



Utah Medical Education Council

A Blueprint For Tomorrow - Shaping Tomorrow's Healthcare Workforce Today



UTAH'S PHYSICIAN ASSISTANT WORKFORCE, 2010

AN ASSESSMENT OF THE CURRENT
CAPACITY, EMERGING TRENDS, AND
PROJECTED DEMAND OF UTAH'S PA
WORKFORCE THROUGH 2025

JUNE, 2010



Utah's Physician Assistant Workforce: 2010

An Assessment of the Current Capacity, Emerging
Trends, and Projected Demand of Utah's PA Workforce
Through 2025

A Survey Report by
The Utah Medical Education Council



June, 2010
by
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Utah's Physician Assistant Workforce 2010: An Assessment of the Current Capacity, Emerging Trends, and Projected Demand Through 2025, of Utah's PA Workforce

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The data collected in this survey is available for additional research or analysis. To review it, please contact:

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TABLE OF CONTENTS

List of Figures	iv
List of Tables	v
Executive Summary	vi
Introduction	1
Licensed In Utah	1
Key Findings.....	2
Methodology	3
SECTION I: Workforce Demographics.....	5
Decision to Practice in Utah	5
Age.....	5
Gender	7
Income	7
Background.....	8
Education Background	8
Race/Ethnicity.....	9
Key Findings.....	9
Recommendations	10
SECTION II: Practice Characteristics	11
Geographic Distribution.....	11
Specialty	13
Hours Worked	16
Concurrent Worksites	16
Work Setting	16
On-Site Supervision	18
Patient Wait Times.....	19
Accepting New Patients	20
Patients Treated.....	20
Hospital Privileges.....	22
Non-English Speaking Patients.....	22
Turnover/Retirement	23
Pre-Retirement Hours Reduction	24
Key Findings.....	26
Recommendations	27
SECTION III: Workforce Projections	28
Key Findings.....	34
Recommendations	34
SECTION IV: PA Training Capacity.....	35
Utah’s PA Training Environment.....	36
PA Training Laws.....	39
Key Findings.....	39
Recommendations	40
SECTION V: Recommendations	41
Reference	42

Appendix A: Survey Instrument	A-1
Appendix B: Descriptive Data and Statistics	B-1
Appendix C: Council and Committee Members	C-1

LIST OF FIGURES

Figure 1: Licenses by Issue Year - All vs. Currently Active	2
Figure 2: Utah PA Age Profiles 2003 & 2008.....	6
Figure 3: Yearly Gross Income of PAs in the Utah Workforce.....	8
Figure 4: Rural Workforce Comparison to Rural Population.....	12
Figure 5: Decline in Primary Care PAs as a % of Utah & U.S. Workforce 2003 to 2008	14
Figure 6: Percent Change in Work Settings 2003- 2008	18
Figure 7: Workforce Growth Compared to Physician Shortage in Utah 2003 to 2009	29
Figure 8: PA Workforce Projection Scenarios.....	30
Figure 9: Projected Annual Need for New PAs (Growth & Replacement).....	34
Figure 10: Projected Need vs. Current UPAP Capacity and Retention.....	36
Figure 11: University of Utah Total Applicant Pool: Trends.....	37
Figure 12: In State vs. Out of State Matriculates	37

LIST OF TABLES

Table 1: Factors Influencing Decision to Practice in Utah	5
Table 2: PA Workforce by age 2003 to 2008.....	5
Table 3: Age of PAs at graduation	6
Table 4: Years since PA Graduation.....	7
Table 5: Top 5 Training Locations by State for Utah's PA Workforce	9
Table 6: Utah PA Workforce by Ethnicity 2008 & 2003	9
Table 7: Geographic Distribution of Utah PAs Primary Practice & Growth since 2003.....	11
Table 8: Utah PAs by Primary Care Specialty and Gender.....	13
Table 9: Primary Care Distribution by Specialty- Utah/ U.S.	13
Table 10: Specialty Comparison 2003 to 2008.....	14
Table 11: Top Ten Specialties in Terms of Growth in Actual Numbers from 2003 to 2008	15
Table 12: Average Income for PAs working more than 35 hours per week by top 5 specialties.....	15
Table 13: PA Specialty Rankings by Income- 2003 & 2008	16
Table 14: Hours Worked per Week.....	16
Table 15: Work Setting/ Employer PAs count and % of PAs 2003 to 2008 and 2008 National %	17
Table 16: Average Income by Two Most Common PA Work Settings 2003 to 2008	18
Table 17: Average Patient Wait in Days as Reported by PAs- Primary Care	19
Table 18: Average Patient Wait in Days as Reported by PAs- Specialty Care	19
Table 19: # of Patients Seen/Week by PAs Working Full-time by Care Type and Practice Capacity.....	20
Table 20: Accepting New Patients by Payer Type.....	20
Table 21: Hospital Privileges Held By Utah PAs.....	22
Table 22: Mean/ Median Percentage of Non-English Patients of PAs in Rural Practice.....	23
Table 23: Mean/ Median Percentage of Non-English Patients of PAs in Urban Practice	23
Table 24: Years Planned at Primary Location	23
Table 25: Years Planned at Secondary Location	24
Table 26: Years to Planned Retirement.....	24
Table 27: PAs under Age 40 Who Plan to Reduce Hours by Gender.....	25
Table 28: Reason for Reducing Hours Prior to Retirement- Female PAs	25
Table 29: Reason for Reducing Hours Prior to Retirement- Male PAs	25
Table 30: Patients by Payer Type as Reported by Utah PAs.....	26
Table 31: Growth Pattern of PAs in Physician Shortage Specialties.....	28
Table 32: Low Growth Projection and Annual Need.....	31
Table 33: Mid-Point Growth Projection and Annual Need	32
Table 34: High Growth Projection and Annual Need	33
Table 35: Top Five Outside States for UPAP Student Clinical Rotations.....	38
Table 36: Top Five Elective Rotation Categories for UPAP Student Clinical Rotations.....	38
Table 37: Top Five Out of State Rotation Categories for UPAP Student Clinical Rotations	39

EXECUTIVE SUMMARY

The Physician Assistant (PA) workforce is growing rapidly. There are 700 PAs licensed in Utah as of 2008. This is an 85.7% growth since 2003. Of all the PAs licensed in Utah, 90.7% (635) provide health care services in the state.

The number as well as the percentage of female PAs practicing in Utah has increased by 82.5% (113) from 2003 to 2008. Over the same time period, the number of male PAs practicing in Utah also increased, but the percentage of males in the workforce has decreased.

The rural PA workforce is thinning. In 2008, a total of 88 PAs practiced in rural counties, consisting of 21.6% (19) female PAs and 78.4% (69) male PAs. In 2003, a total of 69 PAs practiced in rural counties, 33.8% (24) female and 66.2% (45) male. This represents a decline in the percentage of the rural PA workforce since 2003, but an increase in the number of PAs practicing in rural Utah.

Racial and ethnic groups continue to be under-represented in Utah's PA workforce. Only 2.8% (18) of the PA workforce in Utah is Hispanic/Latino, compared to 12.0% of Utah's population.

2.5% (16) of the state's PAs are not accepting any new patients because their practices are full; 27.7% (176) have nearly full practices and are accepting some new patients. Just under half 45.4% (288) of all Utah PAs are accepting many new patients, as their practices are far from full. Using an average retirement age of 65, the UMEC projects an annual retirement

rate of approximately 12 PAs or 1.9% of the current workforce annually from 2008 to 2018.

PA workforce projections are made for two different scenarios – a high growth and a low growth projection. The high growth projection is a regression line based on the growth experienced by the PA workforce from 2003 through 2008 and is based on an assumption of a continued and more acute physician shortage in the state. In this scenario, the average annual projected growth rate of the PA workforce is estimated at 5.1%, while the annual total need for new PAs is estimated at 96 new PAs per year during the period 2010 through 2025.

The low growth projection is based on a scenario of growth based on population growth and age polarization, as well as the average number of patients seen per week by PAs. This projection assumes a scenario in which the state has an adequate physician workforce. In this scenario, growth rate is projected as approximately 3.1%. Average annual need for new PAs in this scenario is estimated at approximately 51 new PAs per year during the period 2010 through 2025.

PA training capacity nationwide has increased since 2003. The University of Utah's PA program (UPAP) increased by 11.0% based, in part, on recommendations from the UMEC's 2003 report. Utah continues to be increasingly reliant on out-of-state programs to train the number of PAs needed in the state. Of the 40 PAs graduating from the UPAP, an average

of 20 PAs are being retained in the Utah workforce per year. If current retention trends continue, UPAP would contribute approximately 19.0% to 24.0% of the number of PAs for the projected state need from 2010 to 2025.

Based on the self-reported data of the PA workforce in Utah, the UMEC believes that the following three pronged approach must be taken to provide an adequate PA workforce in the state:

- **Expand**

- Expand Utah's capacity to train more PAs – lack of physical space in the existing training program facilities is a barrier to this growth.
- Modify PA Practice Act to optimize PA training, with an appropriate Physician-PA mix onsite.

- **Recruit and Retain**

- Recruit more Utah residents into the Utah PA training program.
- Seek funding for loan repayment programs and scholarships to recruit and retain PA students in the state.
- Develop and maintain a database of Utah residents who matriculated from out-of-state PA training programs to recruit into Utah's workforce.

- Maintain an exit survey database on why PAs choose to stay/leave Utah.

- **Balance**

- Ensure appropriate levels of Physician-PA ratios while optimizing training opportunities.
- Study the impact of Utah's physician shortage on the PA workforce projections.
- Study the impact of Utah's physician shortage, and growth in the PA workforce on Utah's nursing workforce.

Update

*Based on the data generated by the UMEC PA workforce survey and recommendations made by the advisory committee, legislation that increases the proportional representation of PAs on the state's Physician Assistant Licensing Board from one PA to three PAs, and allows PAs to train PA students when the supervising physician delegates the same on a temporary basis was pursued and passed during Utah's 2010 legislative session. This legislation also paves the way for regulation changes that will address the number of PAs a physician may supervise. The Utah Academy of Physician Assistants (UAPA) is the key player in getting this legislation passed.

INTRODUCTION

The Utah Medical Education Council (UMEC) was created in 1997 by the Utah Legislature out of a concern for the adequacy of the state's clinical health care workforce. One of the UMEC's charges is to determine the number and mix of health care professionals needed to meet Utah's health care workforce requirementsⁱ. In order to meet this charge, the UMEC periodically conducts workforce surveys and based on the data collected, helps develop strategies to address areas of identified need.

"Utah's Physician Assistant Workforce: 2010" represents the continuation of physician assistant (PA) workforce studies begun by the UMEC in 1998. Like previous publications in this series (1998, 2003), the current report focuses on the PAs providing health care services in Utah, patterns of workforce growth, demographics, and practice characteristics. The report also projects anticipated need for PAs and examines training capacity of the state in light of anticipated workforce growth. This report, along with all other UMEC workforce reports can be downloaded for free from the UMEC website: www.utahmec.org

The use of PAs in the U.S. health care system has significantly increased in recent years. Nationally, 56.0% of physicians in group practice and 40.0% of independently practicing physicians use PAs, nurse practitioners or nurse specialists to extend their ability to provide more care to more people.ⁱⁱ National employment of PAs is expected to grow 39.0% (29,200) from 74,000 in 2008 to an estimated 103,900 in 2018. PAs are expected to provide more

primary care and assist with more medical and surgical procedures.ⁱⁱⁱ

National studies demonstrate that 50.0% of PAs practice in primary care and are more likely to practice in rural areas and with underserved populations. It is estimated that PAs along with nurse practitioners could provide care for 50-90% of patients presenting to primary care, freeing doctors' time for more seriously ill patients.^{iv}

Licensed In Utah

As of the year 2008, there are 700 PAs with active licenses in Utah. When the previous UMEC survey was conducted at the beginning of 2003, there were 377 PAs with an active Utah license^v. This equates to overall growth of 85.7% (323) and a compound annualized growth rate of 13.2% (65)^{*}.

Not all PAs licensed in Utah provide services in the state. In 1998 there were 283 licensed PAs in Utah. Of those, 84.8% (240) actually provided health care services in the state. In 2003 the number of licensed PAs practicing in the state increased to 85.9% (324). In 2008 90.7% (635) of PAs licensed in Utah practiced in the state. Of the 9.3% (65) of Utah licensed PAs not providing services in the state in 2008, 64.6% (42) indicated that they maintain a Utah license for future employment opportunities. "Lower Pay-Scale" (23.1%, 15), and "Lifestyle" (15.4%, 10) were the two major reasons why they no longer practice in Utah.

^{*} 17.1% simple annualized growth rate

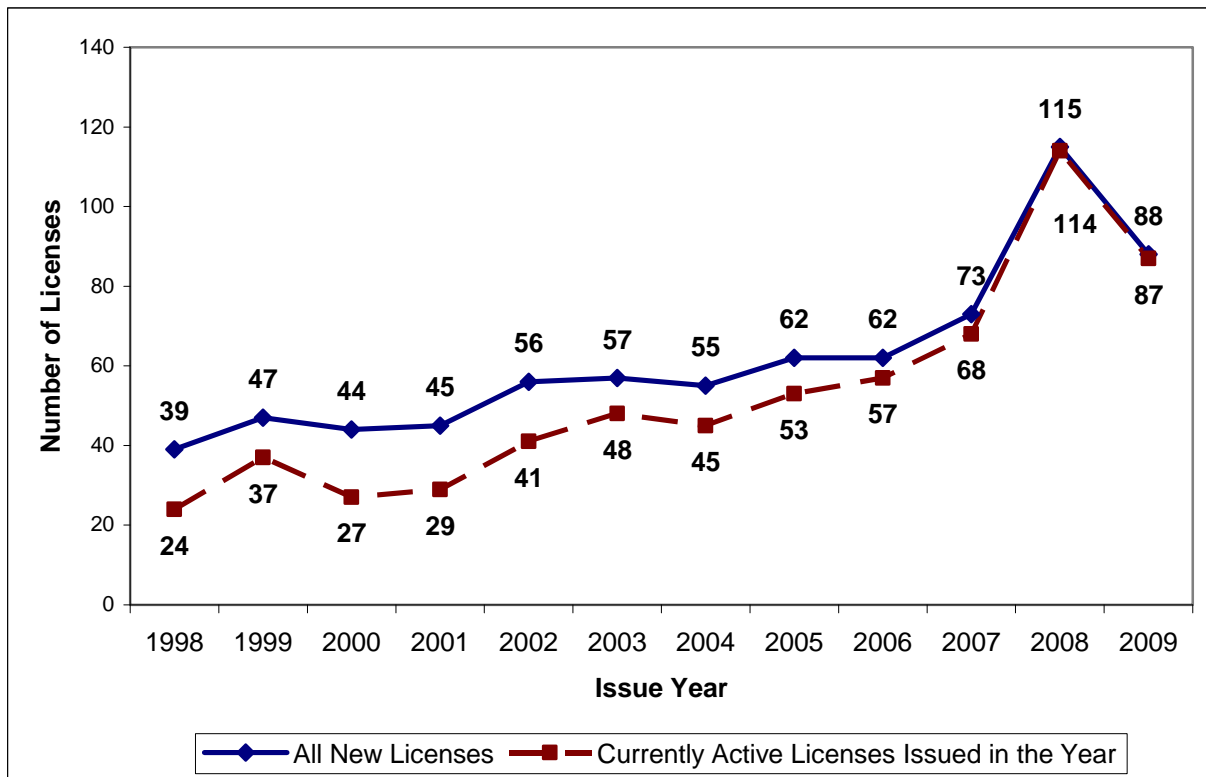
Figure 1 shows the number of new PA licenses issued each year by the Department of Public Licensing (DOPL) from 1998 through 2009 along with the currently active licenses for the same years. An unprecedented growth in the number of new PA licenses issued by DOPL each year since 1998, especially in the last 5 years is presented in this chart. From 1998 to 2003 there was an average of 48 new licenses issued each year. From 2004 to 2009 the average increased to 76 new licenses issued per year. In just the last two years the average licenses issued each year has reached 102. There has been a cumulative attrition rate of 15.2% over the eleven year time period (1998 – 2009). The trend of new licenses issued in Utah should be closely monitored in

order to keep track of the supply of and demand for PAs in the state.

Key Findings

- 700 PAs are licensed in Utah as of 2008. This is an 85.7% (323) growth since 2003.
- 635 (90.7% of licensees) PAs provide services in Utah.
- Of the 65 Utah licensed PAs no longer practicing in Utah, 65.2% (42) maintain their Utah license for future employment opportunities.

Figure 1: Licenses by Issue Year - All vs. Currently Active



METHODOLOGY

The Utah PA workforce data used for this report was collected using the “2008 UMEC Physician Assistant Survey”. This survey (*Ref:* Appendix B) was designed and administered by the UMEC. The survey questionnaire, which included pre-structured response categories, was mailed via the U.S. Postal Service to every PA (700) with an active Utah PA license as of September 11, 2008. Licensure data was provided by the Utah Division of Occupational and Professional Licensing (DOPL). Respondents were provided a postage paid envelope for added convenience in responding to the survey.

A total of three separate mailings were conducted over the period October, 2008 through January, 2009. A total of 474 responses were received which equates to a 67.7% response rate. Survey responses were weighted for non-respondents using a universal weight of 1.477. Survey data presented in the report have been weighted unless otherwise specified. Item non-responses on the survey were not weighted, but are reported. When citing actual numbers, any time there are fewer than 5 respondents, the number is not reported and shows as “NR”. This is done to avoid identification of specific individuals within the PA population.

Administering a census survey rather than a random sample survey allows for more accurate analysis at sub-geographic levels including county and even zip-code level analysis. Census style surveys also eliminate errors linked with sampling a population. When checked for potential response biases based on year of licensure, age, gender

and geography, a particularly low response rate was identified for Iron County – a rural county located in southwest Utah. Targeted mailings to the PAs with addresses located in Iron County were conducted in an attempt to increase the response rate from that county. No other response biases based on the factors listed were detected.

Scope and Limitations of the Report

Data collected via the 2008 UMEC Physician Assistant Survey specifically address characteristics of the PA workforce in Utah, including demographics, practice characteristics and distribution. Analysis shows emerging trends using data collected by the UMEC on both the 2008 and 2003 PA surveys. In some cases, data is cited from previous surveys that were not included in the workforce reports. In these cases, the data has been calculated from the survey data collected in respective years. Survey data is also compared to national data collected by the Bureau of Labor Statistics and the American Academy of Physician Assistants (AAPA) and reported in its national census report(s) in order to identify similarities and/or differences between the national PA workforce and the Utah workforce. Data regarding training capacity nationwide from the Physician Assistant Education Association (PAEA) was used in evaluating PA training capacity.

Survey data such as specialty, number of patients seen, and patient distribution by age were combined with population projection data from the Utah Governor’s Office of Planning and Budget (GOPB) to develop a baseline

projection of the PA workforce in Utah through 2025. An additional projection of the PA workforce through 2025 is made based on a regression of the growth in the number of PAs licensed in Utah during the time period of 2003 through November, 2009.

Limitations:

- Answer choices on the survey were used from the 2003 survey to ensure consistency and data comparison. However, answer choices for question 18 from the 2008 survey instrument were modified. Hospital/Clinic response choices were separated into hospital and non-hospital based clinic options. On the 2003 survey these categories were combined.
- The 2008 survey did not collect data on forms of compensation i.e. salary, bonus, ownership stake, etc.
- Question 11 from the 2008 survey instrument asked PAs to list zip code, total hours worked per week, and patient care hours per week for primary, secondary and other practice locations without specifying if each location is for a separate employer.
- In an effort to improve the accuracy of the PA survey, a number of additional settings were included in the 2008 survey

including Urgent Care Clinic, Hospital-VA, Rural Health Center, Non-Hospital Based Clinic –VA, and Corrections. Also, the categories listed as clinic/hospital (by employer) were split into two separate categories – Hospital (by employer), and Non-hospital based clinic (by employer). Two categories, HMOs and Physician Practice Management Organizations, were dropped from the 2008 categories.

- The 2003 workforce report cited some statistics based on the total number of licensed survey respondents in Utah regardless of if they practiced in the state. The 2008 workforce report cites all statistics based only on survey respondents who practice in the state of Utah, unless otherwise noted. Instances where 2003 data on licensed survey respondents is compared to 2008 data on only survey respondents practicing in Utah have been marked with a footnote.
- The data from question number 23 cannot be used because it does not differentiate between 100% physician supervision and reduced supervision.

SECTION I: WORKFORCE DEMOGRAPHICS

Decision to Practice in Utah

Utah continues to have a high percentage of licensed PAs who provide health care services in Utah. As of 2009, 90.7% (635) of PAs provided health care services in the state. According to the 2003 survey, 86.0% (324) of survey respondents provided health care in Utah^{vi}.

The top five factors influencing PAs' decision to practice in Utah are family in Utah, lifestyle, recreational opportunities, Utah upbringing and the practice environment in Utah respectively.

Table 1: Factors Influencing Decision to Practice in Utah

Factor	Rank
Family in Utah	1
Lifestyle	2
Recreational Opportunities	3
Raised in Utah	4
Practice Environment	5
Practice Opportunities	6
Received PA Training in Utah	7
Utah College/university Grad	8
Spouse's Employment	9
Military Assignment	10

Age*

Utah's PA workforce was younger in 2008 than in 2003. In 2008, the mean age of Utah's PA workforce was 42.7. In 2003, the mean age was 43.5 and in 1998, it was 43.9. The median age decreased to 41.0 in 2008 from 43.0 in 2003. This is a continuation of a trend toward a younger PA workforce in Utah.^{vii} Nationally, in 2008 the mean age of PAs was 41.3, with a median age of 39.0^{viii}. In 2003, it was 41.4^{ix}.

The age cohort that experienced the most growth in terms of actual numbers was the 30-34 age group, which went from 48 in 2003 to 94 in 2008, an increase of 96.3% (46). Growth in the number of PAs in the state is reflected across all age groups.

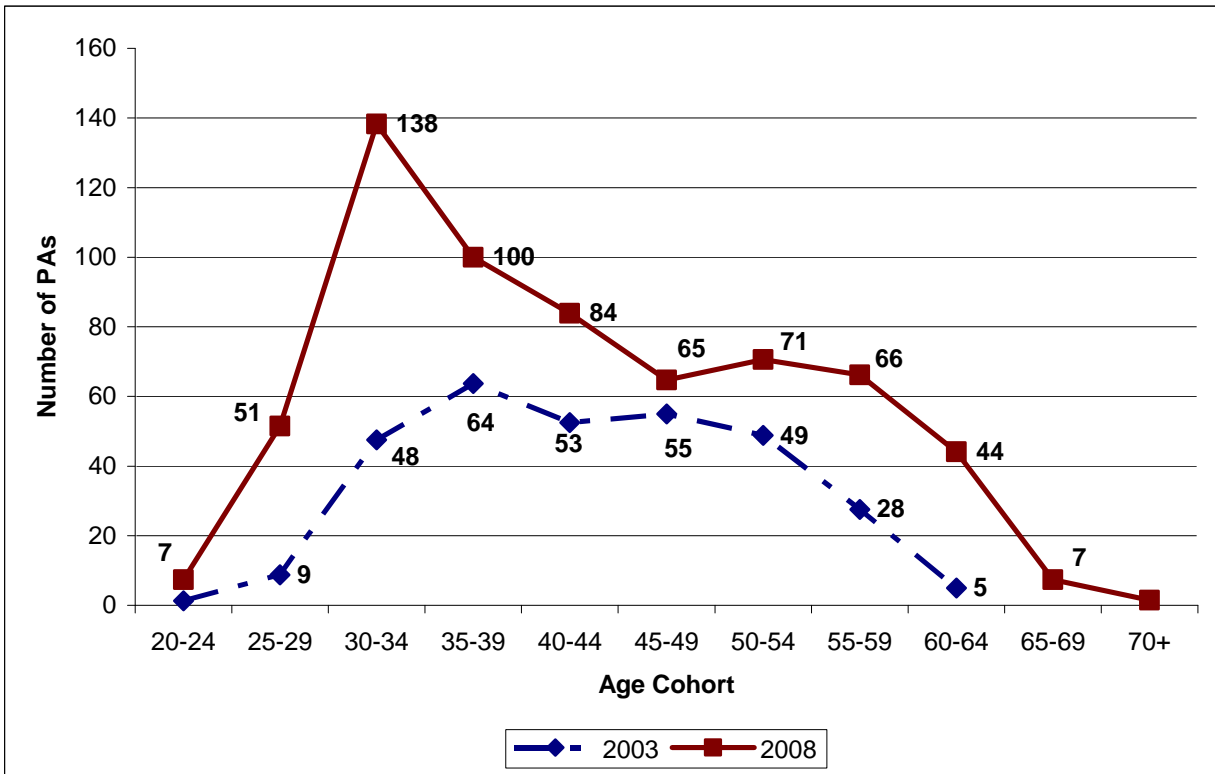
The following table and figure show the number of PAs by age from 2003 to 2008 in terms of percentage of the PA population and number of PAs in each age cohort.

Table 2: PA Workforce by age 2003 to 2008

Age cohort	2003 %	2008 %
20-24	0.4%	1.2%
25-29	2.7%	8.1%
30-34	14.6%	21.8%
35-39	19.6%	15.7%
40-44	16.2%	13.2%
45-49	16.9%	10.2%
50-54	15.0%	11.1%
55-59	8.5%	10.4%
60-64	1.5%	6.9%
65+	4.6%	1.4%
Total	100%	100%

* 2003 numbers are based on data for all survey respondents licensed in Utah where 2008 numbers are based only on survey respondents practicing in Utah.

Figure 2: Utah PA Age Profiles 2003 & 2008



Assuming a retirement age of 65, 18.7% (119) of the state’s 2008 PA workforce will likely retire by 2018. That equates to approximately 1.9% (12) of PAs retiring per year over 10 years (2008-2018). In spite of the growth in the number of PAs above age 60 increasing from 5 in 2003 to 44 in 2008, retirement is not likely to have a significant impact on the adequacy of the PA workforce through 2018. This is due to a more than offsetting growth in PAs under age 40 (46.8% or 297 under age 40).

The mean age for a PA in Utah at graduation from a PA training program is 32.2, the median is 31. Most of the states PA workforce (36.1% or 229) graduated from PA training between the ages of 25 to 29. For males, the mean age at the time of PA graduation was 32.6 and the median number of years since PA graduation is 9.0. For female

PAs, the mean age at PA graduation was 31.6, and the median number of years since PA graduation is 6.0. The following table shows the graduation age distribution of Utah PAs.

Table 3: Age of PAs at graduation

Age Cohort	Number	Percent
18-24	34	5.3%
25-29	229	36.1%
30-34	185	29.2%
35-39	88	13.9%
40-44	47	7.4%
45-49	22	3.5%
50+	9	1.4%
Total	615*	96.8%

*20 survey respondents did not respond to this question.

On average, the PA workforce in Utah graduated from a PA training program 15 years ago (median of 8 years). This indicates a high number of experienced PAs in Utah’s workforce. The following

table shows a distribution by gender of years since graduation for Utah's PAs. Note the mean number of years experience for male PAs is much higher than for female PAs. There are 21.3% (79) of male PAs in the Utah workforce with over 20 years of experience, whereas only 6.1% (15) of female PAs belong to this category.

Table 4: Years since PA Graduation

Gender	Mean	Median
Female	8.0	6.0
Male	19.7	9.0
All	15.0	8.0

Gender*

While Utah's PA workforce continues to be male dominated - 60.6% (385) male, the percentage of female PAs practicing in Utah increased from 36.5% (137) in 2003 to 39.4% (250) in 2008. The number of female PAs in the workforce has increased by 82.5% (113). Nationally, the percentage of female PAs increased from 59.2%^x in 2003 to 59.6%^{xi} in 2008. Utah continues to lag behind the nation as a whole in terms of the percentage of female PAs. The trend in Utah does appear though, to be moving toward an increasing percentage of female PAs.

The female PA workforce in Utah is a particularly young workforce. Over half (53.5%, 134) of female PAs were under the age of 40 in 2008, compared to 42.4% (163) of the male PA workforce. Conversely, 23.3% (90) of male PAs were over the age of 55 in 2008 compared to 11.6% (29) of female PAs. Of Utah's total PA workforce, 46.8% (297) were under the age of 40 and 18.7% (119) were over age 55 in 2008.

* 2003 numbers are based on data for all survey respondents licensed in Utah where 2008 numbers are based only on survey respondents practicing in Utah.

Income

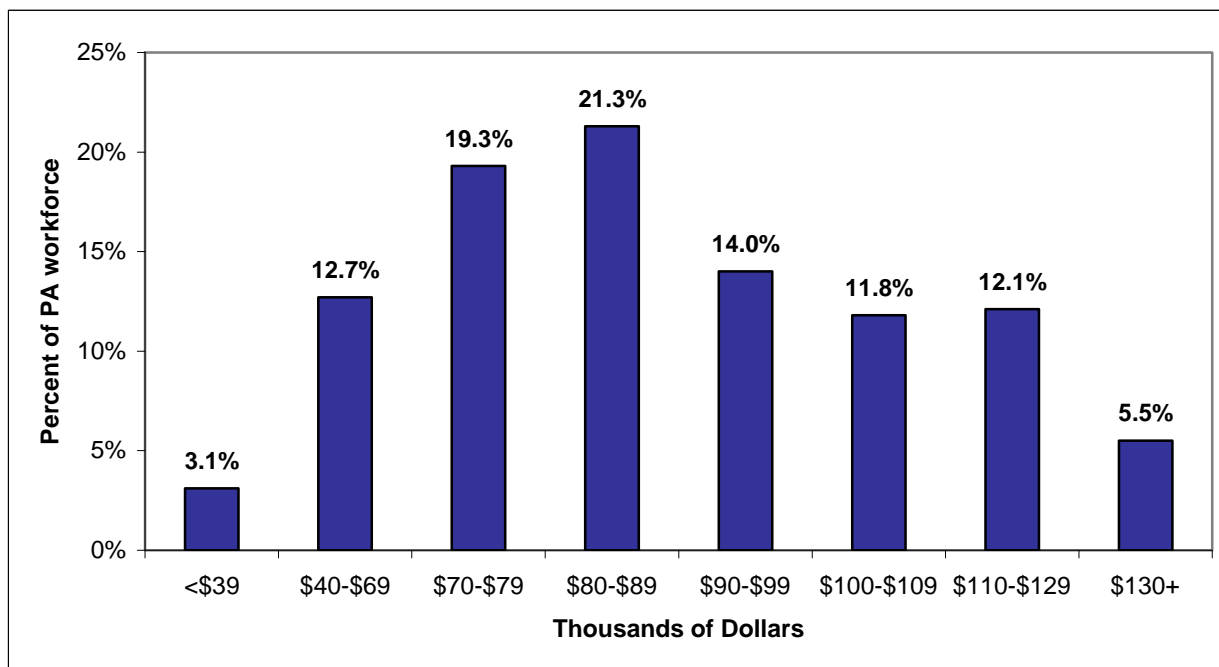
Average (mean) PA incomes in Utah increased from \$73,000^{xii} in 2003 to \$88,000 in 2008. This is an overall increase of 20.5%, which equates to an annual increase of 4.1%. An increase in income at the same time that the workforce is expanding could indicate that demand for PAs is increasing; otherwise, as the workforce grew income would mostly likely have shrunk, with more PAs trying to fill the same number of spots.

A number of factors impact Utah PA income levels. Factors such as age, hours worked, total outpatients seen per week, and primary specialty all have a statistically significant correlation* with income.

When controlling income for the factors of specialty and number of hours worked there was little to no difference in income found between genders. The only factor that made a significant difference in income regardless of gender, hours worked or specialty, was years of experience.

*r = .01

Figure 3: Yearly Gross Income of PAs in the Utah Workforce



Background*

30.3% (193) of PAs in Utah report the majority of their upbringing was in a rural area. 51.9% (329) report the majority of their upbringing in a suburban area, and 17.1% (108) report the majority of their upbringing was in an urban area. 24.0% (60) of female PAs and 34.3% (132) of male PAs reported that the majority of their upbringing was in a rural area. A larger percentage (22.8%, 57) of female PAs reported a majority urban area upbringing compared to male PAs (13.2%, 51).

Over half of all Utah PAs (51.3%, 326) graduated from a high school in Utah. Other states from which significant

numbers of Utah PAs completed high school are California (10.9%, 69), Idaho (4.2%, 26), Arizona and Colorado (2.8%, 18 each), Wyoming (1.9%, 12) and New York (1.9%, 12).

Education Background

A majority of Utah PAs (61.3%, 390) reported that the highest degree they have earned, PA or other, is a master's degree. Also, a large percentage (49.5%, 315) reported the PA degree they had earned is a master's degree. This reflects a nationwide trend in PA education occurring at a graduate level. Utah does have a significant percentage (29.6%, 188) of PAs with a PA certificate. This reflects the fact that until recently, the PA program at the University of Utah (UPAP), Utah's only PA program, was a certificate granting program. Since 2001, UPAP graduates earn a Master's in Physician Assistant Studies (MPAS).

* PAs were asked to describe the city/town where they spent the majority of their upbringing as rural, suburban or urban. They were also asked to estimate the population of this city/town. The question asking for an estimate of population did not specify if it should be an estimate of current population or population at the time the PA lived there. For this reason it is felt that the description question is a more reliable indicator of the PAs background. The data from the question on estimating population was not used in this report.

47.0% (299) of Utah PAs were trained at UPAP. Other states which have contributed significant numbers of their PA program graduates to Utah's PA workforce are Arizona (6.0%, 38), Pennsylvania (5.6%, 35), California (4.4%, 28), and Texas (3.7%, 24).

51.2% (325) of PAs practicing in Utah have a Utah background. 44.3% (144) of these were trained in Utah. 55.7% (181) of PAs with a Utah background who practice in the state went out of state for training to become a PA and returned here to practice.

Over half (52.2%, 194) of PAs practicing in Utah that were licensed from 1981 through 2003 were trained in Utah. 38.9% (100) of 257 PAs licensed from 2004 to 2008 practicing in Utah received their training in Utah. This is an average of 20 Utah trained PAs being retained in the Utah workforce per year.

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

State	Count	Percent
Utah	299	47.0%
Arizona	38	6.0%
Pennsylvania	35	5.6%
California	28	4.4%
Texas	24	3.7%

47.4 % (122) of PAs licensed from 2004 to 2008 practicing in Utah have a Utah background and 31.3% (38) of these were trained in Utah. The low retention of UPAP graduates, particularly those with a Utah background coupled with the increasingly high percentage of Utah students going to out-of state PA programs to receive their training, should be monitored.

Race/Ethnicity

Utah's PA workforce continues to be predominantly White Caucasian. A total of 92.1% (585) of PAs working in Utah are White Caucasian, 2.8% (18) are Hispanic/ Latino, and 1.6% (10) are of Asian descent. No other race/ethnicity had reportable numbers*. In comparison, the U.S. Census estimates that in 2008, Utah's population was 81.7% White-not Hispanic, 12.0% Hispanic/Latino, and 2.0% Asian. As was the case in 2003, the Hispanic/Latino population is under-represented in the state's PA workforce.

Table 6: Utah PA Workforce by Ethnicity 2008 & 2003

Race/Ethnicity	Percent of PA Population	
	2003	2008
African American/Black	0.4	0.2
American Indian/Alaska Native	0.4	0.7
Asian	0.4	1.6
Asian Indian*	0.4	NR
Hispanic/Latino	3.2	2.8
Native Hawaiian/Pacific Islander	1.1	0.7
White Caucasian	92.9	92.1
Other*	N/R	1.4

Key Findings

- "Family in Utah" is the most influential factor affecting PAs' decision to practice in the state.
- 90.7% (635), of all PAs licensed in Utah provide health care services in the state.

* 5 or less

* "Asian Indian" was removed as a response option from the 2008 survey instrument. The "Other" option was not included as a response option on the 2003 survey instrument.

- The average age of Utah's PA workforce decreased from 43.5 in 2003 to 42.7 in 2008, and the median age decreased from 43.0 to 41.0 respectively.
- The number as well as the percentage of female PAs practicing in Utah increased from 2003 (36.5%, 137) to 2008 (39.4%, 250). Over the same time period, the number of male PAs practicing in Utah also increased, but the male percentage of the workforce decreased from 63.0% (240) in 2003 to 60.6% (385) in 2008.
- 47.0% (299) of all PAs licensed in Utah received their training in Utah. 38.9% (100) of 257 PAs licensed from 2004 to 2008 practicing in Utah received their training in Utah. This is an average of 20 Utah trained PAs being retained in the Utah workforce per year.
- Racial and ethnic groups continue to be under-represented in Utah's PA workforce. Only 2.8% (18) of the PA workforce in Utah is Hispanic/Latino compared to 12.0% of Utah's population.

Recommendations

- Encourage more PAs to practice in rural environments by
 - Seeking increased funding for loan repayment programs
 - Seeking increased scholarship funding that targets rural Utah students.
- Maintain a database of the UPAP applicants with a Utah background who did not get admission into the program and target them for future recruitment in Utah.
- Target local students for admission into the state's PA program as they are the most likely to be retained in the workforce.
- Promote racial/ethnic diversity in Utah's PA workforce.

SECTION II: PRACTICE CHARACTERISTICS

Geographic Distribution

PAs provide health care services in 25 of 29 Utah counties. The four counties in which there were no reported PAs practicing were Garfield, Juab, Morgan and Piute. Three counties saw declines in the number of PAs providing services from 2003 to 2008; Garfield (-3), Sevier (-1), and Wayne (-3). Conversely, a number of counties saw double digit increases in the number of PAs providing services. Salt Lake County saw an increase of 82.8% (125) of new PA positions from 2003 to 2008. The other counties with the largest increases in the number of practicing PAs were; Utah (160.0%, 48), Weber (90.0%, 28), Washington (164.0%, 23), Cache (127.0%, 14), and Tooele (125.0%, 10). These counties in total account for 79.7% of the increase in the number of PAs in the state and are all urban counties, except for Tooele.

The following table shows the geographic distribution of PAs in Utah by county, as well as the growth of the PA workforce by county from 2003 to 2008. These calculations are based on figures which include both Cache and Washington counties in the rural count for 2003 and exclude them in the 2008 count. Due to continued population growth in those counties, they have been designated as metropolitan areas by the U.S. Census Bureau, and for the purposes of this report, are considered urban counties.

Table 7: Geographic Distribution of Utah PAs Primary Practice & Growth since 2003

County	2003 Count	2008 Count	Change
Beaver	NR	NR	0
Box Elder	-	NR	NR
*Cache	11	25	14
Carbon	5	7	2
Daggett	-	NR	NR
*Davis	31	40	9
Duchesne	NR	NR	2
Emery	NR	NR	0
Garfield	NR	-	-3
Grand	NR	NR	3
Iron	NR	6	NR
Kane	-	NR	NR
Millard	-	NR	NR
Rich	-	6	6
*Salt Lake	151	276	125
San Juan	NR	NR	0
Sanpete	NR	NR	3
Sevier	NR	NR	-1
Summit	5	10	5
Tooele	8	18	10
Uintah	-	NR	NR
*Utah	30	78	48
Wasatch	NR	NR	0
*Washington	14	37	23
Wayne	NR	NR	-3
*Weber	30	57	27
Not reported	14	34	n/a
Total	324	635	311

*urban county

NR- less than 5 PAs & totals including NR cells

Overall 13.9% (88) of the Utah PA workforce reported primary practice in rural counties in 2008; in 2003, 20.8% (68) of the workforce was rural. While the rural workforce declined as a percentage of the overall PA workforce since 2003, in terms of actual numbers the rural workforce experienced an increase of 29.4% (20). In number of PAs, this is an annual growth rate of 5.8% (or 4 PAs per year).

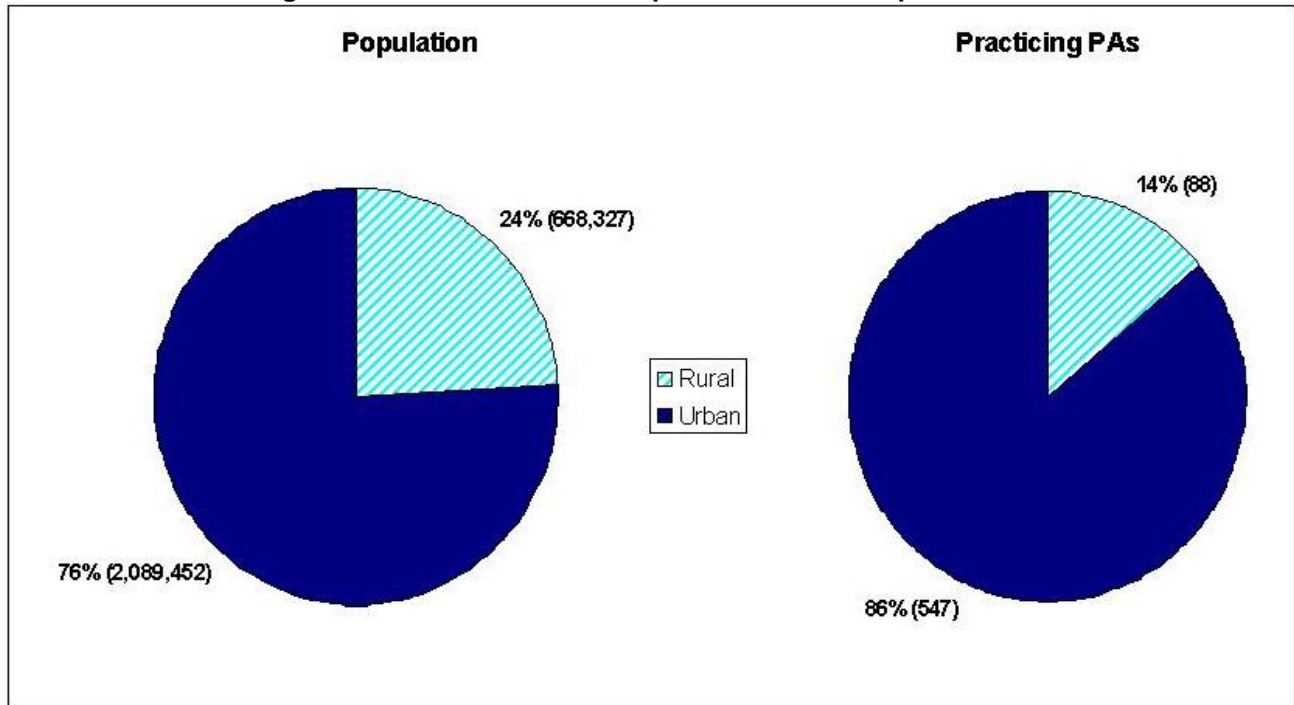
Utah's PAs are located predominantly in the urban counties of the state. In 2008, female PAs constituted 21.7% (19) and male PAs 78.3% (69) of the rural workforce. In 2003, female PAs were 33.8% (23) and male PAs were 66.2% (45) of the rural workforce. This represents a decline in both actual numbers as well as percentage of the female rural workforce since 2003 and a decrease in the actual number but an increase in the percent of the male rural workforce. If Utah continues to move toward a female dominated PA workforce, the fact that fewer female PAs are practicing in rural areas could adversely affect future rural workforce adequacy.

The current average age of a PA practicing in rural Utah is 43. Considering a retirement age of 65, the rural Utah PA workforce will most likely lose 25.0% (22) of its PAs by 2018.

There is a strong correlation* between the background of PAs and where they choose to practice. Of the 30.3% (193) of Utah PAs who came from a rural background, 23.7% (46) practice in a rural setting. Of the 17.1% (108) of PAs that came from an urban background, 10.8% (12) practice in a rural setting.

A comparison of the state's population to practicing PAs shows that while 24.0% (668,327) of Utah's population resides in a rural area,^{xiii} only 13.9% (88) of PAs practice in a rural area.

Figure 4: Rural Workforce Comparison to Rural Population



*Pearson Correlation= .133, r= .01

Specialty*

44.2% (280) of Utah PAs provide primary care (Family Medicine, Internal Medicine, OB/GYN, and Pediatrics), while approximately 52.8% (335) provide specialty care. In all, Utah PAs worked in 34 specialties, ranging from Allergy & Immunology to Urology. The trend in Utah, as it is across the nation, is toward an increasing percentage of PAs working in specialty care. In 2003, 58.3% (189) of Utah PAs practiced in one of the primary care specialties compared to 44.2% (280) in 2008. Nationally, the percentage of PAs in primary care had declined from 44.0% in 2003 to 36.0%^{xiv} in 2008.

Over half (51.8%, 129) of Utah’s female PA workforce and 39.3% (151) of Utah’s male PA workforce are practicing in one of the four primary care specialties. The following table shows the breakdown of the number of PAs by gender practicing in each of the four primary care specialties.

Table 8: Utah PAs by Primary Care Specialty and Gender

Specialty	Female	Male	Totals
Family Medicine	41.2% (82)	58.8% (118)	100% (200)
Internal Medicine - General	52.6% (15)	47.4% (13)	100% (28)
Ob/Gyn - General	(15)	NR	NR
Pediatrics - General	48.0% (18)	52.0% (19)	100% (37)

The following table outlines the percentage of PAs in each of the four primary care specialties both nationally and in Utah.

Table 9: Primary Care Distribution by Specialty- Utah/ U.S.

Specialty	Utah %	U.S. %
Family Medicine	31.5%	26.0%
Internal Medicine - General	4.4%	5.0%
Pediatrics - General	5.8%	3.0%
Ob/Gyn	2.5%	2.0%

* 2003 numbers are based on data for all survey respondents licensed in Utah where 2008 numbers are based only on survey respondents practicing in Utah.

Figure 5: Decline in Primary Care PAs as a Percentage of Utah & U.S. Workforce 2003 to 2008

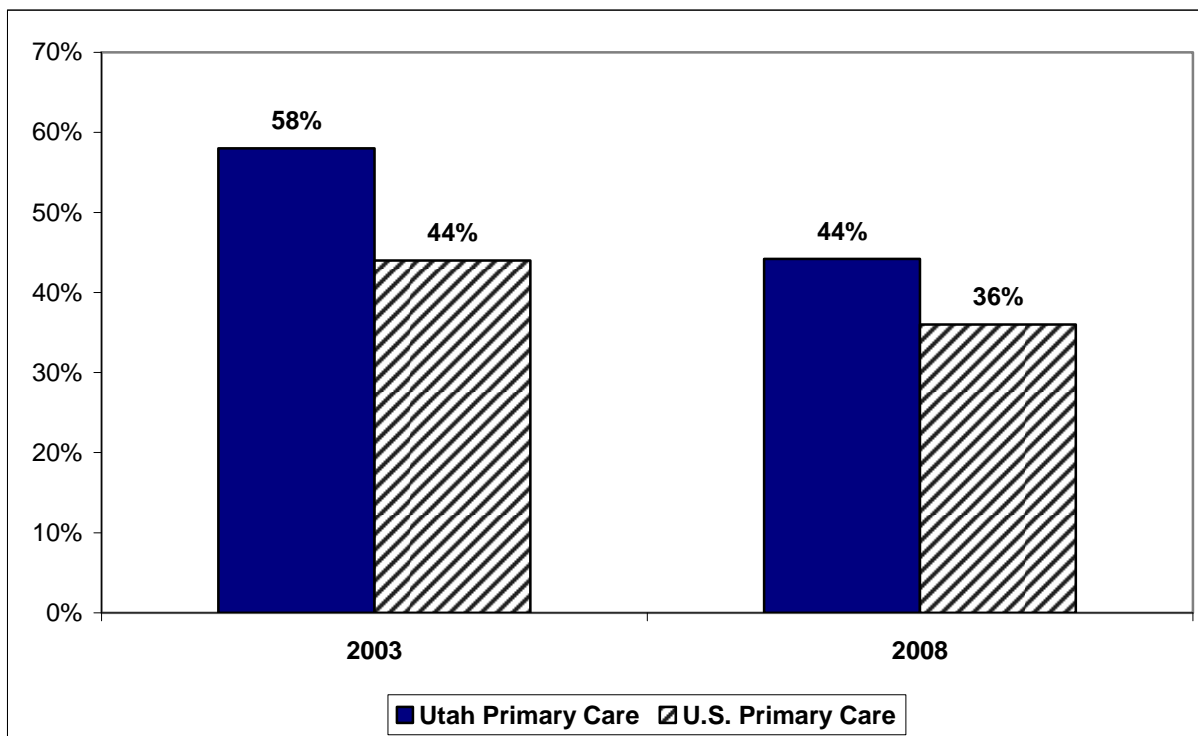


Table 10: Specialty Comparison 2003 to 2008*

Specialty	2003% (324)	2008% (635)	Change
Family Medicine	40.0%	31.5%	-8.6%
Orthopedic Surgery	6.5%	10.6%	4.0%
Emergency Medicine	5.4%	6.0%	0.6%
Pediatrics - General	6.2%	5.8%	-0.4%
Internal Medicine/General	6.5%	4.4%	-2.2%
Dermatology	4.2%	4.2%	0.0%
Prev. Med/Public Health/Occ Med	3.8%	3.2%	-0.7%
Urology	1.9%	3.0%	1.1%
Cardiology	3.1%	2.8%	-0.3%
Hematology/Oncology	2.7%	2.8%	0.1%
Ob/Gynecology - General	1.5%	2.5%	1.0%
Other Surgical sub-specialty	0.8%	2.5%	1.7%
Cardio-Thoracic Surgery	1.5%	1.9%	0.4%
Otolaryngology	0.4%	1.9%	1.5%
Neurology	1.2%	1.6%	0.4%

* Includes specialties with 10 or more PAs in 2008

Table 11: Top Ten Specialties in Terms of Growth in Actual Numbers from 2003 to 2008

Specialty	2003		2008		Change	
	Count	Percent	Count	Percent	Count	Percent
Family Medicine	130	40.0%	200	31.5%	70	-8.5%
Orthopedic Surgery	21	6.5%	68	10.6%	47	4.1%
Emergency Medicine	18	5.4%	38	6.0%	20	0.6%
Peds - General	20	6.2%	37	5.8%	17	-0.4%
Other Surgical sub-specialty	NR	0.8%	16	2.5%	NR	1.7%
Urology	6	1.9%	19	3.0%	13	1.1%
Dermatology	14	4.2%	26	4.2%	12	0.0%
Ob/Gyn - General	5	1.5%	16	2.5%	11	1.0%
Otolaryngology	NR	0.4%	12	1.9%	NR	1.5%
Hematology/Oncology	9	2.7%	18	2.8%	9	0.1%

From 2003 to 2008, a total of nine specialties experienced double-digit growth in actual numbers of PAs. Family Medicine experienced the most growth in terms of actual numbers with an increase of 70 PAs.

With the exception of Internal Medicine, which increased by seven, all the primary care specialties were in the top ten growth specialties. The number of PAs in primary care specialties increased by a total of 48.1% (91) from 2003 to 2008. In spite of the large increase in the number of PAs in primary care, it only represents approximately 29.2% of the overall increase in PAs (311) over the time period indicated, and is overshadowed by the remarkable growth experienced in specialty care.

The mean income for full-time (more than 35 hours per week) primary care PAs is \$91,176. For full-time specialty care PAs, it is \$94,546. There is some variance in the mean income between individual specialties as well. The five specialties in which most PAs are practicing had the following mean incomes for PAs working full-time:

Table 12: Average Income for PAs working more than 35 hours per week by top 5 specialties

Specialty	Average Income	National Average Income ^{xv}
Family Medicine	\$91,746	\$84,173
Orthopedic Surgery	\$91,095	\$94,916
Pediatrics	\$99,429	\$83,021
Emergency Medicine	\$99,900	\$99,635
Internal Medicine	\$80,149	\$85,076

The following table ranks specialties by income and compares the rankings to those from 2003. In both cases, specialties with fewer than five PAs were excluded from the rankings.

Table 13: PA Specialty Rankings by Income-2003 & 2008

Specialty	Average Income	2008 Rank	2003 Rank
Ob/Gyn - Subspecialty	\$144,254	1	N/A
Cardio-Thoracic Surgery	\$127,101	2	2
Anesthesiology - Other	\$122,404	3	N/A
General Surgery	\$105,441	4	21
Allergy & Immunology	\$105,217	5	N/A
Radiology (Diagnostic)	\$98,619	6	N/A
Prev.Med/Occ. Med	\$96,960	7	4
Urology	\$96,053	8	11
Psychiatry	\$95,799	9	12
Emergency Medicine	\$94,822	10	17
Other Surgical Sub	\$94,014	11	6
Dermatology	\$90,675	12	7
Gastroenterology	\$88,841	13	5
Plastic Surgery	\$88,622	14	1
Orthopedic Surgery	\$88,580	15	14
Other Specialty	\$88,308	16	N/A
Hematology/Oncology	\$87,535	17	16
Pediatrics - General	\$87,486	18	3
Cardiology	\$86,813	19	8
Otolaryngology	\$85,398	20	N/A
Family Medicine	\$83,598	21	10
Other Internal Medicine	\$81,963	22	N/A
Internal Medicine	\$79,839	23	19
Pulmonary Disease/CCM	\$79,733	24	18
Pediatrics - Subspecialty	\$79,135	25	9
Neurology	\$78,773	26	20
Infectious Diseases	\$78,176	27	N/A
Ob/Gyn - General	\$71,925	28	15

*N/A signifies not ranked in 2003. Internal Med & Peds was ranked 13 in 2003 but not included in 2008 rankings because of a lack of respondents.

Hours Worked

PAs practicing in Utah work an average of 42.1 hours per week with an average of 37.7 patient care hours per week. Both hours worked and patient care hours per week were at a median of 40. PAs working at more than one location work an average of 39.6 (35.6 patient care) hours at their primary worksite and 10.6 (10.0 patient care) hours at their secondary worksite. This also equates to modes of 40 (38 patient care) hours worked per week at the primary location

and 8 hours per week (worked or patient care) at the secondary location.

64.4% (409) of PAs consider working 36-40 hours per week as working full time. 72.7% (462) of PAs work more than 36 hours per week.

Table 14: Hours Worked per Week

Hours/ Week	Number	Percent
20 or less	35	6.1%
21-35	82	13.0%
36-40	197	31.0%
41-50	178	28.0%
51-60	63	10.0%
61+	24	3.7%
missing	56	N/A
Total	635	100%

Concurrent Worksites

22.9% (146) of PAs work at more than one worksite concurrently. In 1998, the percentage of PAs working at more than one worksite was 29.0% (70)^{xvi}, and in 2003 it was 23.0% (94)^{xvii}. Nationally, the percentage of PAs who reported working in more than one worksite concurrently is 15.0%^{xviii}.

More than half of the PAs who reported working in more than one concurrent worksite (54.1%, 79) work 36 or more total hours/week at their primary work location. 84.9% (124) of PAs working in more than one worksite concurrently are working 20 hours or less/week at the secondary site. Among those working at concurrent work sites, it appears that the majority of PAs are working full-time at the primary location and part-time at the secondary location.

Work Setting

Even though Utah PAs worked in a variety of settings in 2008, 58.1% (369) worked in either a group physician

practice (41.4%, 263) or a solo physician practice (16.7%, 106). The group physician setting experienced remarkable growth from 2003 (18.1% or 59) to 2008 (41.4%, 263). This increase of 204 PAs in a physician group setting represents 65.6% (311) of all growth during that time period. Other work settings with significant numbers of PAs were: Hospital – University (7.6%, 49), Hospital – Intermountain Healthcare (5.8%, 37), and Community Health Center (5.1%, 32). Combined, a total of 18.7% (119) of Utah PAs worked in a hospital setting. Of those PAs working in a hospital setting, 89.1% (106) were specialty care PAs.

The following table shows the change in numbers by PA workplace settings from 2003 to 2008 for work settings with national PA workforce percentages. Due to a change in the answer choices offered with the question regarding workplace setting, a number of settings do not have a 2003 count for comparison. The AAPA reported that

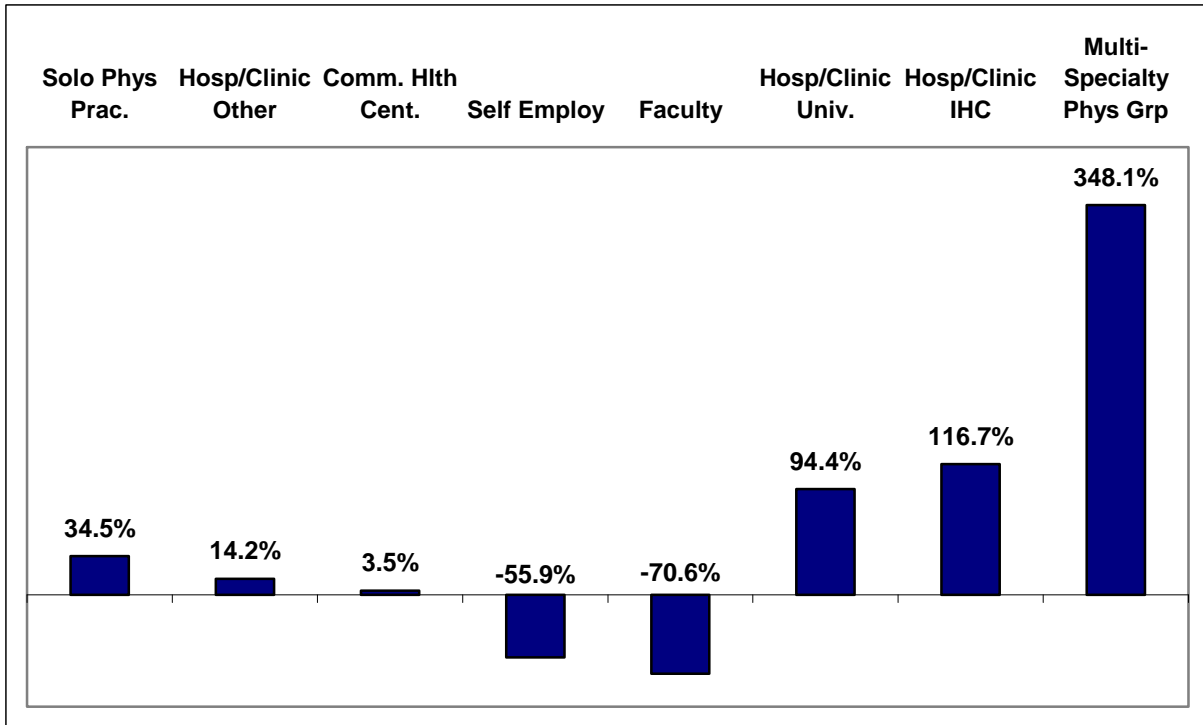
23.6% of PAs nationally worked in a hospital setting, and 5.7% worked in a community health center. Additionally, 1.9% worked in an urgent care center. Nationally^{xix}, 43.5% of PAs are in a group physician practice setting, while 12.2% work in a solo physician office.

The chart below shows the shift in work setting of the Utah PA workforce from 2003 to 2008 with comparison to national PA workforce settings. Each of the categories represented on the chart had a gain in terms of actual numbers of PAs practicing in those settings. The 2003 survey did not separate hospital settings from clinic settings whereas the 2008 survey did. The hospital/clinic setting has been left combined for the purpose of comparison to 2003 data and is not completely comparable to the national hospital setting figure. The graph below shows the shift in work setting of the Utah PA workforce from 2003 to 2008 for all settings that have comparable data regardless of the availability of national comparison.

Table 15: Work Setting/ Employer PAs count and percentage of PAs 2003 to 2008 and 2008 National percentage

Work Setting	2003		2008		% Change	Count Change	National PA Workforce 2008
	Count	Percent	Count	Percent			
Multi-Specialty Physician Group	59	18.1%	263	41.4%	348.1%	204	43.5%
Hospital/Clinic	95	29.2%	156	24.5%	64.1%	61	23.6%
Solo Physician Practice	79	24.2%	106	16.7%	34.5%	27	12.2%
Community Health Center	31	9.6%	32	5.1%	3.5%	1	5.7%
Urgent Care Clinic	N/A	N/A	16	2.5%	N/A	N/A	1.9%

Figure 6: Percent Change in Work Settings 2003- 2008



With the majority of PAs in Utah working in either a multi-specialty physician group or a hospital setting, a comparison of income between the two settings is worthy of note. The following table shows average income for PAs in both settings from 2003 to 2008.

Table 16: Average Income by Two Most Common PA Work Settings 2003 to 2008

Year	Multi-Specialty Group Avg. Annual Income	Hospital Avg. Annual Income	All Utah PAs Average Annual Income
2003	\$77,525	\$71,890	\$73,000
2008	\$90,470	\$94,443	\$88,000

On-Site Supervision

In 2001, DOPL relaxed arbitrary supervision requirements for PAs. The updated requirements are not as restrictive and no longer affix an arbitrary percentage of direct

supervision and chart review by the supervising physician. According to the 2003 survey,^{xx} over half (51.2%, 166) of Utah PAs received direct, on-site supervision over 90% of the time, and 75.9% (246), received direct, on-site supervision over 70% of the time. In 2008, the percentage of Utah PAs receiving direct on-site supervision over 90% of the time had declined to 46.1% (293), while 71.8% (456) received on-site supervision over 70% of the time.

Due to the relaxed arbitrary supervision requirements for PAs, UMEC expected a growth in use of telecommunications as a means of supervision in the PA-Physician relationship. In 2003, 12.3% (40) of the workforce reported more than 50% supervision using telecommunications. In 2008, 14.1% (90) of the workforce reported 50% or more supervision using

telecommunications. Although the increase in percentage is small, the number of PAs has more than doubled in this category. The percentage of PAs reporting 100% supervision through telecommunications (primary work site) has decreased since 2003 (4.0% to 3.2% in 2008). The number of PAs in this category, however, has increased from 13 in 2003 to 21 in 2008.

Patient Wait Times

The two primary factors affecting patient wait time to get an appointment are patient to PA relationship (new or established patient) and PA specialty. Among all PAs, the mean wait time for a new patient to get an appointment was 8 days. The median was 2 days. For established patients, the mean was 4 days, while the median was 1 day.

For primary care PAs, the mean wait time for new patients was 3 days and for established patients it was 1.6 days. The median for both patient groups was 1 day. Conversely for PAs in specialty care, the mean patient wait time was 12.7 days for new patients, the median was 5 days. For established patients the wait time was 6.3 days, and the median was 2 days.

Similar patterns were revealed for specific sub-specialty groups. PAs working in one of the internal medicine sub-specialties reported a mean wait time of 13.3 days for new patients and 7.8 days for established patients. The median for the two groups was 6.5 and 2.0 days respectively. For PAs in surgical specialties the mean wait time was 13.0 days for new patients and 6.3 days for established patients. The surgical specialties had slightly higher median wait times with 7.0 days and 3.0 days for new and established patients respectively.

When comparing 2008 patient wait data with 2003 for all PAs, the mean wait time declined for both new and established patients. However, the median wait time remained constant. For primary care PAs, the mean wait time for both new and established patients declined significantly; however, the median remained constant. Specialty care PAs saw declines in both the mean and median wait times for both new and established patients. The following tables illustrate the comparison between 2003 and 2008 patient wait times. Overall it appears that wait times have declined since 2003.

Table 17: Average Patient Wait in Days as Reported by PAs- Primary Care

Patient Category	2003	2008
New Patient Mean Wait (Days)	9.0	3.0
Established Patient Mean Wait (Days)	3.0	1.6
New Patient Median Wait (Days)	1.0	1.0
Established Patient Median Wait (Days)	1.0	1.0

Table 18: Average Patient Wait in Days as Reported by PAs- Specialty Care

Patient Category	2003	2008
New Patient Mean Wait (Days)	17.0	12.7
Established Patient Mean Wait (Days)	11.0	6.3
New Patient Median Wait (Days)	7.0	5.0
Established Patient Median Wait (Days)	4.0	2.0

Accepting New Patients

Nearly half (45.4%, 288) of PAs in Utah indicated that their practice was “far from full – can accept many new/additional patients.” 27.7% (176) reported that their practice was “nearly full – can accept a limited number of new patients.” 2.5% (16) reported that their practice was “full –cannot accept any new/additional patients.”

These results appear on the surface to suggest there may be some level of excess or spare capacity developing within the PA workforce. However, further analysis revealed that among those who practice full-time and who indicated their practice was far from full, the mean and median number of patients seen per week is comparable to those same figures among all primary and specialty care PAs. Among full-time primary care PAs who indicated their practice was “far from full,” the mean number of outpatients seen per week was 88.6, the median, 88.0. For all full-time primary care PAs, these figures were 92.3 and 90.0 respectively – a difference of 3.7 and 2.0. For full-time specialty care PAs who reported their practices were “far from full,” the mean and median outpatients seen per week was 58.8 and 55.0 respectively. The mean and median number of inpatients seen per week was 13.7 and 6.0 respectively. Among all full-time specialty care PAs, the mean and median number of outpatients seen per week was 61.0 and 52.0 respectively, and the mean and median number of inpatients seen per week was 13.6 and 7.0. Based on the narrow margins in the average number of patients seen, it appears that concerns of a significant level of excess capacity within the PA workforce are at present unfounded.

More specific definitions of the various categories would likely provide better data from this question.

Table 19: Number of Patients Seen per Week by PAs Working Full-Time by Care Type and Practice Capacity

Inpatients	Primary Care		Specialty Care	
	Mean	Median	Mean	Median
All	1.6	0.0	13.0	5.0
Far From Full	1.6	0.0	12.7	5.0
Outpatients				
All	92.3	90.0	61.7	55.0
Far From Full	89.5	86.5	59.8	60.0

A majority of PAs indicated they accept new patients in each category of payer type – Medicaid, Medicare, Self-Pay/Uninsured, and Other Insured Patients, though with varying numbers and percentages. 65.4% (415) of Utah’s PA workforce is accepting new Medicaid patients, while 83.3% (529) of the workforce is accepting new Self-Pay/Uninsured patients. While 19.5% (124) of the workforce is not accepting new Medicaid patients, 1.1% (7) of the workforce is turning away patients with private insurance. It should be noted that typically, PAs do not have a say in which payer types they accept. This decision is usually made by their employer.

Table 20: Accepting New Patients by Payer Type

Payer	Yes	% Yes	No	% No
Medicaid	415	65.4%	124	19.5%
Medicare	437	68.8%	90	14.2%
Self-pay/Uninsured	529	83.3%	19	3.0%
Other Private Insurance	518	81.6%	7	1.1%

Patients Treated

The average number of outpatients seen per week by Utah PAs in 2008 was 70.4 with a median of 67. In addition, Utah PAs also saw a mean 9.9

inpatients per week, with a median of 1. When controlling for hours worked, Utah PAs working at least 36 hours per week reported a mean of 74 outpatients per week and a median 75. In addition, they reported a mean of 10.5 inpatients seen per week and a median of 2.

Compared to 2003, the mean number of outpatients seen per week by PAs working 36 or more hours per week has declined from 79.1 to 74 in 2008. The mean number of inpatients seen per week increased from 5.4 in 2003, to 10.5 in 2008. The mean total patients seen per week decreased slightly from 84.5 in 2003 to 84.0 in 2008. These shifts are likely the result of increasing numbers of PAs in specialty care who see, on average, more inpatients per week and fewer outpatients per week than their primary care counterparts. The correlation between the number of both outpatients and inpatients seen per week by primary care and specialty care PAs was significant*.

One factor which had an impact on the number of patients seen per week was gender. Without controlling for specialty, of the 461 PAs who work full-time (36 hours or more per week), 94.6% (437) of them see outpatients. Of these 69.6% (304) are male and 30.3% (133) are female. The mean number of outpatients seen per week by male PAs who work full-time was 78.4 with a median of 80.0. For female PAs who work full-time these figures were 67.2 and 60.0 respectively.

34.7% (160) of PAs who work full-time see inpatients. Of these, 80.0% (129) are male and 20.0% (32) are female. Of PAs working full-time who see

inpatients, male PAs see a mean of 17.3 and a median of 10 inpatients per week. Female PAs see a mean of 20.5 and median of 15 inpatients per week.

Without controlling for specialty, male PAs who work full-time see more outpatients per week than their female counterparts. Female PAs who work full-time see more inpatients per week than their male counterparts.

Another factor which had a significant impact on the number of patients seen per week is practice specialty. Of 94.6% (437) of PAs who work full-time and see outpatients; 41.4% (180) work in primary care and 57.2% (250) work in specialty care. These primary care PAs see a mean of 92.3 and a median of 90.0 patients per week. Specialty Care PAs see a mean of 63.2 and a median of 60.0 outpatients per week.

Of the 34.6% (160) of PAs who work full-time and see inpatients, 12.7% (21) work in primary care and 85.5% (138) work in specialty care. These primary care PAs see a mean of 6.7 and a median of 4.0 patients per week. Specialty care PAs see a mean of 18.2 and median of 10.0 inpatients per week.

Primary care PAs who work full-time see more outpatients than specialty care PAs. Specialty care PAs who work full-time see more inpatients than their primary care counterparts.

Of PAs working full-time who practice in primary care and see outpatients 65.9% (119) are male and 34.1% (61) are female. These males see a mean 1.6 and median 0.0 outpatients per week. These females see a mean of 1.1 and median of 0.0 outpatients per week.

* r= 0.1

Of PAs working full-time who practice in specialty care and see outpatients 71.8% (179) are male and 28.2% (71) are female. These males see a mean 12.7 and median 6.5 outpatients per week. These females see a mean 8.9 and median 0.0 outpatients per week.

With regard to PAs in primary care gender makes little difference to the number of outpatients seen per week. However, male PAs working in specialty care see more outpatients than their female counterparts.

Of PAs working full-time who practice in primary care and see inpatients 71.4% (15) are male and 28.6% (6) are female. These males see a mean 6.3 and median 3.5 inpatients per week. These females see a mean 7.8 and median 9.5 inpatients per week.

Of PAs working full-time who practice in specialty care and see inpatients 80.9% (111) are male and 19.1% (26) are female. These males see a mean of 17.2 and median of 10.0 inpatients per week. These females see a mean of 22.5 and median of 18.0 inpatients per week.

Gender does seem to affect the number of inpatients seen regardless of specialty. Female PAs see more inpatients per week than their male counterparts in both primary and specialty care.

Hospital Privileges

The number of Utah PAs with hospital privileges in 2008 (48.5%, 308) has more than doubled since 2003 when 36.4% (118) had privileges. Following is a table which outlines specific privileges

held by Utah PAs. Please note that survey respondents could indicate multiple privileges.

Table 21: Hospital Privileges Held By Utah PAs

Privilege	Count	Percent
Inpatient Care of Adults	247	38.9%
Inpatient Care of Children	82	12.9%
Inpatient Care of Newborns	26	4.1%
Labor & Delivery	7	1.1%
ICU/CCU	68	10.7%
First Assist for Major Surgery/C-Section	153	24.1%
First Surgeon for Other Major Surgical Procedures	40	6.3%
ER	15	2.4%
Other	37	5.8%

Non-English Speaking Patients

Utah's population is becoming increasingly diverse with a growing percentage of residents who do not speak English as their primary language. The U.S. Census Bureau estimated that in 2008, 12.5% of the Utah population spoke a language other than English at home^{xxi}. On average, 11.8% of a Utah PA's patients at his/her primary practice location are non-English speaking patients; 11.0% at their secondary location of practice. The median percentage reported for both primary and secondary practice locations is 5.0%.

Primary care PAs reported a mean of 14.1% at their primary practice location and 11.9% at their secondary location. The median percentage reported for both locations was 5.0%. For specialty care PAs, the mean percentage was 9.6% at the primary practice location and 9.8% at the secondary location. The

median percentage at both locations for specialty care PAs was also 5.0%.

PAs in rural Utah reported a mean of 10.7% non-English speaking patients at their primary practice location and 9.0 at a secondary location. For urban PAs, those percentages were 11.7% and 11.2% respectively. The median percentages reported for rural PAs were 5.0% at the primary location, and 10.0% at a secondary location. Those percentages were both 5.0% for urban PAs.

Looking at the percentage of non-English speaking patients by practice setting and practice location (rural or urban) shows where the majority of non-English speaking patients are receiving care. The following tables show mean and median percentages of non-English speaking patients by practice setting for PAs practicing in rural and urban locations.

Table 22: Mean/ Median Percentage of Non-English Patients of PAs in Rural Practice

Primary Practice Rural	% Non-English Speaking		
	Mean	Median	# of PAs
Solo Physician Practice	5.5%	5.0%	18
Group Physician Practice	7.6%	5.0%	16
Hospital- Intermountain	15.0%	15.0%	N/R
Hospital- Other	5.0%	5.0%	N/R
Urgent Care Clinic	3.0%	3.0%	N/R
NHBC-University	15.5%	15.5%	N/R
NHBC- IHC	10.0%	10.0%	N/R
Community Health Center	23.7%	10.0%	6
Rural Health Center	26.0%	20.0%	7

*NHBC- Non Hospital Based Clinic

Table 23: Mean/ Median Percentage of Non-English Patients of PAs in Urban Practice

Primary Practice Urban	% Non-English Speaking		
	Mean	Median	# of PAs
Self Employed	23.3%	10.0%	N/R
Solo Physician Practice	9.1%	5.0%	50
Group Physician Practice	8.8%	5.0%	154
Hospital- University	11.9%	10.0%	32
Hospital- Intermountain	11.4%	9.5%	22
Hospital -VA	0.6%	0.0%	11
Hospital- Other	12.7%	10.0%	9
College/University Faculty	15.0%	15.0%	N/R
Urgent Care Clinic	13.3%	10.0%	9
NHBC-University	8.3%	10.0%	N/R
NHBC- IHC	13.4%	5.0%	9
NHBC- Other	9.6%	5.0%	7
Community Health Center	59.0%	70.0%	15
Corrections	7.5%	7.5%	N/R
Other	14.9%	10.0%	9

*NHBC- Non Hospital Based Clinic

Turnover/Retirement

Less than one in three (29.9%, 190) PAs in Utah plan to change their primary practice location in the next five years. Another 26.0% (165) plan to stay at their primary practice location between 6 and 10 years. The largest cohort, comprising 42.8% (272), plan to remain at their primary practice location 11+ years. The percentage of respondents planning to stay at their secondary practice location longer than five years is 57.2% (87).

Table 24: Years Planned at Primary Location

Years at Primary Location	Count	Percent
<1	21	3.3%
1-5	169	26.6%
6-10	165	26.0%
11+	272	42.8%
Item non-response	8	1.3%
Total Reported	635	100.0%

Table 25: Years Planned at Secondary Location

Years at Secondary Location	Count	Percent
<1	13	8.7%
1-5	52	34.0%
6-10	28	18.4%
11+	59	38.8%
Total	152	100.0%

Reflecting the relative youth of the PA workforce, a total of 22.4%, (142) of the workforce planned to retire within the next 10 years. This translates to an annual retirement rate of approximately 1.9% (12 PAs) per year for the next 10 years. An additional 12.4% (79) of the workforce planned to retire sometime in the next 11 to 15 years. On the other hand, 63.0% (400) planned to retire in 16 years or more. The following table summarizes Utah PA retirement plans.

Table 26: Years to Planned Retirement

Years to Retirement	Count	Percent
1-5	46	7.2%
6-10	96	15.1%
11-15	79	12.4%
16-20	106	16.7%
21+	294	46.3%
Item non-response	14	2.2%
Total	635	99.9%*

*Rounding Error

Pre-Retirement Hours Reduction

Over one-third (40.7% or 259) of Utah PAs plan to reduce the number of hours worked per week prior to retirement. Of the 259 PAs who indicated they plan to reduce hours prior to retirement, 44.4 % (115) indicated they plan to do so in 0 to 5 years. Of these 59.1% (68) were female, while 40.9% (47) were male. Another 16.6% (43) plan to reduce hours in 6 to 10 years, while 14.3% (37) plan to reduce hours in 11 to 15 years, and 13.1% (34) plan to reduce hours in 16 to 20 years. Another 7.3% (19) of

these respondents plan to reduce the number of hours worked after 21 or more years.

Of those who indicated they plan to reduce hours prior to retirement, 39.4% (102) plan to work between 21 and 30 hours per week and 23.9% (62) plan to work 31 or more hours per week. Conversely, a total of 32.4% (84) plan to work 20 or fewer hours per week after they reduce the number of hours worked. 46.7% (121) of the PAs planning on reducing their hours before retirement are female PAs, and 53.3% (138) are male. This represents 48.4% (121 of 250) of all female PAs practicing in Utah. Conversely, the male PAs who plan to reduce hours prior to retirement represent 35.8% (138 of 385) of the male PA workforce.

46.7% (121) of the PAs planning on reducing their hours before retirement are female, 53.3% (138) are male. This represents 48.4% (121 of 250) of all female PAs practicing in Utah. Conversely, the male PAs who plan to reduce hours prior to retirement represent 35.8% (138 of 385) of the male PA workforce.

The correlation between gender and plans to reduce hours prior to retirement was statistically significant*. Neither specialty (primary care/ specialty care), nor practice location (rural/urban), had a statistically significant correlation to a planned reduction in hours worked.

* r= .05

Table 27: PAs under Age 40 Who Plan to Reduce Hours by Gender

Gender	< 40 Reducing Hrs	< 40 Total	% Reducing Hrs
Female	72	134	53.8%
Male	57	163	35.1%

A total of 20.8% (54) of those who plan to reduce hours prior to retirement, reported working fewer than 36 total

hours at their primary practice location. It is unclear from the data whether these responses equate to an additional reduction in hours in the future, or if they have already reduced hours as planned.

The following tables show why PAs who planned to reduce hours choose to do so by gender.

Table 28: Reason for Reducing Hours Prior to Retirement- Female PAs

Category	Count	Percent
Children/More Time w/Family	56	46.3%
Free Time/Travel/Vacation	16	13.2%
Age/Fatigue/Stress/Burnout	15	12.4%
Lifestyle	12	9.9%
Other Interests	9	7.4%
Financial	2	1.6%
Keep Skills/Stay Active	0	0.0%
Item non-Response	11	9.0%
Total	121	99.8%*

*Rounding Error

Table 29: Reason for Reducing Hours Prior to Retirement- Male PAs

Category	Count	Percent
Age/Fatigue/Stress/Burnout	38	27.5%
Children/More Time w/Family	28	20.3%
Free Time/Travel/Vacation	19	13.8%
Lifestyle	13	9.4%
Other Interests	12	8.7%
Financial	7	5.1%
Keep Skills/Stay Active	6	4.3%
Other	1	0.7%
Item non-Response	14	10.1%
Total	124	99.9%*

*Rounding Error

Patients by Payer Type

On average, 14.3% of a Utah PA's patients are covered by Medicaid, 24.7% are covered by Medicare, 42.1% are covered by managed care/private insurance, 6.5% are covered by VA/TriCare, and 11.0% are self-pay/uninsured. Data from the Utah Department of Health (DOH) indicates that Utah's uninsured rate in 2008 was approximately 10.7%^{xxii}. The Kaiser Family Foundation^{xxiii} puts the percentage of Utah residents enrolled in Medicaid at approximately 8.2%, and the percentage covered by Medicare was estimated at 8.2%. Also, according to the Kaiser Foundation, approximately 62.5% of Utah residents had employer-based coverage and another 7.3% had individual coverage.

Table 30: Patients by Payer Type as Reported by Utah PAs

Pay Type	% of PA Patients	Utah Population
Medicaid	14.3%	8.2%
Medicare	24.7%	8.2%
Managed Care/ Private insurance	42.1%	69.8%
Self pay/ Uninsured	11.0%	10.7%
VA/ TriCare	6.5%	N/A

The percentage reported for Medicare (24.7%) appears to be in-line with utilization data reported by PAs in the 2008 survey. 26.0% of primary care patients were 65 years old or older and thus eligible for Medicare coverage.

Key Findings

- In 2008, female PAs constituted 21.7% (19) and male PAs 78.3% (69) of the rural workforce. In 2003, female PAs were 33.8% (23) and male PAs were 66.2%

(45) of the rural workforce. This represents a decline in both actual numbers, as well as percentage of the female rural workforce since 2003 and a decrease in the actual number, but an increase in the percent of the male rural workforce.

- The mean wait time for a new patient to get an appointment was 8 days. The median was 2 days. For established patients, the mean was 4 days, while the median was 1 day.
- Nearly half (45.4%, 288) of PAs in Utah indicated that their practice was “far from full – can accept many new/ additional patients.” 27.7% (176) reported that their practice was “nearly full – can accept a limited number of new patients.” 2.5% (16) reported that their practice was “full – cannot accept any new/additional patients.”
- 65.4% (415) of Utah's PA workforce is accepting new Medicaid patients. 83.3% (529) of the workforce is accepting new Self-Pay/Uninsured patients. While 19.5% (124) of the workforce is not accepting new Medicaid patients, 1.1% (7) of PAs are turning away patients with private insurance.
- Utah PAs working at least 36 hours per week reported a mean of 74 outpatients per week and a median 75. In addition, they reported a mean of 10.5 inpatients seen per week and a median of 2.

- Without controlling for specialty, the mean number of outpatients seen per week by male PAs who work full-time was 78.4 with a median of 80.0. For female PAs who work full-time these figures were 67.2 and 60.0 respectively.
- The UMEC projects an annual retirement rate of approximately 12 PAs per year or 1.9% annually of the current workforce from 2008 to 2018.
- A larger percentage of female PAs indicated they plan to reduce the number of hours worked prior to retirement. 46.7% (121) of the PAs planning on reducing their hours before retirement are female. 53.3% (138) are male.

Recommendations

- Find ways to retain PAs working in primary care.
- Work to ensure that the growth rate of the PA workforce in rural counties continues to increase.
- Ensure that Utah's PA workforce growth at least keeps pace with loss due to retirement.
- Further define the study of practice capacities in future surveys in order to capture a number for what PAs perceive as a full practice and what types of patients they are willing to accept when growing their practice.
- Work for continued flexibility afforded in the State's rules regarding physician supervision of PAs in order to allow the PA workforce to continue their strong position in helping to address any physician shortage that may develop in the coming years.

SECTION III: WORKFORCE PROJECTIONS

In the 2005 physician workforce report, the UMEC estimated that Utah would need to add approximately 270 physicians per year to meet growing demand based on population growth, age polarization and other factors^{xxiv}. Based on data from the Utah Division of Occupational and Professional Licensing (DOPL), from 2003 to 2008, Utah's licensed physician workforce increased from 7,410 in 2003 to 8,364 in 2008. This is an increase of 954 physicians or an average increase of 191 physicians per year. Based on this data, the state has experienced a shortfall of approximately 80 physicians per year since 2003 for an accumulated shortfall of approximately 400 physicians. The specialties that have severe physician shortages in Utah are pediatric neurology, obstetrics and gynecology, psychiatry, dermatology, general surgery, urology and cardiology.^{xxv}

While there might be various other reasons as to why more PAs are finding employment in Utah, it appears that the market may be turning in large part to PAs to meet the need created due to physician shortage, as evidenced by the overall growth of the PA workforce and the concentration of that growth in the physician group setting. The percentage of PAs working in a multi-specialty group practice setting has increased from 18.2% in 2003 to 41.4% in 2008 (refer to Table 15). Furthermore, the percentage of PAs practicing in specialties other than primary care has increased from 47.0% in 2003 to 52.8% in 2008. These percentage increases mask the real growth in the numbers of PAs, especially because of the overall

increase in the number of PAs in the state since 2003 (from 324 to 635 in 2008). The table below indicates the growth patterns of PAs in the specialties and subspecialties for which Utah is faced with physician shortages.

Table 31: Growth Pattern of PAs in Physician Shortage Specialties

Specialty	2008 Count	2003 Count	% Increase	PA Growth Rank
Pediatric Neuro +	18	6	182.2%	9,10
OBGYN++	19	6	205.8%	6,13
Psych	NR	NR	0.0%	No Change
Derm	26	14	92.4%	20
Gen Surg	6	5	17.6%	30
Other Surg Subs	98	34	191.8%	2,8,14,31
Urology	19	6	205.8%	7
Cardiology	18	10	76.4%	23

+ includes Pediatric Subspecialties and Neurology

++ includes General and Sub-specialty

Although this table does not offer conclusive evidence, it suggests that the new PA growth is occurring in most of the specialties identified as facing severe physician shortages in the state. Data from the UMEC 2010 physician survey will be used to substantiate the same.

Other factors that could be contributing to this growth in PAs, from a PA perspective, are student perceptions that specialist PAs earn more than PAs in primary care¹, shorter training period for PAs and on-the-job training to enter into a specialty practice. From a market

¹ UPAP program and the UMEC conducted a class room survey asking students about their perspective on pay levels for specialist and primary care PAs. 36 of the 40 students surveyed perceived that specialist PAs received slightly (13, 32.5%) or much more (23, 57.5%) money than primary care PAs.

or employer perspective, PAs are cost-effective physician extenders who can be trained to meet the demand in a relatively short period of time.

The growth rates and specialization patterns experienced by the Utah PA workforce are indicative of an expansion of the role and scope of PAs in the state over the coming decade.

The UMEC has developed a range of projections for the period 2010 - 2025 based on two scenarios: a low projection comprised of a scenario of growth based on population growth and age polarization, as well as the average

number of patients seen per week by PAs. This projection assumes that the state has an adequate physician workforce.

The second projection is a high projection, and is a regression line based on the growth experienced by the PA workforce from 2003 through 2008. It assumes continued and more acute physician shortages in the state. A mid-point projection, based on the average of the high and low projections is also included.

Figure 7: Workforce Growth Compared to Physician Shortage in Utah 2003 to 2009

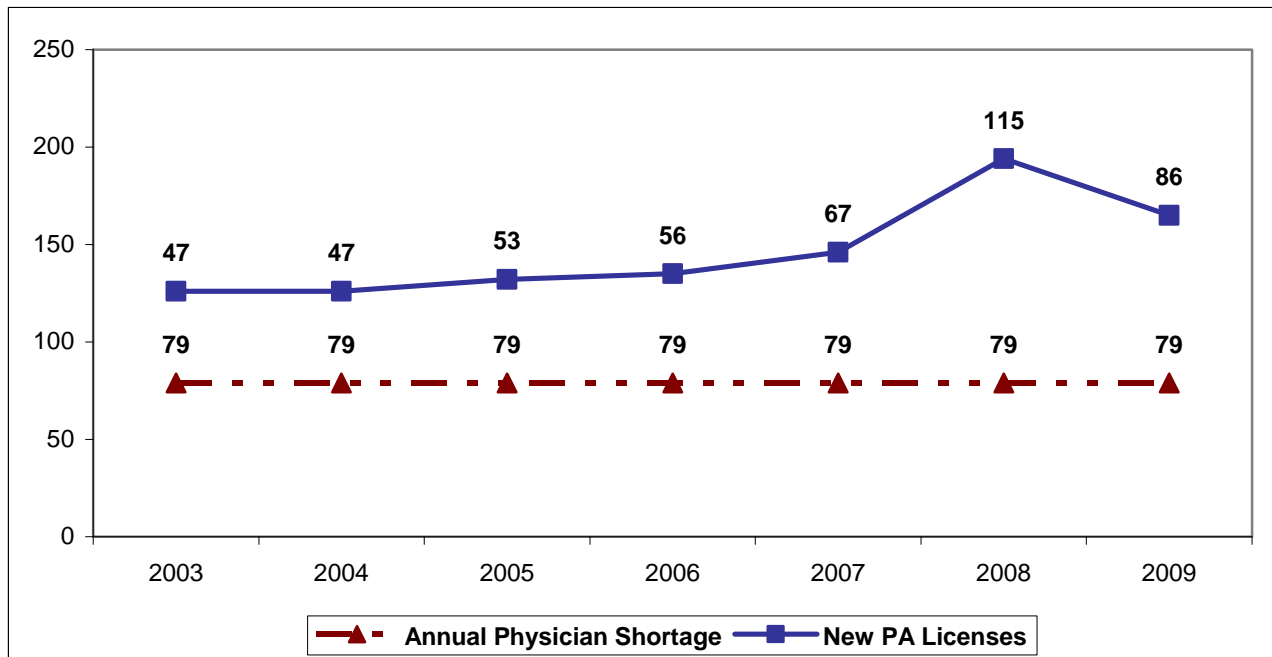
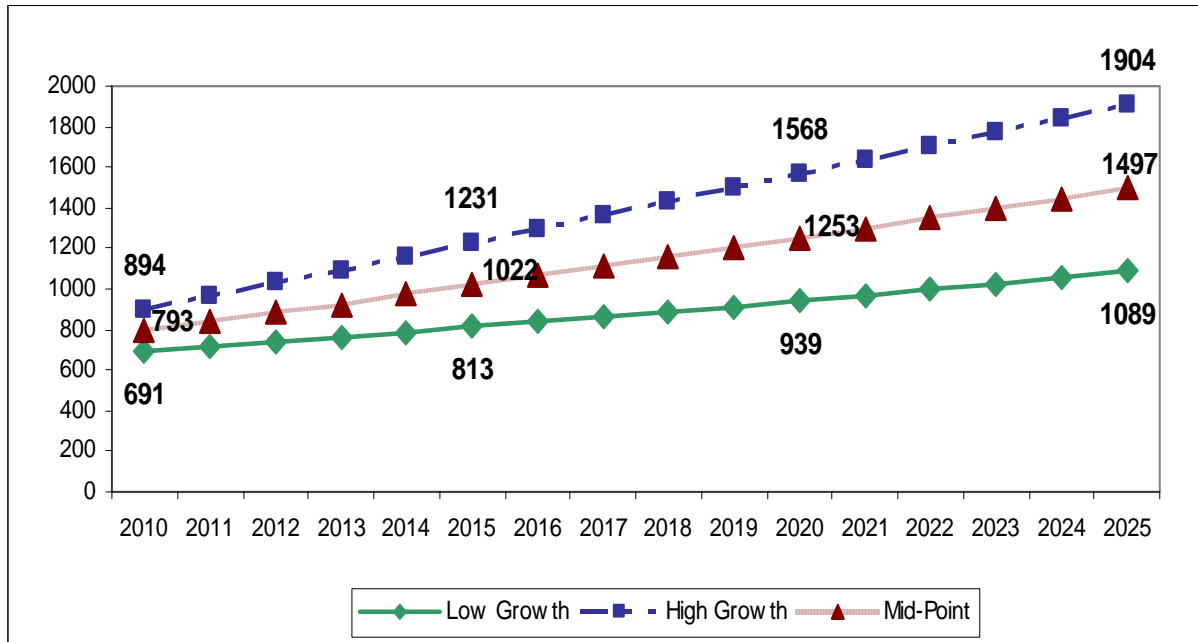


Figure 8: PA Workforce Projection Scenarios



Using the projection models, survey data on retirement, and historic licensure data, the UMEC has developed a projected annual need which accounts for two factors: growth and replacement. Growth represents the number of new PAs needed to meet projected workforce numbers in the given scenarios. Replacement represents the number of new PAs needed to replace those who leave the workforce due to retirement or attrition*. Licensure data for Utah PAs shows an estimated attrition rate of 1.4%.

The following tables show the projected workforce and annual need as well as the projected growth rate using the low, mid-point, and high projection models. In each scenario, replacement need due to retirement is based on the survey responses to the question regarding future retirement plans. Replacement need due to attrition is calculated at 1.4% of the projected workforce. Total annual need is calculated as the sum of growth need (increase) and replacement need.

* licenses that have expired

Table 32: Low Growth Projection and Annual Need

Year	Low Growth Projected Total Workforce	Low Growth Need (Growth)	Retirement & Attrition (Replacement)	Total Annual Need (Growth + Replacement)	Growth Rate
2009	672				
2010	691	19	16	35	2.9%
2011	711	20	16	36	2.9%
2012	733	22	16	39	3.1%
2013	756	23	17	39	3.1%
2014	789	33	27	60	4.4%
2015	813	24	27	51	3.0%
2016	838	24	27	52	3.0%
2017	862	25	28	52	3.0%
2018	888	26	28	53	3.0%
2019	912	23	25	49	2.6%
2020	939	28	25	53	3.0%
2021	967	28	26	53	2.9%
2022	995	28	26	54	2.9%
2023	1024	29	26	55	2.9%
2024	1059	35	33	68	3.4%
2025	1089	30	33	63	2.8%
Average	N/A	26	25	51	3.1%

The low-growth scenario which assumes PA utilization without a physician shortage averages a 3.1% rate of growth from 2010 to 2025 and assumes an average annual growth need of approximately 26 new PAs, with

an annual replacement need of 25 PAs. The average total annual need in the low projection scenario assumes Utah will need approximately 51 new PAs per year to meet growth and replacement needs.

Table 33: Mid-Point Growth Projection and Annual Need

Year	Mid-Point Projected Workforce	Mid-Point Growth Need (Growth)	Retirement & Attrition (Replacement)	Total Annual Need (Growth + Replacement)	Growth Rate
2009	690				
2010	793	42	16	58	6.0%
2011	836	44	17	60	5.7%
2012	881	45	17	62	5.6%
2013	926	45	18	63	5.3%
2014	976	50	28	78	5.6%
2015	1022	46	29	74	4.8%
2016	1068	46	29	75	4.6%
2017	1114	46	29	76	4.5%
2018	1160	46	30	76	4.3%
2019	1206	45	27	73	4.0%
2020	1253	48	28	75	4.1%
2021	1301	47	28	76	3.9%
2022	1349	48	29	76	3.8%
2023	1397	48	29	77	3.7%
2024	1448	51	36	87	3.8%
2025	1497	49	36	85	3.4%
Average	N/A	47	27	73	4.6%

The mid-point scenario is an average of the low and high growth projections. It projects an average growth rate of approximately 5.0% and assumes an average annual growth need of 47 new PAs, with an average annual

replacement need of approximately 27 PAs. The average total annual need (both growth and replacement) under the mid-point scenario is approximately 73 new PAs per year.

Table 34: High Growth Projection and Annual Need

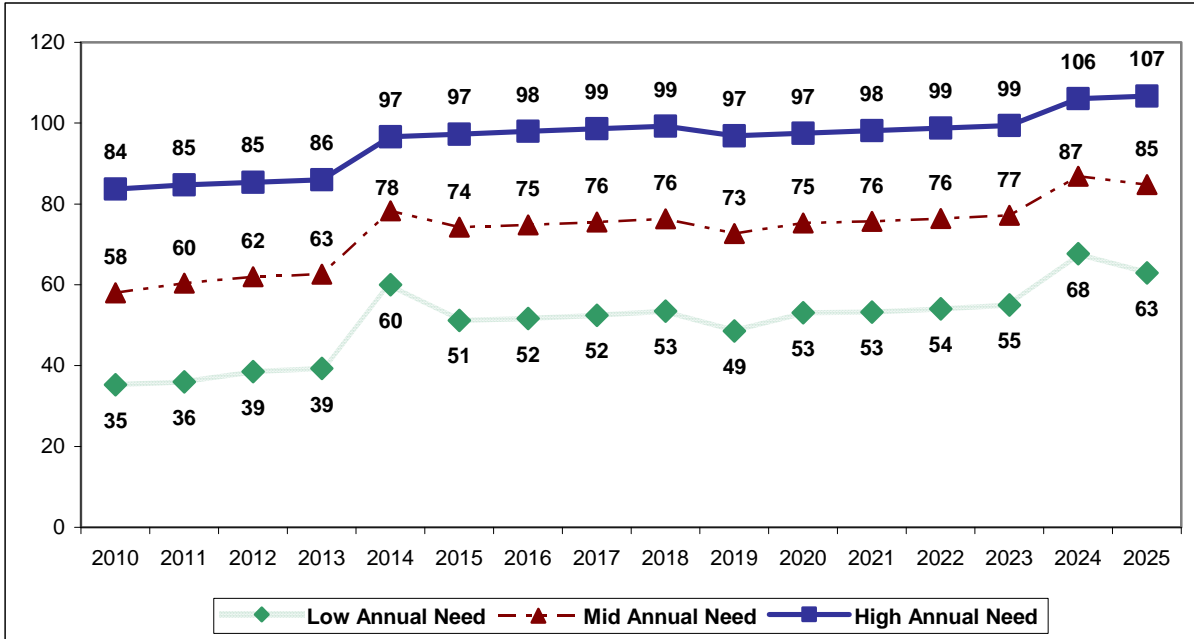
Year	High Growth Projected Workforce	High Growth Need (Growth)	Retirement & Attrition (Replacement)	Total Annual Need (Growth + Replacement)	Growth Rate
2009	708				
2010	894	67	17	84	7.5%
2011	961	67	17	85	7.0%
2012	1029	67	18	85	6.5%
2013	1096	67	19	86	6.1%
2014	1163	67	29	97	5.8%
2015	1231	67	30	97	5.5%
2016	1298	67	31	98	5.2%
2017	1365	67	31	99	4.9%
2018	1433	67	32	99	4.7%
2019	1500	67	29	97	4.5%
2020	1568	67	30	97	4.3%
2021	1635	67	31	98	4.1%
2022	1702	67	31	99	4.0%
2023	1770	67	32	99	3.8%
2024	1837	67	39	106	3.7%
2025	1904	67	39	107	3.5%
Average	N/A	67	28	96	5.1%

The high growth projection averages at 5.1% and is based on the presumption that Utah will continue to experience an increasingly acute physician shortage into the coming decade and that the PA workforce will continue to expand at a rapid pace. In this scenario, Utah will need to add approximately 67 new PAs per year to account for new growth. The average replacement need will be approximately 28 new PAs per year to

account for retirement and attrition from the workforce. The average total annual need (growth and replacement) in the high growth scenario is approximately 96 PAs per year from 2010 to 2025.

The following graph illustrates the projected total annual number of PAs needed to account for growth and replacement under the three scenarios described previously.

Figure 9: Projected Annual Need for New PAs (Growth & Replacement)



Key Findings

- It appears that recent growth in the PA workforce has been driven in large part by an increasingly acute physician shortage.
- Under a high growth scenario, the average annual projected growth rate of the PA workforce is estimated at 5.1%, while the annual total need for new PAs is estimated at 96 new PAs per year during the period 2010 through 2025.
- Under a low growth scenario, growth would be projected at a rate of approximately 3.1%. Average annual need for new PAs in this scenario is estimated at approximately 51 new PAs per year during the period 2010 through 2025.

- A mid-point projection with an average growth rate of 4.6% has also been calculated as an average of the high and low growth rate projections. The mid-point projection results in an estimated total annual need of approximately 72 new PAs per year for the period 2010 through 2025.

Recommendations

- Use the 2010 Physicians Survey to verify and describe the extent of Utah’s physician shortage and how PAs are working with physicians to fill that need.
- Decide on which of the three projections offered in this report would best be used in approaching future plans for Utah’s PA workforce.

SECTION IV: PA TRAINING CAPACITY

According to the 2008 Physician Assistant Education Association (PAEA) annual survey presentation, in 2003 there were 134^{xxvi} accredited PA programs across the U.S. By 2009 the number of programs had increased to 148^{xxvii}. In addition to the increase in programs, the average enrollment increased from 36 first-year enrollees per year in 2003 to 46 in 2008. During that same time frame, total first-year enrollment in PA programs increased from 5,081 in 2003 to 6,793 in 2008^{xxviii}.

In addition to this documented expansion in programs, the 2007 PAEA Program Expansion Survey suggested that of 105 programs responding to the survey, approximately 19.0% definitely planned to change first-year enrollment prior to 2012, and an additional 22.9% will probably change first-year enrollment prior to 2012^{xxix}. Based on subsequent questions referring to program expansion, it is assumed that the change in enrollment is in fact referring to an expansion of first-year enrollment. Factors cited by a majority of respondents for planned, probable or possible program expansion were “To accommodate our program’s large applicant pool” (56.5%), and “Projected health care provider shortage in the state/region” (55.1%)^{xxx}.

Utah is becoming increasingly reliant on out-of-state training programs to provide the number of PAs needed by the state. From 2003 through 2008, 60.2% of the PAs licensed in the state were trained in out-of-state programs. If the number of PAs needed in the state increases as expected in the high-growth projection, the state will become even more reliant

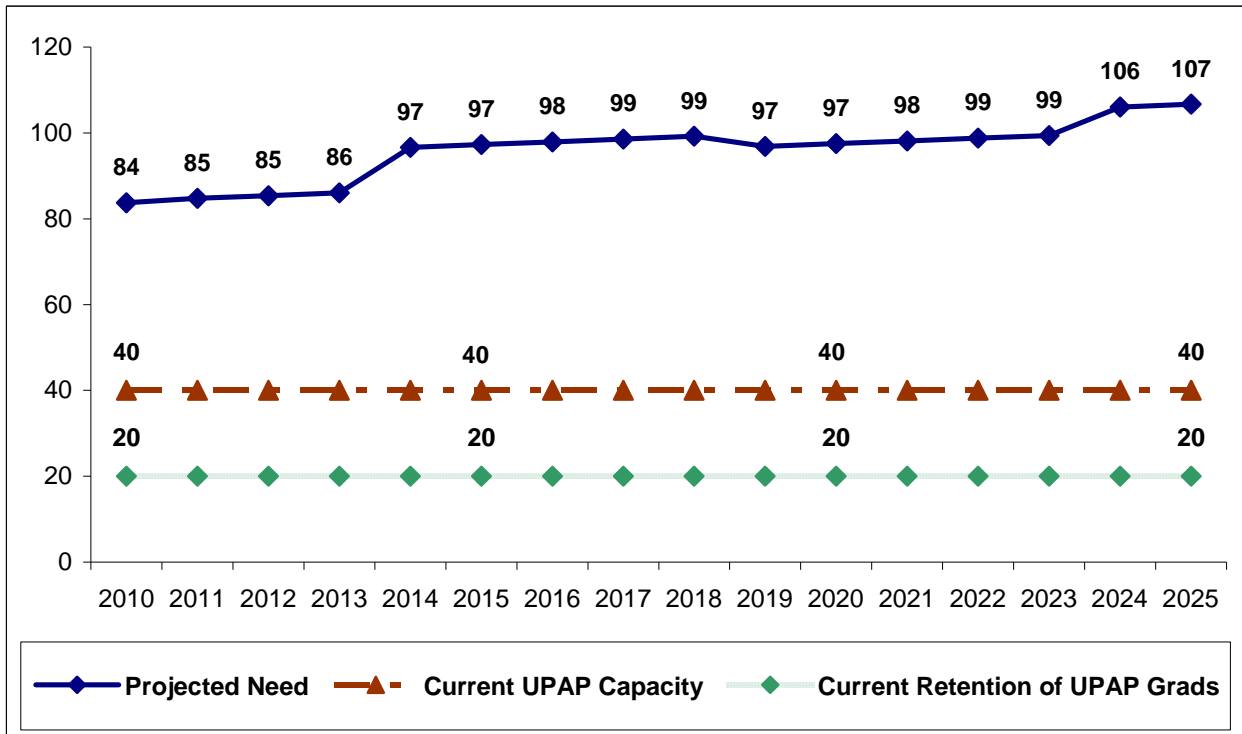
on out-of-state programs to train its PA workforce.

In 2003, the PA program at the University of Utah (UPAP) had a capacity of 36 graduates per year. Based on the 2003 PA study, the UMEC recommended the program expand to a capacity of 50 graduates per year by 2012^{xxxi}. As of 2009, the program has expanded to 40 graduates per year. At that capacity, and assuming full retention of program graduates, UPAP would contribute from 47.6% in 2010 to 37.4% in 2025 of Utah’s PA workforce. This is less than half of the projected need under the high growth model, which is considered the most likely scenario.

From 2003 through 2008, the average retention of UPAP graduates was approximately 50.0%, 20 per year.* If this continues, Utah’s training program will only contribute between 18.7% and 23.8% of the projected annual number of PAs needed in the state.

* These results were cross-checked against the alumni database at UPAP.

Figure 10: Projected Need vs. Current UPAP Capacity and Retention



Utah’s PA Training Environment

Utah has a top-ranking PA training program (ranked 4th in 2007 by U.S. News and World Report).^{xxxii} This prestige attracts high numbers of applicants from Utah and all over the country. On average, UPAP receives about 485 applications per year from across the nation (average based on data from 2002 to 2009). From 2002 to

2009, the average number of Utah residents using the Central Application Service for PAs (CASPA) to apply to PA programs nationally was 185 per year. Of these, about 145 (mean) apply to UPAP each year, and an average of 23 Utah residents get accepted. These applicants constitute 15.9% of the Utah applicants to UPAP and 57.5% of currently available training capacity at the program (40 graduates per year).

Figure 11: University of Utah Total Applicant Pool: Trends

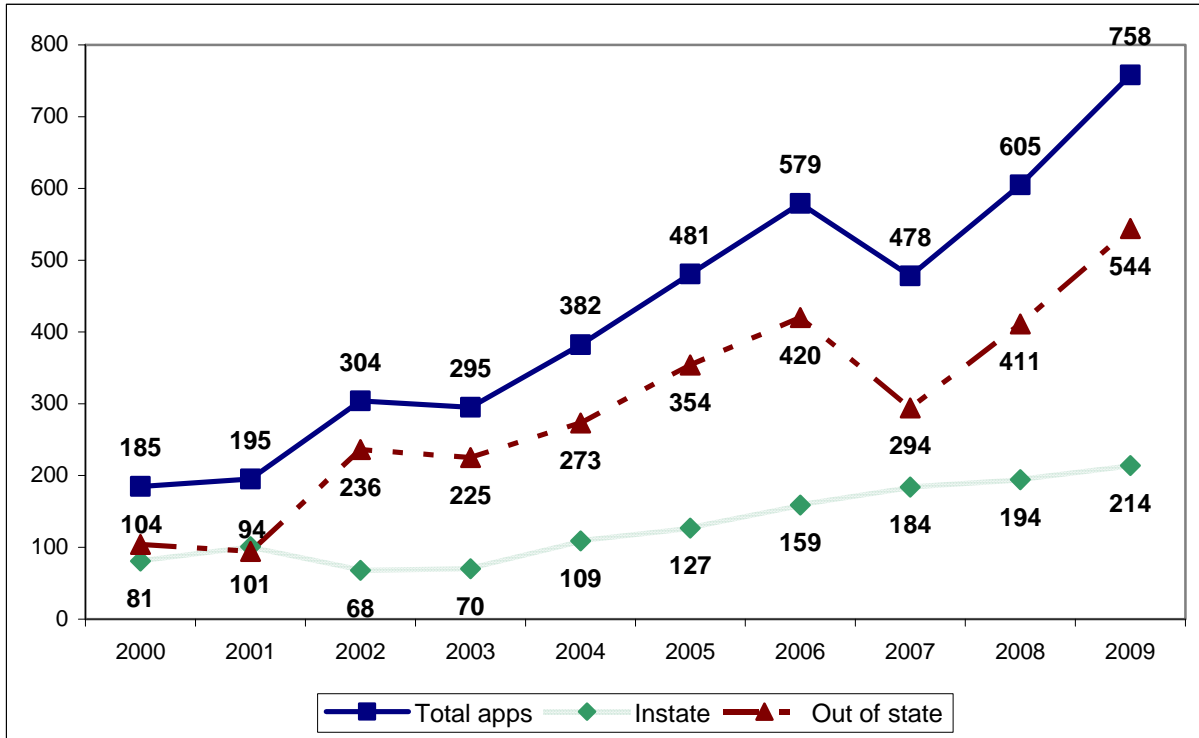
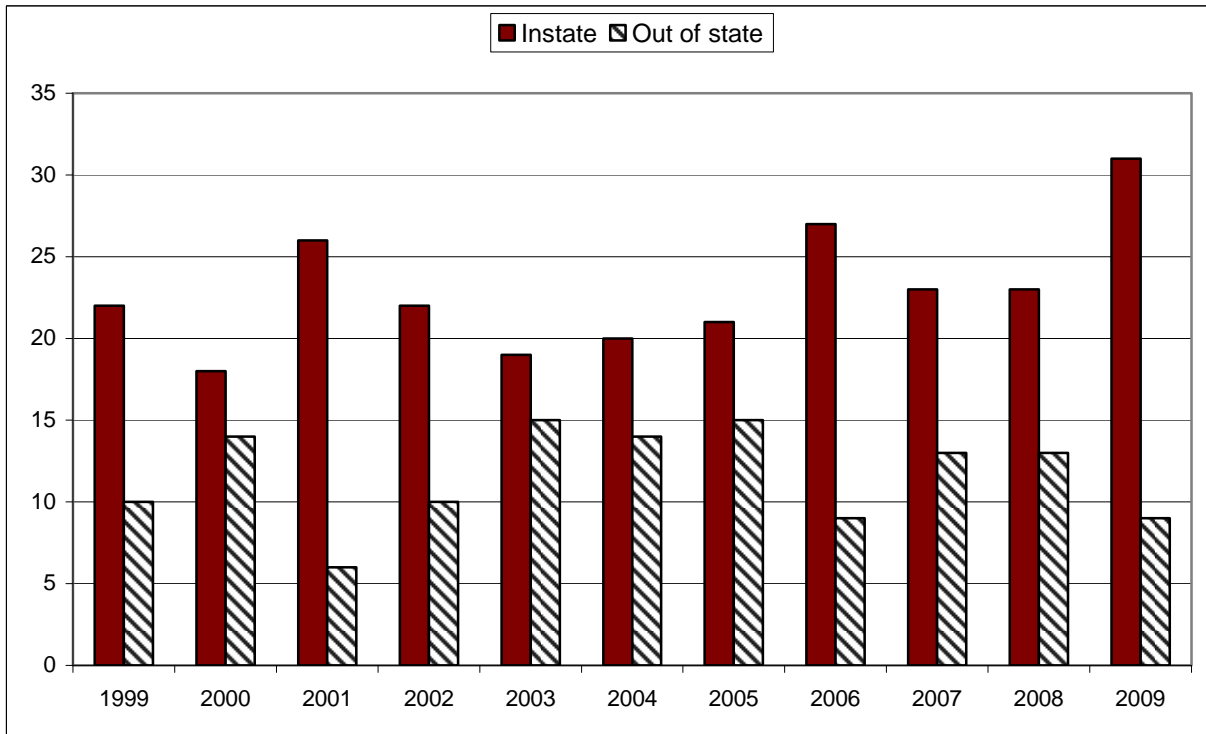


Figure 12: In State vs. Out of State Matriculates



From 1999 through 2009, an average of 66.3% (23) of UPAP students came from Utah and 33.7% (12) came from out of state.

Physician Assistant students at the UPAP are required to complete 2,250 hours of clinical training or rotations in their second year. These rotations are all done under direct supervision of a proctoring physician and consist of 22 weeks in Primary Care, 4 weeks in Women’s Health, 4 weeks in Pediatrics, 4 weeks in Emergency Medicine, 4 weeks in General Surgery and 7 weeks of Electives.

According to the most recent data from the 2005 UMEC Physician Survey, Utah physicians work an average of 53 hours per week, or 2,756 hours per year. The supervising physician will need to spend about 81.6% of his or her time towards proctoring a PA student during clinical rotations for a full year. Typically, physicians accept PAs in training because PAs tend to act as their extenders after a certain level of training.

Out of UPAP’s three most recent graduating classes (classes 36, 37, and 38), there was an average of 35 students. An average of 362 (270 in state and 92 out of state) clinical rotations were done by these students, with an average of 10.3 clinical rotations per student. Of these rotations, averages of 7.7 rotations per student were done in state and 2.6 out of state. On average 12.4% (4) of students per year did all their rotations outside Utah. The largest number of out-of-state clinical rotations were done in Colorado (20.3%, 18). The following table shows

the top five outside states where UPAP students went for clinical rotations.

Table 35: Top Five Outside States for UPAP Student Clinical Rotations

State	Average # of Rotations	% of Total Average Number of Yearly Rotations (362)
CO	18.7	5.2%
WA	14.0	3.9%
ID	12.3	3.4%
AK	7.3	2.0%
OK	6.0	1.7%

UPAP students rotated in 34 different clinical categories. The majority of rotations occurred in the five required categories listed above. The following table shows the top five most common elective rotation categories along with their percentage of the total average annual number of clinical rotations and the average annual number of rotations in each category.

Table 36: Top Five Elective Rotation Categories for UPAP Student Clinical Rotations

Rotation	Average # of Rotations	% of Total Average Number of Yearly Rotations (362)
Cardiology	23.7	6.5%
Internal Medicine	21.3	5.9%
Dermatology	18.3	5.1%
Orthopedics	18.3	5.1%
Geriatrics	13.0	3.6%

The category with the largest number of rotations done out of state was Emergency Medicine with 40.5% (15). With the exception of Orthopedics, the top five out-of-state clinical rotation categories are also the categories that the program requires each student to rotate in (Pediatrics and Cardiology tied for sixth place). The following table shows the number and percentage of

rotations within each of the top five categories where UPAP students did out-of-state rotations.

Table 37: Top Five Out of State Rotation Categories for UPAP Student Clinical Rotations

Rotation	Average # of Rotations	% of Average Number of Yearly Rotations in Category
Emergency Medicine	15.0	40.5%
Family Medicine	13.7	30.8%
General Surgery	7.7	20.5%
OB/GYN	7.0	22.1%
Orthopedics	6.3	34.5%

PA Training Laws

The vast majority of states with laws that specifically mention the topic of PA student training, including Utah, exempt PA students from licensing requirements when performing activities as part of a supervised course of study. Maine and Montana specifically allow PA students to be taught by PAs in the clinical setting. California, New Hampshire, Oklahoma, and Texas specifically describe physician supervision of PA students. California is in the process of naming PAs as acceptable preceptors of PA students.

Based on the data generated by the UMEC PA workforce survey and recommendations made by the advisory committee, legislation that increases the proportional representation of PAs on the state’s Physician Assistant Licensing Board from one PA to three PAs, and allows PAs to train PA students when the supervising physician delegates the same on a temporary basis was pursued and passed during Utah’s 2010 legislative session. This legislation also paves the way for regulation changes

that will address the number of PAs a physician may supervise. The Utah Academy of Physician Assistants (UAPA) is the key player in getting this legislation passed.

Considering the large amount of time it takes to proctor a PA student, in conjunction with the general shortage of physicians and the increasing number of PAs, the options offered under the change to this legislation should not only allow physicians more flexibility in how they practice, but also expand the available capacity of physicians. In addition, it is hopeful that it will allow the possibility of increasing the number of in-state training sites for PA students and, in turn, attract more PAs to the state.

Key Findings

- PA training capacity nationwide has increased since 2003. The University of Utah’s PA program increased by 11.0% based, in part, on recommendations from the UMEC’s 2003 report.
- Utah continues to be increasingly reliant on out-of-state programs to train the number of PAs needed in the state. From 2003 through 2008, the state has retained approximately 50.0% (20 per year) of UPAP graduates.
- Based on the current program capacity, retention of UPAP graduates and the projected need for PAs in the state, UPAP would contribute approximately 37.0% to 48.0% of the states projected need from 2010 to 2025.

- If current retention trends continue, UPAP would contribute approximately 19.0% to 24.0% of the number of PAs the state is projected to need from 2010 to 2025.

Recommendations

- Expansion of the PA program from the current capacity of 40 students per year to 50 per year by 2012. This is a renewal of the recommendation made in the 2003 report.
- Additional expansion of the PA program from 50 students in 2012 to 60 per year by 2016.
- Review the admission process at UPAP to target students, particularly in-state students, who are likely to be retained in the Utah workforce.

- The PA program should target a minimum retention rate of 67.0%, the same percentage of students admitted to the program as in-state.

- UPAP, the Utah Academy of Physician Assistants (UAPA) and the UMEC should work together with the Utah Hospital Association (UHA), the Utah Medical Association (UMA) and Utah Medical Group Managers Association (UMGMA) to expand in-state clinical training sites for Utah PA students in conjunction with program expansion.

SECTION V: RECOMMENDATIONS

Physician Assistants are one of three pillars of the state's health care provider teams. The other two are the physician and nursing professions. Based on the current PA workforce study, the UMEC believes that the following three-pronged approach must be taken to provide an adequate PA workforce in the state:

- **Expand**

- Expand Utah's capacity to train more PAs – lack of physical space in the existing training program facilities is a barrier to this growth.
- Modify PA practice Act to optimize PA training, with an appropriate Physician-PA mix onsite.

- **Recruit and Retain**

- Recruit more Utah residents into the Utah PA training program.

- Seek funding for loan repayment programs and scholarships to recruit and retain PA students in the state.
- Develop and maintain a database of Utah residents who matriculated from out-of-state PA training programs to recruit into Utah's workforce.
- Maintain an exit survey database on why PAs choose to stay/leave Utah.

- **Balance**

- Ensure appropriate levels of Physician-PA ratios while optimizing training opportunities.
- Study the impact of Utah's physician shortage on the PA workforce projections.
- Study the impact of Utah's physician shortage, and growth in the PA workforce on Utah's nursing workforce.

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Appendix A: Survey Instrument

The survey instrument used to collect the 2010 Utah PA Workforce data, along with the cover letter that accompanied the survey instrument, is included in this appendix.



Dear Physician Assistant,

The following survey is being administered by the Utah Medical Education Council (UMEC) under authority of Utah Code 63C-8-105 and in cooperation with: The Utah Academy of Physician Assistants (UAPA), The Division of Occupational and Professional Licensing (DOPL), and The Bureau of Primary Care and Rural Health Systems. We request your participation in completing this survey.

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Members
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Aileen Clyde

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Physician
Chair: Grant Cannon

Physician Assistant
Chair: Bob Bunnell

Podiatrist
Chair: Gregg Young

Rural
Chair: Brent Jackson

Staff

Executive Director
David Squire

The data collected through this survey will be used to measure the adequacy of Utah's physician assistant (PA) workforce, and to make projections for the next twenty years. Although some of the information requested is private or proprietary in nature, it will remain **strictly confidential**. Only aggregate data will be reported in the resulting study. The survey is designed to collect as much data as possible while requiring as little time to complete as possible. The survey should take approximately 10-15 minutes to complete. **Please return the completed survey to the UMEC within 30 days in the enclosed, postage-paid envelope.** Surveys will also be conducted of physicians and advanced practice registered nurses (APRN), to evaluate the mix of health care professionals in the state and to make sure the state has an adequate health care workforce to meet both the primary and specialty care needs of a growing population.

At 75%, the response rate to the survey conducted by the UMEC in 2003 was exceptional among Utah PAs; higher than the other professions surveyed by the UMEC that year. This resulted in the collection and publication of important workforce research regarding the PA profession in Utah, and had a direct impact on workforce policy in the state. If you have questions regarding the survey or the UMEC, or to request a complementary copy of the report, please contact the Utah Medical Education Council at (801) 526-4550 or bchappell@utah.gov. Previous workforce reports for PAs and other professions can be found at www.utahmec.org/utah_PAs.php
Thank you for your valuable time and participation.

David Squire MPA
Executive Director
Utah Medical Education
Council

Bob Bunnell PA-C
Executive Director
Utah Academy of Physician Assistants



**UTAH MEDICAL EDUCATION COUNCIL
UTAH PHYSICIAN ASSISTANT SURVEY 2008**

1. Do you provide any health care services in Utah? YES NO
 1-a. If **NO**, please indicate the reason you maintain a Utah license: _____
 1-b. If **NO**, please indicate the one main reason why you no longer practice in Utah (please select only one):
 Retired Practice environment Lower pay-scale Climate Military assignment Lifestyle
 Other (specify) _____
2. Do you provide any health care services outside Utah? YES NO
 2-a. If **YES**, please indicate the average number of hours per week worked outside Utah _____
 2-b. If **YES**, please list the state(s) in which you regularly provide services. _____
3. Please indicate your year of birth and gender: Year: _____ Gender: Female Male

IF YOU DO NOT PROVIDE SERVICES IN UTAH, PLEASE STOP HERE AND RETURN THE SURVEY. THANK YOU

4. Of the following reasons for choosing to practice in Utah, please rank the **3** most influential in order of influence (**1 being the most** influential to **3 being the least** influential) on your decision to practice in Utah (*Please select only 3*):
 Family in Utah _____ Practice environment _____ Lifestyle _____ Recreational opportunities _____
 Military assignment _____ Utah college/university grad _____ Raised in Utah _____ Practice opportunities _____
 Received PA training in Utah _____ Other (please specify & rank) _____
5. Which of the following best describes your race/ethnicity? (*please choose only one*)
 African American/Black American Indian/Alaskan Native Asian Hispanic/Latino
 Native Hawaiian /Pacific Islander White/Caucasian Other
6. What is the estimated population of the city/town where you spent the majority of your upbringing?
 Less than 2,500 2,500-9,999 10,000-49,999 50,000-149,999 150,000-249,999 250,000+
7. Please describe the city/town where you spent the majority of your upbringing:
 Rural Suburban (connected to metropolitan area) Urban/Major metropolitan area
8. Please indicate the state (and county) or country (if outside the U.S.) where you graduated from high school:
 State _____ County _____ Country _____
9. Please indicate the highest academic degree you have earned:
 Associate Bachelor's Master's Doctorate Other (specify) _____
10. Please provide the following information about the program from which you received your PA Certificate/Degree:
 PA program: _____ Degree earned from program (Certificate, Master's etc.): _____
 State: _____ Year graduated: _____
11. Please indicate the **zip code** of your primary practice location as well as that of any secondary practice location(s) (*if applicable*). Also, please estimate the **total hours worked per week** as well as the number of hours spent per week providing **patient care** at each practice location.
 Primary Practice **Zip Code**: _____ **Total hrs worked/wk**: _____ **Patient care hrs/wk**: _____
 Secondary Practice **Zip Code**: _____ **Total hrs worked/wk**: _____ **Patient care hrs/wk**: _____
 Other Practice(s) **Zip Code(s)**: _____ **Total hrs worked/wk**: _____ **Patient care hrs/wk**: _____
12. How many hours per week are considered **full-time** at your primary practice location?
 26-30 31-35 36-40 41-45 46-50 51+
13. Do you **currently** have hospital privileges? YES NO
 13-a If **YES**, please indicate which privileges you hold (please mark all that apply):
 Inpatient care of adults Inpatient care of children (non-newborns) Care of newborns
 Labor and delivery Intensive/coronary care First assist for major surgery/c-sections
 First surgeon for other major surgical procedures Other (please specify) _____

14. In which specialty(s) or sub-specialty(s) do you **CURRENTLY PRACTICE**? (Please mark your primary practice specialty in primary, and if applicable, your secondary practice specialty in secondary)

<u>Primary</u>	<u>Secondary</u>		<u>Primary</u>	<u>Secondary</u>	
<input type="checkbox"/>	<input type="checkbox"/>	Allergy and Immunology	<input type="checkbox"/>	<input type="checkbox"/>	Ophthalmology
<input type="checkbox"/>	<input type="checkbox"/>	Anesthesiology/General	<input type="checkbox"/>	<input type="checkbox"/>	Pathology/General
<input type="checkbox"/>	<input type="checkbox"/>	Anesthesiology –Pain Mgt	<input type="checkbox"/>	<input type="checkbox"/>	Pathology Subspecialty
<input type="checkbox"/>	<input type="checkbox"/>	Other Anesthesiology –Subspecialty			Specify_____
		Specify_____	<input type="checkbox"/>	<input type="checkbox"/>	Pediatrics/General
<input type="checkbox"/>	<input type="checkbox"/>	Dermatology	<input type="checkbox"/>	<input type="checkbox"/>	Pediatrics Subspecialty
<input type="checkbox"/>	<input type="checkbox"/>	Emergency Medicine			Specify_____
<input type="checkbox"/>	<input type="checkbox"/>	Family Medicine	<input type="checkbox"/>	<input type="checkbox"/>	Physical Medicine & Rehab
<input type="checkbox"/>	<input type="checkbox"/>	Internal Medicine/General	<input type="checkbox"/>	<input type="checkbox"/>	Preventive Med/Public Health/Occupational Med
<input type="checkbox"/>	<input type="checkbox"/>	Cardiology	<input type="checkbox"/>	<input type="checkbox"/>	Psychiatry
<input type="checkbox"/>	<input type="checkbox"/>	Critical Care Medicine	<input type="checkbox"/>	<input type="checkbox"/>	Child & Adolescent Psychiatry
<input type="checkbox"/>	<input type="checkbox"/>	Endocrinology & Metabolism	<input type="checkbox"/>	<input type="checkbox"/>	Other Psychiatry Subspecialty
<input type="checkbox"/>	<input type="checkbox"/>	Gastroenterology			Specify_____
<input type="checkbox"/>	<input type="checkbox"/>	Geriatrics	<input type="checkbox"/>	<input type="checkbox"/>	Radiology (Diagnostic)
<input type="checkbox"/>	<input type="checkbox"/>	Hematology/Oncology	<input type="checkbox"/>	<input type="checkbox"/>	Radiology (Therapeutic)
<input type="checkbox"/>	<input type="checkbox"/>	Infectious Diseases	<input type="checkbox"/>	<input type="checkbox"/>	Surgery/General
<input type="checkbox"/>	<input type="checkbox"/>	Nephrology	<input type="checkbox"/>	<input type="checkbox"/>	Cardio-Thoracic Surgery
<input type="checkbox"/>	<input type="checkbox"/>	Pulmonary Disease/CCM	<input type="checkbox"/>	<input type="checkbox"/>	Neurological Surgery
<input type="checkbox"/>	<input type="checkbox"/>	Rheumatology	<input type="checkbox"/>	<input type="checkbox"/>	Orthopedic Surgery
<input type="checkbox"/>	<input type="checkbox"/>	Other Internal Medicine sub-specialty	<input type="checkbox"/>	<input type="checkbox"/>	Otolaryngology
		(Please specify)_____	<input type="checkbox"/>	<input type="checkbox"/>	Plastic Surgery
<input type="checkbox"/>	<input type="checkbox"/>	Internal Medicine & Pediatrics	<input type="checkbox"/>	<input type="checkbox"/>	Other Surgical Subspecialty:
<input type="checkbox"/>	<input type="checkbox"/>	Neurology			Specify_____
<input type="checkbox"/>	<input type="checkbox"/>	Nuclear Medicine	<input type="checkbox"/>	<input type="checkbox"/>	Urology
<input type="checkbox"/>	<input type="checkbox"/>	Obstetrics & Gynecology/General	<input type="checkbox"/>	<input type="checkbox"/>	Other Specialty
<input type="checkbox"/>	<input type="checkbox"/>	Obstetrics & Gynecology Subspecialty			Specify_____
		Specify_____			

14-a. In an average week, how many hours do you spend providing patient care in your primary specialty? _____

14-b. In an average week, how many hours do you spend providing patient care in your secondary specialty(s)? _____

15. Please allocate the average hours per **MONTH** you spend in the following **non-patient care** activities:

	<u>Hrs/Month</u>
A. Teaching or training of PAs or other professionals (Clinical and/or classroom teaching of students <i>without</i> patient care)	_____
B. Combined patient care with teaching or training of other PAs (Supervising or training of residents/students while delivering patient care)	_____
C. Research (Reports, applications, surveys, etc.)	_____
D. Administration/Management (Planning, budgeting, personnel management, <i>not</i> in support of patient care)	_____
E. Consulting (<i>Not</i> in support of patient care)	_____
F. Other, (please specify): _____	_____

16. In a typical **week**, how many patients do you see (total of all practice locations)? **Outpatients** _____ **Inpatients** _____

17. Please estimate the **percentage (%)** of patients you see from each of the following age groups (total of all practice locations – sum for each patient category should equal 100%)

Outpatients	0-19 _____	20-64 _____	65-84 _____	85+ _____	(100%)
Inpatients	0-19 _____	20-64 _____	65-84 _____	85+ _____	(100%)

18. Please describe your Primary and Secondary Practice(s) (if applicable):

- | Primary | Secondary | Primary | Secondary |
|---|---|---|---|
| <input type="checkbox"/> Self-Employed | <input type="checkbox"/> Self-Employed | <input type="checkbox"/> Urgent care clinic | <input type="checkbox"/> Urgent care clinic |
| <input type="checkbox"/> Solo physician practice | <input type="checkbox"/> Solo physician practice | <input type="checkbox"/> Non-hospital based clinic-University | <input type="checkbox"/> Non-hospital based clinic-University |
| <input type="checkbox"/> Group physician practice | <input type="checkbox"/> Group physician practice | <input type="checkbox"/> Non-hospital based clinic-IHC | <input type="checkbox"/> Non-hospital based clinic-IHC |
| <input type="checkbox"/> Hospital-University | <input type="checkbox"/> Hospital-University | <input type="checkbox"/> Non-hospital based clinic-VA | <input type="checkbox"/> Non-hospital based clinic-VA |
| <input type="checkbox"/> Hospital-IHC | <input type="checkbox"/> Hospital-IHC | <input type="checkbox"/> Non-hospital based clinic-Other | <input type="checkbox"/> Non-hospital based clinic-Other |
| <input type="checkbox"/> Hospital-VA | <input type="checkbox"/> Hospital-VA | <input type="checkbox"/> Community Health Center | <input type="checkbox"/> Community Health Center |
| <input type="checkbox"/> Hospital-Other | <input type="checkbox"/> Hospital-Other | <input type="checkbox"/> Rural Health Center | <input type="checkbox"/> Rural Health Center |
| <input type="checkbox"/> College/University Faculty | <input type="checkbox"/> College/University Faculty | <input type="checkbox"/> Military | <input type="checkbox"/> Military |
| <input type="checkbox"/> Nursing home or LTC facility | <input type="checkbox"/> Nursing home or LTC facility | <input type="checkbox"/> Corrections facility | <input type="checkbox"/> Corrections facility |
| | | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |

19. Please indicate the number of years you plan to continue working at your primary and secondary (if applicable) practice location(s):

- | | | | | |
|--------------------|-----------------------------|------------------------------|-------------------------------|------------------------------|
| Primary Practice | <input type="checkbox"/> <1 | <input type="checkbox"/> 1-5 | <input type="checkbox"/> 6-10 | <input type="checkbox"/> 11+ |
| Secondary Practice | <input type="checkbox"/> <1 | <input type="checkbox"/> 1-5 | <input type="checkbox"/> 6-10 | <input type="checkbox"/> 11+ |

20. In how many years do you plan to retire?

- <1 1-5 6-10 11-15 16-20 21+

21. Prior to retirement, do you plan to reduce the number of hours per week you practice? Yes No

21-a If Yes, please indicate how many years from now you plan to reduce your hours: _____

21-b If Yes, please indicate how many hours/week you plan to work after the reduction: _____

21-c If Yes, please indicate **the one main** reason for the planned reduction: _____

22. Please indicate the **percentage (%)** of time you use either telecommunication or on-site communication to communicate with your supervising physician(s) in your primary and secondary (if applicable) practice location(s). (should total 100% for each site).

- | | | |
|--------------------|--------------------------|-----------------------|
| Primary Practice | Telecommunication _____% | On-Site _____% (100%) |
| Secondary Practice | Telecommunication _____% | On-Site _____% (100%) |

23. On average, how many hours PER WEEK do you provide patient care services when a physician **IS NOT** on-site?

- 0-9hr/wk 10-19hrs/wk 20-29 hrs/wk 30-39hr/wk 40 + hrs/wk

24. On average, how many patients do you see **PER WEEK** when a physician **IS NOT** on-site? _____

25. What is your average **yearly gross** (before tax) **compensation** as a PA, *excluding benefits*?

- | | | | |
|--|--|--|--|
| <input type="checkbox"/> <\$39,999 | <input type="checkbox"/> \$70,000-\$79,999 | <input type="checkbox"/> \$110,000-\$119,999 | <input type="checkbox"/> \$150,000-\$159,999 |
| <input type="checkbox"/> \$40,000-\$49,999 | <input type="checkbox"/> \$80,000-\$89,999 | <input type="checkbox"/> \$120,000-\$129,999 | <input type="checkbox"/> \$160,000+ |
| <input type="checkbox"/> \$50,000-\$59,999 | <input type="checkbox"/> \$90,000-\$99,999 | <input type="checkbox"/> \$130,000-\$139,999 | |
| <input type="checkbox"/> \$60,000-\$69,999 | <input type="checkbox"/> \$100,000-\$109,999 | <input type="checkbox"/> \$140,000-\$149,999 | |

26. Please estimate the **percentage (%) of NON-ENGLISH SPEAKING patients** you see at your primary and secondary (if applicable) practice location(s).

- Primary Practice: _____ (%) Secondary Practice: _____ (%)

27. Please **rank** how often you use each of the following methods to communicate with **NON-ENGLISH SPEAKING** patients based on the following scale of 1-4 (**1 = all or nearly all patient encounters, 2 = most patient encounters, 3 = some patient encounters, 4 = no patient encounters**): **Patient encounters** refers only to non-English speaking patients. **You may use each ranking more than once.**

- | | | | | |
|---------------------|--------------------------------|-----------------------|---------------------|-------------|
| Primary Practice: | Professional interpreter _____ | Provider fluent _____ | Family member _____ | Other _____ |
| Secondary Practice: | Professional interpreter _____ | Provider fluent _____ | Family member _____ | Other _____ |

The following questions refer to patient demographics and may best be answered with assistance from office/clinic staff or the office/clinic manager :

28. What percentage (%) of patients at your primary and secondary (if applicable) practice location(s) are? (Estimates of all payers should total 100% for primary and secondary practice sites)

	<u>Primary Practice</u>	<u>Secondary Practice</u>		<u>Primary Practice</u>	<u>Secondary Practice</u>
Medicaid	_____ %	_____ %	VA	_____ %	_____ %
Medicare	_____ %	_____ %	TriCare (Champus)	_____ %	_____ %
Managed Care	_____ %	_____ %	Workers Comp	_____ %	_____ %
Private Ins.	_____ %	_____ %	Charity	_____ %	_____ %
Self Pay/Uninsured	_____ %	_____ %	Other	_____ %	_____ %
			Total (all categories)	(100%)	(100%)

29. Please indicate the number of **DAYS** a patient must wait for an appointment at your primary and secondary (if applicable) practice location(s). If your primary and/or secondary practice location is a VA, military, or corrections facility, please select N/A for each applicable practice site:

	<u>Primary Practice</u>	<u>Secondary Practice</u>
New patient:	_____	_____
Established patient:	_____	_____
N/A (Practice site is VA, military, or corrections)	<input type="checkbox"/>	<input type="checkbox"/>

30. Mark the response that best describes the status of your primary and secondary (if applicable) practice location(s). (Please mark only one choice for each practice location). If your primary and/or secondary practice location is a VA, military, or corrections facility, please select N/A for each applicable practice site:

	<u>Primary Practice</u>	<u>Secondary Practice</u>
Full (cannot accept any new/additional patients)	<input type="checkbox"/>	<input type="checkbox"/>
Nearly full (can accept a limited number of new patients)	<input type="checkbox"/>	<input type="checkbox"/>
Far from full (can accept many new/additional patients)	<input type="checkbox"/>	<input type="checkbox"/>
N/A (Practice site is VA, military, or corrections)	<input type="checkbox"/>	<input type="checkbox"/>

31. Please indicate if your primary and secondary (if applicable) practice location(s) currently **ACCEPTS** new patients from the following payer types. If your primary and/or secondary practice location is a VA, military, or corrections facility, please indicate N/A for each applicable practice site:

	<u>Primary Practice</u>		<u>Secondary Practice</u>	
	<u>YES</u>	<u>NO</u>	<u>YES</u>	<u>NO</u>
Medicaid Patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medicare Patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self Pay/Uninsured Patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other <u>Insured</u> Patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N/A (Practice site is VA, military, or corrections)	<input type="checkbox"/>		<input type="checkbox"/>	

32. Does your primary and/or secondary (if applicable) practice location(s) offer services based on a Sliding-Fee scale for uninsured patients based on income or family size? If your primary and/or secondary practice location is a VA, military, or corrections facility, please select N/A for each applicable practice site:

Primary Practice	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A (Practice site is VA, military or corrections)
Secondary Practice	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A (Practice site is VA, military or corrections)

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

Appendix B: Descriptive Data and Statistics

The data contained in this appendix represents additional information collected through the 2008 Physician Assistant Workforce Survey not included in the narrative. Data in this section are organized in the order of the survey questions.

Q2. Utah licensed PAs who provide health care services outside Utah:

Provide Services Outside Utah	Frequency	Percent
Yes	71	10.1%
No	609	87.0%
Item Non-Respondents	21	2.9%
Total	700	100.0%

Q2-a. Average number of hours per week worked outside Utah by Utah Licensed PAs:

Number of Hours Per Week Outside Utah	Frequency	Percent
01- 20 hours	10	1.5%
21-40 hours	26	3.8%
41+ hours	19	2.7%
Item Non-Respondents	644	91.8%
Total	700	100.0%

Q2-b. States where Utah licensed PAs regularly provide services:

Other states worked	Frequency	Percent
Alaska	6	0.8%
Arizona	12	1.7%
Arkansas	NR	NR
Colorado	NR	NR
District of Columbia	NR	NR
Florida	NR	NR
Idaho	NR	NR
Louisiana	NR	NR
Minnesota	NR	NR
Nevada	6	0.2%
New York	NR	NR
Texas	NR	NR
Virginia	NR	NR
Washington	NR	NR
Wisconsin	NR	NR
Wyoming	NR	NR
Foreign Country	NR	NR
Item Non-Respondents	643	0.2%
Total	700	0.2%

Q8. States where Utah practicing PAs graduated from high school:

State of High School Graduation	Frequency	Percent
Alabama	NR	NR
Alaska	NR	NR
Arizona	18	2.8%
California	69	10.9%
Colorado	18	2.8%
Florida	7	1.2%
Georgia	NR	NR
Hawaii	3	0.5%
Idaho	26	4.2%
Illinois	7	1.2%
Indiana	NR	NR
Iowa	NR	NR
Kansas	NR	NR
Louisiana	NR	NR
Maine	NR	NR
Maryland	NR	NR
Massachusetts	NR	NR
Michigan	NR	NR
Minnesota	NR	NR
Missouri	NR	NR
Montana	NR	NR
Nebraska	NR	NR
Nevada	7	1.2%
New Jersey	7	1.2%
New Mexico	NR	NR
New York	12	1.9%
North Dakota	NR	NR
Ohio	7	1.2%
Oklahoma	NR	NR
Oregon	NR	NR
Pennsylvania	7	1.2%
South Carolina	NR	NR
South Dakota	NR	NR
Texas	7	1.2%
Utah	325	51.2%
Virginia	NR	NR
Washington	9	1.4%
Wisconsin	7	1.2%
Wyoming	12	1.9%
Foreign Country	NR	NR
Item Non-Respondents	19	3.0%
Total	635	100.0%

County of High School Graduation	Frequency	Percent
Beaver	NR	NR
Box Elder	6	0.90%
Cache	6	0.90%
Carbon	7	1.20%
Davis	41	6.50%
Emery	6	0.90%
Iron	NR	NR
Piute	NR	NR
Salt Lake	112	17.60%
Samoa	NR	NR
San Juan	NR	NR
Sanpete	NR	NR
Sevier	NR	NR
Summit	7	1.20%
Tooele	NR	NR
Uinta	NR	NR
Utah	51	8.10%
Wasatch	NR	NR
Washington	10	1.60%
Wayne	NR	NR
Weber	41	6.50%
Other State	260	40.90%
Other Country	13	2.00%
Item Non-Response	43	6.80%
Total	635	100.00%

Q9. The highest academic degrees earned by Utah practicing PAs:

Highest Degree Earned	Frequency	Percent
Associate's	34	5.3%
Bachelor's	179	28.2%
Master's	390	61.3%
Doctorate	NR	NR
Other	19	3.0%
Item Non-Respondents	9	1.4%
Total	635	100.0%

Q10. Institutions from which Utah practicing PAs received their PA Certificate/Degree:

Program	Frequency	Percent
University of Utah	297	46.8%
Midwestern University - Arizona	24	3.7%
Uniformed Services – Inter-service PA Program	18	2.8%
Arizona School of Health Sciences at Sill University	16	2.5%
Idaho State University	15	2.3%
Midwestern University - Illinois	10	1.6%
Rocky Mountain College	10	1.6%
St. Francis University - Pennsylvania	10	1.6%
University of Washington	10	1.6%
George Washington University	9	1.4%
Emory University School of Medicine	9	1.4%
University of California Davis	7	1.2%
Des Moines University	7	1.2%
University of Oklahoma	7	1.2%
Pacific University	7	1.2%
University of Colorado Denver	6	0.9%
Quinnipiac University	6	0.9%
University of Nebraska	6	0.9%
Touro College - New York	6	0.9%
Oregon Health Sciences	6	0.9%
University of Southern California Keck School of Medicine	NR	NR
Stanford University School of Medicine	NR	NR
Northeastern University	NR	NR
Duke University	NR	NR
Drexel University	NR	NR
Philadelphia College of Osteopathic Medicine	NR	NR
Baylor College of Medicine	NR	NR
University of Texas Medical Branch	NR	NR

Program	Frequency	Percent
Jefferson College	NR	NR
University of Wisconsin - Madison	NR	NR
University of Alabama - Birmingham	NR	NR
University of South Alabama	NR	NR
Loma Linda University	NR	NR
Western University of Health Sciences	NR	NR
Wichita State University	NR	NR
Towson University	NR	NR
Missouri State University	NR	NR
University of Medicine & Dentistry of New Jersey	NR	NR
Brooklyn Hospital Center/Long Island University	NR	NR
LeMoyne College	NR	NR
Kettering College	NR	NR
Arcadia University	NR	NR
Gannon University	NR	NR
Kings College	NR	NR
Lock Haven University of Pennsylvania	NR	NR
Alderson Broaddus College	NR	NR
Charles Drew University	NR	NR
Samuel Merritt College	NR	NR
San Joaquin Valley College	NR	NR
Yale University	NR	NR
University of Florida	NR	NR
Medical College of Georgia	NR	NR
Rosalind Franklin University	NR	NR
University of Iowa	NR	NR
Anne Arundel Community College	NR	NR
University of Maryland	NR	NR
Massachusetts College	NR	NR
Springfield College/Baystate Health	NR	NR
Western Michigan	NR	NR
St. Louis University	NR	NR
University of New Mexico	NR	NR
D'Youville College	NR	NR
Rochester Institute of Technology	NR	NR
Stony Brook University	NR	NR
University of North Dakota	NR	NR
Cuyahoga Community College	NR	NR
University of Findlay	NR	NR
Desales University	NR	NR
Medical University of South Carolina	NR	NR
Trevecca Nazarene University	NR	NR
Bethel College	NR	NR
Item Non-Respondents	21	3.2%
Total	635	100.0%

PA Program State	Frequency	Percent
Alabama	7	1.2%
Arizona	38	6.0%
California	28	4.4%
Colorado	6	0.9%
Connecticut	7	1.2%
District of Columbia	9	1.4%
Florida	NR	NR
Georgia	10	1.6%
Idaho	15	2.3%
Illinois	13	2.1%
Iowa	9	1.4%
Kansas	NR	NR
Maryland	6	0.9%
Massachusetts	6	0.9%
Michigan	NR	NR
Missouri	NR	NR
Montana	12	1.9%
Nebraska	7	1.2%
New Hampshire	NR	NR
New Jersey	NR	NR
New Mexico	NR	NR
New York	18	2.8%
North Carolina	NR	NR
North Dakota	NR	NR
Ohio	6	0.9%
Oklahoma	9	1.4%
Oregon	13	2.1%
Pennsylvania	35	5.6%
South Carolina	NR	NR
Tennessee	NR	NR
Texas	24	3.7%
Utah	299	47.0%
Virginia	NR	NR
Washington	10	1.6%
West Virginia	NR	NR
Wisconsin	NR	NR
Item Non-Respondents	9	1.4%
Total	635	100.0%

Years Since Graduation	Frequency	Percent
36+ years	6	0.9%
31-35 years	24	3.7%
26-30 years	43	6.7%
21-25 years	24	3.7%
16-20 years	62	9.7%
11-15 years	99	15.5%
6-10 years	160	25.2%
0-5 years	199	31.3%
Item Non-Respondents	21	3.2%
Total	635	100.0%

PA Degree	Frequency	Percent
Certificate	188	29.6%
Associate's	7	1.2%
Bachelor's	94	14.8%
Master's	315	49.5%
Item Non-Respondents	31	4.9%
Total	635	100.0%

Q14. Specialties/ sub-specialties practiced by Utah PAs:

Primary Specialty	Frequency	Percent
Allergy & Immunology	NR	NR
Anesthesiology/General	NR	NR
Other Anesthesiology Subspecialty	NR	NR
Dermatology	26	4.2%
Emergency Medicine	38	6.0%
Family Medicine	200	31.5%
Internal Medicine/General	28	4.4%
Cardiology	18	2.8%
Critical Care Medicine	NR	NR
Gastroenterology	6	0.9%
Hematology/Oncology	18	2.8%
Infectious Diseases	NR	NR
Nephrology	NR	NR
Pulmonary Disease/CCM	NR	NR
Other Internal Med sub-specialty	NR	NR
Internal Medicine & Pediatrics	NR	NR
Neurology	10	1.6%
Ob/Gyn - General	16	2.5%
Ob/Gyn - sub-specialty	NR	NR
Pediatrics – General	37	5.8%
Pediatrics - sub-specialty	7	1.2%
Physical Med & Rehab	NR	NR
Preventive Med/Public Health/Occ. Med	21	3.2%
Psychiatry	NR	NR
Radiology (Diagnostic)	6	0.9%
Surgery - General	6	0.9%
Cardio-Thoracic Surgery	12	1.9%
Neurological Surgery	NR	NR
Orthopedic Surgery	68	10.6%
Otolaryngology	12	1.9%
Plastic Surgery	NR	NR
Other Surgical sub-specialty	16	2.5%
Urology	19	3.0%
Other Specialty	21	3.2%
Item Non-Respondents	19	3.0%
Total	635	100.0%

Q15. Average hours per month spent in non-patient care activities by Utah practicing PAs:

Teaching Hours	Frequency	Percent
0-10 Hours	513	80.8%
11-20 Hours	18	2.8%
21-40 Hours	12	1.9%
41+ Hours	10	1.6%
Item Non-Respondents	82	13.0%
Total	635	100.0%

Combined Teaching and Patient Care Hours	Frequency	Percent
0-10 Hours	476	75.0%
11-20 Hours	40	6.3%
21-40 Hours	26	4.2%
41+ Hours	12	1.9%
Item Non-Respondents	81	12.7%
Total	635	100.0%

Research Hours	Frequency	Percent
0-10 Hours	535	84.3%
11+ Hours	18	2.8%
Item Non-Respondents	82	13.0%
Total	635	100.0%

Administrative/Management Hours	Frequency	Percent
0-10 Hours	518	81.5%
11-20 Hours	19	3.0%
21+ Hours	18	2.8%
Item Non-Respondents	81	12.7%
Total	635	100.0%

Consulting Hours	Frequency	Percent
0-10 Hours	544	85.6%
11+ Hours	9	1.4%
Item Non-Respondents	82	13.0%
Total	635	100.0%

Q17. Estimated % of outpatients seen by Utah practicing PAs by age group:

% Outpatients Ages 0 - 19 Years	Frequency	Percent
0%-20%	360	56.7%
21%-40%	135	21.3%
41%-60%	21	3.2%
61%-80%	9	1.4%
81%-100%	43	6.7%
Item Non-Respondents	68	10.6%
Total	635	100.0%

% Outpatients Ages 65 - 84 Years	Frequency	Percent
0%-20%	328	51.6%
21%-40%	134	21.1%
41%-60%	59	9.3%
61%-80%	26	4.2%
81%-100%	9	1.4%
Item Non-Respondents	79	12.5%
Total	635	100.0%

% Outpatients Ages 20 - 64 Years	Frequency	Percent
0%-20%	110	17.4%
21%-40%	168	26.4%
41%-60%	140	22.0%
61%-80%	94	14.8%
81%-100%	49	7.6%
Item Non-Respondents	75	11.8%
Total	635	100.0%

% Outpatients Ages 85+ Years	Frequency	Percent
0%-20%	506	79.6%
21%-50%	19	3.0%
51%-100%	19	3.0%
Item Non-Respondents	91	14.4%
Total	635	100.0%

Q17. Estimated % of inpatients seen by Utah practicing PAs by age group:

% Inpatients Ages 0 - 19 Years	Frequency	Percent
0%-40%	171	26.9%
100%	15	2.3%
Item Non-Respondents	450	70.8%
Total	635	100.0%

% Inpatients Ages 65 - 84 Years	Frequency	Percent
0%-20%	60	9.5%
21%-40%	32	5.1%
41%-60%	56	8.8%
61%-80%	28	4.4%
81%-100%	7	1.2%
Item Non-Respondents	451	71.1%
Total	635	100.0%

% Inpatients Ages 20-64 Years	Frequency	Percent
0%-20%	75	11.8%
21%-40%	51	8.1%
41%-60%	38	6.0%
61%-80%	13	2.1%
81%-100%	6	0.9%
Item Non-Respondents	451	71.1%
Total	635	100.0%

% Inpatients Ages 85+ Years	Frequency	Percent
0%-20%	168	26.4%
21%-40%	7	1.2%
41%-80%	NR	NR
91%-100%	6	0.9%
Item Non-Respondents	451	71.1%
Total	635	100.0%

Q22. Methods of correspondence used by Utah practicing PAs to communicate with supervising physicians and percent of time each method is used:

Primary Practice % Tele-communication	Frequency	Percent
0%-20%	457	72.0%
21%-40%	47	7.4%
41%-60%	28	4.4%
61%-80%	22	3.5%
81%-100%	40	6.3%
Item Non-Respondents	41	6.5%
Total	635	100.0%

Secondary Practice % Tele-communication	Frequency	Percent
0%-20%	94	14.8%
21%-40%	NR	NR
41%-60%	7	1.2%
61%-80%	NR	NR
81%-100%	43	6.7%
Item Non-Respondents	482	75.9%
Total	635	100.0%

Primary Practice % On Site	Frequency	Percent
0%-20%	71	11.1%
21%-40%	25	3.9%
41%-60%	35	5.6%
61%-80%	84	13.2%
81%-100%	390	61.3%
Item Non-Respondents	31	4.9%
Total	635	100.0%

Secondary Practice % On Site	Frequency	Percent
0%-20%	51	8.1%
21%-40%	NR	NR
41%-60%	10	1.6%
61%-80%	6	0.9%
81%-100%	82	13.0%
Item Non-Respondents	481	75.7%
Total	635	100.0%

Q24. Average number of patients seen per week by Utah practicing PAs when a physician is not on site:

Patients Seen/Week with Physician Not On Site	Frequency	Percent
0-100 Patients	571	89.8%
100-300 Patients	13	2.1%
Item Non-Respondents	51	8.1%
Total	635	100.0%

Q26. Percentage of non-English speaking patients see by Utah practicing PAs at primary and secondary practice location(s):

% Primary Non-English Speaking Patients	Frequency	Percent
0%-20%	544	85.6%
21%-40%	49	7.6%
41%-60%	13	2.1%
61%-80%	10	1.6%
81%-100%	10	1.6%
Item Non-Respondents	9	1.4%
Total	635	100.0%

% Secondary Non-English Speaking Patients	Frequency	Percent
0%-20%	140	22.0%
21%-40%	19	3.0%
41%-80%	6	0.9%
Item Non-Respondents	471	74.1%
Total	635	100.0%

Q28. Percent of patients seen by Utah practicing PAs that are Medicaid, Medicare, managed care, private ins, self-pay, VA TriCare, Workers Comp, charity, other: (The report narrative indicates average numbers. Provided here is the full breakdown.)

Primary Practice % Medicaid	Frequency	Percent
0%-20%	424	66.7%
21%-40%	66	10.4%
41%-60%	29	4.6%
61%-100%	6	0.9%
Item Non-Respondents	110	17.4%
Total	635	100.0%

Primary Practice % Self-pay/Uninsured	Frequency	Percent
0%-20%	478	75.2%
21%-40%	18	2.8%
41%-60%	13	2.1%
61%-80%	6	0.9%
81%-100%	12	1.9%
Item Non-Respondents	109	17.1%
Total	635	100.0%

Primary Practice % Medicare	Frequency	Percent
0%-20%	360	56.7%
21%-40%	93	14.6%
41%-60%	49	7.6%
61%-100%	24	3.7%
Item Non-Respondents	110	17.4%
Total	635	100.0%

Primary Practice % VA	Frequency	Percent
0%-10%	501	78.9%
20%-70%	6	0.9%
100.0%	18	2.8%
Item Non-Respondents	110	17.4%
Total	635	100.0%

Primary Practice % Managed Care	Frequency	Percent
0%-20%	413	65.0%
21%-40%	51	8.1%
41%-60%	37	5.8%
61%-85%	18	2.8%
Item Non-Respondents	116	18.3%
Total	635	100.0%

Primary Practice % Tricare	Frequency	Percent
0%-20%	516	81.3%
21%-50%	NR	NR
Item Non-Respondents	115	18.1%
Total	635	100.0%

Primary Practice % Private Insurance	Frequency	Percent
0%-20%	251	39.6%
21%-40%	132	20.8%
41%-60%	79	12.5%
61%-80%	53	8.3%
81%-100%	12	1.9%
Item Non-Respondents	107	16.9%
Total	635	100.0%

Primary Practice % Workers Comp	Frequency	Percent
0%-20%	497	78.2%
21%-30%	9	1.4%
75%-100%	15	2.3%
Item Non-Respondents	115	18.1%
Total	635	100.0%

Primary Practice % Charity	Frequency	Percent
0.0%	381	60.0%
1%-5%	94	14.8%
6%-10%	34	5.3%
11%-25%	9	1.4%
100.0%	NR	NR
Item Non-Respondents	115	18.1%
Total	635	100.0%

Q29. The number of days a patient must wait for an appointment at a Utah practicing PAs primary and secondary (if applicable) practice location(s):

Primary Practice New Patient Wait days	Frequency	Percent
0-3 days	343	53.9%
4-7 days	79	12.5%
8-14 days	57	9.0%
15-28 days	25	3.9%
29+ days	41	6.5%
Item Non-Respondents	90	14.1%
Total	635	100.0%

Secondary Practice New Patient Wait days	Frequency	Percent
0-3 days	88	13.9%
4-7 days	10	1.6%
10+ days	16	2.5%
Item Non-Respondents	521	81.9%
Total	635	100.0%

Primary Practice Est. Patient Wait days	Frequency	Percent
0-3 days	410	64.6%
4-7 days	51	8.1%
8-14 days	47	7.4%
15-25 days	13	2.1%
30+ Days	18	2.8%
Item Non-Respondents	96	15.0%
Total	635	100.0%

Secondary Practice Est. Patient Wait days	Frequency	Percent
0-3 days	97	15.3%
4-7 days	7	1.2%
8+ days	10	1.6%
Item Non-Respondents	521	81.9%
Total	635	100.0%

32. Do Utah PA practice location(s) offer services based on a sliding-fee scale for uninsured patients based on income or family size?

Primary Practice Offer Sliding Fee	Frequency	Percent
No	318	50.0%
Yes	221	34.7%
N/A	57	9.0%
Item Non-Respondents	40	6.3%
Total	635	100.0%

Secondary Practice Offer Sliding Fee	Frequency	Percent
No	96	15.0%
Yes	54	8.6%
N/A	27	4.3%
Item Non-Respondents	457	72.0%
Total	635	100.0%

Appendix C: Council and Committee Members

This appendix includes Utah Medical Education Council Members, Physician Assistant Workforce Committee Members and UMEC Staff Members.

Utah Medical Education Council Members

Chair

David Bjorkman, M.D.

Dean

University of Utah School of Medicine

Vice Chair

Michael Stapley

President & Chief Executive Officer

Deseret Mutual Benefits Association

Gaylen Bunker

Associate Professor &

Director of Financial Services

Westminster College

Larry Reimer, M.D.

Associate Dean

University of Utah School of Medicine

Douglas Smith, M.D.

Associate Chief Medical Officer

Intermountain Health Care

Debbie Spafford

Risk Manager

Ashley Regional Medical Center

John Berneike, M.D.

Director

Family Practice Residency Program

Utah HealthCare Institute

Aileen Clyde

Public Member

2008 Physician Assistant Workforce Review Committee

Chair

Bob Bunnell, MS, PA-C

Executive Director

Utah Academy of Physician Assistants

Members

Margaret M. Baldwin, PA-C

Intermountain Health Care

Eric E. Heaton, PA-C

Private Practice- Gastroenterology

Robert Lucas, PA-C, MPAS

Primary Children's Medical Center

Hematology/ Oncology Program

Chad S. Jarvis, PA-C, MS

Mountain West Family Practice

Bret D. Hilton, PA-C

Wayne Community Health Center

Jennifer Coombs MPAS, PA-C

University of Utah Physician Assistant

Program

Donald M. Pederson, PhD, PA-C

Professor and Chief

Division of Physician Assistant Studies

Department of Family and Preventative

Medicine

University of Utah School of Medicine

UMEC Staff

David Squire

Executive Director

Sri Koduri

Director of Health Professions

Clark Ruttinger

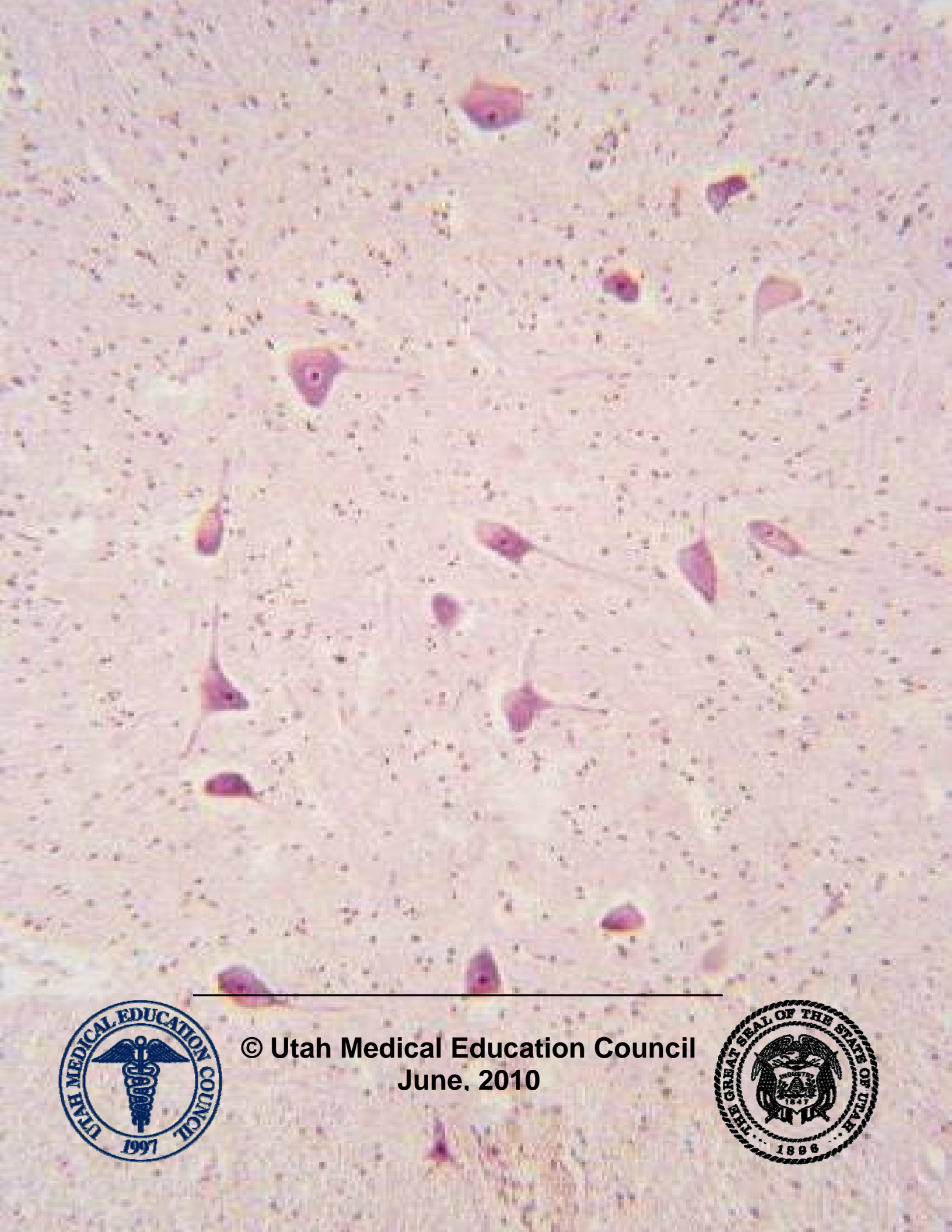
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