of PAs in primary care decreased by about 2% (NCCPA: National Commission on Certification of Physician Assistants, 2018) while the share of Utah PAs in primary care decreased by about 3% (Utah Medical Education Council, 2014). Although there is an actual increase of Utah PAs working in primary care, from 431 in 2014 to 530 in 2018, this is due to an overall increase in the PA workforce itself. Primary care specialties are also more gender-balanced than the PA workforce at-large—48.4% (256) female and 51.6% (272) male.

Figure 7: Decline in Utah and U.S. Primary Care PAs as Percentage of Workforce

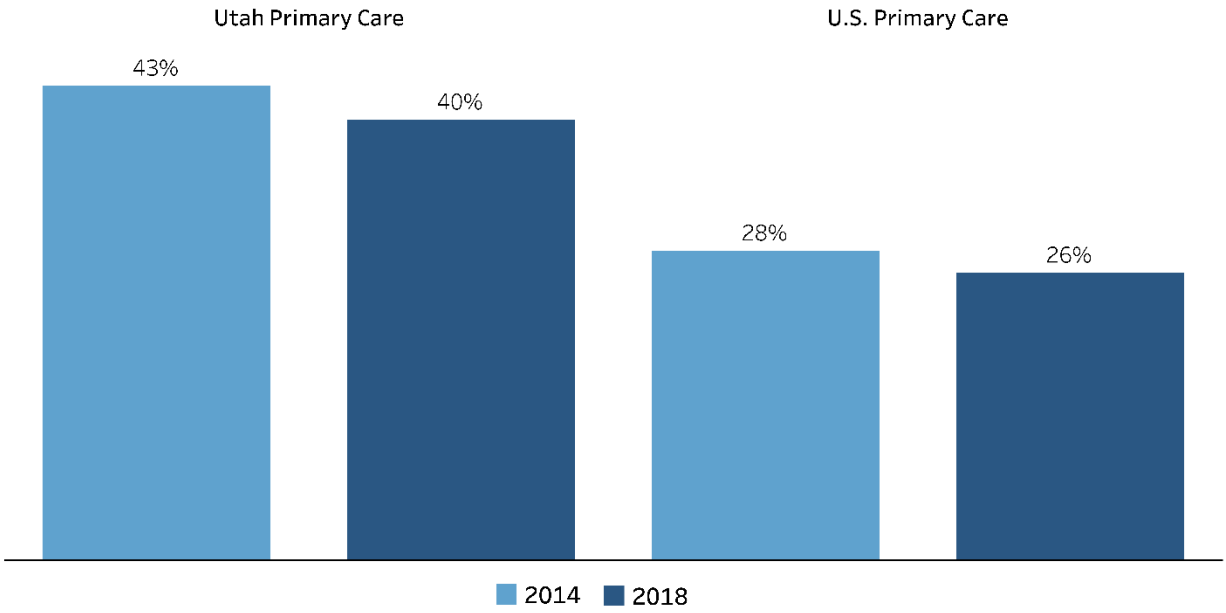


Table 9: Primary Care Specialties Utah and U.S. PA Workforce

Specialty	Utah	U.S. (NCCPA)
Family Medicine	14.5%	19.2%
Family Medicine w/Urgent Care	17.7%	NR
OB/GYN	2.3%	*
Pediatrics: General	3.2%	1.9%
Internal Medicine: General	2.2%	4.7%

*Does not classify OB/GYN as a primary care specialty

Table 10: Primary Care Specialty and Gender

Specialty	Female	Male
Family Medicine	41.2%	58.8%
Family Medicine w/Urgent Care	50.0%	50.0%
OB/GYN	86.7%	13.3%
Pediatrics: General	42.9%	57.1%
Internal Medicine: General	64.3%	35.7%

The types of specialties included on the survey were based on the National Minimum Data Set (United States Department of Health and Human Services, 2013) and were included in the previous 2014 survey to compare to the current 2018 survey. The specialty with the highest growth was Pain Management at 115%. The other two fastest growing specialties include Dermatology at 89.7% and IM: Oncology at 65.0%. Obstetrics/Gynecology (-6.1%) was the only specialty out of the top 15 specialties that had a decrease.

When broken down into primary care and specialty care, we see that both experienced a growth at 22.5% (97) and 39.5% (223) between 2014 and 2018, respectively.

Table 11: 2018 Top 15 Specialties and Change Since 2014

	2014		2018		Change	
Specialty	Count	Percent	Count	Percent	Count	Percent
Family Medicine with Urgent Care	156	15.6%	235	17.7%	79	50.6%
Family Medicine	175	17.4%	192	14.5%	17	9.7%
Orthopedics	96	9.5%	123	9.3%	27	28.1%
Emergency Medicine	53	5.3%	65	4.9%	12	22.6%
Dermatology	29	2.9%	55	4.2%	26	89.7%
Pain Management	20	2.0%	43	3.2%	23	115.0%
Pediatrics: General	41	4.0%	43	3.2%	2	4.9%
IM: Cardiology	29	2.9%	35	2.6%	6	20.7%
IM: Oncology	20	2.0%	33	2.5%	13	65.0%
Obstetrics/Gynecology	33	3.3%	31	2.3%	-2	-6.1%
IM: General	26	2.6%	29	2.2%	3	11.5%
Surgery: Otolaryngology	26	2.6%	29	2.2%	3	11.5%
Surgery: Urology	29	2.9%	29	2.2%	0	0.0%
Occupational Medicine	26	2.6%	27	2.0%	1	3.8%
Surgery: Cardiovascular/Cardiothoracic	20	2.0%	25	1.9%	5	25.0%

There are notable differences in specialties when accounting for gender. There are slightly more females (42.2%, 256) choosing primary care compared to males (38.3%, 272). While more females (15.9%) compared to males (13.5%) are choosing to practice Family Medicine, more males (19.3%) are choosing to practice Family Medicine with Urgent Care compared to females (15.9%). The largest discrepancies are observed when looking at Orthopedics (13.3% for men, 4.4% for women), Obstetrics (0.6% for men, 4.4% for women), Internal Medicine (1.4% for men, 3.0% for women), and Emergency Medicine (6.3% for men, and 3.4% for women).

Hours Worked

PAs in Utah are working, on average, 38 hours per week. About 88.1% (1,195) of PAs work full-time (36 or more hours per week) and 11.9% (162) of PAs work part-time (fewer than 36 hours per week). Those that are full-time average 40.5 hours per week, while PAs working part-time average 19.2 hours per week. We also see that more female PAs are working part-time compared to their male counterpart. Female PAs working less than 36 hours per week make up 38.1% of the female workforce, compared to only 15.5% of PAs in the male workforce.

Table 12: Hours Worked per Week

Hours/Week	Count	Percent
20 or fewer	76	5.6%
21-35	272	20.1%
36-40	669	49.3%
41-50	260	19.2%
51-60	45	3.3%
61+	35	2.6%

Table 13: Hours Worked per Week by Gender and Median Income

Hours/Week	Male Median Income	Male Count	Male %	Female Median Income	Female Count	Female %
20 or Fewer	$110,406	18	2.5%	$45,203	57	9.3%
21-35	$115,400	94	12.9%	$95,970	178	28.8%
36-40	$117,719	381	52.3%	$103,574	284	46.0%
41-50	$124,256	178	24.4%	$104,622	78	12.6%
51-60	$134,450	33	4.5%	$108,301	12	2.0%
61+	$136,070	25	3.4%	$105,953	8	1.3%

There was a slight difference in the average hours worked per week between male and female PAs. Male PAs worked on average 40.6 hours per week, while female PAs worked on average 34.9 hours per week. When looking at male and female PAs classified by work status, we see that there were no outstanding differences in average hours worked.

There were also notable differences between genders when examining median income by hours worked per week. Although there is a higher proportion of females working 21-35 hours per week, their median income is still about $20,000 lower than their male counterpart.

Table 14: Mean Hours Worked per Week by Work Status and Gender

Work Status	Men	Women	All
Full Time	41.9	38.7	40.5
Part Time	17.9	19.7	19.2
All	40.6	34.9	38.0

Work Setting

There are currently 26 different settings that PAs in Utah are working in. More than half (57.8%, 722) are working in a solo or group physician practice and 22.3% (278) work in some type of hospital setting. There has been an increase of PAs working in solo or group physician practices from 53.7% in 2014 to 57.8% in 2018. However, there is also a decrease of PAs working in hospital settings, from 25.6% in 2014 to 22.3% in 2018. The majority of PAs are employed in group practices (48.9%, 612) comprised of single-specialty and multi-specialty group settings.

When comparing settings, we see that most settings grew when broken down into specific work settings. The table below outlines the top five work settings and their changes. Out of the top five settings, the

settings that grew the most were single-specialty group physician practices (47.6%), multi-specialty group physician practices (51.0%), and community health centers (18.2%). Although the data seems to present a shift towards these settings, the growth is actually indicating the increase of PAs in the workforce itself.

Table 15: Top 5 Work Settings with 2014 Comparisons

Work Setting	2014		2018		Count Change	Percent Change
	Count	Percent	Count	Percent		
Single-Specialty Physician Group Practice	254	25.3%	375	30.0%	121	47.6%
Multi-Specialty Physician Group Practice	157	15.6%	237	19.0%	80	51.0%
Solo Practice Physician Office	129	12.8%	111	8.8%	-18	-14.0%
Outpatient Unit of Hospital	87	8.6%	74	5.9%	-13	-14.9%
Community Health Center	55	5.5%	65	5.2%	10	18.2%

To compare Utah's PA settings to the nation's, the 2014 PA survey had setting types based on the AAPA annual workforce report. However, to our knowledge, the most updated AAPA workforce report was published in 2013 and no recent comparisons can be made. In order to account for more up-to-date comparisons, settings were grouped to match the 2018 NCCPA Workforce Report. The table below identifies similar settings but must be interpreted with caution due to NCCPA's settings being categorized differently. Generally, we can see that Utah PA's work settings seem comparable to national percentages but with notable differences in physician group practice and hospital settings.

Table 16: Work Settings with National Comparisons

Work Setting	Utah 2018	National 2018 (NCCPA)
Single/Multi-Specialty/Solo Practice Physician Group Practice	57.8%	43.6%
Hospitals	22.3%	37.7%
Community Health Center	5.2%	3.7%
School-based health facility	0.8%	1.0%

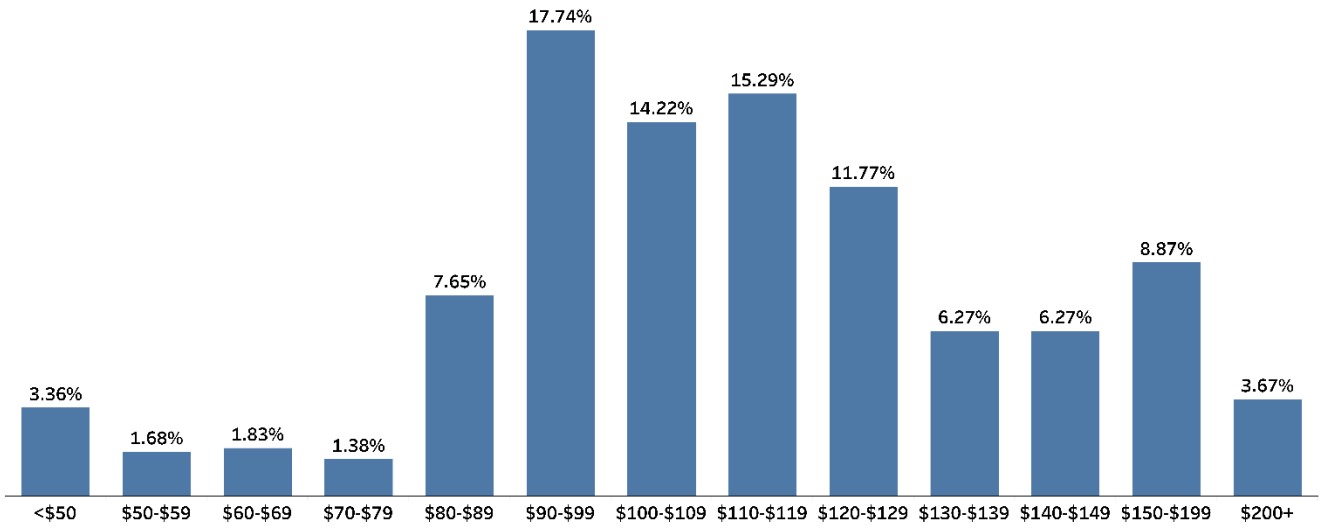
Income

The median income reported in 2014 was $96,000, and this increased to $111,415 in 2018 for an overall increase of 19.2%. After adjusting for inflation, the overall growth rate of income was 11.6%, with an annual increase of 2.8%. Compared to 2014, the overall growth rate after adjusting for inflation is about 5% higher in 2018, suggesting that incomes are steadily increasing for Utah PAs. The median income for Utah PAs also falls close to the national median of $115,000 (NCCPA: National Commission on Certification of Physician Assistants, 2018).

Utah PAs mainly work full-time[1] (88.1%, 1195) with a median income of $114,841. On the other hand, about 11.9% (162) work part-time with a median income of $70,404. For full-time PAs, the average full-time equivalent (FTE) is 1.0 (1 FTE = 40 hours/week) while part-time PAs averaged 0.5 FTEs.

Slightly more than half of PAs (54.9%, 735) make between $80,000 to $119,000 per year. Out of all PAs, 8.3% (111) make below $80,000 while 36.9% (493) make above $119,000 per year.

Figure 8: Yearly Income of Utah PAs



Primary care's median salary ($105,872) is below the state's median ($111,415). On the other hand, we see that the median salary of specialty care ($114,733) is above the state's median salary. For PAs working in primary care full-time, the median salary is $110,136, whereas the median salary for PAs working in specialty care full-time is $116,461. There is a wide range of income across specialties, especially when broken down into sub-specialties.

[1] Full-time status is considered at least 36 hours per week

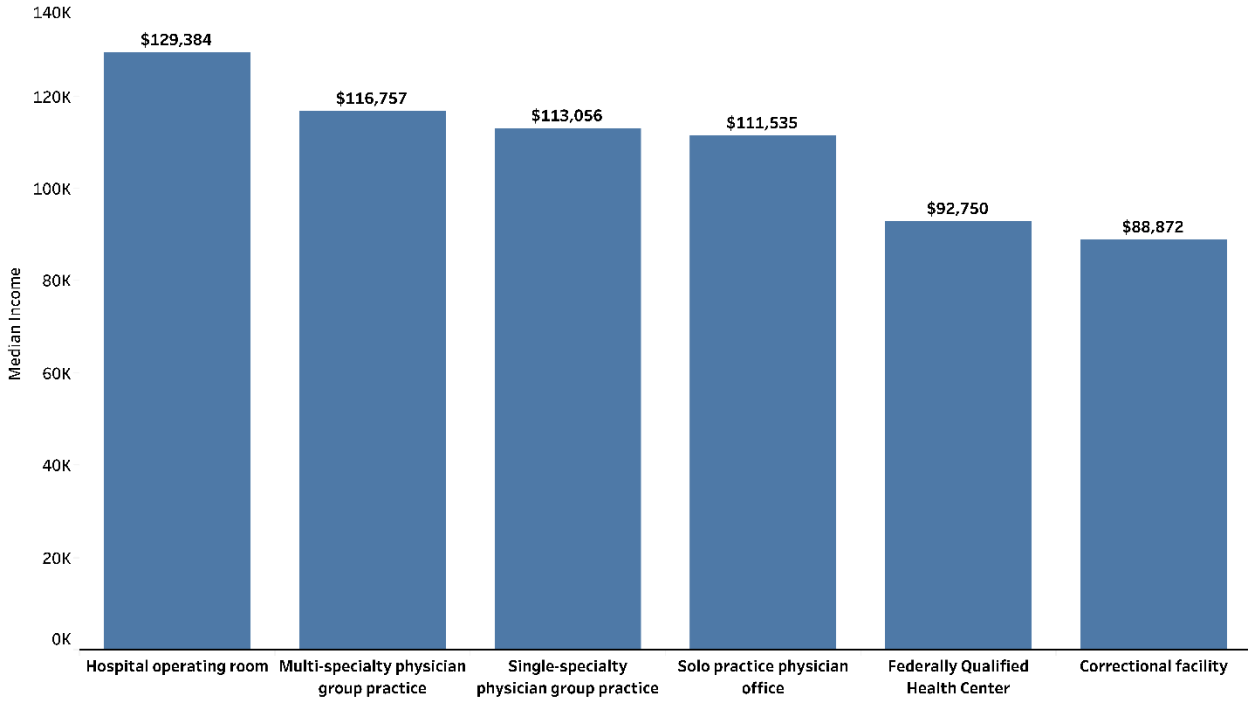
Table 17: Specialty Rankings by Median Income

Specialty	Median Income	2018 Rank	2014 Rank
Surg: Cardiovascular/Cardiothoracic	$159,407	1	1
Dermatology	$141,149	2	2
Interventional Cardiology	$139,010	3	NA
Surg: Hand	$132,750	4	24
Pain Management	$126,523	5	20
Surg: Trauma	$125,425	6	7
Surg: General	$122,641	7	16
Interventional Radiology	$120,907	8	3
Emergency Medicine	$120,560	9	12
Surg: Neurological	$120,416	10	23
Orthopedics	$118,707	11	17
IM: Endocrinology	$116,438	12	NA
Physical Medicine/Rehabilitation	$116,029	13	5
IM: Pulmonology	$115,816	14	27
Hospital Medicine	$115,418	15	11
*Family Medicine with Urgent Care	$114,869	16	9
*Ped: General	$113,627	17	18
IM: Gastroenterology	$113,361	18	25
Surg: Urology	$110,833	19	13
Psychiatry	$109,097	20	4
IM: Cardiology	$108,777	21	21
Surg: Other	$107,740	22	19
Surg: Transplant	$105,995	23	14
Surg: Vascular	$105,118	24	10
Occupational Medicine	$104,577	25	15
IM: Other	$102,543	26	28
Surg: Otolaryngology	$102,028	27	26
IM: Critical Care	$100,852	28	NA
IM: Oncology	$99,726	29	8
*Family Medicine	$99,383	30	29
IM: Neurology	$98,035	31	33
Allergy	$96,279	32	22
*IM: General	$95,600	33	30
Surg: Bariatric	$94,027	34	NA
*Obstetrics/Gynecology	$92,651	35	32
Geriatrics	$91,675	36	NA
IM: Infectious Disease	$90,965	37	NA
Surg: Plastic	$90,291	38	NA
Addiction Medicine	$83,159	39	NA
Ophthalmology	$9,351	40	NA

*Primary Care specialty

PAs that work in single-specialty physician group practices make a median income of $113,056. The median income for multi-specialty physician group practices is $116,757, while solo practice physician offices is $111,535. PAs working in a hospital operating room had the highest median income at $129,384, whereas correctional facility ($88,872) and Federally Qualified Health Center ($92,750) had the lowest median income.

Figure 9: Median Income by Setting



A total of 170 PAs are practicing in rural locations throughout Utah. The median income for PAs practicing in rural areas of Utah is $116,234, which is above the state's median income. Additionally, the median income in rural areas is also higher than urban/suburban areas ($111,105).

School Debt

Debt of PA students was captured in terms of their current balance as well as the amount of debt at the time of graduation. The figure below shows that the debt accumulated by PA students at the time of graduation is consistently increasing. On the other hand, the current median debt varies among graduation years but future reports may comprise of higher median debts with a longer range of graduation dates as school debt is constantly increasing.

Figure 10: Median School Debt at Time of Graduation

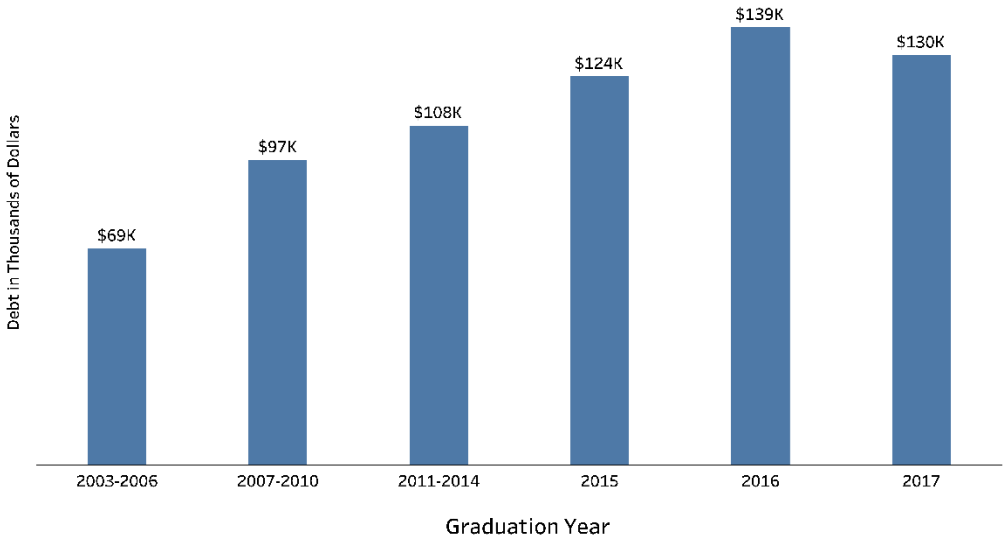
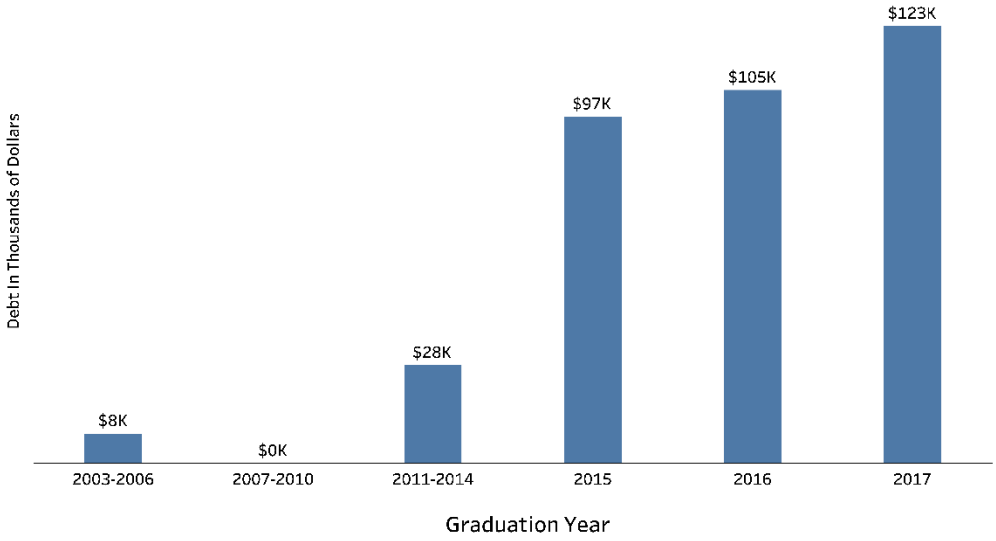
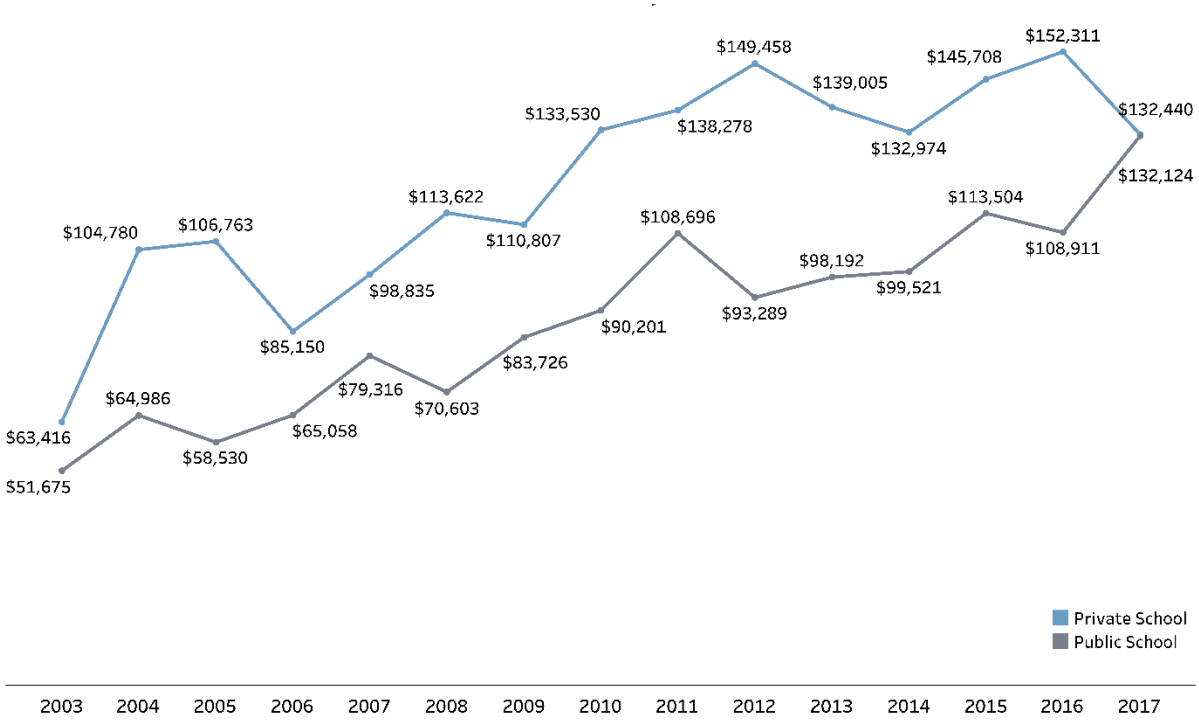


Figure 11: Current Median School Debt



The figure below displays the gap between the median school debt for private and public institutions at the time of graduation.

Figure 12: Median School Debt at Time of Graduation by Private vs. Public Institutions

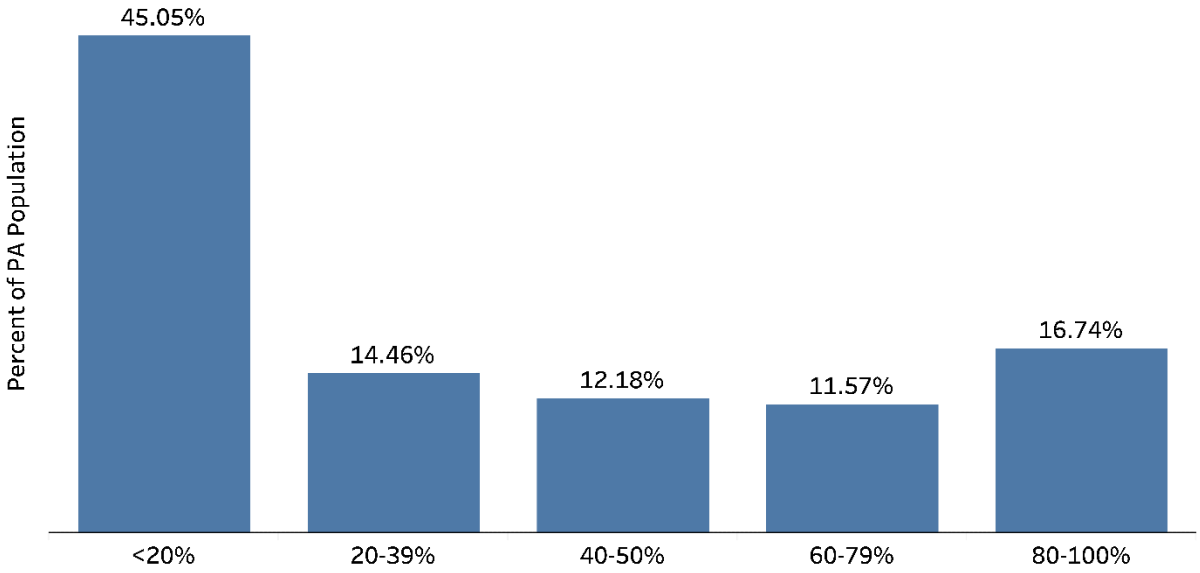


Accounting for inflation, the average amount of school debt has exceeded the average rate of inflation each year between 2004 and 2017 by 2.8%. Within the same time frame, debt has increased on average 0.7% faster than the rate of inflation for private institutions and 5.6% faster for public institutions.

On-Site Supervision

Responses to the time spent with a supervising physician vary. The highest responses were accumulated in the <20% of time being spent with a supervising physician, and this seems to match closely to the responses acquired in 2014. On the other hand, we also have a proportionate amount of PAs answering that they spend 20-39% and 80-100% of their time with a supervising physician.

Figure 13: 2018 Reported Time Spent with Supervisor



Respondents were also asked the method of interaction with their supervising physician. The question allowed for multiple responses, so percentages are based on what respondents likely use to interact with their supervising physician. The majority of respondents indicated that they use face-to-face interactions (95.3%, 1287), followed by telephone (81.2%, 1097), text message (77.7%, 1050), and email (43.3%, 585).

Patient Wait Times

For new patients, the average wait time is 5.8 days. The mean wait time for existing patients is 3.5 days. Both new and existing patient averages vary by specialty.

In terms of primary and specialty care, the mean wait time for new patients seeking a primary care provider is 3.9 days, while an existing patient's mean wait time is 2.2 days. PAs practicing in specialty care reported that the mean wait time was 7.0 days for new patients and 4.6 days for existing patients.

Table 18: Reported Mean Wait Times by Primary Care and Specialty Care

Specialty Group	New Patients	Existing Patients
	Mean	Mean
Primary	3.9	2.2
Specialty	7.0	4.6

The highest mean wait time was 25.7 days from IM: Neurology. Other Internal Medicine specialties, such as Endocrinology and Pulmonology, also account for some of the highest mean wait times at 17.0 and 15.8 days, respectively.

Table 19: Reported Mean Patient Wait Times by Primary Specialty

Specialty	New Patients	Existing Patients
	Mean	Mean
Family Medicine	4.5	2.3
Family Medicine w/Urgent Care	2.5	2.0
OB/GYN	10.1	6.7
General Internal Medicine	9.0	0.9
General Pediatrics	1.0	0.2

Table 20: Five Highest Reported Mean Patient Wait Times

Specialty	New Patients	Existing Patients
	Mean	Mean
IM: Neurology	25.7	9.3
Allergy	20.0	11.3
IM: Endocrinology	17.0	6.0
IM: Pulmonology	15.8	8.0
Surg: Vascular	15.4	8.6

Compared to the mean wait time of 4.6 days in 2014, the mean wait time went down by one day for new patients seeking a primary care PA. This trend holds true for both new and existing patients seeking a primary care and/or specialty care PA. The mean wait time for specialty care PAs (20 days) in 2014 went down tremendously by 13 days.

Table 21: 2014 and 2018 Reported Mean Patient Wait Time by Primary Care and Specialty Care

Patient Category	Primary Care		Specialty Care	
	2014	2018	2014	2018
New Patients	4.6	3.9	20.0	7.0
Existing Patients	2.6	2.2	5.3	4.6

Accepting New Patients

Most PAs (55.2%, 776) responded that their primary practice is unfilled and can accept many new patients. Compared to 2014 (44.7%), this is an observable increase. About 3.2% (41) of PAs indicated that they cannot accept new patients while 31.5% (409) said their practice is nearly full and can accept a limited number of new patients.

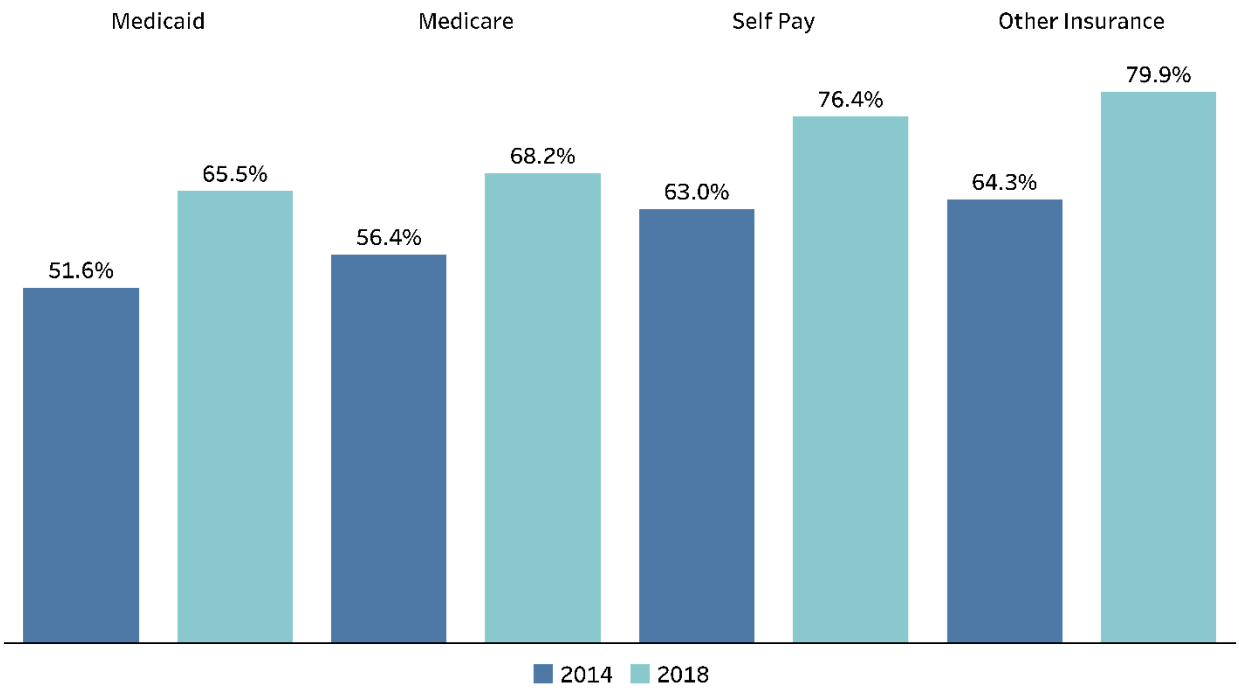
When observing mean patient wait times by practice status, we see that mean wait times are higher in full practices for both new and existing patients. Although not surprising, the data may not precisely represent the full scope of mean wait times by practice status due to the nature that most full practices usually do not accept new patients.

Table 22: Mean Patient Wait Times by Practice Status

Patient Type	Full	Nearly Full	Unfilled	All
New patients	10.2	7.8	4.1	5.7
Existing patients	6.2	4.7	2.6	3.6

There has been an increase of PAs accepting all payer types. For each payer type, there has been a 10% or higher increase since 2014.

Figure 14: Percent of PAs Accepting New Insurances 2014 and 2008



In terms of practice status by patients per hour, there is not much difference. PAs indicating their primary practice was full, nearly full, or unfilled saw on average 3.9, 3.6, and 3.5 patients per hour, respectively.

Direct Patient Care

On average, PAs see about 3.5 patients per hour. When broken down into work status, full-time PAs see an average of 3.5 patients per hour while part-time PAs see 3.6. The time spent for direct patient care activities averages to 32.7 hours per week, a decrease in hours compared to 2014's mean of 36.1 hours per week. Full-time PAs also spend an average of 34.9 hours per week in direct patient care while those working part-time work 16.8 hours per week. Alongside the direct patient care hours, PAs can see on average about 114 patients per week. Full-time PAs see about 121.3 patients on average per week while part-time PAs see 61.3 patients. In 2014, full-time PAs saw on average 141.8 patients while part-time PAs saw 74.8 patients per week. Therefore, PAs are seeing fewer patients on average compared to 2014.

The table below displays the difference between male and female PAs seeing patients. Although full-time females work fewer hours than males, we see that part-time females work more hours on average than males. In terms of patients per hour, there is not much difference between male and female PAs.

Table 23: Patients Seen and Direct Patient Care by Gender

	Male		Female		All	
	Full Time	Part-Time	Full Time	Part-Time	Full Time	Part-Time
Patients per Hour	3.6	3.7	3.2	3.6	3.5	3.6
Direct Patient Hours per Week	36.5	14.6	32.6	17.5	34.9	16.8
Patients per Week	132.0	46.2	106.4	66.3	121.3	61.3

As seen in Table 24, the primary care specialty with the highest patients per hour for full-time PAs was General Pediatrics. The highest report of patients per hour for part-time PAs out of primary care was General Internal Medicine. This is a change from the 2014 report as pediatrics was the lowest at two patients per hour, up to the highest out of the primary care specialties in 2018. When looking at individual specialties, we see more variation of the highest patients seen per hour. Two pediatric sub-specialties account for the highest patients seen per hour, both at eight patients per hour for full-time PAs.

Table 24: Patients per Hour by Primary Care Specialty

Specialty	Full Time	Part-Time	All
Family Medicine	3.5	4.0	3.5
Family Medicine w/Urgent Care	3.4	3.3	3.4
OB/GYN	2.8	3.3	2.9
Ped: General	4.1	4.3	4.1
IM: General	3.8	6.0	3.5

Table 25: Top Five Specialties with Highest Patients per Hour

Specialty	Full Time	Part-Time	All
Ped: Neonatal-Perinatal	8.0	NA	8.0
Ped: Rheumatology	8.0	NA	8.0
Diagnostic Radiology	5.5	NA	5.5
Addiction Medicine	5.0	5.5	5.3
Ped: Oncology	5.0	NA	5.0

Non-Patient Care Activities

More than half of PAs in Utah (66.7%, 905) responded that they work one or more hours in non-patient care activities. Table 26 outlines the amount of PAs that participate in non-patient care and their mean hours.

Table 26: PAs in Non-Patient Care Activities

Activity	Percent	Count	Mean Hours
Classroom Training	49.3%	466	1.8
Training in Clinical Setting	56.5%	512	4.3
Administration/Management	65.4%	591	3.6
Practice Management	50.0%	452	2.5
Consulting/Research	53.4%	483	2.8
Other	50.4%	456	4.7

Non-English Services

About 39.0% (524) of PAs are offering non-English services at their practice. This is about a 30% decrease from 2014's total of 70.7% of PAs offering non-English services. For PAs offering language services, 66.9% (348) said that they offer Spanish only, 11.0% (57) indicated they offer Spanish and another language, 14.6% (76) said they offer languages using an interpreter, and 7.5% (39) said they offer a specific language. However, as stated in the limitations section, the question in the survey does not specify whether the PA can speak the language themselves or uses a specific language device. The percentages presented for non-English services may not be as accurate at capturing the full scope of PAs that are actually able to speak other languages.

Turnover and Retirement

There is a noticeable trend of an ongoing entrance of a younger workforce, accounting for higher years to planned retirement. The majority of the workforce is planning to retire somewhere between 16-35 years (59.1%, 801) from now, while only 6.6% (90) plan to retire within five years.

Table 27: Years to Planned Retirement

Years to Retirement	Count	Percent
1-5	90	6.6%
6-10	96	7.1%
11-15	129	9.5%
16-20	190	14.0%
21-25	194	14.3%
26-30	276	20.4%
31-35	141	10.4%
36-40	37	2.7%
41+	16	1.2%
Item non-response	186	13.7%

Out of the 55 years and older cohort, about 45.6% (84) plan to retire in the next five years, while 37.8% (70) plan on retiring in the next 6-10 years. The average retirement for PAs between 55 and 59 years was

9.3 years from now, while those that were 60-64 had an average retirement date 3.8 years from now. In the 65+ age category, PAs planned to retire on average 3.5 years from now.

Pre-Retirement Hours Reduction

More than half (55.9%, 731) of PAs plan on reducing the number of hours worked before retiring. Out of PAs indicating a reduction in hours, the majority planning to reduce their hours are in the 21-30 years (44.6%, 448) until retirement category. Only 5.4% (35) indicated that they would reduce their hours 1-5 years from now, 8.0% (51) indicated 6-10 years from now, 9.6% (61) indicated 11-15 years from now, and 14.1% (90) indicated 16-20 years from now. About 18.3% (117) indicated they would reduce their hours 31+ years from now. Alongside reduction, exactly half (50.0%, 360) said they would reduce their hours by 21 to 30 hours per week.

The maximum number of years until a PA in the 60-64 age category would retire is 13 years, while those in the 65+ age category would wait a max of 10 years. The average hours PAs in these age groups would work are 21.0 and 18.6 hours per week, respectively.

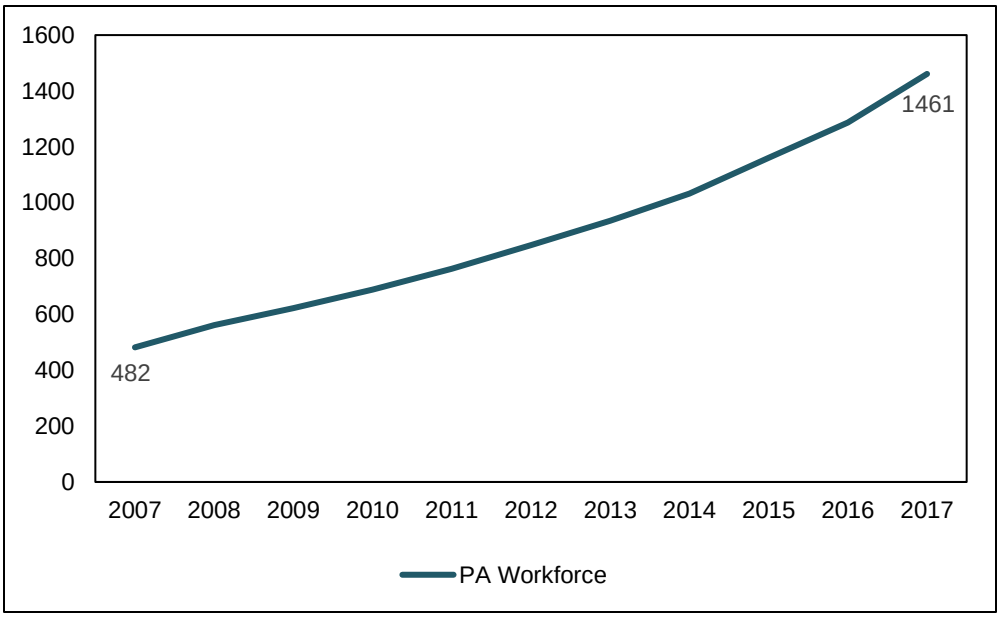
Age Category	Years to Retire	% Reducing Hours	Hours Worked After Reduction
25-29	31.9	76.5%	24.8
30-34	29.6	57.5%	22.9
35-39	26.3	61.6%	25.3
40-44	22.2	49.6%	26.5
45-49	19.0	50.0%	24.1
50-54	13.2	42.6%	25.4
55-59	9.3	60.5%	28.6
60-64	4.8	42.4%	21.0
65+	3.5	60.0%	18.6

There is a significant difference between genders when looking at the reduction in hours before retirement (r=.07, p=.01). A total of 59.7% (354) of females and 52.3% (370) of males plan on reducing their hours. As a result, the hours after reduction vary by gender.

WORKFORCE PROJECTIONS

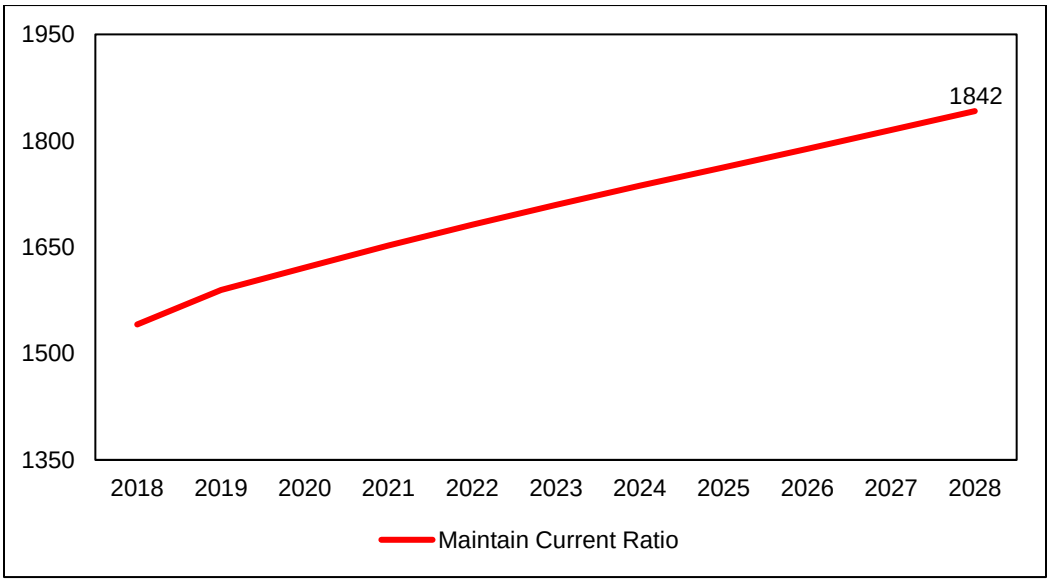
The future workforce supply of PAs can be estimated through data from the DOPL by analyzing licensure issuance and calculating growth rates of the PA workforce each year. Active PA licenses have grown by nearly 67% between 2008 and 2017. From the end of 2017, this growth averages to 123 licenses per year in the last five years.

Figure 15: Active PA Licenses by Year



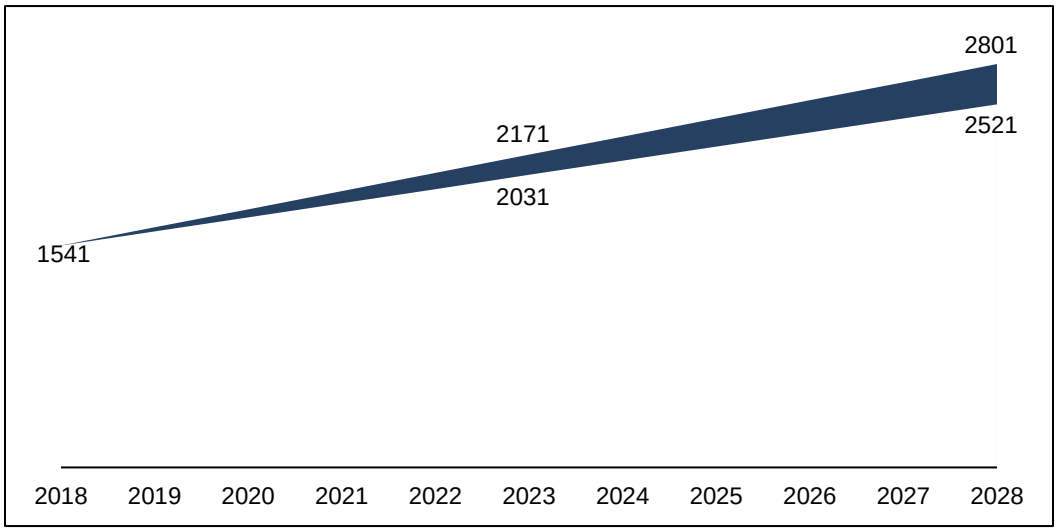
UMEC estimates that the current licensed PAs-to-100,000 population ratio is 48.7. To maintain this current ratio, there will need to be 301 licenses added to Utah's workforce over the next ten years.

Figure 16: Needed PAs to Maintain Current Ratio



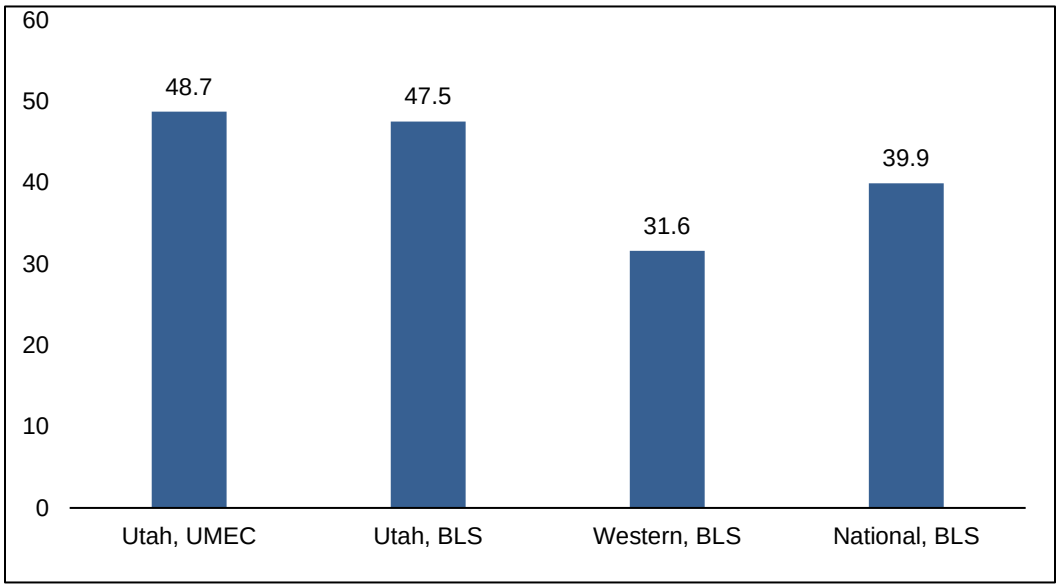
To project future growth, examinations of recent growth need to be observed. An average growth of 123 PA licenses have been added per year to the workforce in the last three years while an average of 98 licenses have been added per year in the last ten years. With these growth rates, we can project the growth of PAs into the next ten years. Even at a slower 10 year average rate, we estimate that the PA-to-100,000 population will be around 66.7. This projected growth would lead us to 18 points above our current ratio. Additionally, there would be 980 to 1,260 additional PAs in the workforce (2,521 to 2,801 total) and a growth of 832 to 1,070 FTEs (2,141 to 2,379 total FTEs).

Figure 17: Projected Growth



UMEC's licensed PAs-to-100,000 population ratio (48.7) is higher than the Bureau of Labor Statistics (BLS) estimate for Utah (47.5), the Western region (31.6), and nationally (39.9). This finding illustrates that Utah ratios are meeting the demands of the population. According to the NCCPA, Utah's ratio ranks 20th in the nation and is also above the national ratio (NCCPA: National Commission on Certification of Physician Assistants, 2018).

Figure 18: Licensed PAs-to-100,000 Population Ratio



TRAINING CAPACITY

Utah's PA Training Environment

As predicted by the 2014 PA Workforce Report, there has been an increase in class sizes at both the Rocky Mountain University's PA program (RMUPAP) and the University of Utah's PA program (UPAP). For example, UPAP's student cohort comprises 37 females and 27 males while RMUPAP's student cohort comprises 25 females and 24 males. UPAP has increased class sizes from 44 students in 2011 to 60 students in 2018. RMUPAP has increased class sizes from 46 students in 2015 to 49 students in 2018. In total, Utah's programs have added 19 students to their programs per class. If the ratio of PA's FTEs-to-100,000 population stays consistent, and assuming that 50% retention of graduates staying in Utah to practice is constant, both programs could contribute up to 55 new PAs to the Utah workforce annually. Utah Valley University also plans on introducing a PA program in the near future and will contribute to even more PAs to the Utah workforce. In the past, Utah has relied on out-of-state training for PAs added to the workforce but with the further changes in class sizes and new PA programs opening, there may be less reliance on out-of-state training than before.

CONCLUSION

A growing number of PAs are working in the state of Utah, with 1,357 being licensed. This number continues to grow along with class sizes for PA programs in the state. The continued growth of PAs is contributing to the decrease in the need for PAs from out-of-state to meet the demand for PAs in Utah. This is important to the healthcare workforce in the state due to the rising demand for healthcare professionals across the nation.

PAs are vital to the healthcare workforce, especially in underserved areas such as rural areas. Although Utah is experiencing a proportional decrease of people living in rural counties, we see that the number of

PAs are steadily increasing each year in rural counties. The percentage of PAs (12.6%) working in rural counties is slightly higher than the percentage of the general population that lives in rural counties (10%). If Utah continually trains PAs from rural areas, the rural population in Utah could expect ongoing benefits of healthcare delivery from PAs.

Utah ranks 20th in the nation for PAs-to-100,000 population. This rank could become higher in future years as various factors could contribute to a PA's decision to stay in Utah. Our report reveals that income for the profession is gradually increasing, and even after adjusting for inflation, the median income has increased by 2.8% annually. With a steadily increasing income, many PA students have been able to pay their debts off within the last 8-10 years.

Overall, PAs in Utah are showing a positive influence on the healthcare demands of the state. With more PAs being added to the workforce each year, along with being able to keep up with PAs across the nation, there is potential that the PA workforce will maintain the healthcare demands of the state and keep up with the current population ratio.

POLICY RECOMMENDATIONS

1. **Promote a more diverse workforce.** Of the PAs in Utah, there are only 8.7% that identify as a racial or ethnic minority. Minority PAs seem to be underrepresented when compared to Utah's population. The profession is also underrepresented compared to the national PA workforce of 16.4% identifying as a racial or ethnic minority in 2018.
    a. Provide more information about scholarships and loan repayment programs for minority PAs.
    b. Engage with the minority populations to consider pursuing a career as a physician assistant by connecting with more local high schools and organizations such as United Way and the Department of Health.
2. **Continue to strengthen the rural workforce**. Although the percentage of the PA workforce choosing to work in rural settings has slightly decreased, the overall amount of PAs in the rural workforce has increased. The ratio of 51 rural PAs per 100,000 is somewhat higher than the urban populations at 42 PAs per 100,000. However, the share of PAs in rural areas has gone down both in the state of Utah and nationally.
    a. Loan repayment programs should continue to support PAs who practice in rural communities.
    b. PA programs should be encouraged to seek out more applicants with rural backgrounds since those from rural areas are more likely to practice in a rural setting after graduation.
3. **Enhance data collection.** Periodic supply-side surveys are conducted by UMEC in order to create a projection model for the future of the profession. Improvements of the model could be made through the following recommendations:
    a. Create a more defined projection model through the development of a demand study for PAs by analyzing data about employers and education.
    b. Continue to support efforts to explore ways to incorporate UMEC's PA survey into the licensing process.
    c. Track Utah residents who moved out of state to attend PA training programs in order to recruit them back to Utah by developing and maintaining a database.
    d. Closely monitor the retention rate of RMUPAP graduates in conjunction with UPAP graduates**.**

Appendix A - Bibliography

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Appendix B – RUCA Codes, Definitions, and Utah Examples

RUCA Code	Definition	Examples
1. Metropolitan Core	Flow within urbanized area (UA)	Wasatch Front
1.1 Metropolitan Core	Secondary flow 30% to 50% to larger UA	NA
2. Metropolitan High Commute	Flow 30% or more to UA	Park City, Payson
2.1 Metropolitan High Commute	Secondary flow 30% to 50% to a large UA	NA
3. Metropolitan Low Commute	Flow 10% to 30% to UA	Grantsville, Mona
4. Micropolitan Core	Flow within urban cluster of 10,000-49,999 (Large UC)	Cedar City, Price
4.1 Micropolitan Core	Secondary flow 30% to 50% to a UA	Tooele
4.2 Micropolitan Core	Secondary flow 10% to 29% to a UA	Brigham City, Willard
5. Micropolitan High Commute	Flow 30% or more to Large UC	New Castle, East Carbon
5.1 Micropolitan High Commute	Secondary flow 30% to 50% to a UA	NA
5.2 Micropolitan High Commute	Secondary flow 10% to 29% to a UA	NA
6. Micropolitan Low Commute	Flow 10% to 30% to Large UC	NA
6.1 Micropolitan Low Commute	Secondary flow 10% to 29% to a UA	NA
7. Small Town Core	Flow within urban cluster of 2,500-9,999 (Small UC)	Heber City, Dugway, Roosevelt, Manti
7.1 Small Town Core	Flow 30% to 50% to a UA	Hurricane, La Verkin
7.2 Small Town Core	Flow 30% to 50% to a Large UC	NA
7.3 Small Town Core	Secondary flow 10% to 29% to a UA	Park City, Nephi
7.4 Small Town Core	Secondary flow 10% to 29% to Large UC	Garland, Tremonton
8. Small Town High Commute	Flow 30% or more to Small UC	Monroe, Sevier
8.1 Small Town High Commute	Flow 30% to 50% to a UA	NA
8.2 Small Town High Commute	Flow 30% to 50% to a Large UC	NA
8.3 Small Town High Commute	Secondary flow 10% to 29% to a UA	NA
8.4 Small Town High Commute	Secondary flow 10% to 29% to Large UC	NA
9. Small Town Low Commute	Flow 10% to 30% to Small UC	NA
9.1 Small Town Low Commute	Secondary flow 10% to 29% to a UA	NA
9.2 Small Town Low Commute	Secondary flow 10% to 29% to Large UC	NA
10. Rural Areas	Flow outside UA or UC	Duchesne, Beaver
10.1 Rural Areas	Secondary flow 30% to 50% to a UA	New Harmony
10.2 Rural Areas	Secondary flow 30% to 50% to Large UC	Parowan, Summit
10.3 Rural Areas	Secondary flow 30% to 50% to Small UC	Neola, Bluebell
10.4 Rural Areas	Secondary flow 10% to 29% to a UA	NA
10.5 Rural Areas	Secondary flow 10% to 29% to Large UC	Honeyville, Castle Dale
10.6 Rural Areas	Secondary flow 10% to 29% to Small UC	Kamas, Filmore, Kanosh

Appendix C – Survey Instrument

Utah Medical Education Council
230 South 500 East, Ste. 210
Salt Lake City, UT 84102

FIRST_NAME LAST_NAME
ADDR_LINE_1, ADDR_LINE_2
CITY, STATE, ZIP

2018 Utah Medical Education Council Physician Assistant Workforce Survey

Dear Physician Assistant,

This survey is a collaborative effort of the Utah Medical Education Council and The Utah Academy of Physician Assistants with the cooperation of the Division of Occupational and Professional Licensing.

Your response to this survey is crucial in determining the active physician assistant workforce characteristics and distribution in Utah. The data requested will be kept strictly confidential. Aggregate data will be presented in a final report that can be accessed for free at http://www.utahmec.org

For any further questions, please contact Clark Ruttinger at 801-526-4564 or crutting@utah.gov.

Please return the completed survey within the next 30 days in the envelope provided.

Sincerely,

Richard Campbell
Executive Director
Utah Medical Education Council

Dan Crouse, MPAS, PA-C
President
Utah Academy of Physician Assistants

Utah Medical Education Council
230 S. 500 E. Ste. 210, Salt Lake City, Utah, 84102
Phone: (801)-526-4554/ Fax: (801)-526-4551
www.utahmec.org

Utah Physician Assistant Workforce Survey, 2018

Q1 **What is your PRIMARY practice status (check ONE of the following):**

- ☐ Active Full Time in Utah
- ☐ Active Part Time in Utah
- ☐ Active Outside of Utah
- ☐ Retired
- ☐ Hold a Utah License, but not practicing
- ☐ Other (specify)

Other (please specify): _____

Q2 **Are you of Hispanic Ethnicity?** ☐ Yes ☐ No

Q3 **What is your Race?**

- ☐ American Indian/Alaska Native
- ☐ Asian
- ☐ White
- ☐ Black/African American
- ☐ Native Hawaiian/Pacific Islander
- ☐ Other (specify)

Other (please specify) _____

Q4 **Please describe the city/town where you spent the majority of your upbringing (when you lived there):**

- ☐ Rural
- ☐ Suburban
- ☐ Urban

State: _____

Q5 **What is the highest degree you have attained?**

- ☐ Associate's Degree
- ☐ Bachelor's Degree
- ☐ Master's Degree
- ☐ Other (specify)

Other (please specify): _____

Q6 **Please provide the following information about the institution from which you received your highest physician assistant degree:**

☐ State School ☐ Private School

State: _____

Year of Graduation: _____

Q7 **Please mark the amount of educational debt you had AT THE TIME OF GRADUATION from your PA program** (exclude pre-physician assistant and non-educational debt)

- ☐ $0.00
- ☐ $0.01 to $19,999
- ☐ $20,000 to $39,999
- ☐ $40,000 to $59,999
- ☐ $60,000 to $79,999
- ☐ $80,000 to $99,999
- ☐ $100,000 to $119,999
- ☐ $120,000 to $139,999
- ☐ $140,000 to $159,999
- ☐ $160,000 to $179,999
- ☐ $180,000 to $199,999
- ☐ $200,000 or more

Q8 **Please mark the amount of educational debt you CURRENTLY have from your PA program** (exclude pre-physician assistant and non-educational debt)

- ☐ $0.00
- ☐ $0.01 to $19,999
- ☐ $20,000 to $39,999
- ☐ $40,000 to $59,999
- ☐ $60,000 to $79,999
- ☐ $80,000 to $99,999
- ☐ $100,000 to $119,999
- ☐ $120,000 to $139,999
- ☐ $140,000 to $159,999
- ☐ $160,000 to $179,999
- ☐ $180,000 to $199,999
- ☐ $200,000 or more

Q9 **Please indicate the practice CITY and ZIP CODE of your primary and secondary practice settings (if applicable). Please also estimate the TOTAL HOURS PER WEEK (not including on-call) at each location.**

Primary City: _____ Secondary City: _____

Primary Zip: _____ Secondary Zip: _____

Primary Hours/Week: _____ Secondary Hours/Week: _____

Q10 **Please select from the list below to describe your PRIMARY work setting (Please select only one):**

- ☐ 1 = Solo practice physician office
- ☐ 2 = Single-specialty physician group practice
- ☐ 3 = Multi-specialty physician group practice
- ☐ 4 = Community Health Center/Facility
- ☐ 5 = Certified Rural Health Clinic
- ☐ 6 = Federally Qualified Health Center
- ☐ 7 = Critical access hospital
- ☐ 8 = Hospital emergency room
- ☐ 9 = Hospital operating room
- ☐ 10 = Inpatient unit of hospital (not ICU/CCU)
- ☐ 11 = ICU/CCU of hospital
- ☐ 12 = Outpatient unit of hospital
- ☐ 13 = Other unit of hospital
- ☐ 14 = Freestanding surgical facility
- ☐ 15 = Freestanding urgent care facility
- ☐ 16 = Other freestanding outpatient facility
- ☐ 17 = School-based health facility
- ☐ 18 = University/college student health facility
- ☐ 19 = PA program faculty
- ☐ 20 = Correctional facility
- ☐ 21 = HMO facility
- ☐ 22 = Industrial facility/work site
- ☐ 23 = Mobile health unit
- ☐ 24 = Nursing home or LTC facility
- ☐ 25 = Patients' homes
- ☐ 26 = Retail outlet (e.g. MinuteClinic)
- ☐ 27 = Other (please specify)

Other (please specify): _____

Q11 **Have you voluntarily switched employers/practices within the past five years?** ☐ Yes ☐ No

Q11a **IF YES, please use the codes above to indicate the work setting you LEFT and the setting you MOVED TO: (e.g. write 1 for critical access hospital)**

Setting left from: _____ Setting moved to: _____

Q11b **If you have changed work settings within the past five years, please check the reason(s) for this change of work setting (select all that apply):**

- ☐ Higher pay
- ☐ Desire for change
- ☐ Preferred hours
- ☐ Work responsibilities
- ☐ Moved
- ☐ More Challenging
- ☐ Better work/ education fit
- ☐ Professional advancement
- ☐ Personal/family reasons
- ☐ Other (please specify)

Other (please specify): _____

Q12 **Within the past five years, have you experienced any of the following? (Select all that apply)**

- ☐ Voluntary unemployment
- ☐ Switched employers/practices
- ☐ Worked part-time or temporary positions but would have preferred a full-time or permanent position
- ☐ Involuntary unemployment
- ☐ Worked two or more positions at the same time
- ☐ Switched practice specialty

Q13 **What is your average gross compensation? (Before taxes and excluding benefits)**

- ☐ Less than $50,000
- ☐ $50,000 to $59,999
- ☐ $60,000 to $69,999
- ☐ $70,000 to $79,999
- ☐ $80,000 to $89,999
- ☐ $90,000 to $99,999
- ☐ $100,000 to $109,999
- ☐ $110,000 to $119,999
- ☐ $120,000 to $129,999
- ☐ $130,000 to $139,999
- ☐ $140,000 to $149,999
- ☐ $150,000 to $199,999
- ☐ $200,000 or more

Q14 **What percentage of time during a typical clinic week do you interface with a supervising physician?**

- ☐ < 5%
- ☐ 5% to 19%
- ☐ 20% to 39%
- ☐ 40% to 59%
- ☐ 60% to 79%
- ☐ 80% to 100%

Q15 **Which supervisory tools have been used between you and your supervising physician? (Select all that apply)**

- ☐ Face to face
- ☐ Telephone
- ☐ Text message
- ☐ Email
- ☐ Other

Q16 **In a typical day, how many patients do you see per hour at your PRIMARY and SECONDARY practice settings?**

	1	2	3	4	5	6	7	8+
Primary practice	☐	☐	☐	☐	☐	☐	☐	☐
Secondary practice	☐	☐	☐	☐	☐	☐	☐	☐

Q17 **Do you use telemedicine in your practice?** ☐ Yes ☐ No

Q18 **Please select from the the options below the one that most closely resembles your PRIMARY specialty (Select one):**

- ☐ Addiction Medicine
- ☐ Allergy
- ☐ Anesthesiology
- ☐ Dermatology
- ☐ Emergency Medicine
- ☐ Family Medicine
- ☐ Family Medicine with Urgent Care
- ☐ Genetics
- ☐ Geriatrics
- ☐ Hospice & Palliative Care
- ☐ Obstetrics/ Gynecology
- ☐ Occupational Medicine
- ☐ Orthopedics
- ☐ Ophthalmology
- ☐ Pain Management
- ☐ Pathology
- ☐ Physical Medicine/Rehab
- ☐ Psychiatry
- ☐ Public Health
- ☐ Radiation Oncology
- ☐ Diagnostic Radiology
- ☐ Interventional Cardiology
- ☐ Interventional Radiology
- ☐ Hospital Medicine
- ☐ Surg: General
- ☐ Surg: Cardiovascular/ Cardiothoracic
- ☐ Surg: Colon & Rectal
- ☐ Surg: Hand
- ☐ Surg: Neurological
- ☐ Surg: Oncology
- ☐ Surg: Otolaryngology
- ☐ Surg: Pediatric
- ☐ Surg: Plastic
- ☐ Surg: Thoracic
- ☐ Surg: Transplant
- ☐ Surg: Trauma
- ☐ Surg: Urology
- ☐ Surg: Vascular
- ☐ Surg: Bariatric
- ☐ Surg: Other
- ☐ Ped: General
- ☐ Ped: Adolescent Medicine
- ☐ Ped: Allergy
- ☐ Ped: Cardiology
- ☐ Ped: Critical Care
- ☐ Ped: Endocrinology
- ☐ Ped: Gastroenterology
- ☐ Ped: Hematology
- ☐ Ped: Infectious Disease
- ☐ Ped: Neonatal-Perinatal
- ☐ Ped: Nephrology
- ☐ Ped: Neurology
- ☐ Ped: Pulmonolgy
- ☐ Ped: Rheumatology
- ☐ Ped: Oncology
- ☐ Ped: Emergency Medicine
- ☐ Ped: Other
- ☐ IM: General
- ☐ IM: Cardiology
- ☐ IM: Critical Care
- ☐ IM: Endocrinology
- ☐ IM: Gastroenterology
- ☐ IM: Hematology
- ☐ IM: Immunology
- ☐ IM: Infectious Disease
- ☐ IM: Nephrology
- ☐ IM: Neurology
- ☐ IM: Pulmonology
- ☐ IM: Rheumatology
- ☐ IM: Oncology
- ☐ IM: Other

Q19 **Please indicate the approximate number of hours you spend providing DIRECT PATIENT CARE at your PRIMARY and SECONDARY PRACTICE settings each week, including charting but excluding the hours spent providing patient care combined with teaching or training other PAs.**

	0	1-10	11-20	21-30	31-40	41-50	51 or more
Primary practice	☐	☐	☐	☐	☐	☐	☐
Secondary practice	☐	☐	☐	☐	☐	☐	☐

Q20 **Please indicate the average hours per week you spend in the following NON-PATIENT CARE activities in your PRIMARY practice:**

Classroom training of PAs or other professionals _____

Combined patient care with teaching or training of other PAs _____

Administration/management _____

Practice management _____

Consulting/research _____

Other non-patient care activities _____

Q21 **Please indicate the percentage of your patients in the following age groups:** (total should equal 100%)

0-19 years _____ %

20-64 years _____ %

65-84 years _____ %

85+ years _____ %

Q22 **Do you provide services in any language other than English?** ☐ Yes ☐ No

If YES, please specify language(s): _____

Q23 **Please indicate the status of your primary practice location:**

☐ Full (cannot accept new patients) ☐ Nearly Full (can accept limited new patients) ☐ Unfilled (can accept many new patients) ☐ N/A (site is VA, military, or corrections)

Q23a **If your primary practice is not full, from which payer types are you accepting new patients? (Select all that apply)**

☐ N/A ☐ Medicaid ☐ Medicare ☐ Self-Pay ☐ Other Insured ☐ Not Accepting

Q24 **On average how many days must a patient wait for an appointment at your primary practice?**

	Same day	1 to 3 days	4 to 7 days	8 to 14 days	More than 14 days
New Patients:	☐	☐	☐	☐	☐
Established Patients:	☐	☐	☐	☐	☐

Q25 **At what age are you planning on retiring from practice?** _____

Q26 **Do you plan on reducing the number of hours you work before retirement?** ☐ Yes ☐ No

Q26a **If YES, how many hours per week will you work after this reduction?**

☐ 10 or fewer hours ☐ 11 to 20 hours ☐ 21 to 30 hours ☐ 31 to 40 hours ☐ More than 40 hours

Q26b **If YES, how many years from now do you intend to reduce your hours?**

☐ Less than 1 year ☐ 1 to 5 years ☐ 6 to 10 years ☐ 11 to 15 years ☐ More than 15 years

Q27 **Overall, how satisfied are you with your current employment or work situation?**

☐ Very satisfied ☐ Somewhat satisfied ☐ Somewhat dissatisfied ☐ Very dissatisfied

Q28 **Would you recommend the profession?**

☐ Very likely ☐ Somewhat likely ☐ Somewhat unlikely ☐ Very unlikely

Thank you for your participation. Please return the survey in the enclosed envelope.

Utah Medical Education Council • 230 S. 500 E. Ste. 210, Salt Lake City, Utah, 84102
Phone: 801-526-4554 • Fax: 801-526-4551 • www.utahmec.org