Report of Responses to the 2004, 2006, and 2008 Physician Assistant Re-Licensure Surveys

Produced by:
Indiana Center for Health Workforce Studies

Bowen Research Center, Department of Family Medicine
Indiana University School of Medicine

In collaboration with the:
Indiana Area Health Education Centers Program

February 2010

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Executive Summary

Introduction

The Indiana State Department of Health and the Indiana Professional Licensing Agency developed a collaborative partnership to collect data through the licensing process to better understand the health professions workforce within the state. Beginning in 2004, physician assistants were asked to participate in voluntary surveys when renewing their licenses every two years. The purpose of this report is to summarize the participants' responses to the survey items. The responses provide a detailed description of the physician assistant workforce in the state of Indiana to aid in the development of policies and programs to recruit and retain these health professionals where they are needed in Indiana.

Methods

Items in the re-licensure survey included demographics and characteristics of the respondent's primary position. The location of a respondent's physician assistant training program, as well as the level of education received, were also collected. A total of 432 (in 2004), 593 (in 2006), and 655 (in 2008) physician assistants renewed their licenses. The total response rates for the surveys were 75.9% (in 2004), 72.5% (in 2006), and 77.6% (in 2008). This report focuses on those physician assistants who renewed their licenses electronically and had the opportunity to complete the survey; those physician assistants whose licenses were active, valid to practice while reviewed, or on probation; who identified themselves as actively working as a physician assistant; and who held non-federal principal employment positions in Indiana.

Survey respondents' results for 2004, 2006 and 2008

Of the physician assistants who listed their principal position as being in the state of Indiana, nearly all (98.6% in 2004, 98.6% in 2006 and 98.8% in 2008) were actively working as physician assistants. Three-fourths (70.4% in 2004, 72.0% in 2006, and 72.4% in 2008) of the respondents were under 45 years of age. Three-fifths of the respondents in 2004 (56.7%) and 2008 (63.7%) were female. Almost all (95.7% in 2004 and 93.6% in 2008) of the respondents were white, non-Hispanic. The questions on gender, race and ethnicity were not asked in 2006. Spanish was the most common language other than English spoken fluently (2.5% in 2004, 3.6% in 2006, and 2.8% in 2008). Three-fifths (60.2% in 2006 and 55.9% in 2008) indicated they had a bachelor's degree. One-third (31.7% in 2006 and 31.2% in 2008) received physician assistant degrees from Butler University[1]. A majority of the respondents spent most of their time in "direct patient care and patient care-related" activities (96.5% in 2004, 96.4% in 2006, and 98.4% in 2008). The number of respondents who worked 40 or more hours dropped from 74.9% in 2004 to 67.9% in 2008. Those who responded they worked less than 20 hours, also dropped slightly from 3.9% in 2004 to 3.3% in 2008. A majority of the respondents (88.3% in 2004, 96.4% in 2006, and 93.6% in 2008) worked for a private-sector employer. One-tenth (12.8% in 2006 and 13.4% in 2008) indicated they had more than one position or employer. The largest proportion of physician assistants worked under the supervision of physicians in surgery, emergency medicine, and family medicine. One-fourth (27.9% in 2004, 28.6% in 2006 and 27.1% in 2008) reported having a supervising physician in Surgery, followed by emergency medicine and family medicine. Over the time period, the two most common workplace settings were "hospitals" and "physician private practices."

Location of physician assistants in Indiana

Counties with the largest populations tended to have the most physician assistants and the highest ratios per 100,000 population. Forty counties had no physician assistants participating in the re-licensure survey.

Time trends in the physician assistant workforce

The number of Indiana physician assistants who are estimated to be actively practicing in Indiana increased from 2004 to 2008. There has been a large increase in the number of physician assistants

between the ages of 25 and 34. The number of physician assistants noted as working 40 or more hours per week is projected to grow, as is the number of physician assistants working 20-39 hours per week. [1]

Conclusions

The number of physician assistants actively working in Indiana has been growing; however in 2008 there were forty counties without any of these professionals. Most physician assistants were white, non-Hispanic, female and in the 25-34 age group. Nearly one-half received physician assistant degrees from Indiana institutions. A large majority of the physician assistants reported being either in "direct patient care in hospitals" or "private practice" settings. Surgery, emergency medicine, and family medicine were the most common specialties.

[1] The Physician Assistant program at Butler University was formerly known as Butler University / Methodist Hospital in Indiana.

Chapter 1: Introduction

Having an accurate understanding of the personal and professional characteristics of physician assistants licensed in Indiana is critical to develop and manage effective programs to recruit and retain physician assistants where they are most needed in the state. Having quality data about physician assistants in Indiana will help policymakers and other stakeholders' make more accurate decisions. The purpose of this report is to provide those data. The findings from this report may be used to identify physician assistants shortage areas, develop more recruitment and retention strategies and plan additional locations for training physician assistants within the state.

The Indiana State Department of Health (ISDH) and the Indiana Professional Licensing Agency (IPLA) collaborated in implementing the 2004, 2006, 2008 Indiana physician assistants re-licensure surveys. All physician assistants who renewed their license electronically during the 2004, 2006, and 2008 Indiana physician assistants re-licensure periods were asked to complete an electronic survey instrument.

The 2008 Indiana physician assistants re-licensure survey instrument included items to address current work status, principal practice location, principal position, activities performed in the principal practice location, major specialty of the supervising physician, principal practice setting, average hours worked, current education level, and demographic information. A copy of the 2004, 2006, and 2008 Indiana physician assistants re-licensure survey instruments is included in *Appendix 1*.

This report summarizes the responses to the 2004, 2006, and 2008 Indiana physician assistants re-licensure survey.

Inclusion criteria

The major focus of this report includes only those physician assistants who renewed their licenses electronically and had the opportunity to complete the survey; those physician assistants whose licenses were active, valid to practice while reviewed, or on probation; who identified themselves as actively working as a physician assistant; and who held non-federal principal employment positions in Indiana. All others were generally excluded from the results shown in this report.

Response rates

Table 1.1 License Renewal

	2004		2006		2008	
Electronic Survey	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Did not renew electronically	83	19.2	127	21.4	104	15.9
Renewed electronically and responded to at least one question	328	75.9	430	72.5	508	77.6
Renewed electronically but did not respond to any questions	21	4.9	36	6.1	43	6.6
Total	432	100.0	593	100.0	655	100.0

Table 1.1 shows that 432 (in 2004), 593 (in 2006) and 655 (in 2008) physician assistants renewed their licenses. Only those who renewed electronically were given the opportunity to complete the survey, since it was an on-line survey. In 2004, 328 physician assistants renewed electronically and responded to at least one question on the survey, yielding a 75.9% response rate. In 2006, 430 (72.5%) responded and in 2008, 508 (77.6%) responded to at least one question on the survey.

Current work status

Table 1.2 Current Work Status of Physician Assistants in Indiana*

	2004		2006		2008	
Work Status	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Actively working as a physician assistant	283	98.6	360	98.6	426	98.8
Retired as a physician assistant	0	0.0	0	0.0	0	0.0
Temporarily inactive as a physician assistant	4	1.4	5	1.4	5	1.2
Total	287	100.0	365	100.0	431	100.0
No response	3		1		2	

**These numbers represent survey respondents only.*

Table 1.2 shows that most (98.6% in 2004, 98.6% in 2006, and 98.8% in 2008) of the respondents were actively working as physician assistants in Indiana. Slightly more than one percent identified themselves as being temporarily inactive. Only the actively working physician assistants were the major focus of this report. Some of the physician assistants who were licensed in Indiana did not indicate that they worked in Indiana and were also excluded from this report.

Data analysis

The Indiana State Department of Health provided the Indiana University Bowen Research Center three data files that contained responses to the 2004, 2006, and 2008 Indiana physician assistant surveys and corresponding data dictionaries to describe the data in each of those datasets. PASW (Predictive Analytics Software, formerly SPSS) statistical program, version 17.0, was used to perform the data analyses.

Limitations

One limitation to the surveys is possible non-response bias, as only those who renewed electronically and chose to participate in the re-licensure survey are represented in the data analyses. This bias is presumed to be low, given that approximately three-fourths of those targeted participated in the surveys each year. Also, there is little difference in the age distribution of all actively practicing physician assistants in Indiana and the age distribution of those who responded to the survey (see Tables 2.1 and 2.2). More females were seen in the 25-44 age groups while males appeared to be higher in the 45-or-older age groups. For the maps and future projections of physician assistants, the count of physician assistants participating in the survey was corrected for the non-response proportion to provide more

accurate estimates of the number of these professionals in Indiana. The locations of non-respondents and respondents are assumed to be similar.

Organization of this report

The first chapter of this report provides an overview of the document. Chapter 2 presents the results of the surveys in tables for comparison of responses from 2004, 2006, and 2008. Chapter 3 includes maps of Indiana showing the number of physician assistants and the ratio of physician assistants to population in each county. Chapter 4 describes projected trends in the physician assistant workforce in Indiana. Finally, Chapter 5 summarizes the findings of the data analysis for 2008.

Appendices

Appendix 1 contains the survey instruments utilized in 2004, 2006, and 2008. *Appendix 2* provides a comparison chart to show the specific survey items used in each of the three re-licensure surveys. *Appendix 3* describes the proposed changes to the 2010 Indiana physician assistant re-licensure survey instrument.

Chapter 2: Responses to the 2004, 2006, and 2008 Physician Assistant Surveys

This chapter summarizes the findings of the 2004, 2006, and 2008 Indiana physician assistant re-licensure surveys. Unless otherwise stated, the *numbers* are representative only of respondents and have not been adjusted to account for those who did not respond. However, the *percentages* shown are believed to be representative of all physician assistants actively practicing in Indiana. Missing responses have been noted in each table, and only valid percentages are presented.

Age

Table 2.1 Age Groups of All Physician Assistants

	2004		2006		2008	
Age	Number	Percent	Number	Percent	Number	Percent
Under 25	19	4.4	29	4.9	5	0.8
25-34	176	40.7	237	40.2	288	44.1
35-44	109	25.2	159	26.9	180	27.6
45-54	94	21.8	114	19.3	103	15.8
55-64	31	7.2	47	8.0	71	10.9
65 and over	3	0.7	4	0.7	6	0.9
Total	432	100.0	590	100.0	653	100.0
No response	0		3		2	

The data provided by the Indiana State Department of Health included the birthdates of all licensed physician assistants, regardless of whether they responded to the re-licensure survey. Thus, Table 2.1 shows the age distribution of *all* physician assistants who renewed their licenses in the 2004, 2006 and 2008 re-licensure periods. Almost three-fourths (70.4% in 2004, 72.0% in 2006, and 72.4% in 2008) were under 45 years of age.

Age of survey respondents

Table 2.2 Age Groups of Survey Respondents*

	2004		2006		2008	
Age	Number	Percent	Number	Percent	Number	Percent
Under 25	4	1.4	10	2.8	4	0.9
25-34	122	43.1	157	44.0	198	46.7
35-44	78	27.6	90	25.2	106	25.0
45-54	58	20.5	69	19.3	68	16.0
55-64	15	5.3	30	8.4	45	10.6
65 and over	6	2.1	1	0.3	3	0.7
Total	283	100.0	357	100.0	424	100.0
No response	0		3		2	

** These numbers represent survey respondents only.*

Table 2.2 shows the age distribution of respondents active in Indiana in 2004, 2006, and 2008 re-licensure periods. More than two-fifths (43.1% in 2004, 44.0% in 2006, and 46.7% in 2008) of the respondents were in the 25-34 age group. Nearly one-half (48.1% in 2004, 44.5% in 2006, and 41.0% in 2008) of the respondents were in the 35-54 age group. About one-tenth (7.4% in 2004, 8.7% in 2006, and 11.3% in 2008) of the respondents were in the 55-or-older age group

Gender

Table 2.3 Gender of Survey Respondents*

Gender	2004		2006		2008	
	Number	Percent	Number	Percent	Number	Percent
Female	160	56.7	n/a	n/a	268	63.7
Male	122	43.3	n/a	n/a	153	36.3
Total	282	100.0	n/a	n/a	421	100.0
No response	1				5	

** These numbers represent survey respondents only.*

Gender distribution for respondents in 2004 and 2008 is shown in Table 2.3. The question on gender was not asked on the 2006 survey. Almost three-fifths of respondents in 2004 (56.7%) and 2008 (63.7%) were female.

Age and gender

Table 2.4 Age and Gender of Survey Respondents, 2008*

Age	Female		Male	
	Number	Percent	Number	Percent
Under 25	4	1.5	0	0.0
25-34	154	57.5	41	27.2
35-44	62	23.1	43	28.5
45-54	35	13.1	33	21.9
55-64	12	4.5	32	21.2
65 and over	1	0.4	2	1.3
Total	268	100.0	151	100.0
No Response	0		2	

Chi-square p-value < 0.0005

** These numbers represent survey respondents only.*

Table 2.4 shows the age and gender distribution of the respondents in 2008. More than three-fourths (80.6%) of the female respondents were in the 25-44 age group. Over two-fifths (44.4%) of the male respondents were in the 45-or-older age group. The differences between the two groups were highly statistically significant.

Race

Table 2.5 Race of Survey Respondents*

Race	2004		2006		2008	
	Number	Percent	Number	Percent	Number	Percent
White	270	95.7	n/a	n/a	393	93.6
Black/African American	2	0.7	n/a	n/a	8	1.9
Asian/Pacific Islander	4	1.4	n/a	n/a	11	2.6
American Indian/Native Alaskan	0	0.0	n/a	n/a	3	0.7
Multi-racial	2	0.7	n/a	n/a	0	0.0
Other	4	1.4	n/a	n/a	5	1.2
Total	282	100.0	n/a	n/a	420	100.0
No response	1				6	

** These numbers represent survey respondents only.*

Table 2.5 displays the races of physician assistant survey respondents in 2004 and 2008. The question on race was not asked on the 2006 survey. Almost all (95.7% in 2004 and 93.6% in 2008) of the respondents were white. Overall, the proportions of Black/African American, Asian/Pacific Islander, and American Indian/Native Alaskan respondents increased slightly over the time period. However, within the minority groups an increase was noted from 4.2% in 2004 to 6.4% in 2008.

Ethnicity

Table 2.6 Ethnicity of Survey Respondents*

Hispanic	2004		2006		2008	
	Number	Percent	Number	Percent	Number	Percent
Yes	4	1.4	n/a	n/a	7	1.7
No	277	98.6	n/a	n/a	411	98.3
Total	281	100.0	n/a	n/a	418	100.0
No response	2				8	

** These numbers represent survey respondents only.*

Table 2.6 shows the ethnicity of respondents for the 2004 and 2008 surveys. The question on ethnicity was not asked on the 2006 survey. The percentage of respondents who reported they were of Hispanic origin remained fairly stable from 2004 to 2008.

Language fluency

Table 2.7 Language Fluency of Survey Respondents*

Language	2004		2006		2008	
	Number	Percent	Number	Percent	Number	Percent
Spanish	7	2.5	13	3.6	12	2.8
French	n/a	n/a	3	0.8	6	1.4
Russian	n/a	n/a	1	0.3	4	0.9
Sign Language	n/a	n/a	0	0.0	4	0.9
Arabic	n/a	n/a	2	0.6	2	0.5
Tagalog	n/a	n/a	2	0.6	2	0.5
African	n/a	n/a	0	0.0	2	0.5
Portuguese	n/a	n/a	n/a	n/a	2	0.5
Chinese	n/a	n/a	2	0.6	1	0.2
Filipino	n/a	n/a	1	0.3	1	0.2
Hindi	n/a	n/a	0	0.0	1	0.2
Thai	n/a	n/a	0	0.0	1	0.2
Greek	n/a	n/a	2	0.6	0	0.0

** These numbers represent survey respondents only.*

Table 2.7 presents the respondents' fluency in languages other than English in 2004, 2006 and 2008. In 2004, fluency in Spanish was the only information gathered on languages. Additional languages were added in subsequent surveys. Spanish was the most common language other than English spoken fluently by the respondents (2.5% in 2004, 3.6% in 2006, and 2.8% in 2008). French, Russian and sign language were the next most common languages spoken fluently by the respondents in 2008.

Highest degree of physician assistants

Table 2.8 Highest Physician Assistant Credential/Degree of Respondents*

Degree	2004		2006		2008	
	Number	Percent	Number	Percent	Number	Percent
Certificate of Completion	n/a	n/a	17	4.7	20	4.8
Associate Degree	n/a	n/a	22	6.1	24	5.8
Bachelor's Degree	n/a	n/a	216	60.2	233	55.9
Master's Degree	n/a	n/a	104	29.0	140	33.6
Total	n/a	n/a	359	100.0	417	100.0
No Response			1		9	

** These numbers represent survey respondents only.*

Table 2.8 shows the highest degree or credential among the respondents. The question on highest physician assistant degree or credential was asked in 2006 and 2008 only. Three-fifths (60.2% in 2006 and 55.9% in 2008) of the respondents indicated having a bachelor's degree. About one-third (29.0% in 2006 and 33.6% in 2008) of the respondents indicated having a master's degree in the field. One-tenth (10.9% in 2006 and 10.6% in 2008) of the respondents indicated having either a certificate of completion

or an associate degree. The proportion of physician assistants obtaining master's degrees appears to be increasing.

Highest degree and gender

Table 2.9 Highest degree and Gender of Survey Respondents, 2008*

	Female		Male	
Highest degree	**Number**	**Percent**	**Number**	**Percent**
Certificate of completion	11	4.1	9	6.1
Associate	8	3.0	16	10.9
Bachelors	152	57.1	78	53.1
Masters	95	35.7	44	29.9
Total	266	100.0	147	100.0
No Response	2		6	

Chi-square p-value = 0.007

* *These numbers represent survey respondents only.*

Table 2.9 presents the highest degree and gender distribution of respondents in 2008. Nearly three-fifths (57.1%) of the female respondents had a bachelor's degree. In addition, more than one-third (35.7%) of the female respondents had a master's degree. The differences between the two groups were statistically significant.

Location of physician assistant training program

Table 2.10 Location of Physician Assistant Programs Attended by Survey Respondents*

	2004		2006		2008	
Education Location	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Butler University-Indiana	n/a	n/a	110	31.7	129	31.2
University of St. Francis-Indiana	n/a	n/a	61	17.6	69	16.7
Alabama	n/a	n/a	3	0.9	3	0.7
Arizona	n/a	n/a	7	2.0	8	1.9
California	n/a	n/a	3	0.9	4	1.0
Connecticut	n/a	n/a	1	0.3	3	0.7
Florida	n/a	n/a	5	1.4	7	1.7
Georgia	n/a	n/a	3	0.9	3	0.7
Illinois	n/a	n/a	35	10.1	43	10.4
Iowa	n/a	n/a	2	0.6	2	0.5
Kansas	n/a	n/a	2	0.6	2	0.5
Kentucky	n/a	n/a	6	1.7	15	3.6
Louisiana	n/a	n/a	1	0.3	0	0.0
Maryland	n/a	n/a	0	0.0	2	0.5
Massachusetts	n/a	n/a	0	0.0	1	0.2
Michigan	n/a	n/a	7	2.0	7	1.7
Missouri	n/a	n/a	3	0.9	1	0.2
Nebraska	n/a	n/a	24	6.9	28	6.8
Nevada	n/a	n/a	0	0.0	1	0.2
New Jersey	n/a	n/a	2	0.6	1	0.2
New York	n/a	n/a	5	1.4	8	1.9
North Carolina	n/a	n/a	5	1.4	6	1.4
North Dakota	n/a	n/a	3	0.9	2	0.5
Ohio	n/a	n/a	18	5.2	23	5.6
Oklahoma	n/a	n/a	5	1.4	3	0.7
Oregon	n/a	n/a	0	0.0	1	0.2
Pennsylvania	n/a	n/a	16	4.6	18	4.3
South Carolina	n/a	n/a	1	0.3	2	0.5
Tennessee	n/a	n/a	3	0.9	6	1.4
Texas	n/a	n/a	6	1.7	6	1.4
Virginia	n/a	n/a	1	0.3	2	0.5
Washington	n/a	n/a	1	0.3	1	0.2
West Virginia	n/a	n/a	5	1.4	3	0.7
Wisconsin	n/a	n/a	3	0.9	4	1.0
Total	n/a	n/a	347	100.0	414	100.0
No response			13		12	

* *These numbers represent survey respondents only.*

Table 2.10 shows the location of physician assistant training programs that the respondents attended. Nearly one-third (31.7% in 2006 and 31.2% in 2008) of all respondents received physician assistant degrees from Butler University[2]. Less than one-fifth (17.6% in 2006 and 16.7% in 2008) of all respondents received a degree from the University of Saint Francis in Indiana. [3]

[2] The physician assistant program at Butler University was formerly known as Butler University / Methodist Hospital in Indiana.

[3] The physician assistant program at University of Saint Francis in Indiana was formerly known as Saint Francis / Lutheran College of Indiana.

Professional activities

Table 2.11 Activity in Which Most Professional Time Was Spent by Survey Respondents*

Activity	2004		2006		2008	
	Number	Percent	Number	Percent	Number	Percent
Direct patient care/related activities	272	96.5	347	96.4	418	98.4
Administration	5	1.8	2	0.6	0	0.0
Teaching	5	1.8	6	1.7	7	1.6
Research	0	0.0	1	0.3	0	0.0
Other	0	0.0	4	1.1	0	0.0
Total	282	100.0	360	100.0	425	100.0
No Response	1		0		1	

** These numbers represent survey respondents only.*

The activity in which respondents spent most of their professional time is shown in Table 2.11. A majority of the respondents spent most of their professional time in "direct patient care and "patient-care-related" activities (96.5% in 2004, 96.4% in 2006, and 98.4% in 2008). Teaching was the second-most frequently cited activity.

Average number of hours worked weekly in all physician assistant activities

Table 2.12 Average Hours Worked per Week in Physician Assistant Activities by Survey Respondents*

Hours	2004		2006		2008	
	Number	Percent	Number	Percent	Number	Percent
1-9	4	1.4	4	1.1	3	0.7
10-19	7	2.5	9	2.5	11	2.6
20-29	19	6.7	26	7.2	39	9.2
30-39	41	14.5	72	20.1	83	19.6
40 and over	212	74.9	248	69.1	288	67.9
Total	283	100.0	359	100.0	424	100.0
No Response	0		1		2	

** These numbers represent survey respondents only.*

Table 2.12 shows the average number of hours worked per week by all respondents. The number of respondents who worked 40 or more hours has dropped from 74.9% in 2004 to 67.9% in 2008. The number who responded they worked less than 20 hours also dropped slightly from 3.9% in 2004 to 3.3% in 2008.

Average number of hours worked and gender

Table 2.13 Average hours worked and Gender of Survey Respondents, 2008*

	Female		Male	
Average hours worked	Number	Percent	Number	Percent
1-9 hrs	2	0.7	1	0.7
10-19 hrs	10	3.7	1	0.7
20-29 hrs	32	11.9	6	3.9
30-39 hrs	61	22.8	22	14.5
40 and over hrs	163	60.8	122	80.3
Total	268	100.0	152	100.0
No Response	0		1	

Chi-square p-value = 0.001

** These numbers represent survey respondents only.*

Table 2.13 displays the average number of hours worked per week and the gender distribution of respondents in 2008. One-third (34.7%) of the female respondents indicated working 20-39 hours per week in contrast to one-fifth (18.4%) of the male respondents. In addition, three-fifths (60.8%) of the female respondents indicated working 40 or more hours compared to four-fifths (80.3%) of the male respondents. The differences between the two groups were statistically significant.

Primary type of employer

Table 2.14 Respondents' Primary Type of Employer*

	2004		2006		2008	
Type of Employer	Number	Percent	Number	Percent	Number	Percent
Private-sector employer	249	88.3	347	96.4	395	93.6
A branch of the military (Army, Navy, etc.)	3	1.1	2	0.6	1	0.2
Federal government	1	0.4	6	1.7	2	0.5
State government	3	1.1	1	0.3	3	0.7
Local government	2	0.7	4	1.1	1	0.2
Other type of employer	24	8.5	0	0.0	20	4.7
Total	282	100.0	360	100.0	422	100.0
No response	1		0		4	

** These numbers represent survey respondents only.*

Table 2.14 shows the type of employer reported by the respondents. A majority of the respondents (88.3% in 2004, 96.4% in 2006, and 93.6% in 2008) worked for a private-sector employer.

More than one position or employer

Table 2.15 Respondents with More than One Position/Employer as a Physician Assistant*

More than One Position / Employer	2004		2006		2008	
	Number	Percent	Number	Percent	Number	Percent
Yes	n/a	n/a	46	12.8	57	13.5
No	n/a	n/a	314	87.2	366	86.5
Total	n/a	n/a	360	100.0	423	100.0
No Response			0		3	

** These numbers represent survey respondents only.*

Table 2.15 describes whether the respondent held more than one position or had more than one employer as a physician assistant. This question was not asked on the 2004 survey. Over one-tenth (12.8% in 2006 and 13.5% in 2008) of all respondents indicated having more than one position or employer.

Physician assistants by aggregated specialty of supervising physician

Table 2.16 Physician Assistants by Aggregated Specialty of Supervising Physician*

	2004		2006		2008	
Specialty	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Surgery	79	27.9	103	28.6	115	27.1
Emergency Medicine	55	19.4	65	18.1	82	19.3
Family Practice/Family Medicine	50	17.7	59	16.4	75	17.6
Internal Medicine	14	4.9	25	6.9	22	5.2
Cardiology	n/a	n/a	10	2.8	19	4.5
Dermatology	7	2.5	11	3.1	17	4.0
Urology	11	3.9	11	3.1	13	3.1
Occupational Medicine	13	4.6	12	3.3	12	2.8
Radiology	n/a	n/a	13	3.6	12	2.8
Urgent Care Medicine	n/a	n/a	n/a	n/a	10	2.4
Pediatrics	6	2.1	8	2.2	7	1.6
Hematology/Oncology	1	0.4	6	1.7	6	1.4
Other Specialty	24	8.5	8	2.2	5	1.2
Pain Management	n/a	n/a	6	1.7	5	1.2
Gastroenterology	2	0.7	3	0.8	4	0.9
Neurology	2	0.7	3	0.8	4	0.9
Pulmonology	4	1.4	2	0.6	4	0.9
Otolaryngology	2	0.7	2	0.6	3	0.7
Physical Medicine & Rehabilitation	4	1.4	0	0.0	2	0.5
Addiction Medicine	n/a	n/a	n/a	n/a	1	0.2
Allergy & Immunology	0	0.0	0	0.0	1	0.2
Critical Care Medicine	n/a	n/a	n/a	n/a	1	0.2
Hospitalist	n/a	n/a	n/a	n/a	1	0.2
Infectious Diseases	2	0.7	0	0.0	1	0.2
Nephrology	1	0.4	1	0.3	1	0.2
Obstetrics & Gynecology	2	0.7	4	1.1	1	0.2
Psychiatry	n/a	n/a	1	0.3	1	0.2
General Practice	4	1.4	4	1.1	0	0.0
Not Applicable	0	0.0	3	0.8	0	0.0
Total	283	100.0	0	0.0	425	100.0
No response	0		0		1	

** These numbers represent survey respondents only.*

Table 2.16 describes the aggregated specialty of supervising physician among respondents. More than one-fourth of all physician assistants reported having a supervising physician in surgery (27.9% in 2004, 28.6% in 2006 and 27.1% in 2008) followed by emergency medicine (19.4% in 2004, 18.1% in 2006 and 19.3% in 2008) and family medicine (17.7% in 2004, 16.4% in 2006 and 17.6% in 2008).

Principal work setting

Table 2.17 Principal Work Settings of Survey Respondents*

Setting	2004		2006		2008	
	Number	Percent	Number	Percent	Number	Percent
Adult day care	n/a	n/a	1	0.3	0	0.0
Ambulatory care setting (surg./other)	17	6.0	13	3.6	12	2.8
Assisted living facility/unit	n/a	n/a	0	0.0	0	0.0
College health facility	2	0.7	2	0.6	3	0.7
Community health center/clinic	10	3.5	10	2.8	10	2.4
Community mental health center	n/a	n/a	0	0.0	0	0.0
Community substance abuse agency	n/a	n/a	n/a	n/a	1	0.2
Continuing education/staff development	0	0.0	0	0.0	0	0.0
Drug company	0	0.0	0	0.0	0	0.0
Home health care agency	0	0.0	0	0.0	0	0.0
Hospice	0	0.0	0	0.0	0	0.0
Hospital (in- & out-patient)	37	13.1	41	11.4	53	12.5
Hospital (in-patient only)	18	6.4	20	5.6	21	5.0
Hospital (out-patient only)	10	3.5	3	0.8	7	1.7
Hospital ER/ED	45	16.0	59	16.4	73	17.2
Hospital intensive care unit/critical care unit	0	0.0	2	0.6	2	0.5
Hospital operating room	8	2.8	13	3.6	16	3.8
Industrial facility	3	1.1	1	0.3	3	0.7
Insurance company	0	0.0	0	0.0	0	0.0
Law firm	n/a	n/a	0	0.0	0	0.0
Long-term acute care facility/unit	1	0.4	2	0.6	1	0.2
Long-term/extended care facility/unit	n/a	n/a	0	0.0	0	0.0
Mental health addictions (retardation) facility/unit	0	0.0	0	0.0	0	0.0
Non-residential care facility/unit	n/a	n/a	0	0.0	0	0.0
Occupational health setting	n/a	n/a	12	3.3	13	3.1
Other	10	3.5	8	2.2	5	1.2
Physician assistant educational program	3	1.1	2	0.6	1	0.2
Physician private practice-multi-specialty group	15	5.3	26	7.2	43	10.1
Physician private practice-single specialty group	58	20.6	77	21.4	91	21.5
Physician private practice-solo physician	19	6.7	43	12.0	44	10.4
Primary care center/clinic	10	3.5	9	2.5	11	2.6
Prison/correctional facility	0	0.0	2	0.6	1	0.2
Psychiatric inpatient facility/unit	n/a	n/a	0	0.0	0	0.0
Public health department (city, county or state)	1	0.4	0	0.0	0	0.0
Research Setting	n/a	n/a	1	0.3	0	0.0
State agency (other than state public health department)	n/a	n/a	0	0.0	0	0.0
School-based health facility	1	0.4	0	0.0	1	0.2
Supplemental staffing agency	n/a	n/a	0	0.0	0	0.0
Surgical center, freestanding	n/a	n/a	n/a	n/a	1	0.2
Urgent care center/clinic, free-standing	14	5.0	12	3.3	11	2.6
Total	282	100.0	359	100.0	424	100.0
No Response	1		1		2	

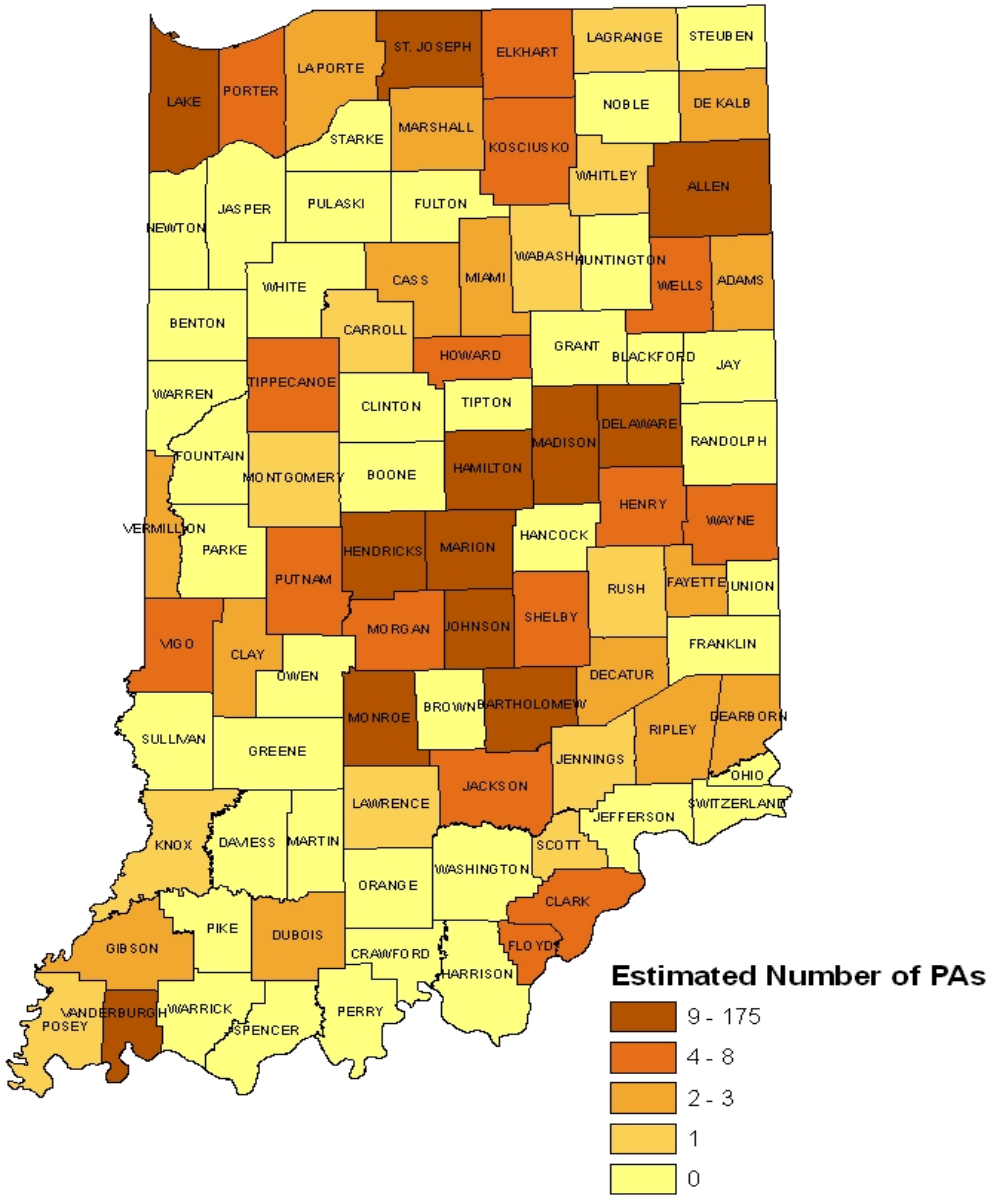
* *These numbers represent survey respondents only.*

Principal work settings for physician assistants are shown in Table 2.17. Over the time period, the two most common workplace settings were “hospitals” and “physician private practices.” Of those who worked in a hospital, the emergency room was the most common setting. And of those who worked in private practice, a single specialty group was the most common setting.

Chapter 3: Location of Physician Assistants by County in Indiana

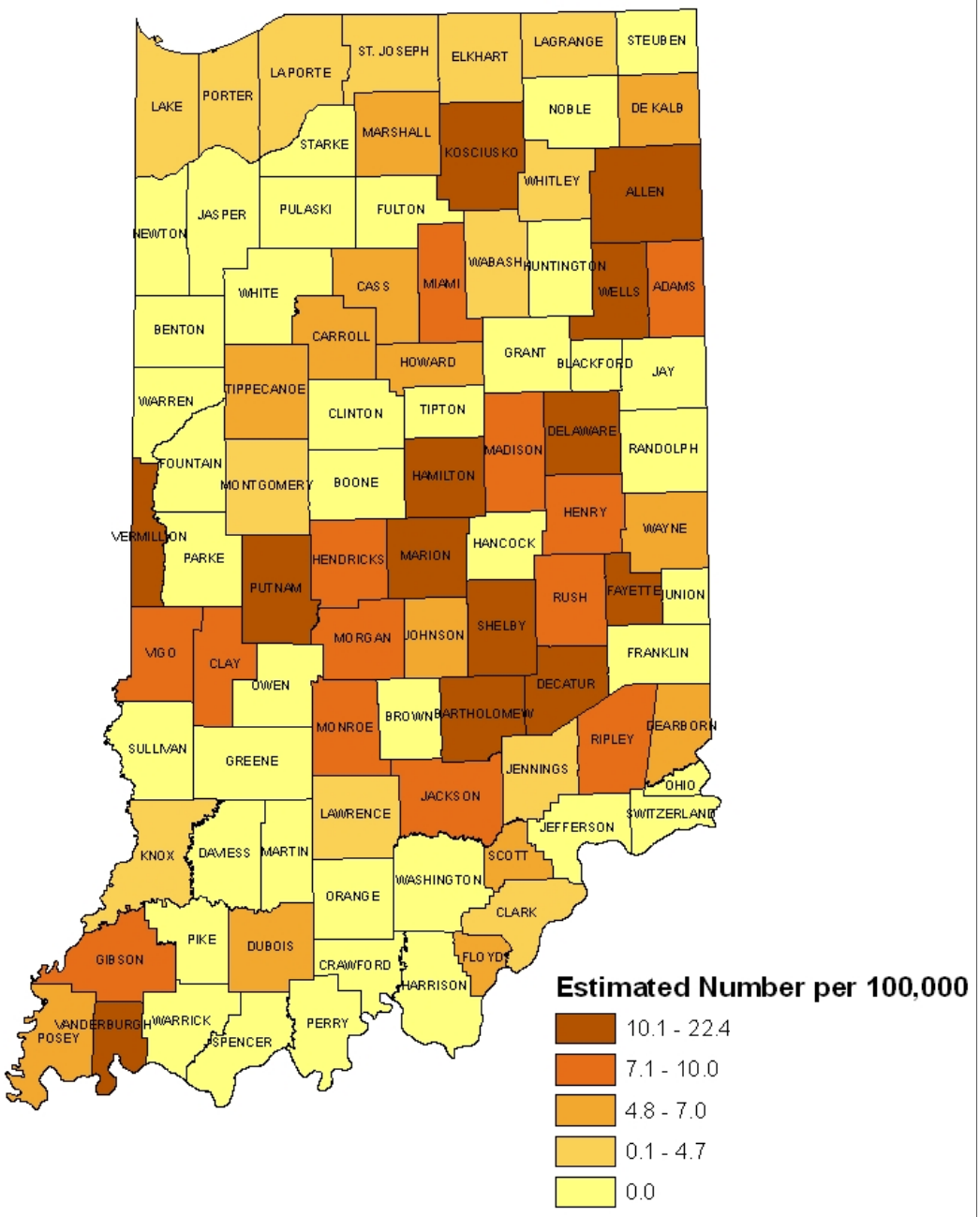
The following maps display the estimated number of physician assistants in each county within the state of Indiana in 2008. As shown in Table 3.1, the number of physician assistants in each county was adjusted (weighted) for the specific response rate for the survey (77.6%) to ensure that the data shown in these maps is representative of the actual number of physician assistant population in each county. Thus, the counts of physician assistants used in these maps are *estimates* of the actual number of physician assistants in each county, and not the number of survey respondents in each county.

Map 3.1 Number of Physician Assistants by County, 2008



Map 3.1 shows that the number of physician assistants in Indiana counties is distributed roughly by population. Counties with the largest populations tended to have the most physician assistants. These included Allen (Fort Wayne), Bartholomew (Columbus), Delaware (Muncie), Hamilton (Carmel), Hendricks (Avon), Johnson (Greenwood), Lake (Gary), Madison (Anderson), Marion (Indianapolis), Monroe (Bloomington), St. Joseph (South Bend), and Vanderburgh (Evansville) counties. Forty counties had zero physician assistants.

Map 3.2 Number of Physician Assistants per 100,000 Population, 2008



Map 3.2 shows the estimated number of physician assistants per 100,000 population by county. Counties with the highest *ratios* per 100,000 included Allen (Fort Wayne), Bartholomew (Columbus), Decatur (Greensburg), Delaware (Muncie), Fayette (Connersville), Hamilton (Carmel), Kosciusko (Warsaw), Marion (Indianapolis), Putnam (Greencastle), Shelby (Shelbyville), Vanderburgh (Evansville) Vermillion (Newport) and Wells (Bluffton) counties.

Table 3.1: Estimated Number of Physician Assistants by County and Per 100,000 Population

County	Number	Weighted	Population	Ratio_per_100,000
Adams	2	3	33,985	7.6
Allen	61	79	350,523	22.4
Bartholomew	7	9	75,360	12.0
Benton	0	0	8,769	0.0
Blackford	0	0	13,093	0.0
Boone	0	0	55,027	0.0
Brown	0	0	14,550	0.0
Carroll	1	1	19,864	6.5
Cass	2	3	39,123	6.6
Clark	3	4	106,673	3.6
Clay	2	3	26,703	9.7
Clinton	0	0	34,069	0.0
Crawford	0	0	10,624	0.0
Daviess	0	0	30,147	0.0
DeKalb	2	3	41,884	6.2
Dearborn	2	3	49,985	5.2
Decatur	2	3	24,998	10.3
Delaware	10	13	114,685	11.2
Dubois	2	3	41,449	6.2
Elkhart	6	8	199,137	3.9
Fayette	2	3	24,265	10.6
Floyd	4	5	73,780	7.0
Fountain	0	0	17,041	0.0
Franklin	0	0	23,343	0.0
Fulton	0	0	20,319	0.0
Gibson	2	3	32,666	7.9
Grant	0	0	68,609	0.0
Greene	0	0	32,577	0.0
Hamilton	30	39	269,785	14.3
Hancock	0	0	67,282	0.0
Harrison	0	0	37,067	0.0
Hendricks	8	10	137,240	7.5
Henry	3	4	47,162	8.2
Howard	4	5	83,381	6.2
Huntington	0	0	37,570	0.0
Jackson	3	4	42,193	9.2
Jasper	0	0	32,544	0.0
Jay	0	0	21,412	0.0
Jefferson	0	0	32,820	0.0
Jennings	1	1	28,040	4.6
Johnson	7	9	139,158	6.5
Knox	1	1	38,057	3.4
Kosciusko	6	8	76,275	10.1
LaPorte	2	3	110,888	2.3
Lagrange	1	1	37,172	3.5

Table 3.1: Estimated Number of Physician Assistants by County and Per 100,000 Population (Contd.)

County	Number	Weighted	Population	Ratio_per_100,000
Lake	18	23	493,800	4.7
Lawrence	1	1	45,913	2.8
Madison	9	12	131,501	8.8
Marion	136	175	880,380	19.9
Marshall	2	3	46,709	5.5
Martin	0	0	9,969	0.0
Miami	2	3	36,219	7.1
Monroe	10	13	128,992	10.0
Montgomery	1	1	37,805	3.4
Morgan	5	6	70,668	9.1
Newton	0	0	13,933	0.0
Noble	0	0	47,601	0.0
Ohio	0	0	5,773	0.0
Orange	0	0	19,571	0.0
Owen	0	0	22,375	0.0
Parke	0	0	17,152	0.0
Perry	0	0	18,929	0.0
Pike	0	0	12,569	0.0
Porter	5	6	162,181	4.0
Posey	1	1	26,079	4.9
Pulaski	0	0	13,712	0.0
Putnam	3	4	37,183	10.4
Randolph	0	0	25,801	0.0
Ripley	2	3	27,400	9.4
Rush	1	1	17,297	7.5
Scott	1	1	23,627	5.5
Shelby	4	5	44,186	11.7
Spencer	0	0	20,111	0.0
St. Joseph	8	10	266,680	3.9
Starke	0	0	23,658	0.0
Steuben	0	0	33,368	0.0
Sullivan	0	0	21,328	0.0
Switzerland	0	0	9,696	0.0
Tippecanoe	6	8	164,237	4.7
Tipton	0	0	15,923	0.0
Union	0	0	7,157	0.0
Vanderburgh	16	21	174,729	11.8
Vermillion	2	3	16,234	15.9
Vigo	6	8	105,968	7.3
Wabash	1	1	32,706	3.9
Warren	0	0	8,547	0.0
Warrick	0	0	57,656	0.0
Washington	0	0	27,949	0.0
Wayne	3	4	67,795	5.7
Wells	3	4	27,964	13.8
White	0	0	23,800	0.0
Whitley	1	1	32,667	3.9

Chapter 4: Trends in the Physician Assistant Workforce

This chapter presents trends based on the 2004, 2006, and 2008 physician assistant surveys. Trend lines have been shown in each figure to provide an understanding of the changing supply of physician assistants. The numbers of physician assistants has been weighted based on response rates for the respective years. The weighting provides an *estimate* of the actual number of physician assistants practicing in Indiana each year, and not just the number of survey respondents. The trends presented include the number of licensed physician assistants in the state, the age of physician assistants, and the average hours worked.

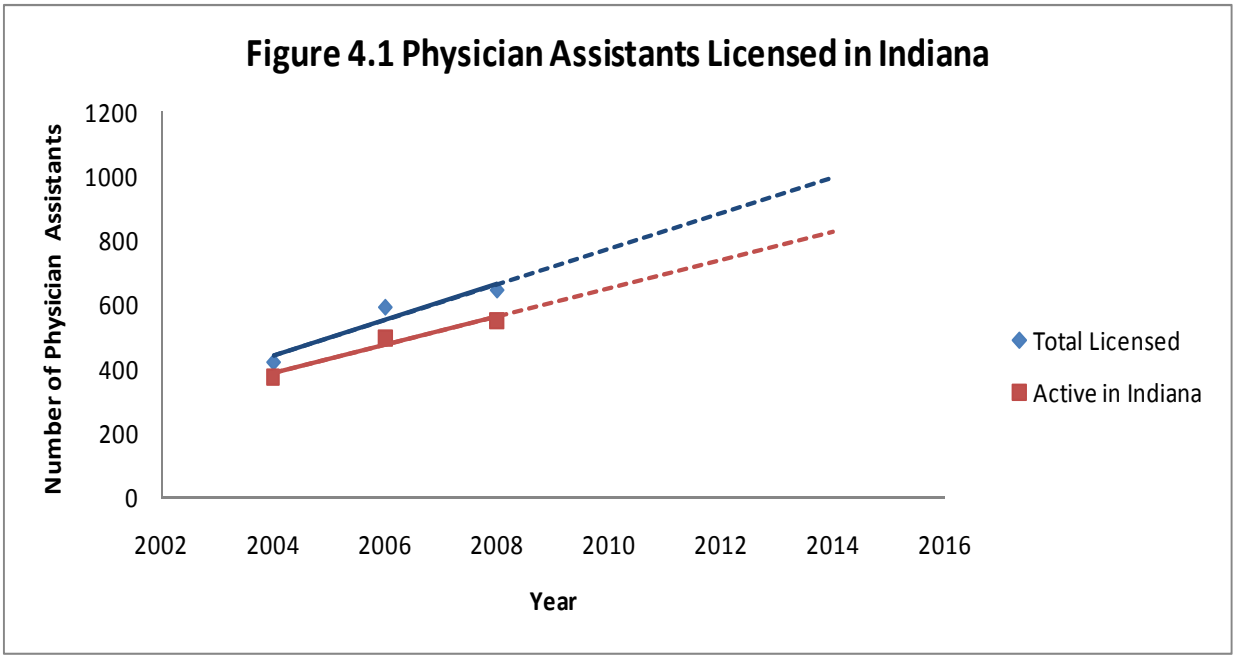


Figure 4.1 shows the total number of active physician assistants licensed in the state of Indiana. The number of Indiana physician assistants who renewed their licenses and who are actively practicing in Indiana has increased from 2004 to 2008.

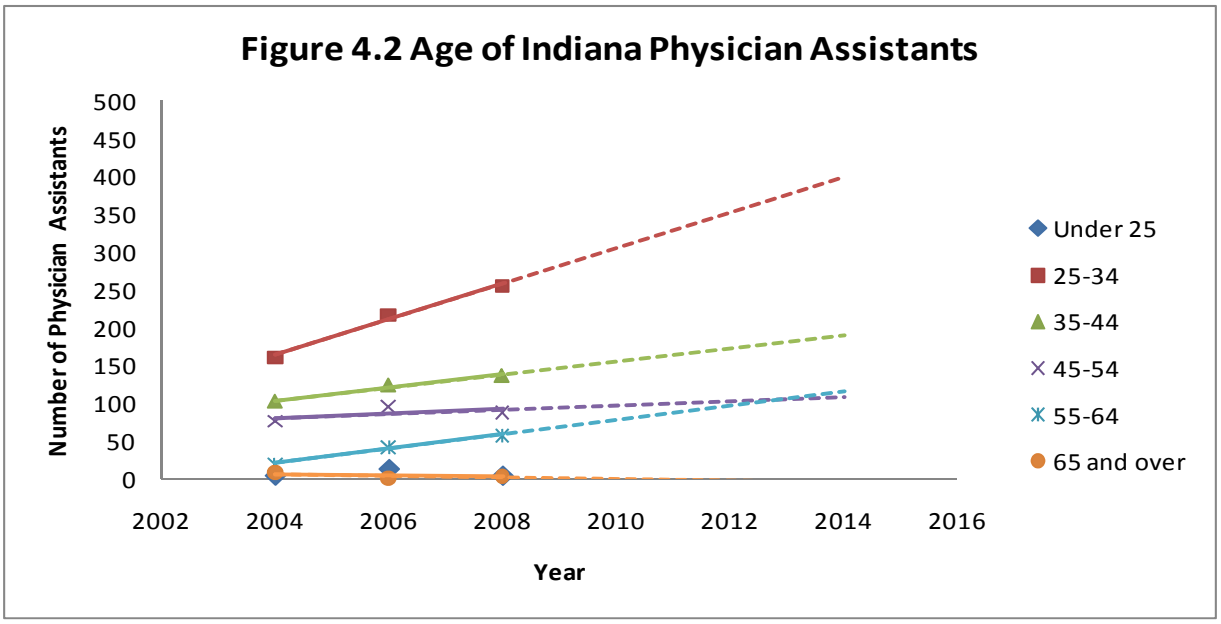


Figure 4.2 shows the number of physician assistants active in Indiana, by age group. There has been a large increase in the number of physician assistants between the ages of 25 and 34. The number of physician assistants in the 35-44, 45-54, and 55-64 year age groups also showed an increase, but to a lesser extent.

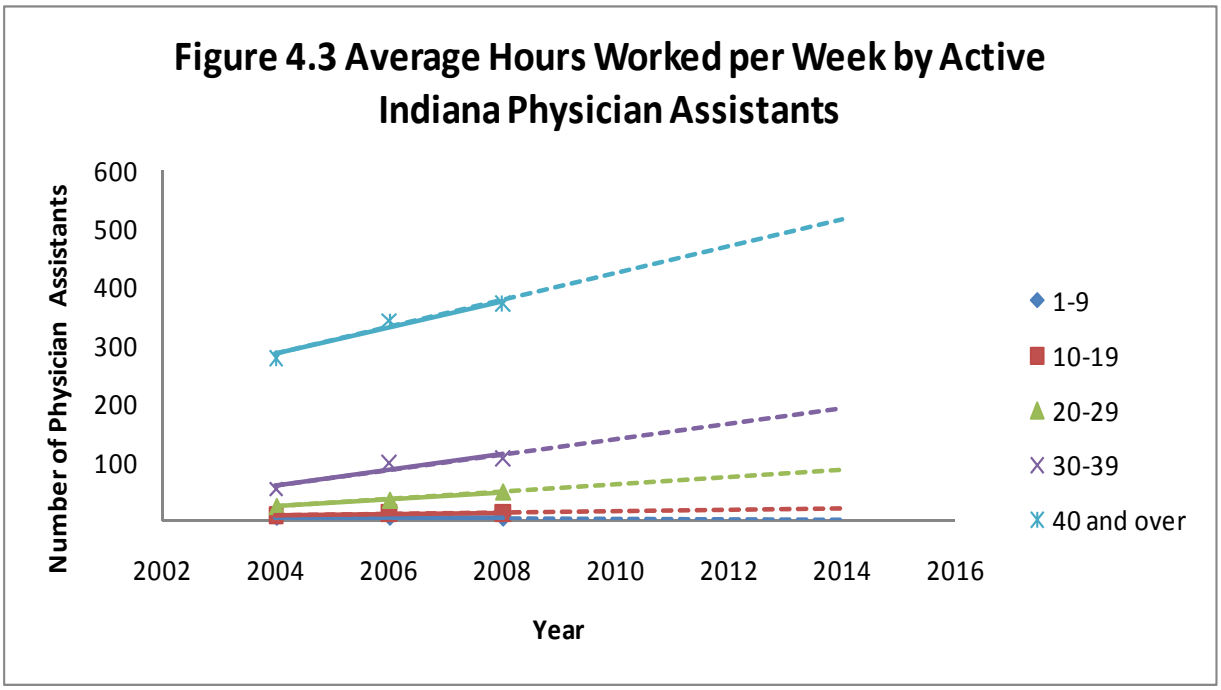


Figure 4.3 shows the number of physician assistants active in Indiana, by the average hours worked. The number of physician assistants working 40 or more hours per week is projected to grow more than the number working 20-39 hours per week. The number of physician assistants working 1-19 hours is projected to remain stable.

Chapter 5: Conclusions

Between 2004 and 2008, the number of physician assistants licensed in the state of Indiana increased, from 432 in 2004, to 593 in 2006, and to 655 in 2008. Each re-licensure year, approximately four fifths of all physician assistants renewed their licenses electronically and could complete the on-line re-licensure survey. Approximately three fourths of all licensed physician assistants responded to the survey in 2004, 2006, and 2008.

In 2008, more than four fifths of all respondents were between the ages of 25 and 54 years. Three fifths of the respondents were female. The large majority was white non-Hispanic. Spanish was the most frequently spoken second language, followed by French, Russian and sign language.

More than one half of all respondents indicated having a bachelor's degree as their highest physician assistant credential in 2008. Another one third reported having a master's degree. Nearly one half attended a physician assistant training program within the state of Indiana.

Almost all respondents spent most of their professional time in "direct patient care and patient-care-related" activities in 2008. Those who responded they worked 40 hours or more per week dropped slightly over the time period 2004 to 2008. Private-sector employers were the predominant employers of respondents, and more than one tenth of all respondents had more than one position or employer as a physician assistant. Surgery, emergency medicine, and family medicine were the most frequent specialty areas of their supervising physicians. The majority worked either in a hospital or private-practice setting. The number of physician assistants actively working in Indiana has been growing; however in 2008 there were forty counties within the state still without any of these professionals.

In 2008, counties with the largest populations tended to have the most physician assistants and the highest ratios per 100,000 population. There has been an increase in the number of Indiana physician assistants who renewed their licenses from 2004 to 2008. There has also been a large increase in the number of physician assistants between the ages of 25 and 34. The number of physician assistants noted to work 40 or more hours per week is projected to grow.

Appendix 1: Physician Assistant Survey Instruments

Appendix 1A: 2004 Indiana Physician Assistant Survey

Your answers to these questions will help the Indiana State Department of Health to respond to emergencies and to identify health professional shortages and geographic shortage areas. The survey is voluntary and will not affect the status of your license.

Thank you very much for your help.

1. What is your current work status as physician assistant (PA)? **Please choose only one.**
   DROP-DOWN LIST.
   Actively working as a PA (patient care activities, teaching, administration, or research)
   Retired as a PA
   Temporarily inactive as a PA

2. If you are actively working as a PA in patient care, administration, teaching or research, please type the 5-digit zip code of your principal position location in the box below and go on to answer questions 3-14. If you are retired or temporarily inactive, please type the zip code of your mailing address in the box and then proceed to questions 8-14.
   Text box.

3. In which activity do you spend most of your time? **Please choose only one**.
   DROP-DOWN LIST
   Direct patient care/patient care activities
   Administration
   Teaching
   Research
   Other

4. What is the major specialty of your supervising physician? **Please choose only one**.
   DROP-DOWN LIST

   Allergy & Immunology
   Anesthesiology
   Dermatology
   Emergency Medicine
   Family Practice
   Gastroenterology
   General Internal Medicine
   General Practice
   Geriatrics
   Hematology/Oncology
   Infectious Diseases
   Internal Medicine-General

Internal Medicine/Pediatrics
Nephrology
Obstetrics & Gynecology
Occupational Medicine
Otolaryngology
Neurology
Pediatrics-Adolescent Medicine
Pediatrics-General Pediatrics
Pediatrics-Pediatric Cardiology
Pediatrics-Pediatric Critical Care Medicine
Pediatrics-Pediatric Emergency Medicine
Pediatrics-Pediatric Endocrinology
Pediatrics-Pediatric Gastroenterology
Pediatrics-Pediatric Hematology/Oncology
Pediatrics-Pediatric Infectious Disease
Pediatrics-Pediatric Medical Toxicology
Pediatrics-Pediatric Nephrology
Pediatrics-Pediatric Pulmonology
Pediatrics-Pediatric Rheumatology
Pediatrics-Pediatric Sports Medicine
Physical Medicine & Rehabilitation
Public Health
Pulmonology
Rheumatology
Sports Medicine
Surgery-Critical Care
Surgery-Cardiothoracic
Surgery-Cardiovascular
Surgery-Colon & Rectal
Surgery-General
Surgery-Hand
Surgery-Head and Neck
Surgery-Neurological
Surgery-Orthopedic
Surgery-Pediatric
Surgery-Pediatric Cardiothoracic
Surgery-Pediatric Neurological
Surgery-Pediatric Orthopedic
Surgery-Plastic
Surgery-Trauma
Surgery-Vascular
Surgery-Other Surgical Subspecialty
Urology
Urology-Pediatric
Other Specialty

Not Applicable

5. What type of employer do you work for? **Please choose only one.**
DROP-DOWN LIST
Private sector employer
A branch of the military (Army, Navy, etc.)
Federal government
State government
Local government
Other type of employer

6. What type of setting do you spend most of your time in? **Please choose only one.**
DROP-DOWN LIST
Ambulatory care setting (surg./other)
College health facility
Community health center/clinic
Continuing education/staff development
Drug company
Home health care agency
Hospice
Hospital (in- & out-patient)
Hospital (in-patient only)
Hospital (out-patient only)
Hospital ER/ED
Hospital operating room
Hospital intensive care/critical care unit
Industrial facility
Insurance company
Longterm care facility/unit
Mental health/addictions facility/unit
Physician assistant educational program
Physician private practice-solo physician
Physician private practice-single specialty group
Physician private practice-multi-specialty group
Primary care center/clinic
Prison/Correctional facility
Public health department
School-based health facility
Urgent care center/clinic
Other

7. How many hours per week on average do you spend in ALL activities as a physician assistant?
Please choose only one.
DROP-DOWN LIST
1-9
10-19
20-29

30-39
40 or more

8. Would you like to receive information on the Indiana Medical Reserve Corps (MRC)? MRCs will coordinate the skills of practicing and retired physicians, nurses, and other health professionals who volunteer during emergency situations. If you answer "Yes," we may contact you using your HPB address information.
Yes No

9. Would you be willing to provide volunteer services in case of a bio-terrorism event or other public health emergency? If you answer "Yes," we may contact you using your HPB address information.
Yes No

10. Are you fluent in Spanish?
Yes No

11. Are you fluent in any Asian languages?
Yes No

12. What is your sex?
Female Male

13. Which of the following best describes your race? **Please choose only one.**
White
Black/African American
Asian/Pacific Islander
American Indiana/Native Alaskan
Multi-racial
Other

14. Are you of Hispanic origin?
Yes No

Appendix 1B: 2006 Indiana Physician Assistant Survey

Your answers to these questions will help the Indiana State Department of Health to respond to emergencies and to identify health professional shortages and geographic shortage areas. The survey is voluntary and will not affect the status of your license or your renewal.

Thank you very much for your help.

1. What is your current work status as physician assistant (PA)? **Please choose only one.**
   DROP-DOWN LIST.
   Actively working as a PA (patient care activities, teaching, administration, or research)
   Retired as a PA
   Temporarily inactive as a PA

2. If you are actively working as a PA, please type the 5-digit zip code of your principal employment location in the box adjacent to this question and proceed to questions 3-13. "Principal employment location" is the location at which you work the most hours as a PA. If you are retired, or temporarily inactive, please type the zip code of your residence and then proceed to questions 9-13.
   Text box.

3. In which activity do you spend most of your professional time? **Please choose only one**.
   DROP-DOWN LIST
   Direct patient care/patient care activities
   Administration
   Teaching
   Research
   Other

4. What is the major specialty of your supervising physician at your principal PA position (the position in which you spend the most time)? **Please choose only one**.

   DROP-DOWN LIST
   Addiction Medicine
   Allergy & Immunology
   Anesthesiology
   Cardiology
   Cardiology-Interventional
   Critical Care
   Dermatology
   Emergency Medicine
   Endocrinology
   Family Practice
   Gastroenterology
   General Internal Medicine
   General Practice
   Geriatrics

Hematology/Oncology
Infectious Diseases
Internal Medicine-General
Internal Medicine/Pediatrics
Nephrology
Neurology
Obstetrics & Gynecology
Occupational Medicine
Oncology
Otolaryngology
Neurology
Pain Management
Pathology
Pediatrics-Adolescent Medicine
Pediatrics-General Pediatrics
Pediatrics-Pediatric Cardiology
Pediatrics-Pediatric Critical Care Medicine
Pediatrics-Pediatric Emergency Medicine
Pediatrics-Pediatric Endocrinology
Pediatrics-Pediatric Gastroenterology
Pediatrics-Pediatric Hematology/Oncology
Pediatrics-Pediatric Infectious Disease
Pediatrics-Pediatric Medical Toxicology
Pediatrics-Neonatal-Perinatal
Pediatrics-Pediatric Nephrology
Pediatrics-Pediatric Neurology
Pediatrics-Pediatric Oncology
Pediatrics-Pediatric Pulmonology
Pediatrics-Pediatric Rheumatology
Pediatrics-Pediatric Sports Medicine
Physical Medicine & Rehabilitation
Psychiatry
Public Health
Pulmonology
Radiology
Radiology-Interventional
Rheumatology
Sports Medicine
Surgery-Critical Care
Surgery-Cardiothoracic
Surgery-Cardiovascular
Surgery-Colon & Rectal
Surgery-General
Surgery-Hand
Surgery-Head and Neck

Surgery-Neurological
Surgery-Orthopedic Foot & Ankle
Surgery-Orthopedic-General
Surgery-Orthopedic-Hand
Surgery-Orthopedic-Joints
Surgery-Orthopedic-Spine
Surgery-Orthopedic-Sports
Surgery-Orthopedic-Trauma
Surgery-Pediatric
Surgery-Pediatric Cardiothoracic
Surgery-Pediatric Neurological
Surgery-Pediatric Orthopedic
Surgery-Plastic
Surgery-Trauma
Surgery-Vascular
Surgery-Other Surgical Subspecialty
Urology
Urology-Pediatric
Other Specialty
Not Applicable

5. What type of employer do you work for in your principal PA position? **Please choose only one.**
DROP-DOWN LIST
Private sector employer
A branch of the military (Army, Navy, etc.)
Federal government
State government
Local government
Other type of employer

6. In what type of setting do you spend most of your time at your principal PA position? **Please choose only one.**
DROP-DOWN LIST
Adult day care
Ambulatory care setting (surg./other)
Assisted living facility/unit
College health facility
Community health center/clinic
Community mental health center
Community substance abuse agency
Continuing education/staff development
Drug company
Home health care agency
Hospice
Hospital (in- & out-patient)
Hospital (in-patient only)
Hospital (out-patient only)

Hospital ER/ED
Hospital intensive care/critical care unit
Hospital operating room
Industrial facility
Insurance company
Law firm
Long term acute care facility/unit
Long term/extended care facility/unit
Mental retardation facility/unit
Non-residential care facility/unit (e.g. elder day care)
Occupational health setting
Physician assistant educational program
Physician private practice-solo physician
Physician private practice-single specialty group
Physician private practice-multi-specialty group
Primary care center/clinic
Prison/correctional facility
Psychiatric inpatient facility/unit
Public health department (city, county or state)
Research setting
State agency (other than state public health department)
School-based health facility
Supplemental staffing agency
Surgical center, freestanding
Urgent care center/clinic, free-standing
Other

7. How many hours per week on average do you spend in ALL activities as a physician assistant?
Please choose only one.
DROP-DOWN LIST
1-9
10-19
20-29
30-39
40 or more

8. Do you hold more than one position as a PA (more than one employer)?
DROP-DOWN LIST
Yes
No

9. Would you be willing to provide services in case of a bio-terrorism event or other public health emergency? If you answer "Yes," we may contact you using your PLA contact information.
DROP-DOWN LIST
Yes No

10. Would you be willing to attend specialized training related to public health emergency response?
DROP-DOWN LIST
Yes No

11. Are you fluent in any of the following languages? PLEASE SELECT ALL THAT APPLY.
DROP-DOWN LIST
Arabic
Chinese
Filipino
French
German
Greek
Hindi
Italian
Japanese
Korean
Polish
Russian
Spanish
Tagalog
Thai
Turkish

12. What is your highest PA credential/degree? **Please choose only one.**
DROP-DOWN LIST
Certificate of completion
Associate degree
Bachelor's degree
Master's degree

13. Where is the location of the institution that granted your highest PA credential? **Please choose only one**.
DROP-DOWN LIST
Methodist Hospital and/or Butler University--Indiana
University of St. Francis—Indiana
Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut
Delaware
Florida
Georgia
Hawaii
Idaho

Illinois
Iowa
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Michigan
Minnesota
Mississippi
Missouri
Montana
Nebraska
Nevada
New Hampshire
New Jersey
New Mexico
New York
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
Rhode Island
South Carolina
South Dakota
Tennessee
Texas
Utah
Vermont
Virginia
Washington
West Virginia
Wisconsin
Wyoming
Non-U.S. PA educational program

Appendix 1C: 2008 Physician Assistant Survey

Your answers to these questions will help the Indiana State Department of Health to respond to emergencies and to identify health professional shortages and geographic shortage areas. The survey is voluntary and will not affect the status of your license or your renewal.
Thank you very much for your help.

1. What is your current work status as physician assistant (PA)? **Please choose only one.**
   DROP-DOWN LIST
   Actively working as a PA (patient care activities, teaching, administration, or research)
   Retired as a PA
   Temporarily inactive as a PA

2. If you are actively working as a PA, please type the 5-digit zip code of your principal employment location in the box adjacent to this question and proceed to questions 3-16. "Principal employment location" is the location at which you work the most hours as a PA. If you are retired, or temporarily inactive, please type the zip code of your residence and then proceed to questions 9-16.
   TEXT BOX

3. Do you hold more than one position as a PA (more than one employer)?
   DROP-DOWN LIST
   Yes
   No

4. In which activity do you spend most of your professional time? **Please choose only one**.
   DROP-DOWN LIST
   Direct patient care/patient care activities
   Administration
   Teaching
   Research
   Other

5. What is the major specialty of your supervising physician at your principal PA position (the position in which you spend the most time)? **Please choose only one**.
   DROP-DOWN LIST
   Addiction Medicine (ADM)
   Adolescent Medicine (AMI)
   Aerospace Medicine (AM)
   Allergy (A)
   Allergy & Immunology (AI)
   Allergy & Immunology-Diagnostic Laboratory Immunology (ALI)
   Alternative Medicine (ALTM)
   Anesthesiology (AN)
   Anesthesiology-Critical Care (CCA)
   Anesthesiology-Pain Management (APM)
   Anesthesiology-Pediatric (PAN)

Cardiology-Cardiovascular Disease (CD)
Cardiology-Cardiac Electrophysiology (ICE)
Cardiology-Interventional Cardiology (IC)
Cardiology-Nuclear Cardiology (NC)
Critical Care Medicine (CCM)
Dermatology (D)
Dermatology-Clinical and Laboratory Dermatological Immunology (DDL)
Dermatology-Dermatological Immunology/Diagnostic and Laboratory Immunology (DLAB)
Dermatology-Dermatopathology (DMP)
Dermatology-Pediatric Dermatology (PDD)
Dermatology-Procedural Dermatology (PRD)
Diabetes (DIA)
Emergency Medicine (EM)
Emergency Medicine-Medical Toxicology (ETX)
Emergency Medicine-Pediatric Emergency Medicine (PE)
Emergency Medicine-Sports Medicine (ESM)
Endocrinology, Diabetes and Metabolism (END)
Epidemiology (EP)
Family Practice/Family Medicine (FM)
Family Practice-Adolescent Medicine (AMF)
Family Practice-Geriatric Medicine (FPG)
Family Practice-Sports Medicine (FSM)
Gastroenterology (GE)
General Internal Medicine (IM)
General Practice (GP)
General Preventive Medicine (GPM)
Genetics-Clinical Biochemical Genetics (CBG)
Genetics-Clinical Cytogenetics (CCG)
Genetics-Clinical Genetics (CG)
Genetics-Clinical Molecular Genetics (CMG)
Genetics-Medical Genetics (MG)
Genetics-Molecular Genetic Pathology (MGG)
Geriatrics (GERI)
Gynecological Oncology (GO)
Gynecology (GYN)
Hematology (HEM)
Hematology/Oncology (HO)
Hepatology (HEP)
Hospitalist (HOS)
Immunology (IG)
Infectious Diseases (ID)
Internal Medicine-General Internal Medicine (IM)
Internal Medicine-Cardiac Electrophysiology (ICE)
Internal Medicine-Diagnostic Laboratory Immunology (ILI)
Internal Medicine-Geriatrics (IMG)

Internal Medicine-Pediatrics (MPD)
Internal Medicine-Sports Medicine (ISM)
Legal Medicine (LM)
Maternal & Fetal Medicine (MFM)
Medical Informatics
Medical Management (MDM)
Medical Microbiology (MM)
Neonatal-Perinatal Medicine (NPM)
Nephrology (NEP)
Nephrology-Pediatric Nephrology (PN)
Neurology (N)
Neurology-Child Neurology (CHN)
Neurology-Clinical Neurophysiology (CN)
Neurology-Neurodevelopmental Disabilities (NDN)
Neurology-Neurology/Diagnostic Radiology/Neuroradiology (NRN)
Neurology-Neuromuscular Medicine
Neurology-Neuropsychiatry (NUP)
Neurology-Neuroradiology (RNR)
Neurology-Vascular Neurology (VN)
Neuroradiology-Endovascular Surgical (ESN)
Nuclear Medicine (NM)
Nuclear Radiology (NR)
Nutrition (NTR)
Obstetrics & Gynecology (OBG)
Obstetrics & Gynecology-Critical Care (OCC)
Obstetrics (OBS)
Occupational Medicine (OM)
Oncology (ON)
Ophthalmology (OPH)
Ophthalmology-Pediatric Ophthalmology (PO)
Orthopedic Surgery (ORS)
Orthopedic Surgery-Foot and Ankle (OFA)
Orthopedic Surgery-Hand Surgery (HSO)
Orthopedic Surgery-Orthopedic Musculoskeletal Oncology (OMO)
Orthopedic Surgery-Orthopedic Adult Reconstructive Surgery (OAR)
Orthopedic Surgery-Pediatric Orthopedic Surgery (OP)
Orthopedic Surgery-Sports Medicine (OSM)
Orthopedic Surgery-Surgery of the Spine (OSS)
Orthopedic Surgery-Trauma (OTR)
Osteopathic Manipulative Medicine (OMM)
Otolaryngology (OTO)
Otolaryngology-Pediatric Otolaryngology (PDO)
Otology-Neurotology (NO)
Pain Medicine (PMD)
Palliative Medicine (PLM)
Pathology-Anatomic Pathology (ATP)

Pathology-Anatomic/Clinical Pathology (PTH)
Pathology-Bloodbanking (BBK)
Pathology-Chemical Pathology (PCH)
Pathology-Clinical Pathology (CLP)
Pathology-Cytopathology (PCP)
Pathology-Forensic Pathology (FOP)
Pathology-Hematology (HMP)
Pathology-Medical Microbiology
Pathology-Molecular Genetic Pathology (MGP)
Pathology-Neuropathology (NP)
Pathology-Pediatric Pathology (PP)
Pathology-Selective Pathology (SP)
Pediatrics-General Pediatrics (PD)
Pediatrics-Adolescent Medicine (ADL)
Pediatrics-Critical Care (CCP)
Pediatrics-Developmental Behavioral Pediatrics (DBP)
Pediatrics-Neonatal-Perinatal Medicine (NPM)
Pediatrics-Neurodevelopmental Disabilities (NDP)
Pediatrics-Pediatric Allergy (PDA)
Pediatrics-Pediatric Cardiology (PDC)
Pediatrics-Pediatric Cardiothoracic Surgery (PCS)
Pediatrics-Pediatric Dermatology (PDD)
Pediatrics-Pediatric Diagnostic Laboratory Immunology (PLI)
Pediatrics-Pediatric Emergency Medicine (PEM)
Pediatrics-Pediatric Endocrinology (PDE)
Pediatrics-Pediatric Gastroenterology (PG)
Pediatrics-Pediatric Hematology/Oncology (PHO)
Pediatrics-Pediatric Infectious Diseases (PDI)
Pediatrics-Pediatric Medical Toxicology (PDT)
Pediatrics-Pediatric Otolaryngology (PDO)
Pediatrics-Pediatric Pathology (PP)
Pediatrics-Pediatric Pulmonology (PDP)
Pediatrics-Pediatric Radiology (PDR)
Pediatrics-Pediatric Rehabilitation Medicine (RPM)
Pediatrics-Pediatric Rheumatology (PPR)
Pediatrics-Pediatric Sports Medicine (PSM)
Pediatrics-Pediatric Surgery (PDS)
Pharmaceutical Medicine (PHM)
Pharmacology-Clinical Pharmacology (PA)
Phlebology (PHL)
Physical Medicine & Rehabilitation (PM)
Physical Medicine and Rehabilitation-Spinal Cord Injury (SCI)
Physical Medicine and Rehabilitation-Sports Medicine (PMM)
Plastic Surgery (PS)
Plastic Surgery-Facial Plastic Surgery (FPS)
Plastic Surgery-Head & Neck (PSH)

Preventive Medical Toxicology (PTX)
Proctology (PRO)
Psychiatry (P)
Psychiatry-Addiction (ADP)
Psychiatry-Child Psychiatry (CHP)
Psychiatry-Forensic Psychiatry (PFP)
Psychiatry-Geriatric Psychiatry (PYG)
Psychiatry-Pain Medicine (PPN)
Psychiatry-Psychoanalysis (PYA)
Psychiatry-Psychosomatic Medicine (PYM)
Public Health/General Preventive Medicine (PHP)
Pulmonary Critical Care Medicine (PCC)
Pulmonary Disease (PUD)
Radiation Oncology (RO)
Radiology (R)
Radiology-Abdominal Radiology (AR)
Radiology-Cardiothoracic Radiology (CTR)
Radiology-Diagnostic Radiology (DR)
Radiology-Musculoskeletal Radiology(MSR)
Radiology-Neuroradiology (RNR)
Radiology-Neuroradiology-Endovascular Surgical (ESN)
Radiology-Nuclear Radiology (NR)
Radiology-Pediatric Radiology (PDR)
Radiology-Radiological Physics (RP)
Radiology-Vascular & Interventional Radiology (VIR)
Reproductive Endocrinology (REN)
Rheumatology (RHU)
Sclerotherapeutic Pain Management (SPMO)
Sleep Medicine (SME)
Spinal Cord Injury Medicine (SCI)
Surgery-Abdominal (AS)
Surgery-Colon & Rectal (CRS)
Surgery-Cosmetic (CS)
Surgery-Craniofacial Surgery (CFS)
Surgery-Critical Care (CCS)
Surgery-Dermatologic Surgery (DS)
Surgery-General Surgery (GS)
Surgery-Hand Surgery (HS)
Surgery-Head & Neck Surgery (HNS)
Surgery-Neurological Surgery (NS)
Surgery-Neuroradiology-Endovascular Surgical (ESN)
Surgery-Oral And Maxillofacial Surgery (OMF)
Surgery-Pediatric Cardiothoracic Surgery (PCS)
Surgery-Pediatric Neurological Surgery (NSP)
Surgery-Pediatric Orthopedic Surgery (OP)
Surgery-Pediatric Surgery (PDS)

Surgery-Plastic Surgery (PS)
Surgery-Surgical Oncology (SO)
Surgery-Thoracic Surgery (TS)
Surgery-Transplant Surgery (TTS)
Surgery-Traumatic Surgery (TRS)
Surgery-Urological Surgery (U)
Surgery-Vascular Surgery (VS)
Undersea Medicine and Hyperbaric Medicine (UM)
Undersea and Hyperbaric Medicine-Emergency Medicine (UME)
Urgent Care Medicine (UCM)
Urology (U)
Urology-Pediatric Urology (UP)
Vascular Medicine (VM)
Vascular Neurology (VN)
Other Specialty (OS)

6. What type of employer do you work for in your principal PA position? **Please choose only one.**
DROP-DOWN LIST
Private sector employer
A branch of the military (Army, Navy, etc.)
Federal government
State government
Local government
Other type of employer

7. In what type of setting do you spend most of your time at your principal PA position? **Please choose only one.**
DROP-DOWN LIST
Adult day care
Ambulatory care setting (surg./other)
Assisted living facility/unit
College health facility
Community health center/clinic
Community mental health center
Community substance abuse agency
Continuing education/staff development
Drug company
Home health care agency
Hospice
Hospital (in- & out-patient)
Hospital (in-patient only)
Hospital (out-patient only)
Hospital ER/ED
Hospital intensive care/critical care unit
Hospital operating room
Industrial facility
Insurance company

Law firm
Long term acute care facility/unit
Long term/extended care facility/unit
Mental retardation facility/unit
Non-residential care facility/unit (e.g. elder day care)
Occupational health setting
Physician assistant educational program
Physician private practice-solo physician
Physician private practice-single specialty group
Physician private practice-multi-specialty group
Primary care center/clinic
Prison/correctional facility
Psychiatric inpatient facility/unit
Public health department (city, county or state)
Research setting
State agency (other than state public health department)
School-based health facility
Supplemental staffing agency
Surgical center, freestanding
Urgent care center/clinic, free-standing
Other

8. How many hours per week on average do you spend in ALL activities as a physician assistant? **Please choose only one.**
DROP-DOWN LIST
1-9
10-19
20-29
30-39
40 or more

9. Would you be willing to provide services in case of a bio-terrorism event or other public health emergency? If you answer "Yes," we may contact you using your PLA contact information.
DROP-DOWN LIST
Yes
No

10. Do you have the following type(s) of medical experience? **Please select all that apply.**
DROP-DOWN LIST
Military medical experience
Disaster medical experience

11. Are you fluent in any of the following languages? **Please select all that apply.**
DROP-DOWN LIST
African languages
Arabic
Burmese

Cambodian
Chinese
Filipino
French
German
Greek
Hindi
Italian
Japanese
Korean
Pennsylvania Dutch
Polish
Portuguese
Russian
Sign language
Spanish
Tagalog
Thai
Turkish

12. What is your highest PA credential/degree? **Please choose only one.**
DROP-DOWN LIST
Certificate of completion
Associate degree
Bachelor's degree
Master's degree

13. Where is the location of the institution that granted your highest PA credential? **Please choose only one**.
DROP-DOWN LIST
Methodist Hospital and/or Butler University--Indiana
University of St. Francis—Indiana
Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut
Delaware
Florida
Georgia
Hawaii
Idaho
Illinois
Iowa
Kansas

Kentucky
Louisiana
Maine
Maryland
Massachusetts
Michigan
Minnesota
Mississippi
Missouri
Montana
Nebraska
Nevada
New Hampshire
New Jersey
New Mexico
New York
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
Rhode Island
South Carolina
South Dakota
Tennessee
Texas
Utah
Vermont
Virginia
Washington
West Virginia
Wisconsin
Wyoming
Non-U.S. PA educational program

14. Which of the following best describes your race? **Please select only one.**
DROP-DOWN LIST
White
Black/African American
Asian/Pacific Islander
American Indian/Native Alaskan
Multi-racial
Other

15. Are you of Hispanic origin?
DROP-DOWN LIST

Yes
No

16. What is your sex?
DROP-DOWN LIST
Female
Male

Appendix 2: Comparison Chart of Variable Availability in Each Dataset

Variable Availability from 2004 to 2008			
Variable	**2008**	**2006**	**2004**
E-survey response (presentation varies year to year)	X	X	X
Physician assistant license status	X	X	X
Work status	X	X	X
Principle employment location (zip, county, state)	X	X	X
Age	X	X	X
Sex	X		X
Race	X		X
Ethnicity	X		X
Language fluency	X	X	Spanish only
Highest PA credential/degree	X	X	
Location of PA education program	X	X	
Professional activities	X	X	X
Average hours worked	X	X	X
Primary type of employer	X	X	X
More than one position/employer	X	X	
Major speciality of supervising physician (listed specialties changed over time)	X	X	X
Principle work settings (listed settings changed over time)	X	X	X

Appendix 3: Proposed Changes to the 2010 Indiana Physician Assistant Re-Licensure Survey

With the help of the advisory board, a few suggestions were made to improve the 2010 survey to gather critical data on:

1. Practice location—provide options to add three practice locations
2. Supervising physician—do you have more than one supervising physician? Add an option for primary, secondary and tertiary supervising physician(s) each.
3. Average hours worked—add more options to the existing categories
4. Add more questions to the "education and training" sections, e.g.,
    a. Where did you get your entry level PA training?
    b. What is your highest PA credential/degree?
    c. Where is the location of the institution that granted your highest PA credential?
    d. Do you have a post-graduate training in…emergency medicine, surgery, oncology etc?
    e. What is your highest degree in any field?
5. Capture more PA educators, i.e., faculty who work full-time in PA education and part-time in clinical practice