Utah's Physician Assistant Workforce: 2003

Utah Medical Education Council

State of Utah

Prepared by:
Boyd Chappell
Research Consultant

March 2005

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Acknowledgements

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The data collected through the physician assistant survey can be made available for additional research or analysis of the physician assistant workforce or other relevant healthcare issues. For additional information please contact:

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Acronym and Abbreviation Reference Guide:

AAPA: American Academy of Physician Assistants
APAP: Association of Physician Assistant Programs
APRN: Advanced Practice Registered Nurse
Clinician: Physician, Advanced Practice Registered Nurse, or Physician Assistant
CMS: Center for Medicare and Medicaid Services
COGME: Council on Graduate Medical Education
D.O.: Doctor of Osteopathy
DOPL: Division of Occupational and Professional Licensing (Utah)
FTE: Full Time Equivalent
GOPB: Governor's Office of Planning and Budget (Utah)
IHC: Intermountain Healthcare
HPSA: Health Professional Shortage Area
JAMA: Journal of American Medical Association
M.D.: Medical Doctor
MUA/MUP: Medically Underserved Area / Population
OB/GYN: Obstetrics/Gynecology
PA: Physician Assistant
PA-C: Physician Assistant-Certified
UAPA: Utah Academy of Physician Assistants
UMEC: Utah Medical Education Council
UPAP: Utah Physician Assistant Program- located in the College of Medicine at the University of Utah
WWAMI: Washington Wyoming Alaska Montana Idaho Center for Health Workforce Studies- University of Washington College of Medicine

List of Charts and Tables

Executive Summary:

The Physician Assistant (PA) workforce in Utah is experiencing remarkable growth, with a 9% net annual rate of growth since 1998. There were 84 additional PAs providing patient care in Utah in the four year period of 1998-2002, an average of 21 per year. The Utah Medical Education Council (UMEC) believes that demand for PAs will be high over the next 10-15 years, with several factors fueling this growth.

The distribution of PAs in the state closely follows population patterns. The vast majority, 74%, of the PAs in the state practice in the four urban Wasatch front counties, Davis, Salt Lake, Utah and Weber. These counties are home to 77% of the state's population. Based on population distribution, there does not appear to be a mal-distribution of the state's PA workforce.

The number of PAs practicing has increased in nearly every county in Utah since 1998. The counties that have seen the largest increase in PA workforce are Davis, Salt Lake, Utah, and Weber counties. The PA workforce also experienced significant growth in Cache, Tooele, and Washington counties as well.

In 2002, PAs provided approximately 8% of the primary care provided in the state despite only constituting 6% of the primary care workforce. The contribution of PAs helps assure that Utah's physician workforce is adequate in these specialties.

Just over one-half (53%) of the state's PAs practice in one of the four primary care specialties, Family Practice, Internal Medicine, OB/GYN, and Pediatrics. Nationally the percentage of primary care PAs is 60%. As expected, the percentage of Utah PAs in subspecialty practices increased from 44% in 1998 to 47% in 2002. The ratio of PAs in subspecialty care should continue to increase over the next five to ten years.

Since 1998, certain specialties have experienced significant growth. The primary care specialties added several new practicing PAs. Family Practice added 34, Internal Medicine 18, and Pediatrics 7. The exception to the growth of the primary care specialties was OB/GYN which actually saw 4 fewer practicing PAs since 1998. Orthopedics, Cardiology, and Hematology/Oncology experienced the most growth of the subspecialties. Among these specialties there was a net increase of 11, 9, and 8, additional PAs practicing, respectively. Several other subspecialties experienced a net increase in the number of PAs as well.

Since 1998, there have been an increasing number of PAs providing patient care in the state, with no Utah background, who received their training elsewhere. During this same time period, there have also been an increasing number of PAs with Utah backgrounds returning to practice in the state after graduating from out of state programs. These trends, coupled with expected demand, have led the UMEC to conclude that expansion of the PA program at the University of Utah to at least 50 graduates per year should be a priority.

Methodology:

This study of Utah's Physician Assistant (PA) workforce is based on a survey that was mailed to every PA with an active Utah license as of December 2002. Three separate mailings were conducted from December, 2002, through March, 2003, and achieved a 75% response rate. The responses were weighted using a factor of .25 to account for the non-respondents to the survey. It should be noted that responses to individual questions varied only slightly from the overall response rate. Weighting factors for individual questions were not used to account for non-responses. Generally, the number of non-respondents to individual questions was included in the tables included in the appendices. Utah 2002 data presented in this report have all been weighted using the .25 weighting factor.

Data from the 1998 report, which is referenced in this study, were also weighted using a factor based on the response rate to the corresponding survey. Data from the American Academy of Physician Assistants (AAPA) are quoted directly from their national census of PAs. Weighting factors were not used in the AAPA Census.

Section I

Demand for PA Services in Utah

Recent Trends:

In 1998 there were 283 licensed PAs in Utah. Of those 283 licensed, 240 actually provided healthcare services in the state[1]. In 2002 the number of total PAs licensed in Utah climbed to 377, with 324, or 86% of those licensed, providing patient care in the state. On average, the state added 21 additional PAs per year during that period that provided patient care. This constitutes a 9.3% annual increase in the number of practicing PAs in Utah over a four year period. This growth has occurred primarily in the four urban Wasatch front counties consisting of Davis, Salt Lake, Utah and Weber, the greater metro area including Summit, Tooele, and Wasatch counties, as well as Cache and Washington counties, which were recently given a metro area designation by the Census Bureau. Approximately 90% of the PAs licensed in the state since 1998 have located in these areas.

While the number of PAs practicing in rural Utah has increased from 61[2] in 1998 to 68 in 2002, the percentage of the overall workforce in rural practice has decreased from 26%[3] in 1998 to 21% in 2002. The decline in the percentage of PAs working in rural Utah is due to the remarkable level of growth the PA workforce has experienced in the urban and metro areas.

The rate of growth Utah has experienced since 1998 is consistent with national trends. The AAPA reports that from 1994 to 2003 the gross number of PAs in the U.S. doubled[4]. This equates to a 10% annual increase, with the vast majority, over 79%, actually providing services as a PA[5].

Projected Demand for PAs:

Overall population growth in Utah and increased utilization of healthcare services due to increases in the number of

[1] Utah Medical Education Council (2000): Utah's Clinical Healthcare Workforce – Achieving Balance Through 2020.

[2] ibid

[3] ibid

[4] AAPA (2004) Trends in the PA Profession: 1991-2003

[5] ibid

older residents in the state are key components in projecting demand. The Governor's Office of Planning and Budget (GOPB) projects Utah's overall population to increase from 2,233,169 in 2000 to 3,371,071 by 2020[6]. The number of Utah residents over the age of 65 is also projected to increase proportionate to the overall increase in population[7]. These residents tend to utilize healthcare services at a much greater rate than do younger segments of the population. These two factors, population growth and increased utilization due to a corresponding increase in the number of older residents will combine to be the primary force behind increasing levels of demand for PAs between now and 2020.

The rate of growth experienced by the PA workforce from 1998 through 2002 exceeded the level of growth the Utah Medical Education Council (UMEC) projected for the same period of time in the 1998 report. There seems to be a number of causes that are spurring this growth. One of them appears to be increased utilization of mid-level providers i.e. PAs and Advanced Practice Registered Nurses (APRNs) in specialist practice. Prior to 1998 only 43% of the PA workforce practiced in the subspecialties. Of those licensed in the state since 1998, exactly 50% were in subspecialty care. The UMEC believes that the use of mid-level practitioners in specialty care practices will continue to be a major factor driving demand for these practitioners' services in Utah between now and 2012.

Another factor which will likely add to future demand for mid-level practitioners, PAs in particular, is the rapidly declining number of medical students who enter primary care residencies, particularly family practice programs. If the demand for primary care physicians cannot be met with medical students, the market will likely turn to physician extenders, specifically PAs to help fill the void. This factor will become increasingly prominent after 2010 as shortages of primary care providers and physicians in general become more acute.

The PA profession is a dependent profession. By design, the "PA cart" is tied to the "physician horse". Factors that impact physician supply and demand in the U.S. and in Utah, will in turn affect the PA environment. To date three studies including one prepared by the Center for Health Workforce Studies at the University of Albany for the Council on Graduate Medical Education (COGME), and another authored by Richard Cooper M.D. of the Medical College of Wisconsin, project a shortage that could approach 200,000 (20% of the expected needed workforce) physicians by the year 2020[8].

Such a shortage could prove catastrophic and place intense pressure on states such as Utah that rely on recruiting the majority of their physician workforce from the national pool. If a nationwide physician shortage of the magnitude projected by the studies cited does in fact develop, the demand for PAs both in Utah and across the nation will likely increase drastically.

The option of increasing PA training will likely be seen as an attractive alternative for states facing staggering physician shortages for a number of reasons. States facing the prospect of expanding or opening new medical schools to meet physician need must consider the expansion

[6] Governor's Office of Planning and Budget: Population by Sex and Five Year Age Group: 1980 - 2030
[7] ibid

[8] Cooper et all: Weighing the Evidence for Expanding Physician Supply.

of existing PA programs or opening new programs as a viable alternative. Not only does it cost significantly less to train a PA than a physician or even APRN, the training pipeline for PAs is also significantly shorter. The timeline for physician training is anywhere from six to nine years depending on specialty, this compared to two years for PAs.

Because of the nature of their training, PAs will be in an excellent position to extend the available supply of physicians across specialties and a variety of settings, whether as house staff at hospitals / surgical centers, or in private physician practices.

By design, PAs provide a cost effective tool for providers, both physicians and institutions to extend healthcare services. As the healthcare industry in the United States continues to search for and implement cost controlling measures and practices, PAs will continue to see demand for their services increase.

Two potential factors could arise that would have a dampening effect on future demand for PAs. The first is the increasing cost of liability insurance for all clinicians including PAs. The AAPA reported from its 2004 survey of PAs that 97.5% of PAs nationwide have their professional liability insurance provided by their employers[9]. The UMEC did not gather data on this topic. However, anecdotal reports indicate that Utah is not significantly different from the rest of the nation in this regard. The actual rate appears to vary based on the scope and specialty of the practice, amount of coverage obtained, work location (Emergency Room coverage is significantly more expensive $5,800 as compared to $2,100), and other factors, including which carrier the practitioner chooses. Another factor which has a significant impact on coverage cost is geography. Utah PAs pay almost twice ($2,160) as much through UMIA for non-Emergency Medicine or Urgent Care specialties as do PAs in Arizona ($1,443), California ($825-1,100), and Colorado ($1,000)

Though most PAs are insured through a rider on their supervising physician's policy, this isn't the only option available to PAs. There are carriers through which PAs can obtain insurance on their own, for instance the AAPA has a product that PAs can purchase. Again, the cost will vary, depending on the factors listed above, and it behooves the practitioner to look for the best price available.

While liability insurance costs will factor into the breakeven or profitability point for practices that choose to employ PAs, the UMEC believes that the effect on future demand for PAs will be minimal. Not only will the added productivity and revenue generating potential PAs provide outweigh the cost of rising liability coverage, the expected shortage of physicians will exert pressure on the market, increasing demand for PAs.

The other factor that could potentially have a negative impact on the demand for PAs would be third party payers implementing policies that reimburse PAs at a lower rate than their supervising physician. This issue has risen in the past in isolated incidents around the country. In nearly every case PAs have been able to successfully resolve these issues.

This issue would likely only have an impact on the demand for PAs if these incidents become more widespread, and the PA community is not able to successfully negotiate with these third party payers. If

[9] AAPA 2004 Physician Assistant Census (2004)

that scenario does play out, it is likely that physicians would have lower incentive to employ PAs.

The development of evidence based medicine and practice guidelines for the delivery of medicine is also likely to provide additional opportunities for PAs. Evidence based medicine will enhance the delivery of medicine by healthcare teams by providing an additional tool for physician extenders such as PAs to be successful.

UMEC staff has developed a model for projecting healthcare workforce needs in the state through 2020. This model takes into account expected population growth and increased utilization of healthcare services due to the aging of the population. The model also accounts for the need to replace existing practitioners at historic retirement / attrition rates. Given all these factors and assuming growth rates experienced during the past ten years continue into the future, the state will see a significant shift in the makeup of the clinician workforce. It is conceivable that PAs will make up a more significant portion of the clinician workforce by the year 2020, with the number of PAs providing patient care even surpassing the number of APRNs providing patient care in the state.

Figure 1

Projected PA Demand

Year	Population	TOTAL PA WORKFORCE	EXPANSION due to POPULATION GROWTH	EXPECTED PA ATTRITION	TOTAL PAs REQUIRED
2002	2,321,707	294	0	0	0
2005	2,464,633	368	74	37	111
2010	2,787,670	566	198	148	346
2015	3,126,736	871	305	261	566
2020	3,371,071	1,340	469	469	938

Conclusions:

- Population growth, increased utilization of healthcare services by an aging population and increased specialization are key components in projecting future demand for PAs in the state.
- By 2010 Utah will need 346 new PAs to account for population growth, accommodate the aging population and replace PAs leaving the state workforce. By 2020, that number increases to 988 (see figure 1).
- If current trends in the physician workforce aren't reversed, demand for PAs in the primary care specialties will rise by 2015.
- Projected universal shortages of physicians around the country expected to develop by 2020 will increase demand for PAs in Utah and around the country.
- The increased productivity and revenue generating potential PAs offer to practices will exceed any mitigating effect rising malpractice liability insurance might have.
- The issue of third party payers lowering reimbursement rates for PAs will also not likely have a significant mitigating effect on PA demand, so long as it does not become widespread.

Section II

Workforce Demographics

Gender:

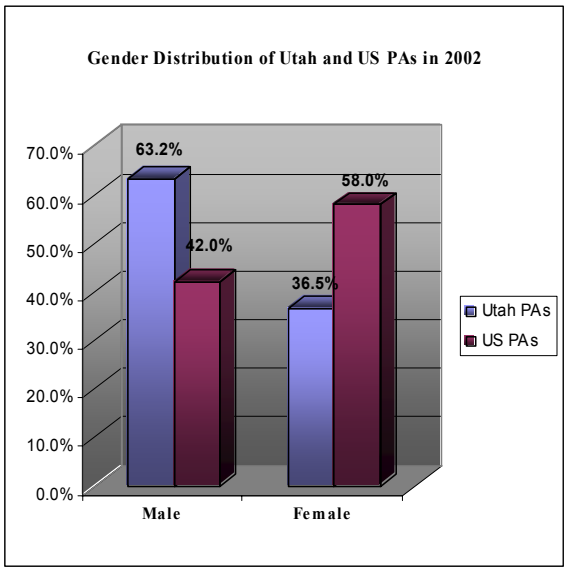
According to the 2002 AAPA PA Census Report[10], 58% of the nation's PAs are women. That constitutes a 5% increase nationwide since 1998 when AAPA reported 52.8% of US PAs were women[11]. While women constitute a majority of the nation's

[10] American Academy of PAs (Oct.2002): 2002 AAPA PA Census Report

[11] American Academy of PAs (1998): 1998 AAPA PA Census Report

PAs, Utah continues to experience a male dominated PA workforce. In 1998 a little less than 64% (63.7) of Utah's PAs were male[12]. According to the 2002 survey, just over 63% (63.2) were male.

Figure 2



Utah's female PA population continues to make up only a fraction of the total workforce, and, unlike its national counterpart, continues to experience only minimal growth. However, as is the case around the country, the number of women enrolling in the PA program housed in the school of medicine at the University of Utah (UPAP) is increasing[13]. If the percentage of female students continues to increase as expected, Utah should begin to experience more significant growth in the number of females entering the state's PA workforce in the years to come.

Traditionally, female clinicians (physician, APRN or PA) in Utah have tended to work fewer hours than their male counterparts, often choosing to work part time in order to raise families[14]. This trend seems to hold true for the PA workforce as a full 33% of female PAs regularly work fewer than 30 hours per week. This compares to only 19% of their male counterparts who work fewer than 30 hours per week. Conversely, nearly 32% of male PAs regularly work 41 or more hours/week while only 25% of their female counterparts worked over 41 hours per week.

The trend of women clinicians working fewer hours does not seem to adversely affect the ability of the PA workforce to meet the demands placed on them at this time. However, should the percentage of female PAs increase as expected, and the trend of female clinicians working fewer hours continue, additional PAs would be needed to provide the same amount of service that the current workforce is now able to provide.

Ethnicity:

While the minority population in Utah continues to grow at an accelerating pace, minorities are still underrepresented in Utah's clinician workforce, including PAs. In 2002 nearly 15% of the state's population was of ethnic descent[15], while ethnic minorities constituted only 7% of the PA workforce. In 1998, 95% of the PAs who responded to the UMEC survey indicated 'White/Caucasian' as their ethnicity. In 2002 that percentage had dipped to 93%. In 2000 the Census Bureau reported that 85.3% of Utah's population was white (of Non Hispanic Descent)[16]. As is the case in most healthcare professions, the White population

[12] Utah Medical Education Council (2000)
[13] American Academy of PAs (April 2002): Report of the Census Survey of New PA Students 1995-2001

[14] Utah Medical Education Council (2000)
[15] Population Division US Census Bureau (2003): Table ST-EST 2002 ASRD-05-49 State Characteristic Estimates
[16] US Census Bureau, 2000 Census of Population, Public Law 94-171 Redistricting Data File Updated every 10 Years http://factfinder.census.gov

continues to be over represented in the PA workforce.

Though minorities continue to be under represented, it should be noted that from 1998 to 2002 the state added six additional Latino PAs to its clinician workforce. This more than doubles the number of Latinos in the PA workforce providing patient care in the state since 1998. In spite of the additional PAs who have entered the workforce, Latinos at present only constitute 3% of the state's PA workforce. While the increase in the number of Latino PAs is important, it is only a first step, because at 9% of the population, Latinos now represent Utah's largest and fastest growing minority group[17]. Pacific Islander/Native Hawaiian was the only other ethnic group that experienced growth within Utah's PA workforce. Three new PAs of Pacific Islander/ Native Hawaiian descent began practicing in Utah during the period 1998 through 2002. The number of PAs from the other ethnic groups remained static.

The disparity between the ethnic population and PA workforce is taken seriously by UPAP. UPAP actively recruits students of diverse backgrounds and ethnicities. The issue appears to lie in retaining these students in the state's workforce upon graduation. The UMEC believes that the state will be able to develop a more ethnically diverse PA workforce only when more ethnic students from UPAP are successfully recruited into the state's workforce.

Utah is not unique in the trend of under representation among minority groups in the PA profession. In 2002, 'White/Caucasians' constituted 89.4%[18] of licensed PAs nationwide, but only 75.1%[19] of the total population. The two largest minority groups, African Americans and Hispanics, constituted 24.8%[20] of the total population nationwide, yet only 6.4%[21] of the nation's PAs were from these two ethnic groups.

Figure 3

Utah Physician Assistant Ethnicity

	% of 2002 Workforce	% of 1990 Population	% of 2000 Population	Change in Population
African American	0.4%	0.6%	0.8%	0.2%
Asian	0.4%	1.8%	1.7%	-0.1%
Asian Indian*	0.4%	NA	NA	NA
Latino	3.2%	4.7%	9.0%	4.3%
Native American / Alaskan	0.4%	1.3%	1.3%	0.0%
Pacific Islander / Native Hawaiian**	1.1%	NA	0.7%	NA
White/Caucasian	92.9%	89.4%	89.2%	-0.2%

* Not tracked by Census Bureau

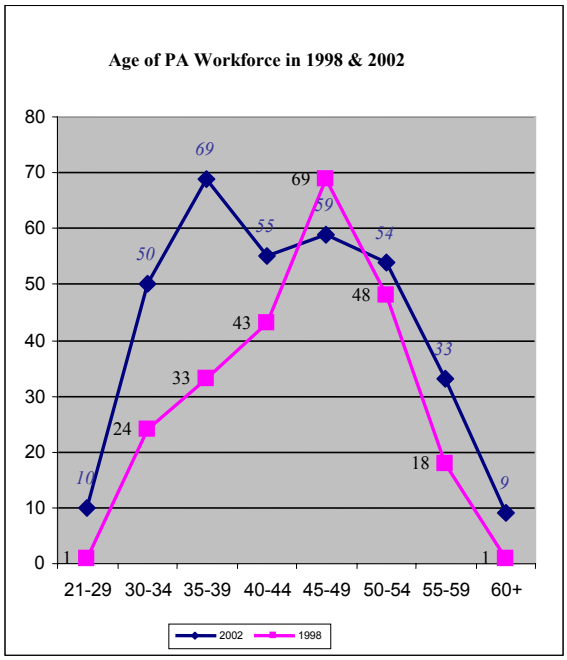
** Combined with Asian in 1990 Census Data

Age:

Examination of data collected by UMEC in both 1998 and 2002 indicates that the vast majority of Utah PAs enter practice between 30 and 34 (there are five times as many between the ages of 30 and 34 as there are under the age of 30). This is not particularly surprising considering that UPAP, the source of 60% of the state's PAs, is a graduate level program. In addition, the program requires students to have prior clinical experience as well. These stringent requirements are part of a national trend in which more and more PA programs are becoming graduate level programs and requiring students to have prior clinical experience. The trend toward graduate level training for PAs will undoubtedly affect the age of PAs entering the states workforce.

[17] Population Division US Census Bureau (2003)
[18] American Academy of PAs (Oct.2002)
[19] Population Division US Census Bureau (2003)
[20] ibid
[21] American Academy of PAs (Oct.2002)

Figure 4



According to the 1998 survey, two thirds (67.2%) of Utah's PAs were between the ages of 40 and 54[22]. Responses to the 2002 survey indicate that the percentage of PAs in this age group has fallen to 47.5%. Meanwhile, between 1998 and 2002, the percentage of PAs under the age of 40 rose from 24.4% in 1998[23] to 36.4% in 2002. This is a significant increase in the percentage of younger PAs providing patient care in Utah. Statistical data also indicates that Utah's PA workforce was younger in 2002 as compared to 1998. In 1998, the mean age for PAs in the state was 43.9. In 2002, the mean age was down slightly to 43.5.

While Utah's PA workforce was slightly younger in 2002 than in 1998, the mean age of the nation's PAs was essentially unchanged, rising from 41.1 in 1998 to 41.3 in 2002. The trend in Utah toward a younger workforce is positive, making it less likely that large concentrations of PAs will be retiring over the next 15 to 20 years. Wide fluctuations in age are usually not ideal, as expanding professions such as the PA profession, do best over the long run with consistent rates of growth.

Income:

The UMEC was interested in learning about income levels among Utah PAs, as wage level is one indicator of either a saturated market, or just the opposite, a workforce shortage. The 2002 survey asked PAs to estimate average gross annual income based on ranges of $10,000. In order to convert responses from a range to an actual figure, each response was randomly assigned a specific figure within the corresponding range of response. The mean income levels reported in this section represent approximations based on these randomly generated figures.

The mean income earned by Utah PAs ($73,000) was slightly higher than the national average ($72,000)[24]. It appears through analysis conducted by the UMEC that gender, age, county of practice (rural or urban), and hours worked all have a statistically significant impact on PA income in the state. Neither of the following potential factors, specialty (primary care vs. subspecialty care), or ethnicity affected income at a statistically significant level, though there was significant variation in income levels between specialties.

Again, using randomly generated income figures in order to calculate mean income figures, specialties in which at least three PAs are practicing, were compared to the mean income for family practice PAs. The family practice mean was selected due

[22] Utah Medical Education Council (2000)
[23] ibid
[24] American Academy of PAs (Oct.2002)

to the overwhelming percentage of PAs in family practice. Six specialties had a mean income which varied significantly from the family practice mean. Internal Medicine, Pulmonary Disease CCM, and Neurology, all had mean income levels that were significantly lower than Family Practice.

Three other specialties had mean income levels that were significantly higher than Family Practice. These specialties were Pediatrics, Cardio-Thoracic Surgery, and Plastic Surgery. However, when the mean income for all primary care specialties was compared with the mean of all sub-specialty PAs, the difference in mean income levels was not statistically significant. Mean income data for individual specialties would be more reliable if larger populations existed within those specialties.

When examining individual counties, there was a lot of variation in income levels between counties. Not surprisingly, when the mean income for all rural counties was compared to the mean income for the four urban counties along the Wasatch front, the difference was statistically significant, with the mean rural income significantly lower ($67,000) compared to the urban mean ($74,000).

According to survey responses, female PAs in the state earned nearly $20,000 dollars less (gross annual income) than their male counterparts ($60,000 vs. $80,000). Further analysis showed that while the mean ages of male and female PAs weren't significantly different (44 and 43 respectively), the mean number of hours worked was. The mean number of hours worked per week by male PAs was 39.2, while their female counterparts only worked a mean of 35.5 hours per week. The fact that female PAs tend to work significantly fewer hours per week than their male counterparts may provide a partial explanation as to why there is a difference in income levels, though it probably doesn't explain such a large disparity.

Figure 5

Specialty*Rank by Mean Income

Specialty	Rank
Plastic Surgery	1
Cardio-Thoracic Surgery	2
Pediatrics	3
Preventive Med / Public Health / Occ. Med	4
Gastroeneterology	5
Other Surgical Sub-specialty	6
Dermatology	7
Cardiology	8
Pediatrics Sub-specialty	9
Family Practice	10
Urology	11
Psychiatry	12
Internal Medicine and Pediatrics	13
Orthopedic Surgery	14
OB/GYN	15
Hematology / Oncology	16
Emergency Care	17
Pulmonary Disease CCM	18
Internal Medicine	19
Neurology	20
General Surgery	21

* Includes only those specialties with at least 3 physician assistants reporting income.

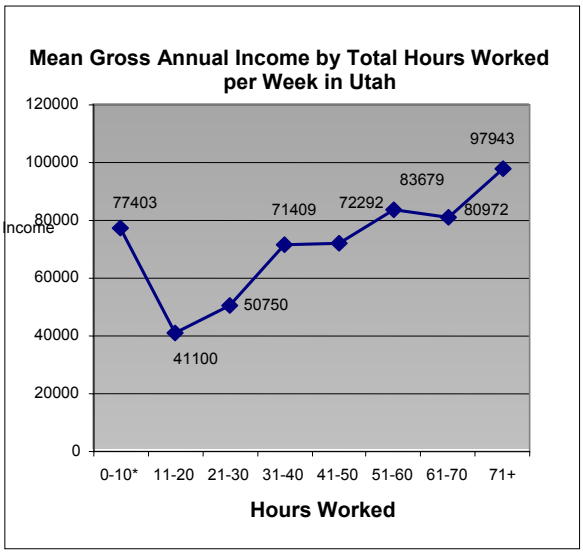
Survey data from 1998 indicated that, less than 20% of Utah PAs had gross annual incomes over $80,000[25]. According to the 2002 survey, that percentage had risen to 29%. Not only has the number of PAs in the upper income bracket (over $80,000 per year) risen, the number of PAs earning less than $60,000 a year decreased from 39%[26] in 1998 to 27% in 2002. Ironically, the percentage of PAs who reported income under $39,000 rose from 2.1% to 6.8%. However, this is probably explained in part

[25] Utah Medical Education Council (2000)

[26] ibid

by the number of hours worked. Of those who reported gross annual income under $39,000 in 2002, 83% reported working thirty hours or less at their primary practice location.

Figure 6



Even though the majority of PAs are paid a salary rather than an hourly wage, the relationship between hours worked and income is very strong for Utah PAs. For those working 11 to 20 hours per week the mean income was $41,100. For those working between 21 and 30 hours the mean increased to $50,750. For those working between 31 and 40 hours and 41 to 50 hours per week, mean income levels were not significantly different, with $71,409, and $72,292 respectively. Those who put in more than 51 hours per week all made significantly more than those only working between 31 and 40 hours. One group, which on the surface appeared to be an exception to this, was those working 10 hours or less per week. Analysis showed that their mean income was a lofty $77,403. This apparent anomaly is explained by the fact that 18 of the 20 PAs in this category worked at least 40 hours per week outside the state of Utah. The number of those working reduced hours in Utah (11-20 hours per week) who also worked significant hours (over 10 hours per week) out of state was not significant.

Not surprisingly, in addition to hours worked, age appears to be yet another factor in determining PA income. Those under the age of 40 are more likely to fall into the under $60,000/year income bracket. Between the ages of 45 and 60, PAs are more likely to fall into the over $80,000 income bracket. This trend reverses itself once PAs reach age sixty, when they are again more likely to have an annual income less than $60,000. This decrease in income parallels a reduction in the number of hours worked per week by those over the age of sixty.

PA Background/Upbringing:

In order to get a better understanding of the background of the state's PA workforce, questions regarding the state of high school graduation were asked on both the 1998 and 2002 surveys in order to determine background. In 2002, just over half (52%) of the overall PA workforce came from a Utah background, this compared to 53%[27] in 1998. For purposes of this report, a Utah background is defined as having graduated from a Utah high school. The ratio of rural PAs with a Utah background was very similar. Approximately 55% of the rural PAs came from a Utah background. In 1998, 59% of the rural workforce had a Utah background[28].

In order to better understand the number of Utah PAs who come from a rural background, PAs were asked about population levels in the town/city where they spent the majority of their upbringing. Responses to this question show that 22% of

[27] ibid
[28] ibid

the statewide workforce had a rural background with rural being defined as a town/city with a population less than 50,000. This definition is used in this section solely due to the design of the survey question, which asked for population ranges of the town / city of upbringing. The definition of rural used by other state agencies, such as the Department of Health, is based on population density on a county wide basis; for example, a county is designated rural if it has a population density between 6 and100 persons per square mile. A frontier county is one with a population density of six or fewer persons per square mile. The section of this report that focuses on the rural workforce used the definition of rural utilized by the Utah Department of Health to designate counties of primary practice as rural or urban.

The 50,000 population level being used in this section of the report to define rural is probably a realistic measure, especially in the western states, where larger cities, even MSAs (metropolitan service areas) can be in counties whose population density is less than 100 persons per square mile. However, due to Utah's unique nature in which 70% of the population is concentrated in four urban counties that make up less than 5% of the total land area, it probably isn't an appropriate definition for communities in this state.

In Utah, the only cities with populations approaching 50,000 that are not in the four urban counties are Logan, located in Cache County, and St. George, located in Washington County. These two areas were recently designated as MSAs by the Census Bureau, yet under the definition used by the state's health department would still qualify as rural. Three other Utah cities have populations near the 20,000 level. Cedar City, Brigham City, and Tooele all have populations slightly over 20,000; all could be considered rural. There are several Utah communities with populations approaching the 10,000 level, all of which would qualify as rural regardless of the definition used.

There are several cities in the western U.S. which approach the 50,000 population level and could be considered rural based on population density of the county. Examples include: Grand Junction, Colorado (41,986), Cheyenne, Wyoming (53,011), Casper, Wyoming (49,644), Idaho Falls, Idaho (50,730), Pocatello, Idaho (51466), Missoula, Montana (57,053) and Santa Fe, New Mexico (62,203)[29].

Based on the responses to the question regarding population and background, and the definition used by the UMEC, approximately one-third of the rural workforce had a rural upbringing. According to the 1998 survey, 39 of the 61, or 63% of the state's rural PAs came from a rural background. It is highly unlikely that in just four years, Utah's rural PA workforce would have changed so drastically that it would go from two-thirds of the workforce with a rural background to just one-third. This probably reflects changes in the design of the survey.

In 1998, respondents were asked to indicate if they came from a rural, urban, or suburban background. This is problematic in that a standard definition of what constitutes rural, urban, and suburban, was not employed, thus raising questions about the soundness of the data. Unfortunately, the 2002 survey also appears to provide problematic data, due to the fact that it asked for population ranges of towns/cities, not population on a countywide level. The design of the question resulted in a "best fit"

[29] US Census Bureau (2000)

definition of rural being a town/city with a population less than 50,000 persons.

However problematic the question on the 2002 survey proved to be, the data collected is still more reliable than the 1998 data, because the issue of self-definition was eliminated.

Conclusions:

- Utah is likely to see an increasing percentage of female PAs in the next 10-15 years.
- If female PA productivity patterns continue, more PAs will be needed to offset lower productivity of female PAs.
- The number of ethnic minorities in the PA workforce is inadequate. Additional PAs of ethnic descent, especially Latino PAs, are needed to assure Utah has a culturally competent workforce.
- The relative age of the workforce is not a significant concern when evaluating the adequacy of the current workforce, nor is it likely to be significant in the near future.
- Statewide income for PAs is comparable to the national mean though it varies by location, specialty, gender, and the number of hours worked.
- Background, where a PA is from and where he/she was trained, plays a very significant role in determining where a PA will decide to practice.
- Utah has an attractive work environment for PAs. The state should be competitive in the retention and recruitment of PAs in the future.

Section III
Practice Characteristics

Specialty:

Utah PAs practice in a variety of specialties, including both primary care specialties (Family Practice, Internal Medicine, Pediatrics, and OB/GYN) as well as the sub-specialties. In 2002, 53% of the state's PAs practiced in one of these four primary care specialties. This is lower than the 60% who reported practicing in primary care nationally at the same time[30]. The breakdown of PAs in Primary Care (2002) for Utah and the US[31] is as follows:

Figure 7

Comparison of Utah & US Primary Care PAs

	Utah PAs		US PAs	
Specialty	% of Primary Care Workforce	Count	% of Primary Care Workforce	Count
Family Practice	73.5%	139	70%	5400
Internal Medicine	13.5%	25	18.4%	1419
OB/GYN	2.6%	5	5.9%	451
Pediatrics	10.5%	20	5.7%	438

The presence of the primary care PAs in the state amplifies the capacity of physicians in these specialties. Utah's physician/population ratios for Family Practice, Internal Medicine, Pediatrics, and OB/GYN are all significantly lower than US ratios[32]. The following chart shows physician / 100,000 population ratios.

The ratios would appear to be even more marginally adequate considering Utah ranks among the highest (5th) in health

[30] American Academy of PAs (Oct.2002)
[31] ibid
[32] American Medical Association. 2001 Physician Characteristics and Distribution in the U.S. (2003-2004 Edition)
U.S. Census Bureau. Annual Population Estimates, by State. July 1, 2001 Estimates
[online]
http://eire.census.gov/popest/data/states/tables/ST-EST2002-01.php [retrieved 3/5/2003]

rates[33] in the nation and has a large dependant population in both the child/adolescent and elderly cohorts. It is clear that PAs augment what would otherwise be insufficient capacity in the state.

Figure 8

Utah & US Primary Care Physician/Population Ratios

Specialty	Utah Physicians	US Physicians*
Family Practice	27.8	29.9
Internal Medicine	15.9	26.5
OB/GYN	12	15
Pediatrics	15.2	18.6

*American Medical Association. *Physician Characteristics and Distribution in the U.S., 2003-2003 Edition.*

The percentage of Utah PAs working in subspecialty care rose from 44%[34] in 1998 to 47% in 2002. Among those who obtained a Utah license during or after 1998, the percentage in subspecialty care is 50%. The trend toward specialization of the PA profession is expected to continue into the foreseeable future and will be a key factor in fueling increasing demand for PAs. Since the 1998 report, Utah has an additional 28 PAs practicing one of the Internal Medicine subspecialties, and 25 additional PAs practicing in Surgery or one of the surgical subspecialties. These PAs represent 46% of the total increase since 1998.

Concurrent Worksites:

Since 1998, the number of PAs working at one site increased from 53%[35] to nearly 73% (72.5%). Correspondingly, the number practicing at two or more sites decreased from 29 % to 23%. A total of 5% reported practicing at three or more locations in 2002.

It is unclear whether the increase in the number of PAs practicing at one location reflects an actual trend within the PA workforce, or if the shift is due to changes within the UMEC survey which would influence the responses. According to the 2002 AAPA Census, 83.1% of PAs nationally practice for one employer[36]. This data may not reflect accurately the number of practice sites these PAs are working at, as one employer could potentially have multiple practice locations. However, the similarity in figures seems to indicate that Utah is close to national norms in regards to the number of worksites.

On-Site Supervision:

As of November 15, 2001, the Utah Division of Occupational and Professional Licensing (DOPL) has removed arbitrary supervision requirements for PAs. The new requirements are more relaxed and no longer affix an arbitrary percentage of direct supervision and chart review by the supervising physician[37]. In spite of the updated rules, just over half (51.3%) of Utah PAs reported practicing with 91-100% on-site supervision. Three-quarters (76%) reported practicing with at least 71% on-site supervision. According to the survey, just over 17% of the state's PA workforce indicated that they practice with 50% or less direct, on-site supervision. The 50% direct supervision figure is significant because prior to the November 2001 rule change, that was the arbitrary figure designated by DOPL as the minimum level of direct supervision, in addition to 100% chart

[33] United Health Foundation (2004)
[34] Utah Medical Education Council (2000)
[35] Utah Medical Education Council (2000)
[36] American Academy of PAs (Oct.2002)
[37] Utah Administrative Code (November 15, 2001) R156-70a-501 Working Relationship and Delegation of Duties
PA Practice Act Rules R156-70a

review during the first six months of a working relationship, and 25% chart review after the first six months[38].

It is the expectation of the UMEC that increasing numbers of supervising physicians will take advantage of the relaxed supervisory regulations, allowing more flexibility within their working relationships with the PAs they supervise. The changing dynamics of the supervising physician-PA relationship should begin to be reflected in the next UMEC survey, to be conducted in 2006.

As the amount of direct supervision decreases, it is plausible that other forms or methods of supervision, especially telecommunications, will become more prevalent. In the 2002 survey, 225 (63.6%) PAs indicated that they never use telecommunications as a method of supervision, while only 40 (11.3%) reported more than 50% supervision via telecommunications. The number of physician/PA teams utilizing telecommunications as the primary method of supervision should grow during the coming years, especially among those working in multiple sites and/or rural practice sites.

Patient Wait Time:

The amount of time most patients must wait to see one of Utah's PAs is relatively short, though it does vary based on patient-clinician relationship. The mean wait for a patient with an established relationship with a PA, regardless of specialty, is six days, while the median established patient wait is one day. For a new patient, the mean wait is twelve days, the median, two days.

When examining patient wait times, the median wait time probably more accurately reflects what is actually taking place than does the mean wait time. A slight majority, 51%, of the respondents to the survey indicated that new patients typically wait three days or less to see a PA. While 64% reported established patients usually wait three days or less for an appointment. Just over 25% of respondents reported wait times longer than one week for new patients. For established patients, the percent of PAs who indicated wait times longer than a week was only 13%. These relatively short waiting periods for patients seem to indicate that the demands being placed on Utah's PA workforce is not excessively burdensome.

In addition to the patient-clinician relationship, specialty also appears to be a significant factor in affecting the length of time patients must wait to see a Utah PA. For new patients of a primary care PA, the mean wait is nine days, and for established patients, three days. The median wait for both new and established patients of primary care PAs is one day. The number of days a patient must wait to see a sub-specialist PA is significantly longer. For a new patient the mean waiting period is seventeen days. For established patients, it is eleven days. The median waiting period to see a sub-specialist PA for new patients is seven days, for established patients, four days. Again it appears that the median wait time more accurately reflects the experience of the majority of Utah PAs.

Anecdotal accounts suggest that the utilization of PAs or other mid-level providers in sub-specialty care settings can greatly reduce the amount of time patients, especially new patients, must wait before receiving specialist care, often reducing the amount of time from a matter of weeks or

[38] Utah Academy of PAs: http://www.utahapa.org/portal/content/currentnews.jsp [accessed 04/01/2003]

months to just a day or two, if the patients are willing to be seen by the mid-level practitioner for initial consultation. Such accounts warrant further study, and may be used to model how the use of PAs or other mid-level providers such as APRNs can increase a sub-specialty practice's capacity and efficiency.

Figure 9

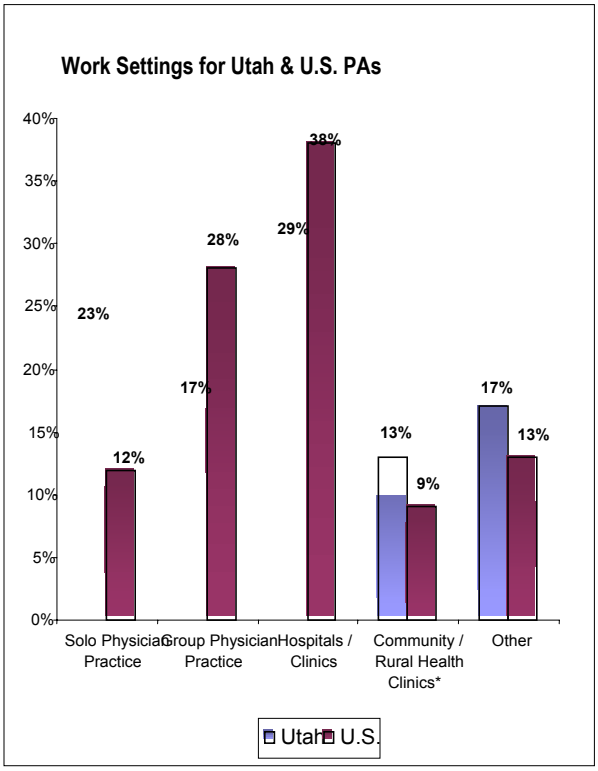
Distribution of Utah PAs by Length of Wait in Days for Both New & Established Patients 2002

Length of Wait in Days	New Patient Count	New Patient Percent	Est. Patient Count	Est. Patient Percent
0	83	23.3%	99	28.0%
1-3	100	28.1%	126	35.7%
4-5	19	5.3%	15	4.2%
6-7	29	8.1%	30	8.5%
8-10	9	2.5%	6	1.7%
11-15	33	9.3%	16	4.5%
16-20	4	1.1%	6	1.7%
21-25	6	1.7%	4	1.1%
26-30	14	3.9%	3	0.8%
31-40	4	1.1%	1	0.3%
41-50	5	1.4%	4	1.1%
51-60	5	1.4%	1	0.3%
81-90	3	0.8%	1	0.3%
91 +	9	2.5%	3	0.8%
Not Reported	33	9.3%	38	10.8%
Total	356	100.0%	353	100.0%

Work Setting:

Utah PAs worked in a variety of settings in 2002. Private physician practice, including both solo (23%) and group (17%) offices, was the most prevalent work setting for Utah PAs, combining for 40% of the workforce. Nearly a third (29%) of the workforce was employed in either a hospital or clinic setting. Approximately 13% of the PA workforce reported working at community/rural health clinics. Other work settings included physician practice management organizations (PPMO), college/university faculty, and HMOs. Ten respondents to the survey indicated that they were self-employed.

Figure 10



According to the 2002 AAPA Survey, nearly 38% of the PAs across the US work in a hospital setting (9% higher than Utah), while 40% work in either a group physician practice or solo physician practice[39]. A larger percentage (13%) of Utah PAs worked in community or rural clinics than their counterparts across the country. Only 9% of all PAs in the US worked in either a community health clinic or some type of Federally Qualified Health Center (FQHC)[40].

Type of Patients Treated:

The vast majority of Utah PAs see more outpatients than inpatients. The vast majority, 88%, of the respondents to the survey reported seeing at least 25 outpatients per week, while only 8% reported seeing at

[39] American Academy of PAs (Oct.2002)
[40] ibid

least 25 inpatients per week. This figure is not particularly surprising given the ratio of outpatient procedures to inpatient procedures performed in the state and the various settings where PAs were employed in 2002. Less than a third of the state's PAs were employed in a hospital / clinic setting and only a third had hospital privileges. A bias toward hiring APRNs over PAs to work in hospital settings appears to exist among the state's major healthcare providers. While there were just over 100 PAs employed in hospital / clinic settings, there were 319 APRNs (approximately 40% of the workforce) employed in the same settings.

Hospital Privileges:

In both the 1998 and 2002 surveys, the UMEC asked Utah PAs to list which, if any, hospital privileges they have been granted at Utah hospitals. In 1998, 43% reported having privileges at Utah hospitals[41]. The 2002 survey revealed that 40% had hospital privileges. The following chart illustrates the number of PAs with various privileges in both 1998 and 2002, as well as the actual change in numbers for each type since 1998. The UMEC does not specify whether these PAs have admitting privileges or not.

Unfortunately, no national data exists which specifically delineates the number of PAs with hospital privileges. In the absence of specific data, UMEC used data gathered by the AAPA in their annual survey of PAs regarding primary work setting. While this data fails to show the number with admitting privileges, it does show the number of PAs who work in various hospital settings including both inpatient and outpatient units, thus making it an acceptable proxy measure. According to the 1998 AAPA survey, 37.1% of the nation's PAs worked in some type of hospital setting (had privileges)[42]. By 2002, the percentage of PAs in the US with hospital privileges had increased slightly to 37.9%[43].

Figure 11

Utah PAs With Hospital Privileges

Hospital Privilege Type	1998	2002	Change
None	137	213	76
Inpatient Care of Children (Non-Newborns)	41	41	0
Labor & Delivery	5	1	(4)
First Surgeon for Other Major Med procedures	6	16	10
Inpatient Care of Adults	68	96	28
Care of Newborns	17	14	(3)
1st Assistant for Major Surgeory/ C-Sections	39	55	16
Intensive / Coronary Care	17	31	14

Beginning July 1 2003, the Accreditation Council for Graduate Medical Education (ACGME) issued a mandate to all 7,800 residency programs accredited by the council that they limit the number of required duty hours to a maximum of 80 per week. Previously it wasn't uncommon for residents to be on duty (patient care hours, call, and didactic training) from 80 to 120 hours per week. The AAPA recognized the opportunity this mandate created for the PA profession and aggressively sought to educate hospital administrators of the benefits of utilizing PAs to fill the void in patient care created by this mandate.

[41] Utah Medical Education Council (2000)

[42] American Academy of PAs (1998)

[43] American Academy of PAs (Oct.2002)

It is doubtful that this mandate caught hospital administrators by surprise as many were taking measures to be compliant prior to the July 1, 2003 deadline. This may be a partial explanation for the rise in the number of PAs working in hospitals between 1998 and 2002 cited above. The UMEC believes that this change in the way hospitals meet their patient care staffing needs will positively effect the PA profession; but, any increases in the number of PAs resulting directly from this change have largely occurred already. It is the UMEC's position that future growth of the PA profession in the hospital setting will be largely due to other factors, especially in Utah, where we have a relatively small portion of the national pool of residents

Interpretation Services Offered:

Utah's population is becoming increasingly diverse. The Latino population has experienced remarkable growth in recent years. From 1990 to 2000 the Latino population more than doubled, growing from 84,597[44] to 200,985[45].Utah has also seen an influx of Eastern European immigrants in recent years as well. Many of Utah's immigrant populations are non-English speaking and may potentially find language a barrier to accessing healthcare services.

Given this increasing diversification of the state's population, cultural competence is becoming increasingly important for Utah's clinician workforces, including PAs. Over two-thirds (68%) of the states PAs currently offer some form of language interpretation for non-English speaking patients, up from only 50% in 1998[46]. As the state's population continues to become increasingly diverse, all clinicians in the state, not just PAs, will need to be aware of the increasing number of individuals who could in effect be denied adequate healthcare because of language barriers.

The UMEC encourages both policy makers and leaders in government and the healthcare industry to take significant measures to ensure access to adequate healthcare for all residents in the state, regardless of their primary language.

Medicare / Medicaid Patients:

As in the 1998 survey, questions were included in the 2002 survey regarding whether or not the PA accepted new Medicaid, Medicare, or other types of new patients, as well as the percentage of patients that were either Medicaid, Medicare, private insurance, self-pay, or some other billing type. Additionally, PAs were asked regarding the use of sliding fee scales, which are utilized to make healthcare more affordable for low income patients by adjusting the fees billed based on the patient's income. Most PAs have no control over decisions regarding the acceptance of new patients, in determining the percentage of patients of the various billing types, or the use of sliding fee scales. For this reason, the data gathered via these questions are not included in this study.

Conclusions:

- The PA workforce will continue to expand into the subspecialties.
- Specialization will continue to be a principle factor in workforce growth.
- The vast majority of PAs working at one location indicates a stable work

[44] U.S. Census Bureau (1990) http://eire.census.gov/popest/archives/state/rank/hisp.txt [accessed 06/07/2003]

[45] U.S. Census Bureau (2000) http://quickfacts.census.gov/qfd/states/49000.html [accessed 06/07/2003

[46] Utah Medical Education Council (2000)

environment. It also indicates there is not an over-supply of PAs in the state.

- More relaxed supervision requirements are good for the PA profession and will likely encourage additional physicians to employ PAs as the PA-physician relationship is viewed as being less burdensome.
- Based on patient wait times, it appears that the current ratio of practitioners (physicians, PAs and APRNs) to the state's population is adequate for most specialties.
- Most job opportunities for PAs in the state appear to be in private physician offices (both group and solo practices). Barring a significant philosophic shift within the major healthcare systems in the state, private physician practice will likely continue to be the primary source of job growth for PAs.
- The percentage of Utah PAs with hospital privileges is in line with the nation as a whole. There is still room for growth in this arena.
- The percentage of PAs who offer language interpretation has improved since 1998, though there is room for improvement.

Recommendations:

- The state should strive to maintain current practitioner/population ratios if not increase them in some specialties.
- Supervision requirements for PAs should be maintained at the levels currently mandated by state statute.
- The University of Utah's PA program should place more emphasis on training PAs with language skills, especially Spanish speaking students, regardless of ethnicity.

Section IV
Productivity

According to survey responses, approximately 70% of Utah's PAs work at least 36 hours per week at their primary work location. An examination of various factors such as gender and specialty practiced revealed no significant variations in hours worked per week. This examination revealed that 73% of male PAs worked at least 36 hours per week as opposed to only 63% of their female counterparts. Primary care PAs (72%) were slightly more likely to work a minimum of 36 hours than their specialty care counterparts (66%). Age, rural/urban practice and work setting were also examined. There was almost no difference between the percentage of rural and urban PAs who worked a minimum of 36 hours per week. Interestingly, PAs between the ages of 35 and 44 were more likely to work less than the 36 hour standard. For the most part, there was little correlation between work setting and hours worked. A clear majority, approximately 70%, of respondents in all work settings reported working at least 36 hours per week.

A comparison of productivity data for physicians statewide, PAs statewide, and rural and urban PAs revealed some important trends. When looking at mean total hours worked and mean patient care hours, both were slightly higher (43 and 42 respectively) for the rural PA workforce, compared to the statewide PA workforce (42 and 41 respectively). This analysis also revealed that the rural workforce spends virtually 100% of work time in patient care activities. For both urban PAs and physicians statewide, the mean total hours worked, were significantly higher at 46 and

53 hours respectively. However, mean patient care hours for both of these constituencies were similar to the rural PAs and statewide PA workforce, with urban PAs providing 41 hours of patient care per week and Utah physicians providing 43 patient care hours.

While Utah physicians work more hours overall and spend more hours in patient care, Utah PAs, especially the rural PAs, see more outpatients per week. This is probably to be expected for a number of reasons. PAs practice within the scope of practice of their supervising physician; however, PAs generally perform more routine procedures and treat patients with more routine problems, while referring more complicated cases to the supervising physician. This may allow them to see more patients in a shorter period of time. Also, Utah physicians see far more inpatients per week than do the state's PAs.

Figure 12

Mean Productivity Measures (per week)

	PAs	Rural PAs	Urban PAs	MDs / DOs
Total Hours Worked	42	43	46	53
Patient Care Hours	41	42	41	43
Outpatients	79.1	81.3	77.9	70.54
Inpatients	5.4	3.6	6.4	9.4
Total Patients	84.5	84.9	83.9	79.94

Utilizing a method of analysis based on one used by the Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) Center for Health Workforce Studies and the WWAMI Rural Research Center in the study "The Contribution of Nurse Practitioners and PAs to Generalist Care in underserved areas of Washington State", the number of outpatient visits per week as reported by the state's clinicians in the UMEC surveys were converted into Full Time Equivalents (FTE), with one FTE equaling 105 outpatients seen per week[47].

Based on this methodology, the state's PA workforce only contributed 8% of the total FTE available throughout the state. This is probably explained by the fact that PAs make up the smallest constituency of clinicians in the state (only 354 providing patient care). What was somewhat surprising was the fact that the state's APRN(s) only contributed about 10% of the total FTE based on this formula, despite more than tripling the number of PA(s). Basing productivity solely on outpatient data probably discounts APRN productivity significantly, as many Utah APRNs dedicate a significant portion of time to RN type activities and/or inpatient care. Like the Washington study, the significance of this analysis lies in the fact that combined, Utah's PAs and APRN(s) provide nearly one-fifth of the state's clinician FTE, a significant portion of the care provided in the state.

Using the same methodology used to measure productivity of the overall clinician workforces, UMEC analyzed the contribution of PAs practicing in rural Utah as well as those working in primary care. Rural and primary care PAs provided roughly the same proportion of FTE as the overall workforce. The 68 rural PAs in the state provided 9% of the clinician FTE in rural Utah. Primary care PAs contributed 9% of the primary care FTE contributed by PAs and physicians.

Data collected in the survey regarding non-patient care activities reveals that PAs spend a larger percentage of work

[47] Larson, Palazzo, Berkowitz, Pirani, Hart (2001): The Contribution of Nurse Practitioners and PAs to Generalist Care in Underserved Areas of Washington State

time in patient care than physicians. Utah physicians spend significantly larger percentages of their time in non-patient care activities, such as teaching, research, and administrative functions. The mean number of hours spent per week in administrative functions is indicative of this trend. For Utah physicians, the mean number of hours spent in administration is 4.45. For Utah PAs, the mean is 2.53.

Conclusions:

- PA productivity (8% of total FTE) is proportional to their percentage of the overall workforce (6%). When measuring the adequacy of the clinician workforce, it is not appropriate to significantly discount the contribution of PAs.

Section V
The Rural Workforce

Distribution of PA Workforce:

PAs can be found in 26 of 29 counties in the state. Despite this broad geographic distribution, 46% of all PAs in the state practice primarily in Salt Lake County. Not surprisingly Utah, Davis and Weber counties combined are home to 28% of the state's PAs. Roughly 74% of all Utah PAs practice in Utah's four urban counties. This compares to 77% of the state's population, which is located in the four Wasatch Front counties[48].

Conversely, 26% of the PA workforce in Utah practices in the 25 counties which are home to 23%[49] of the state's population. It also appears that in most cases, the PA workforce is experiencing the most growth in those counties whose populations are also growing, namely the Wasatch front counties, along with Cache, Tooele and Washington counties. Based on the distribution of population and workforce percentages, it doesn't appear that there is a significant mal-distribution of the state PAs. Rather, it appears that the workforce is distributed according to market forces.

Rural Demographics:

The following tables illustrate how the rural PA workforce compares to the statewide workforce in terms of gender, ethnicity, and age. As the charts show, the rural workforce is comparable in each of these characteristics to the statewide workforce.

Figure 13

Gender and Ethnicity Distribution of Rural PA Workforce

	% Female	% Minority
1998	34.5%	0.0%
2002	34.8%	2.9%

Gender and Ethnicity Distribution of Statewide PA workforce

	% Female	% Minority
1998	36.3%	5.0%
2002	36.8%	7.0%

Figure 14

Age Distribution of Rural PA Workforce

	%< 40	%40-54	%55+
1998	29%	57%	14%
2002	32%	51%	13%

Age Distribution of Statewide PA workforce

	%< 40	%40-54	%55+
1998	24.4%	67.2%	8.0%
2002	36.4%	47.5%	11.9%

[48] U.S. Census Bureau (2000)
[49] ibid

Rural Practice Characteristics:

In 2002, Utah's rural PA workforce was heavily concentrated in the primary care specialties. Over 70% of the 68 PAs practicing in rural or frontier Utah specialized in primary care, as compared to only 58% of the rural physicians. There are 37 Family Practice PAs in rural Utah which represent over half of the entire rural PA workforce. The number of PAs in the primary specialties practicing in rural Utah is as follows: Internal Med (5), Pediatrics (4), and OB/GYN (2). The presence of these primary care PAs in Utah's rural counties helps extend the state's primary care network into areas which would otherwise be left with limited access to healthcare services in their own communities. In some frontier communities, PAs are the only healthcare providers available, for the mere fact that these communities lack sufficient population to support a physician practice.

Figure 15

Comparison of Rural & Urban Primary Care PA(s)

Specialty	Number in Rural Practice	Percent of Rural Workforce	Number in Urban Practice	Percent of Urban Workforce
Family Practice	37	54.4%	92	37.6%
Internal Medicine	5	7.4%	46	18.8%
OB/GYN	2	2.9%	3	1.2%
Pediatrics	4	5.9%	17	6.9%

Like the 2002 rural workforce, the 1998 rural workforce was also heavily concentrated in primary care. According to responses to the 1998 survey, 42 of the 48 PAs practicing in rural Utah practiced in primary care[50]. Of those, nearly half (28) were in Family Practice. Other specialties in which rural PAs were concentrated in 1998 include Emergency Care (9), OB/GYN (4), Dermatology (3), and Internal Medicine (3)[51]. In 1998, there was only one PA practicing Pediatrics in rural Utah[52].

Rural Productivity:

Using work hours per week as well as the number of outpatients and inpatients seen per week as measures of productivity, the rural workforce is comparable to the overall workforce. The mean total hours worked per week for rural PAs was 43, one more than the overall workforce, but fewer than the 46 hours worked per week by their urban counterparts. The rural workforce had a mean patient care hours worked per week of 42, again slightly higher than the overall workforce mean of 41 patient care hours. This is also higher than the mean of 41 patient care hours provided by urban PAs. The mean number of outpatients seen per week by rural PAs was 81, again slightly higher than the number seen by the statewide workforce and the urban PAs (79 and 78 respectively). The mean number of inpatients seen per week by the rural workforce (4) was less than the overall PA workforce (5) and urban PAs (6).

Presence in HPSAs:

Availability of health professionals and services is measured by a federal methodology called Health Professional Shortage Areas (HPSA's). There are several factors which are taken into consideration when designating an area as a HPSA. Major factors are geography, population/primary care practitioner ratios, unusually high needs for primary care physicians, and insufficient capacity of existing providers[53]. The

[50] Utah Medical Education Council

[51] ibid

[52] ibid

[53] Code of Federal Regulations (CFR) Chapter 1, Part 5, Appendix A (Oct. 1 1993, pp.43-48) Criterion for Designation of Areas Having Shortages of Primary Medical Care Professionals
U.S. Department of Health and Human Services Health Resources and Services Administration
http://bhpr.hrsa.gov/shortage/hpsacritpcm.htm

importance of HPSA designation lies in the fact that qualification for over 30 federal programs is dependent on receiving a HPSA designation. When a county is designated a shortage area, it suggests residents of that county will likely experience some degree of difficulty in accessing healthcare.

According to the Utah Department of Health, every county in Utah qualified at least in part as a federally designated Primary Care Health Professional Shortage Area, (HPSA) as of May 1, 2003 (see appendix). Twelve counties were designated whole county (geographic) HPSA(s). Of those twelve counties, ten were frontier, meaning they had a population density of less than six persons per square mile, and two were rural. While the combined population of these twelve counties is only 6% of the state total, for this segment of the state's population, geography is a major factor in the accessibility of healthcare services.

The 2002 survey data shows that 27 (8.3%) of Utah's PA workforce had a primary practice site in a HPSA county (designated a whole county – geographic HPSA). This compares to 55 (2.2%) for Utah physicians and 35 (4.2%) for Utah APRN(s). Two frontier counties, Daggett and Piute, had no full-time practicing clinicians. It should come as no surprise that a larger percentage of PAs serve in these so called shortage areas than do other clinicians. One of the basic tenets of the PA profession is the provision of healthcare services to underserved populations, especially those in rural or frontier areas.

Conclusions:

- Based on population distribution in the state, there is not a significant mal-distribution of the PA workforce.
- PAs make up a significant portion of the clinician workforce providing care in Utah HPSA designated counties.
- It appears that the rural workforce is adequate at this time.

Section VI
Factors Affecting the Decision to Practice in Utah

Utah's Healthcare Environment:

The healthcare systems which control the vast majority of beds in the state utilize physician based delivery systems and have policies which tend to discourage the utilization of PAs in a team approach to the delivery of healthcare services. In spite of this, demand for PA services has grown significantly in Utah in recent years.

There have been recent changes to Utah Workers Compensation and Medicaid regulations which will help make the healthcare environment more receptive to PAs in Utah. Workers Compensation Fund of Utah will now reimburse PAs at 75% of the physician rate, the same level that nurse practitioners have been reimbursed. Previously PAs had been reimbursed at only 65%[54].

The Utah Academy of PAs has recently succeeded in working with Medicaid of Utah to change language in "incident to" rules which had been interpreted by some healthcare systems and insurance companies in such a way as to deny PAs access to Medicaid patients in the state. With this change, PAs should gain increased access to the state's

[54] Utah Academy of PAs: http://www.utahapa.org/portal/content/currentnews.jsp [accessed 04/01/2003]

underprivileged populations. These positive changes should provide more opportunities for the state's PAs.

The healthcare environment in Utah undoubtedly has an impact on the decision to practice in Utah. Recent changes to state regulations for PAs make Utah one of the most "friendly" states in the country toward the PA profession. However, some of the larger healthcare systems in the state continue to require supervising physicians and the PAs who work with them to adhere to antiquated regulations including unreasonable levels of supervision, which make the utilization of PAs in their practices less attractive, and tend to discourage PA utilization by physicians. Overall, the healthcare environment in Utah has sent mixed signals to those desiring to enter the Utah PA workforce.

Training Location:

The 2002 PA survey identified two major factors which seem to play a role in the decision to establish a PA practice in Utah: graduation from the University of Utah's PA program, and being raised in Utah. Though other factors undoubtedly play a role in the decision to establish a practice in Utah, among those factors identified by the survey, attendance at the state's only PA program was the most influential factor. A full 60% of Utah PAs received their training in the state. The second most influential factor is the PA's state of upbringing. Over half (52%) of Utah's PAs indicated that they were raised in Utah.

PA Background:

The most important factor in establishing a practice in rural Utah appears to be the PA's background. PAs who reported attending high school in a rural area regardless of the state were more likely to locate in rural Utah (34% as opposed to 18% with an urban background). This is especially true of those who attended a rural Utah high school. Of those PAs working in rural Utah, 66% have a rural Utah background. Only 13% of those who indicated being reared in urban Utah locate in a rural part of the state. According to the 1998 survey, nearly 86% of those PAs with a rural Utah upbringing practiced in rural Utah[55]. The variance between the two surveys can probably be attributed to changes made to the design of the survey, which could have influenced responses.

Income:

Utah PA income is extremely competitive with the national average. According to survey responses, the mean income among Utah PAs is approximately $73,000 compared to $72,000[56] nationally. It is unlikely that income is a major factor in attracting PAs to the state.

Conclusions:

- Utah has a generally favorable practice environment for PAs.
- The two most important factors which entice PAs to practice in the state appear to be background and training location. The majority of PAs in the state either come from a Utah background or received their training here in the state.

Section VII
Training Capacity:

During the nineties, there was a proliferation of new PA programs around the country. During this same period, existing programs also expanded significantly. Since 2000 however, the

[55] Utah Medical Education Council (2000)
[56] American Academy of PAs (Oct.2002)

number of new programs coming online has tapered off, and the rate of expansion at existing schools has stabilized[57]. Unless another proliferation in the number of training slots occurs, it is unlikely that the level of growth the PA workforce has experienced the past few years can be sustained over the long term. The result could be a nationwide shortage, making it more difficult for the state to recruit the number of PAs needed to meet the needs of the growing population.

Currently there is only one PA training program in the state, the Utah PA Program (UPAP) located in the School of Medicine at the University of Utah. Starting with the incoming class of 2004, the program will graduate 34 new PAs each year. This represents the absolute maximum capacity of the current physical facilities and faculty.

Analysis of the rates of growth and attrition (PAs leaving Utah's workforce) seem to indicate that previous projections for PAs were probably conservative and need to be revised upward, as discussed previously.

The revision of expected demand requires that we examine the adequacy of the current capacity of UPAP. Looking at the factors that make up the new projection model, it appears that by 2010, the number of PAs leaving Utah's workforce will be more than four times the number graduating from the University of Utah's program.

In order to replace those currently in the workforce who are expected to leave during the next six years, as well as meet increasing demand fueled by population growth and a growing number residents over the age of 65, the state must begin the process now of either significantly expanding the existing PA program or look to the creation of a second program.

The UMEC believes that the most viable option would be the expansion of the existing program. Advantages of expanding the existing program include its setting in an academic health center, as well as the program's stature as a nationally recognized program. One disadvantage of expanding the program will be the need to construct additional classroom and potentially even administrative space as the space currently available is filled to the absolute maximum capacity. This would require a significant financial commitment on the part of the State and the University of Utah.

The other major obstacle that would have to be addressed before the PA program could expand is increasing the number of clinical opportunities for second year PA students. The areas of most concern are Emergency Medicine, Pediatrics, Women's Health (OB/GYN), Surgery, and Inpatient rotations. If expansion of the program is to occur, arrangements for additional training sites as well as increased access for PA students at existing sites will need to be secured.

In recognition of the need to expand training opportunities for healthcare professionals in order to meet workforce demand, the Utah Hospital Association's (UHA) workforce committee has established expansion of training for various professions into sites previously underutilized as a top priority. The committee will be working with member facilities encouraging them to provide training opportunities for health professions students. By working in conjunction with the UHA workforce committee, the PA program could identify

[57] AAPA (2004) Trends in the PA Profession: 1991-2003

and secure access to clinical sites previously underutilized for training.

The UMEC recommends increasing the number of training slots available from the current level of 34 graduates per year to 50 per year, by 2012. Capacity for additional expansions should also be planned for. Such an increase in the state's training capacity would be an important step in assuring an available supply of practitioners to meet state demand. It will likely be necessary for the program to receive additional state funds in order to meet these demands.

Since 1998, two interesting trends have begun to develop regarding where Utah's PAs are being trained. Since the last PA survey was conducted, the number of newly licensed PAs receiving their training in another state has increased each year, while at the same time the percent of PAs with Utah backgrounds who received their training in the state has decreased from nearly 80% to less than 66% in four years. Instead of staying in the state to receive their training, it appears that Utah students are going to out-of-state programs, then returning to enter the state's workforce.

There are alternative strategies which could be implemented to meet demand for additional PAs and opportunities for PA training in the state which should be considered in addition to expansion of the state's PA training program. The state could enhance student incentives, such as student loan forgiveness or scholarships for UPAP students who agree to remain in the state upon graduation for a specified length of time. The state could also enter into an agreement with out-of-state programs in which they will reserve slots for Utah students. The state would then guarantee repayment of the students' tuition if they return to work in the state for a certain period of time. The state is currently utilizing this strategy for both dentists and veterinarians with success. These strategies, when implemented in conjunction with expansion of training capacity, should help assure that the state has an adequate supply of PAs to meet growing demand.

Conclusions:

- Utah needs to expand the amount of PA training taking place in the state.
- In order to facilitate the expansion of PA training in Utah, additional training sites will need to be secured.
- The UHA workforce committee could be a key ally in securing additional clinical training sites for PAs.
- There are potentially other options in addition to expanding the number of PAs trained in the state which could be used to help meet the state's need.

Recommendations:

- The UMEC recommends expansion of the existing PA program to 50 students by the year 2012 with additional capacity built in for future potential expansions.
- The UMEC also recommends that the state increase the annual appropriation to the program in order to make expansion feasible.
- The PA program should work closely with the UHA workforce committee to identify and gain access to additional clinical training sites in the state of Utah.
- Other strategies for meeting workforce needs should also be explored.

Section VIII
Summary:

In spite of a healthcare environment that favors a physician based delivery system instead of a team approach to healthcare delivery, the state's PA workforce is thriving, as evidenced by the level of growth (35%) experienced in the past four years. Future growth will likely be strongest in sub-specialty care as more specialist physicians take advantage of the skills PAs possess in order to provide quality care to more patients. The UMEC believes the demand for PAs will continue to be high in the coming years. This demand will increase if a shortage of physicians occurs as has been predicted.

Also demonstrating the vitality of the PA profession in Utah is the presence of a significant percentage of younger PAs. There is an appropriate mix of PAs in the various age cohorts, with only 12% over the age of 55. The impact of retirement on the workforce over the next five to ten years should be minimal.

The number of female PAs in the state has grown at a minimal rate over the last four years. Because women make up an increasing percentage of students enrolling in PA programs in Utah and around the country, women should begin to make up an increasing percentage of the state's PA workforce in the coming years.

Minorities are significantly underrepresented in the PA workforce in Utah though progress is being made, particularly among Pacific Islanders and Latinos. Because of the absence of a significant number of minorities providing healthcare, and because of the importance of having a culturally competent clinician workforce, increased efforts should be made to recruit minorities into the PA profession. Such efforts could include introducing students in elementary and junior high schools to various career opportunities in healthcare including opportunities for mid-level providers such as PAs.

Between 2000 and 2010, Utah is expected to experience significant population growth. The vast majority of that growth will be centered in five counties. Davis, Salt Lake, Utah, Washington and Weber counties will absorb 81% of the total growth for the state during that ten year stretch[58]. These counties can also expect to become home to a significant portion of any growth in the PA workforce that will occur during that same period of time.

Based on the number of hours worked per week as well as clinician FTE (one FTE = 105 outpatient visits per week) Utah's PAs are a productive and vital cog in the state's healthcare landscape. The mean number of hours spent in direct patient care per week by PAs was 41. Analysis also shows that the mean number of total hours spent working was 42. In terms of FTE, Utah PAs contribute 8% of the statewide total, 9% in rural Utah, and 9% of the primary care FTE.

The rural workforce is comparable to the overall workforce in terms of demographics and productivity. Comparisons of age, gender, and ethnicity data show that the rural workforce is comparable to the statewide workforce. Examination of productivity measures, such as patient visits and patient care hours, shows no significant difference between the rural workforce and the overall workforce. However, rural PAs see on average two more outpatients per week and also spend slightly more time performing

[58] Governor's Office of Budget and Planning

administrative functions than the overall workforce, while seeing fewer inpatients.

The overall environment in Utah is favorable for continued growth of the PA workforce. Recent changes in regulations regarding the reimbursement of PAs by both Workers Compensation and Medicaid are indicators that the environment is increasingly favorable for PAs.

Training location and having a Utah background continue to be the most important factors in enticing a PA to practice in the state. The mean income in Utah is comparable to the national mean. Income does not play a vital role in the decision to practice in Utah.

In order to meet future demand for PAs in the state, the UMEC recommends increasing the number of students trained in the state from the current level of 34 to 50 by the year 2012. The UMEC also recommends that the state appropriate additional funds to support the training program.

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Appendix A

Descriptive Data & Statistics for Utah Physician Assistants 2003

Compiled from a survey of Utah Physician Assistants conducted by the Utah Medical Education Council, December 2002 through February 2003

The data contained in this appendix represents additional data collected through the 2003 physician assistant survey. Data tables are arranged according to the survey design, with tables and cross-tabulations presented along with the corresponding survey question.

This appendix is divided into two parts: A brief narrative for each data element and cross-tabulations of the survey data.

Results from the survey have been and will continue to be compared to data gathered in the original physician assistant survey conducted in 1998, as well as national data for corresponding years, in order to get a better understanding of how Utah compares to the rest of the nation and to identify developing trends in Utah's physician assistant workforce.

The 2003 physician assistant survey was mailed to 377 physician assistants with active Utah licenses. The survey achieved a 75% response rate with 283 respondents. Responses were weighted to account for non-responses. The following data represents weighted responses to the survey.

Data & Statistics for Utah PAs

1. Do you provide any healthcare services in Utah?

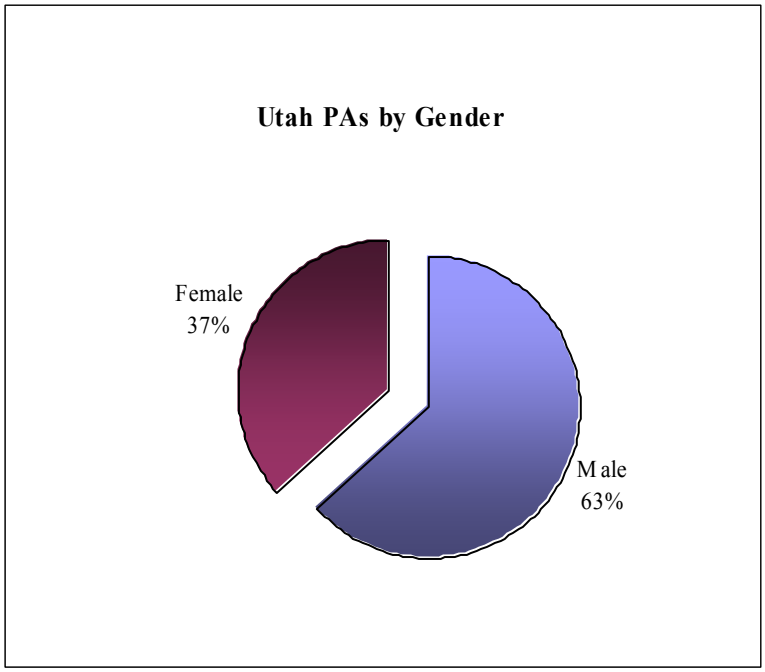
Figure 1

Utah Physician Assistants who Practice in Utah

	Count	Percent
Yes	324	92%
No	28	8%
Total	353	100%

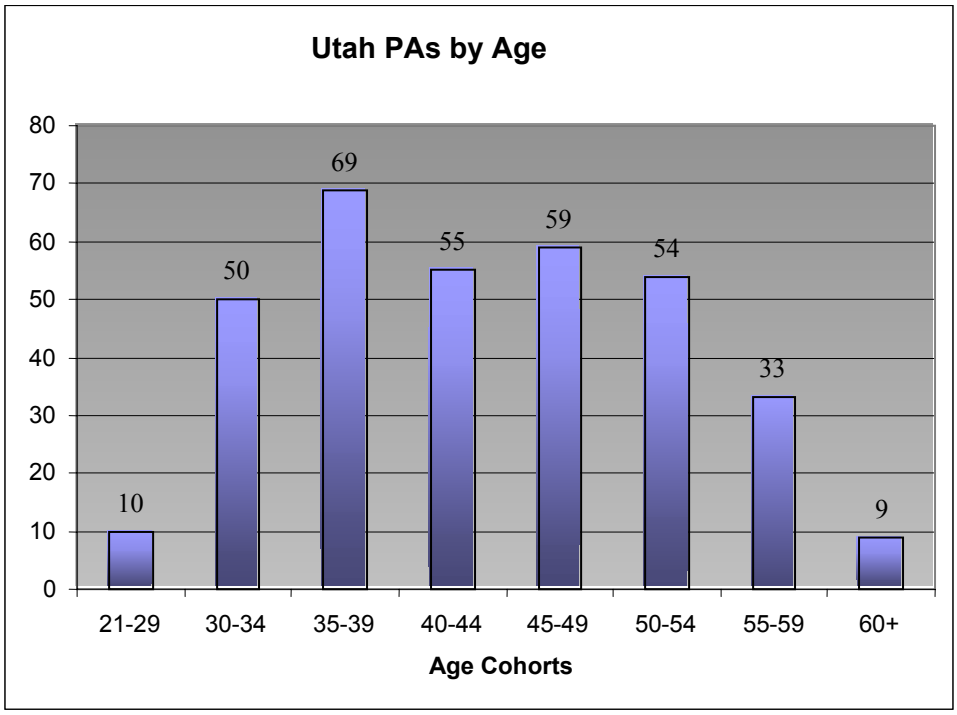
1a. Gender

Figure 2



1b Year of birth (used to calculate age)

Figure 3



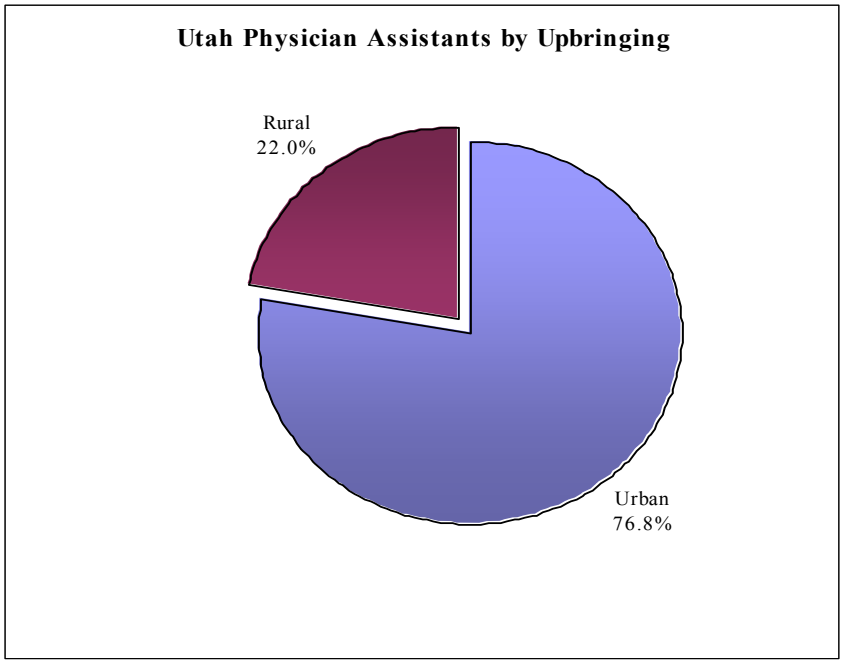
2. What Race/Ethnicity are you predominantly ? (please choose only one)

Figure 4

Ethnicity of PA Workforce		
	Number of Responses	Percent
African American	1	0.3%
Asian	1	0.3%
Asian Indian	1	0.3%
Hispanic/Latino	11	3.1%
Native American / Alaskan	1	0.3%
Pacific Islander / Native Hawaiian	4	1.1%
White/Caucasian	328	92.9%
Not Reported	5	1.4%
Total	353	100%

3. What is the estimated population of the city/town where you spent the majority of your upbringing?(population data was converted into either rural or urban. Towns with population of <50,000 considered rural)

Figure 5



4. The state or country where you graduated from high school?

Figure 6

State of PA Upbringing

State	Count	Percent of Workforce	State	Count	Percent of Workforce
Arizona	10	3.0%	Nevada	4	1.0%
California	29	9.0%	New York	9	3.0%
Colorado	8	2.0%	Ohio	4	1.0%
Florida	4	1.0%	Oklahoma	1	0.3%
Georgia	1	0.3%	Oregon	1	0.3%
Idaho	10	3.0%	Pennsylvania	6	2.0%
Illinois	3	0.9%	Texas	6	2.0%
Indiana	1	0.3%	Utah	173	52.0%
Kansas	1	0.3%	Virginia	3	1.0%
Maine	1	0.3%	Washington	6	2.0%
Michigan	5	2.0%	Wisconsin	9	3.0%
Missouri	3	1.0%	Wyoming	6	2.0%
Montana	3	1.0%	Philippines	1	0.3%
North Carolina	3	1.0%	Czech Republic	1	0.3%
North Dakota	1	0.3%	Tonga	1	0.3%
Nebraska	4	1.0%	"International"	1	0.3%
New Jersey	5	2.0%	Not Reported	6	2.0%
New Mexico	1	0.3%	Total	353	100.0%

5. The institution from which you received your PA certificate/degree? (this question was used to determine state of PA training)

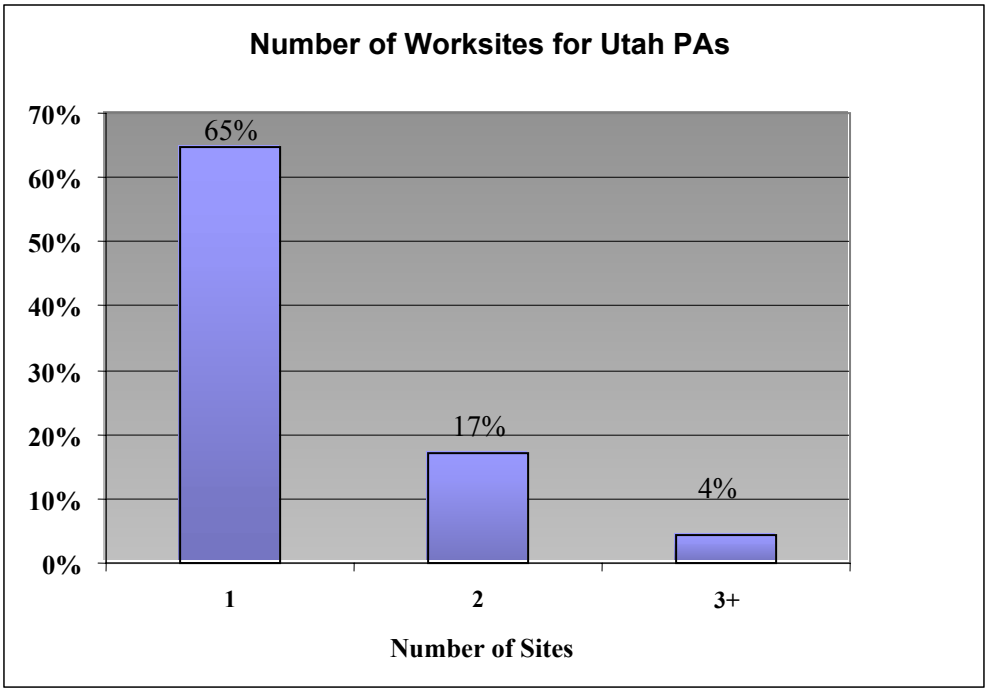
Figure 7

State of PA Training

State	Count	Percent of Workforce	State	Count	Percent of Workforce
Utah	213	60.0%	Maryland	3	0.8%
Texas	15	4.2%	Montana	3	0.8%
California	14	3.9%	North Dakota	3	0.8%
Pennsylvania	14	3.9%	Wisconsin	3	0.8%
Alabama	8	2.3%	Colorado	1	0.3%
Iowa	8	2.3%	District of Colombia	1	0.3%
Nebraska	8	2.3%	Indiana	1	0.3%
North Carolina	6	1.7%	Kansas	1	0.3%
New York	6	1.7%	Massechussets	1	0.3%
Ohio	6	1.7%	Maine	1	0.3%
Oklahoma	6	1.7%	Michigan	1	0.3%
Georgia	5	1.4%	New Jersey	1	0.3%
Washington	5	1.4%	Tennessee	1	0.3%
Arizona	4	1.1%	West Virginia	1	0.3%
Idaho	4	1.1%	Not Reported	4	1.1%
Missouri	4	1.1%	Total	355	100.0%
Illinois	3	0.8%			

6. Locations of Sites where you spend the most time providing direct patient care. Also estimate the average hours per week at each practice location. Please estimate the Additional number of years you plan on providing services at each location. (responses to this question yielded data on county of practice as well as the number of separate sites PAs work at)

Figure 8



6a. Patient care hours per week? (only primary site reported in appendix)

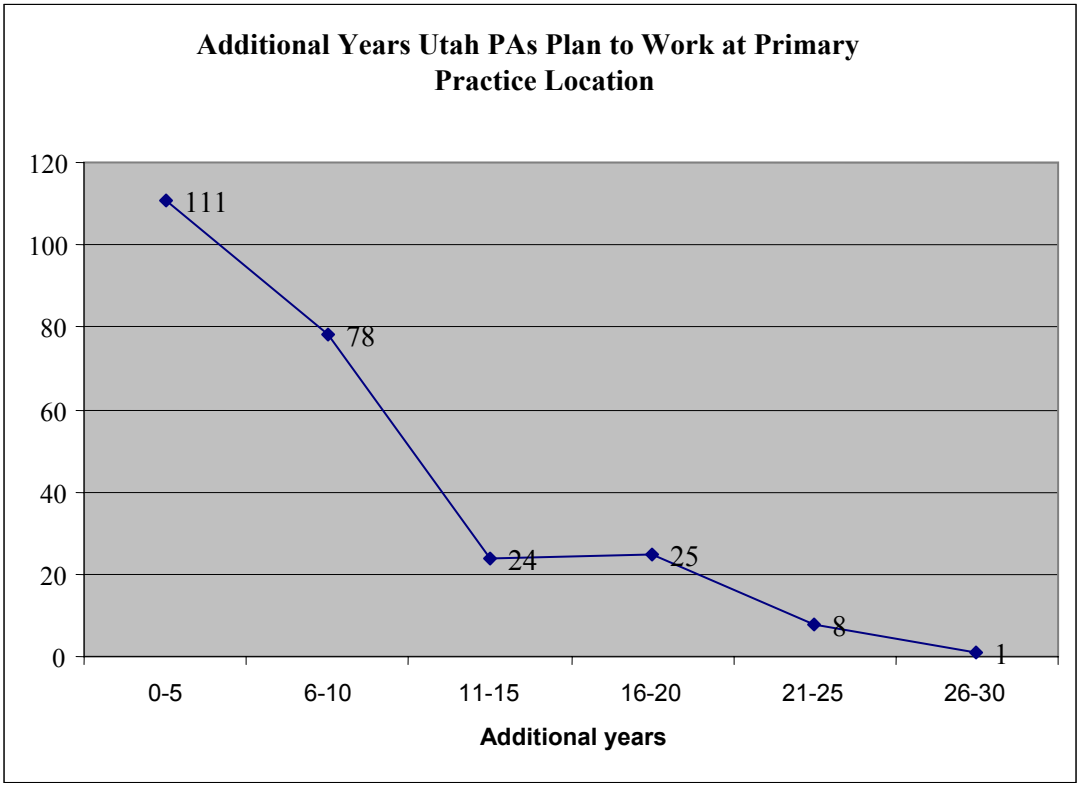
Figure 9

Patient Care Hours/Week at Primary Location

	Count	Percent
0-20	33	9%
21-25	15	4%
26-30	33	9%
31-35	19	5%
36-40	134	38%
41-45	36	10%
46-50	48	14%
51 +	15	4%
Not Reported	23	7%
Total	356	100%

6b. Additional number of years at practice site. (Due to the way the question was worded, it is not a valid measure of future retirement. Rather it could be used to measure the mobility of the PA workforce)

Figure 10



7. Please describe your primary and secondary work location(s): (A list of potential work-sites was provided).

Figure 11

Practice Sites for Utah PAs

Primary Work Site	Count	Percent
Self Employed	10	4%
Solo Physician practidce	81	29%
Multi-Specialty Physician Group	61	22%
Hospital/Clinic University	29	10%
Hospital/Clinic IHC	24	9%
Hospital/Clinic Other	48	17%
HMO	3	1%
Community Health Center	34	12%
Physician Practice Mngmnt Org	9	3%
College/University Faculty	5	2%
Other	34	12%
Not Reported	16	6%
Total	354	100%

8. How do you correspond with a supervising physician(s)? Also please estimate the percentage (%) of the amount of time spent corresponding.

Figure 12

Percent On Site Supervision

	Count	Percent
0-10 %	23	6%
11-20 %	11	3%
21-30 %	8	2%
31-40 %	4	1%
41-50 %	15	4%
51-60 %	9	3%
61-70 %	3	1%
71-80 %	44	12%
81-90 %	46	13%
91-100 %	182	51%
Not Reported	10	3%
Total	355	100%

Figure 13

Percent Telecomm. Supervision

	Count	Percent
0-10 %	225	64%
11-20 %	30	8%
21-30 %	9	2%
31-40 %	8	2%
41-50 %	11	3%
51-60 %	4	1%
61-70 %	4	1%
71-80 %	14	4%
81-90 %	8	2%
91-100 %	10	3%
Not Reported	33	9%
Total	354	100%

9. How many hours per week do you provide healthcare services without direct supervision from a physician?

Figure 14

Hours per Week without Direct Supervision

	Count	Percent
0-9 hrs/wk	153	43%
10-19 hrs/wk	68	19%
20-29 hrs/wk	50	14%
30-39 hrs/wk	46	13%
40 +/hrs/wk	26	7%
Not Reported	11	3%
Total	354	100%

10. How many patients do you see per week when a physician is not physically available?

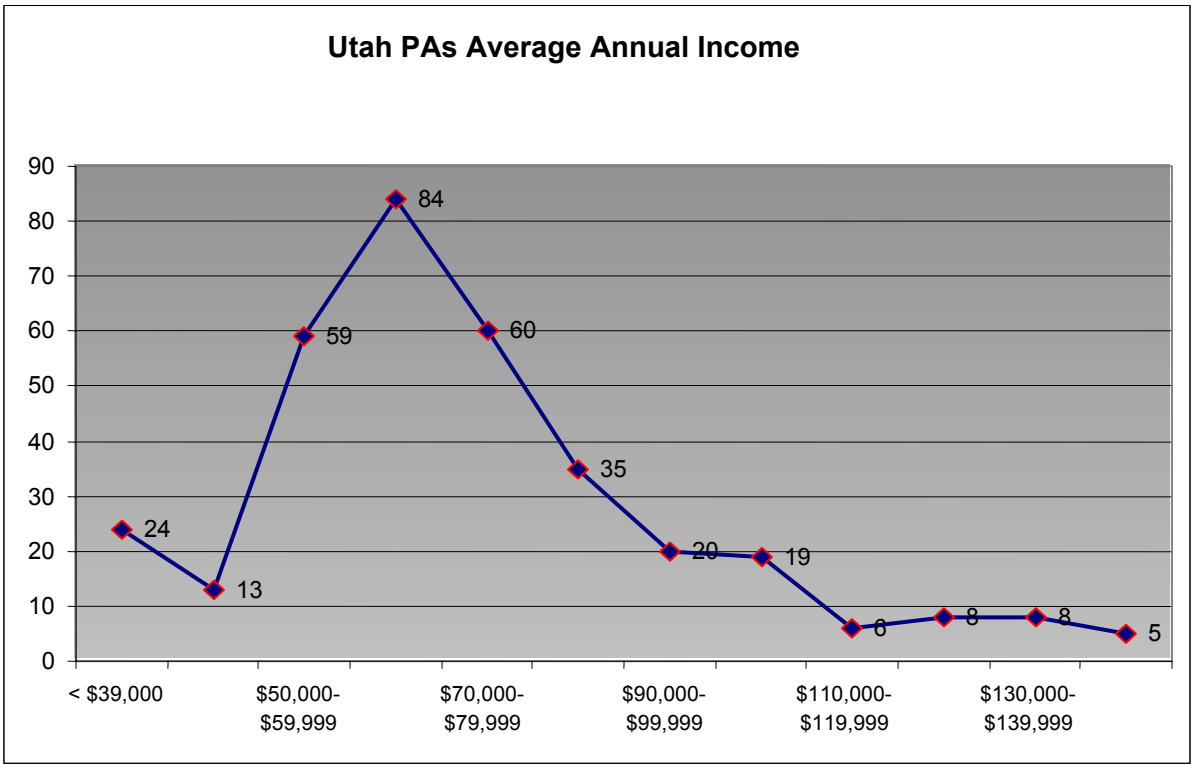
Figure 15

Patients Seen per Week without Physician Present

	Count	Percent
0	94	27%
1-19	80	23%
20-39	73	21%
40-59	33	9%
60-79	18	5%
80+	36	10%
Not Reported	21	6%
Total	354	100%

11. What is your average yearly gross compensation (before tax & not including benefits)?

Figure 16



12. Number of days a patient waits for an appointment in your primary location. New Patient: Est. Patient:

Figure 17

Length of Wait in Days for New Patients

Length of Wait in Days	PAs Reporting	Percent
0	83	23%
1-3	100	28%
4-5	19	5%
6-7	29	8%
8-10	9	3%
11-15	33	9%
16-20	4	1%
21-25	6	2%
26-30	14	4%
31-40	4	1%
41-50	5	1%
51-60	5	1%
81-90	3	1%
91 +	9	3%
Not Reported	33	9%
Total	356	100%

Figure 18

Length of Wait in Days for Est. Patients

Length of Wait in Days	PAs Reporting	Percent
0	99	28%
1-3	126	36%
4-5	15	4%
6-7	30	8%
8-10	6	2%
11-15	16	5%
16-20	6	2%
21-25	4	1%
26-30	3	1%
31-40	1	0%
41-50	4	1%
51-60	1	0%
81-90	1	0%
91 +	3	1%
Not Reported	38	11%
Total	353	100%

13. In an average week, how many outpatients do you see?

Figure 19

Number of Outpatients Seen per Week

Outpatient Cohorts	PAs Reporting	Percent
0	8	2%
1-25	35	10%
26-50	69	20%
51-75	45	13%
76-100	106	30%
101-125	26	7%
126-150	30	9%
151-175	5	1%
176-200	1	0.3%
201-225	1	0.3%
226-250	4	1%
250 +	1	0.3%
Not Reported	21	6%
Total	352	100%

14. In an average week how many inpatients do you see?

Figure 20

Inpatients Seen Per Week

Inpatient Cohorts	PAs Reporting	Percent
0	250	71%
1-25	73	21%
26-50	5	1%
51-75	5	1%
76-100	3	1%
101-125	1	0.3%
151-175	1	0.3%
Not Reported	15	4%
Total	353	100%

15. In an average week how many hours do you spend working including non-patient care? This question did not yield useable data.

16. In your primary work situation, how many hours per week are considered full-time?

Figure 21

Hours Worked Considered Full-Time

	PAs Reporting	Percent
26-30	10	3%
31-35	30	8%
36-40	235	66%
41-45	44	12%
46-50	11	3%
51+	6	2%
Not Reported	18	5%
Total	354	100%

17. Please allocate the average hours per week you spend with the following activities:

Figure 22

Hours Worked per Week in Utah by Activity

Hours/Week	Patient Care	Teaching	Combined	Research	Admin	Consult	Other
0-10	39	339	323	339	323	341	336
11-20	21	1	6	1	14	0	4
21-30	58	0	1	0	0	0	1
31-40	145	0	4	0	3	0	0
41-50	61	0	5	0	1	0	0
51 +	16	0	1	0	1	0	0
Not Reported	14	14	14	14	14	14	14

18. Please mark your Primary area of practice, as well as any Secondary areas of practice (Mark all that apply)

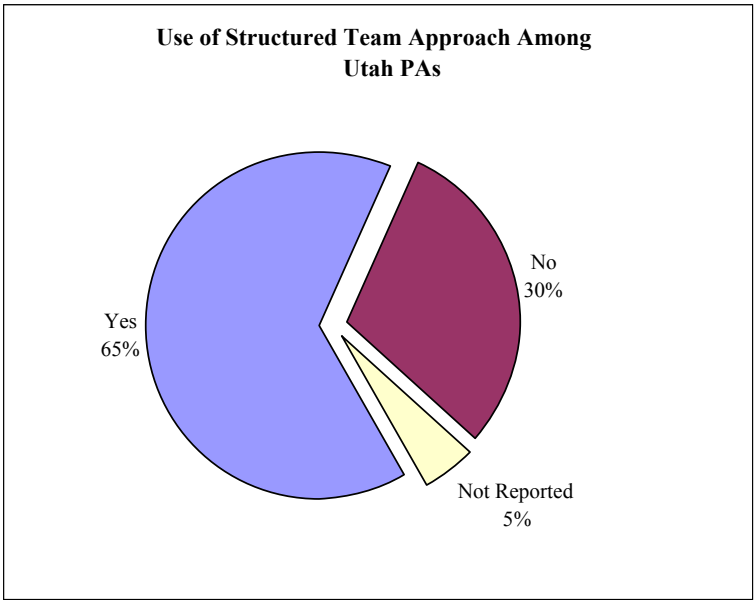
Figure 23

Utah PAs by Specialty 2002

Specialty	Count	Percent	Specialty	Count	Percent
Allergy & Immunology	1	0.4%	Ob/Gyn (General)	5	1.0%
Anesthesiology (General)	1	0.4%	Ob/Gyn (Subspecialty)	1	0.4%
Anesthesiology (Pain Mngmnt)	1	0.4%	Pediatrics	20	6.0%
Dermatology	14	4.0%	Pediatrics (Subspecialty)	3	0.7%
Emergency Care	19	5.0%	Preventative Med/ Public Health/ Occ Med	14	4.0%
Family Practice	139	39.0%	Psychiatry	3	0.7%
Internal Med	25	70.0%	Radiology (Diagnostic)	1	0.4%
Cardiology	10	3.0%	Surgery (General)	5	1.0%
Gastroenterology	5	1.0%	Cardio-Thorasic Surgery	5	1.0%
Geriatrics	3	0.7%	Neurological Surgery	1	0.4%
Hematology/Oncology	9	3.0%	Orthopedic Surgery	23	6.0%
Infectious Diseases	1	0.4%	Otolaryngology	1	0.4%
Pulmonary Disease CCM	3	0.7%	Plastic Surgery	3	0.7%
Rheumatology	1	0.4%	Other Surgical Subspecialty	3	0.7%
Other Internal Medicine	1	0.4%	Urology	6	2.0%
Internal Medicine &Pediatrics	3	0.7%	Other Specialty	11	3.0%
Neurology	5	1.0%	Not Reported	10	3.0%
			Total	354	100.0%

19. Are you providing patient care as part of a structured team approach?

Figure 24



19a. If yes please specify the number of each professionals that comprise your team:

Figure 25

Health Care Professionals that Comprise Health Teams

	Physician Assistant Response	Percent of Physician Assistants*
MD/DO	220	96%
APRN/NP	78	34%
PA	172	75%
Pharmacists	53	23%
Other	44	19%

* Based on the number of Physician Assistants who reported working in a structured team approach.

20. Are you limiting the number of new: Medicaid Patients, Medicare Patients, Non-Paying Patients, Other New Patients? This Question did not yield usable data.

21. What percent of your patients are…? (Several payment types listed) This Question did not yield usable data.

22. Does your primary clinic offer services based on a sliding-fee scale determined by ability to pay? Data from this Question was not included in this report.

23. Which of the following hospital privileges do you currently hold? (check all that apply)

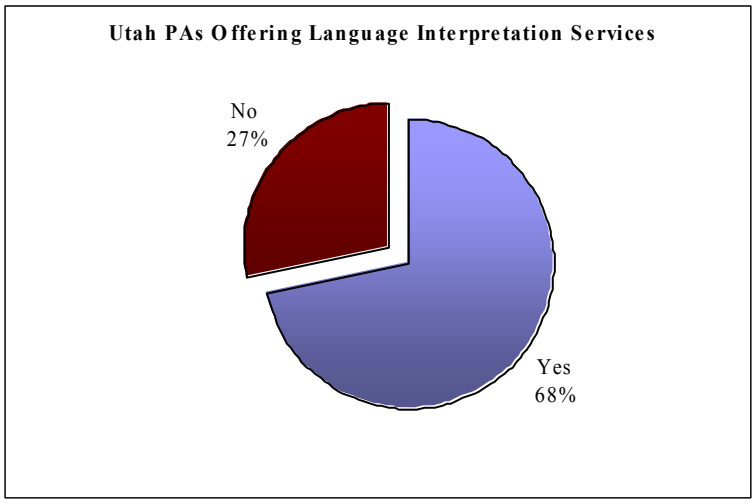
Figure 26

Utah PA(s) With Hospital Privileges

Hospital Privilege Type	1998	2002	Change
None	137	213	76
Inpatient Care of Children (Non-Newborns)	41	41	0
Labor & Delivery	5	1	(4)
First Surgeon for Other Major Med procedures	6	16	10
Inpatient Care of Adults	68	96	28
Care of Newborns	17	14	(3)
1st Assistant for Major Surgeory/ C-Sections	39	55	16
Intensive / Coronary Care	17	31	14

24. Do any of your practice location(s) provide interpretation/translation services to your patients?

Figure 27



The following tables are bi-variable cross-tabulations of various data elements from the 2003 survey. These Cross-tabulations provide valuable insight into the nature of the PA workforce in Utah.

25. The following table shows where male and female PAs are working in Utah.

Figure 28

Gender and Worksite

	Male	Female	Total
Self Employed	5	5	10
Solo Physician practidce	53	29	82
Multi-Specialty Physician Group	45	16	61
Hospital/Clinic University	15	14	29
Hospital/Clinic IHC	16	8	24
Hospital/Clinic Other	30	18	48
HMO		3	3
Community Health Center	20	14	34
Physician Practice Mngmnt Org	6	3	9
College/University Faculty	4	1	5
Other	25	9	34
Total	219	120	339

26. This table shows a breakdown of the PA workforce by gender and specialty. This chart helps identify which specialties male and female PAs are favoring.

Figure 29

Utah PAs by Gender and Specialty

Primary Specialty Practiced	Male	Female	Total
Family Practice	86	44	130
Dermatology	13	1	14
Emergency Care	11	6	18
Internal Medicine	34	21	55
Ob/Gyn	1	5	6
Pediatrics	15	8	23
Psychiatry	3	0	3
Surgical Specialties	8	8	15
Orthopedic Surgery	16	5	21
Other Specialties	11	15	26
Occ Med/ Public Health/ Preventative Med	10	3	13
Not Reported	1	0	1
Total	209	115	324

27. This table provides important information on how female PA salaries compare to male salaries in Utah. As can be seen there is a significant difference in income level between the genders in the PA workforce.

Figure 30

Gender and Income Distribution

Income Levels	Male	% of Male Workforce	Female	% of Female Workforce
< $39,000	*	2%	20	15%
$40,000-$49,999	*	2%	9	7%
$50,000-$59,999	33	15%	28	22%
$60,000-$69,999	46	21%	38	29%
$70,000-$79,999	46	21%	14	11%
$80,000-$89,999	28	12%	8	6%
$90,000-$99,999	19	8%	1	1%
$100,000-$109,999	18	8%	1	1%
$110,000 $119,999	*	2%	0	0%
$120,000-$129,999	*	3%	1	1%
$130,000-$139,999	8	3%	0	0%
140,000 +	*	2%	1	1%
No Response	4	2%	10	8%
Total	223	100%	130	100%
Mean	$80,000		$60,000	

*Indicates fewer than eight respondents

28. This table shows the distribution of PAs in Utah by rural or urban county and by gender. This table shows that female PAs are not concentrated in either urban or rural areas. Rather female PAs make just over a third of the rural workforce, just like the overall workforce.

Figure 31

Gender and Rural/ Urban Practice

County Type	Male	Female
Rural	46	24
Urban	156	89
Unknown	11	9

29. This table shows the relative age of the rural and urban PA workforce. This table seems to indicate a preference for urban practice settings among younger PAs. If this trend continues over the next few years, it could be an indicator of potential problems long term for rural Utah.

Figure 32

Age and Urban/Rural County Cohorts

Age Groups	Rural	Urban	Total
21-24		1	1
25-29		9	9
30-34	4	40	44
35-39	19	44	63
40-44	13	39	52
45-49	9	45	54
50-54	14	30	44
55-59	5	23	28
60-64	3	4	7
65-69	1		1
No Response	3	13	16
Total	71	248	319

30. The following chart shows the distribution of the PA workforce by age and gender. Not surprisingly, female PAs are concentrated in the younger age cohorts.

Figure 33

Utah PAs by Age and Gender

Age Cohorts	Male	Female	Total
21-24	0	1	1
25-29	3	6	9
30-34	34	16	50
35-39	40	29	69
40-44	30	25	55
45-49	35	24	59
50-54	40	14	54
55-59	25	8	33
60-64	4	4	8
65-69	0	1	1
Not Reported	13	1	14
Total	224	129	353

31. The following is a cross-tab of specialty data and age data. This table will be useful in projecting specialties which may face potential shortages due to retirement.

Figure 34

Age & Specialty of Utah PA(s) 2002

Age Cohort	Family Practice	Dermatology	Emergency Care	Internal Medicine	Ob/Gyn	Pediatrics	Psychiatry	Surgical Specialties	Orthopedic Surgery	Other Specialties	Public Health Preventative Med	Missing	Total
21-24										1			1
25-29	5			1					1	1			8
30-34	21	1	1	6	1	6		3	1	5	1		46
35-39	25	4	1	16	1	5	1	4	3	4			64
40-44	21	1	4	10	1			3	6	6			52
45-49	24	3	4	8		5		5	4	1	3		56
50-54	15	1	4	9	1	6	1		3	4	4	1	49
55-59	11	4	1		1				3	4	4		28
60-64	3			1							1		5
Missing	5		3	4				3	1				15
Total	130	13	17	55	5	22	2	18	22	26	13	1	323

32. This table shows the distribution of Utah's PAs by ethnicity & specialty.

Figure 35

Ethnicity & Specialty of Utah PA(s) 2002

	African American	Asian	Asian Indian	Hispanic/ Latino	Native American/ Alaskan	Pacific Islander/ Native Hawaiian	White/ Caucasian	Total
Family Practice			1	5	1		130	137
Dermatology							14	14
Emergency Care							19	19
Internal Medicine		1		3		1	55	60
Ob/Gyn				1			5	6
Pediatrics							23	23
Psychiatry							3	3
Surgical Specialties				1		1	15	17
Orthopedic Surgery	1						21	22
Other Specialties				1			25	26
Public Health/Preventive Med							14	14
Missing						1	6	7
Total	1	1	1	11	1	3	329	347

33. The following table shows the distribution of Utah PAs by county of primary practice and background. The information in this table was used to determine the influence background has on the decision to locate a practice in rural Utah.

Figure 36

County of Practice and Upbringing Cohort

	Urban	Rural*	Total
Beaver	1		1
Cache	8	4	12
Carbon	1	4	5
Davis	21	10	31
Duchesne		1	1
Emery	1	1	2
Garfield	1	1	2
Grand	3		3
Iron		3	3
Salt Lake	131	23	154
San Juan	3	1	4
Sanpete	1		1
Sevier	4		4
Summit	4	1	5
Tooele	8		8
Utah	20	10	30
Wasatch	1		1
Washington	6	8	14
Wayne	3	1	4
Weber	26	4	30
No Response	14	4	18
Total	257	75	332

* Based on responses to question regarding population of town/city of upbringing.

34. The following tables show where Utah's PAs are coming from and where they are receiving their training. Data from the 2003 table was compared to the 1998 data to show that the percent of PAs with Utah backgrounds receiving their training in Utah has decreased over the past four years.

Figure 37

Utah PA Program Grads by State of Upbringing 1998

Upbringing State	UPAP Grads	Total From State	% UPAP Grads
Utah	88	111	79%
Colorado	6	7	86%
Nebraska	0	1	0%
Oklahoma	0	1	0%
California	15	29	52%
Texas	6	8	75%
Idaho	3	5	60%
New York	1	2	50%
Illinois	1	2	50%
Wisconsin	3	4	75%
Nevada	4	4	100%
Iowa	0	1	0%
Pennsylvania	0	3	0%
Multiple	3	3	100%
Wyoming	4	5	80%
Michigan	1	1	100%
North Dakota	1	2	50%
Ohio	3	3	100%
Maine	1	1	100%
New Jersey	3	3	100%
Arizona	0	1	0%
CZECH REPUBLIC	1	1	100%
Montana	1	1	100%
MEXICO	1	1	100%
Kentucky	1	1	100%
TONGA	1	1	100%
Hawaii	0	1	0%
Total	148	203	73%

Utah PA Program Grads by State of Upbringing 2003

Upbringing State	UPAP Grads	Total From State	% UPAP Grads
Utah	121	183	66%
Arizona	4	11	36%
California	20	33	61%
Colorado	5	6	83%
Florida	1	3	33%
Georgia	0	1	0%
Idaho	5	10	50%
Illinois	3	3	100%
Indiana	0	1	0%
Kansas	0	1	0%
Maine	1	1	100%
Michigan	4	6	67%
Missouri	0	2	0%
Montana	0	2	0%
North Carolina	0	2	0%
North Dakota	1	1	100%
Nebraska	1	3	33%
New Jersey	5	5	100%
New Mexico	1	1	100%
Nevada	4	4	100%
New York	6	9	67%
Ohio	3	6	50%
Oklahoma	1	1	100%
Oregon	1	2	50%
Pennsylvania	3	8	38%
Texas	3	7	43%
Virginia	1	2	50%
Vermont	1	1	100%
Total	195	315	62%

35. The following is a comparison of income for PAs In primary care and those in sub-specialty care.

Figure 38

Annual Income by Specialty Cohort

	Primary Care	Specilaty Care
< $39,000	16	8
$40,000-$49,999	8	*
$50,000-$59,999	41	19
$60,000-$69,999	44	40
$70,000-$79,999	38	23
$80,000-$89,999	20	15
$90,000-$99,999	16	*
$100,000-$109,999	15	*
$110,000-$119,999	*	*
$120,000-$129,999	*	*
$130,000-$139,999	*	*
$140,000 +	*	*
No Response	1	13
Total	211	143
Mean Income	$72,000	$74,000

* Indicates fewer than 8 respondents

36. This table shows the distribution of PA income between the urban and rural counties.

Figure 39

PA Income by Rural/Urban County Cohorts

Income level	Urban	Rural
< $39,000	11	10
$40,000-$49,999	10	*
$50,000-$59,999	44	14
$60,000-$69,999	64	15
$70,000-$79,999	40	13
$80,000-$89,999	26	*
$90,000-$99,999	15	*
$100,000-$109,999	14	*
$110,000-$119,999	*	
$120,000-$129,999	*	*
$130,000-$139,999	8	
$140,000 +	*	*
Total	245	68

* Indicates fewer than 8 respondants

Appendix B

Primary Care-HPSA designated counties in Utah as of May 2003
(Includes whole and partial county geographic and low-income designations)

Because qualifications for many federal programs include being designated a HPSA or Health Professional Shortage Area, HPSA designation is important to many areas in the state. Information regarding criteria for being designated as a HPSA can be obtained at the following URL: http://bhpr.hrsa.gov/shortage/hpsacrit.htm .

May 1, 2003

Utah Primary Care HPSAs By County and Type of HPSA

- Full County Geographic HPSA
- Full County Low-Income HPSA
- Partial County Geographic HPSA
- Partial County Low-Income HPSA

For further information, please contact:

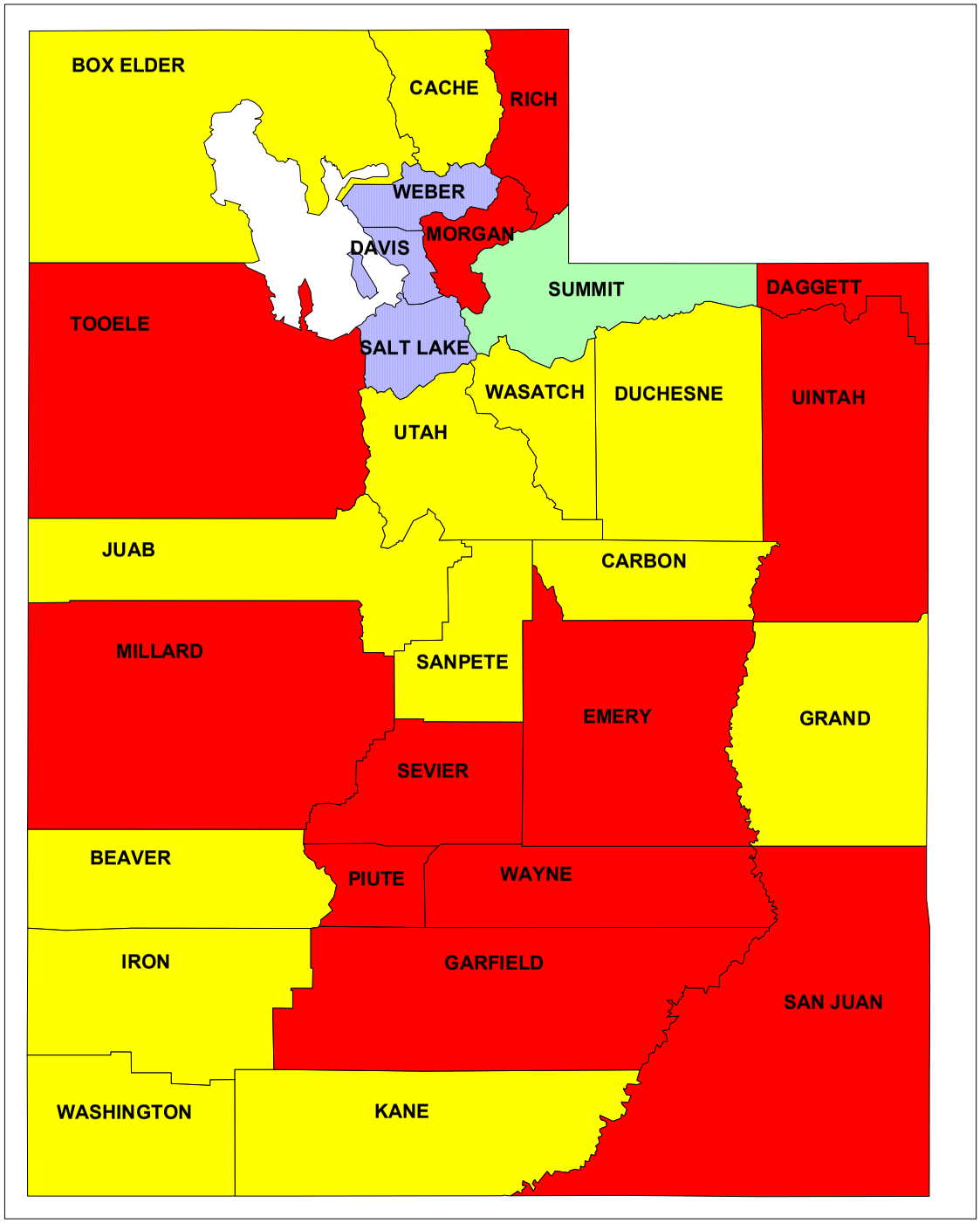
Office of Primary Care and Rural Health

Mailing Address:
P.O. Box 142005
Salt Lake City, Utah 84114-2005

Street Address:
288 North 1460 West
Fourth Floor
Salt Lake City, Utah 84116

Phone: (801) 538-6113
Fax: (801) 538-6387

Web: www.primarycareutah.org or
http://health.utah.gov/primarycare



May 1, 2003

Utah Medically Underserved Areas And Medically Underserved Populations

- Partial County MUA
- Partial County MUP
- Whole County MUA
- Whole County MUP
- Proposed MUA/MUP
- Undesignated Counties

For further information, please contact:

Office of Primary Care and Rural Health

Mailing Address:
P.O. Box 142005
Salt Lake City, Utah 84114-2005

Street Address:
288 North 1460 West
Fourth Floor
Salt Lake City, Utah 84116

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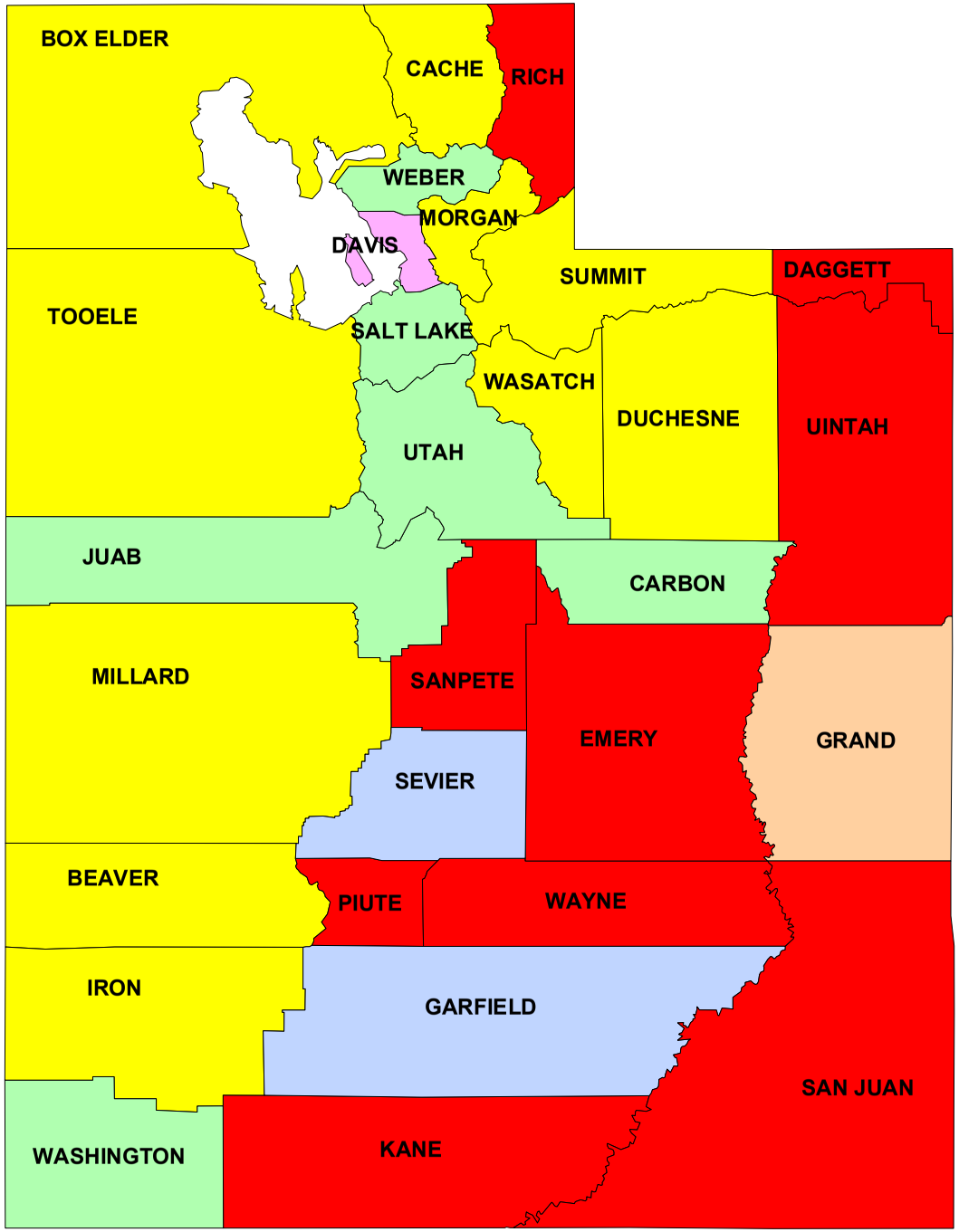

Appendix C –Utah Medical Education Council Members, Physician Assistant Workforce Committee Members, UMEC Staff Members

Utah Medical Education Council Members

Council Chair:
David Bjorkman M.D.
Dean and Senior VP for Health Sciences
University of Utah School of Medicine
SLC, UT

Vice Chair
Michael Stapley
President and Chief Executive Officer
Deseret Mutual Benefits Association
SLC, UT

At Large Community Members
Gaylen Bunker
Associate Professor and
Director Financial Services
Westminster College
SLC, UT

Aileen Clyde
Educator
Former Member of Utah State Board of Regents
Springville, UT

Teresa Theurer
Utah State Board of Education
Logan, UT

Debbie Spafford
Risk Manager
Ashley Valley Medical Center
Vernal, UT

Institutional Sponsor Members
John Berneike M.D.
Director
Utah Healthcare Institute
Family Practice Residency Program
Midvale, UT

Bill Hamilton M.D.
Medical Director
Urban Central Region IHC
SLC, UT

Larry Reimer M.D.
Professor of Pathology
University of Utah School of Medicine
Salt Lake City, UT

Gregg Young D.P.M.
Director
VA Podiatry Residency Program
SLC, UT

Gar Elison, Exec. Dir.
Utah Medical Education Council
Salt Lake City, UT

2003 Physician Assistant Workforce Review Committee

Committee Chair:
Bob Bunnell PA-C, Executive Director
Utah Academy of Physician Assistants
Faculty: Utah Physician Assistant Program
SLC, UT

Committee Members:
Bruce Callister PA-C,
President, UAPA
Family Practice
SLC, UT

Lori Decker PA-C
Cardio-Thoracic Surgery
SLC, UT

Dave Goddard PA-C
Dermatology/Family Practice
Cedar City, UT

David Graves PA-C
Family Practice
Logan, UT

Eric Heaton PA-C
Gastroenterology
SLC, UT

Don Pedersen PA-C, Ph.D.
Director: Utah Physician Assistant Program
SLC, UT

Lynn Purdin
Research Analyst
Department of Workforce Services
SLC, UT

Elmo Taylor PA-C
Family Practice
Clinton UT

UMEC Staff:
David Squire Chief Financial Officer
Boyd Chappell, Research Consultant
Jennifer Ha, Research Consultant
Tim Salazar, Research Intern
Paul Peterson, Research Intern
Adam Olsen, Research Intern
Julie Olson, Administrative Assistant
Paul Stevens, Health Professions
Recruitment Coordinator

Appendix D
2002 Physician Assistant Survey Instrument

The following is the survey instrument as it was mailed to all 377 licensed PAs in the state as of December, 2002. Three separate mailings were conducted between December, 2002, and March, 2003. Also included in this appendix is the cover letter that accompanied the survey instrument.

Dear Physician Assistant,

The following survey is the collaborative effort of work done by: The Utah Association of Physician Assistants, The Medical Education Council, The Bureau of Primary Care and Rural Health Systems, and Utah Area Health Education Centers. Because all of these organizations need Physician Assistant data, a single survey has been created. This has been done to conserve your time. Your response to this survey is very important. Office staff can answer most of the questions.

The data will be used to look at Utah's workforce requirements over the next two decades, as well as to document changes and trends that have emerged in the PA workforce over the past four years. Surveys are also being conducted for physicians and advanced practice nurses, to make sure that Utah has the right mix of professionals to meet both the primary care and specialist needs of a growing population. The resulting data base will be used: to project the resources required as a sufficient number of well trained health care professionals to meet the needs of the citizens; for recruiting activities through the Bureau of Primary Care and Rural Health Systems; to conduct professional education through the Utah Area Health Education Centers.

Although some of the requested information is sensitive, it will remain strictly confidential. Individual identities will remain anonymous during analysis of the survey and only aggregate data will be made available upon completion. **The survey can be returned in the enclosed envelope, or faxed to 801-526-4551.** If you have questions or would like to see the results of the survey you may contact the Medical Education Council at 801-526-4550. Thank you for your valuable time and participation.

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

Gar T. Elison
Executive Director
Utah Medical Education Council

Iona Thraen
Bureau of Primary Care
and Rural Health Systems

Mike Magill, M.D.
Director, Utah Area Health
Education Centers

MEDICAL EDUCATION COUNCIL
UTAH PHYSICIAN ASSISTANT SURVEY 2002

1. Do you provide any healthcare services in Utah? ☐ **YES** ☐ **NO**
If no, please list reason why you maintain a Utah license: _____

2. What race/ethnicity are you predominantly? (*please choose only one*)
☐ White/Caucasian ☐ Hispanic/Spanish/Latino
☐ African American/Black ☐ Middle Eastern
☐ Asian ☐ Native American/Alaskan Native
☐ Asian Indian ☐ Pacific Islander/Native Hawaiian
☐ Other, (please specify)_____

3. What is the estimated population of the City/Town where you spent the majority of your upbringing?
☐ Less than 2,500 ☐ 10,000-49,999 ☐ 150,000-249,999
☐ 2,500-9,999 ☐ 50,000-149,999 ☐ 250,000 or more

4. The state or country where you graduated from high school?
State_____ County_____or Country_____

5. The institution from which you received your PA Certificate/Degree?
Institution:_____

City:_____State:_____Year of completion:_____

6. In which specialty or subspecialties do you **CURRENTLY PRACTICE**? (*Please mark where you spend the majority of your time in primary, and all other areas if applicable in secondary)*

Primary	Secondary		Primary	Secondary	
☐	∇	Family/general medicine	☐	∇	Surgical Subspecialties
☐	∇	Internal medicine	☐	∇	Rehab/Industrial occupational medicine
☐	∇	Internal medicine subspecialties	☐	∇	Obstetrics and gynecology
☐	∇	Pediatrics/general	☐	∇	Dermatology
☐	∇	Pediatric subspecialties	☐	∇	Emergency/Urgent care medicine
☐	∇	General Surgery	☐	∇	Other specialties (*please specify)*_____

➥In an average week, how many hours do you spend practicing your primary specialty? _____

7. Locations of sites where you spend the most time providing **direct patient** care.
Also estimate the **average hours per week** at each practice location. Please estimate the **Additional number of years** you plan on providing service at each location.

Principle Location Zip Code: _____ Patient Care Hrs/wk: _____Add't # of years: _____
Secondary Location Zip Code: _____ Patient Care Hrs/wk: _____Add't # of years: _____
Remaining Location(s) Zip Code(s): _____Patient Care Hrs/wk: _____Add't # of years: _____

8. Please describe your Primary and Secondary work location(s):

Primary	Secondary		Primary	Secondary	
☐	∇	Self-Employed	☐	∇	Home Health Agency
☐	∇	Solo physician practice	☐	∇	HMO
☐	∇	Multi-specialty physician group	☐	∇	Community health center
☐	∇	Hospital-University	☐	∇	Nursing home or LTC facility
☐	∇	Hospital/clinic- IHC	☐	∇	Physician practice management Organization
☐	∇	Hospital-Other			
☐	∇	Other, (*please specify*)_____	☐	∇	College/University

9. How do you correspond with a supervising physician(s)? (*Also, please estimate the percentage (%) of the amount of time spent corresponding. Total should equal 100%)*
☐ Tele-communication _____% ☐ On-Site _____%
☐ Other, (*please specify*)_____ _____%

10. How many hours per week do you provide healthcare services without direct supervision from a physician?
☐ 0-9hr/wk ☐ 10-19hrs/wk ☐ 20-29 hrs/wk ☐ 30-39hr/wk ☐ 40 + hrs/wk

11. How many patients do you see PER WEEK when a physician is not physically available? _____

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

☐ <$39,999	☐ $60,000-$69,999	☐ $90,000-$99,999	☐ $120,000-$129,999
☐ $40,000-$49,999	☐ $70,000-$79,999	☐ $100,000-$109,999	☐ $130,000-$139,999
☐ $50,000-$59,999	☐ $80,000-$89,999	☐ $110,000-$119,999	☐ $140,000 +

13. Number of **days** a patient waits for an appointment in your primary location:
NEW PATIENT: _____
ESTABLISHED PATIENT: _____

14. In an average WEEK, how many OUTPATIENTS do you see? _____

15. In an average WEEK, how many INPATIENTS do you see? _____

16. In an average week, how many hours do you spend working including non-patient care?

☐ < 20 hrs/wk	☐ 26-30 hrs/wk	☐ 36-40 hrs/wk	☐ 46-50 hrs/wk
☐ 21-25 hrs/wk	☐ 31-35 hrs/wk	☐ 41-45 hrs/wk	☐ 51 + hrs/wk

17. In your primary work situation, how many hours per week are considered full time?
☐ 26-30 ☐ 31-35 ☐ 36-40 ☐ 41-45 ☐ 46-50 ☐ 51+

18. In an average week, how many **hours** do you spend providing healthcare services?
IN UTAH: _____ OUTSIDE UTAH: _____ TOTAL:_____

19 Please allocate the average hours per week you spend with the following activities:
(total in each column must equal that of Question #16)

	HRS/WEEK IN UTAH	HRS/WEEK OUTSIDE UTAH
A. PATIENT CARE: *(Direct Patient Care without teaching of students/residents)*	_____	_____
B. TEACHING/TRAINING OF OTHER PAs or OTHER PROFESSIONALS *(Clinical and/or classroom teaching of students **without** patient care)*	_____	_____
C. **COMBINED** PATIENT CARE / TEACHING OF STUDENTS *(Supervising or training of residents/students while delivering patient care)*	_____	_____
D. RESEARCH *(Reports, applications, surveys, etc.)*	_____	_____
E. ADMINISTRATION / MANAGEMENT *(Planning, budgeting, personnel management, **not** in support of patient care)*	_____	_____
F. CONSULTING: *(**Not** in direct support of patient care)*	_____	_____
G. OTHER, *(please specify)*: _____	_____	_____

20. Are you providing patient care as part of a structured team approach? ☐ **YES** ☐ **NO**

If YES, Please specify the number of each professionals that comprise your team:

MD/DO	#_____
APRNs	#_____
PAs	#_____
Pharmacists	#_____
Other	#_____

21. Are you limiting the number of new:

	YES	**NO**
MEDICAID PATIENTS	☐	☐
MEDICARE PATIENTS	☐	☐
NON-PAYING PATIENTS	☐	☐
OTHER NEW PATIENTS	☐	☐

22. What percent of your patients are?
(Estimates should total 100%)

Medicaid	_____%	Self-Pay	_____%
Medicare	_____%	TriCare (Champus)	_____%
Manage Care	_____%	Workers Comp	_____%
Private INS.	_____%	Charity	_____%
Don't Know	_____		Total 100%

23. Does your Primary clinic offer services based on Sliding-Fee scale based on income or family size?

☐ **YES** ☐ **NO**

24. Which of the following hospital privileges do you currently hold? (*check all that apply*)

_____NONE
_____INPATIENT CARE OF ADULTS
_____INPATIENT CARE OF CHILDREN (non-newborns)
_____CARE OF NEWBORNS
_____LABOR AND DELIVERY
_____FIRST ASSISTANT FOR MAJOR SURGERY AND/OR CESAREAN SECTIONS
_____FIRST SURGEON FOR OTHER MAJOR SURGICAL PROCEDURES
_____INTENSIVE / CORONARY CARE

25. Do any of your practice location (s) provide any form of interpretation/translation services to your patients?

☐ **NO**
☐ **YES (*please specify language(s)*):**_____

If so, are you fluent in this/these language(s) or do you provide an interpreter?

☐ **Fluent** _____ ☐ **Interpreter**_____
Language(s) Language(s)

Thank you very much for your participation.
Please return the survey in the envelope provided.