A Study of Physician Assistant Licensure

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Foreword

The 2005 General Assembly directed the Legislative Research Commission to study the advisability of licensing physician assistants. In the course of the study, physician assistant regulation in other states would be surveyed, evaluated, and compared to the practice of certifying physician assistants in Kentucky. In addition, testimony from interested parties would be gathered and physician assistant labor markets would be compared among states. This report represents the results of that study.

Legislative Research Commission staff would like to acknowledge the information and testimony provided from several organizations and associations. These included the Kentucky Academy of Physician Assistants, American Academy of Physician Assistants, Kentucky Board of Medical Licensure, Kentucky Medical Association, Kentucky Academy of Family Physicians, Kentucky Nurses Association, Kentucky Hospital Association, Kentucky Psychiatric Medical Association, Kentucky Society of Anesthesiologists, Kentucky Society of Interventional Pain Physicians, the University of Kentucky Physician Assistant Studies program, Kentucky Association of Health Plans, Humana, and the Accreditation Review Commission on Education for the Physician Assistant.

Robert Sherman
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Legislative Research Commission
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Summary

Physician assistants are health care practitioners who diagnose and treat patients in a variety of settings under the supervision of a physician. In all 50 states and the District of Columbia, physician assistants are required to have regulatory approval to practice, although that approval is granted under different regulatory systems. Kentucky and 3 other states "certify" physician assistants to practice, while 42 states and the District of Columbia "license" physician assistants. The remaining states "register" physician assistants. The primary finding of this research report is that Kentucky's current system of certifying physician assistants is similar to the licensing regulation of physician assistants in other states. Regardless of the name of the regulatory system, the underlying requirements for all physician assistants across the country are similar. Thus, if Kentucky changed to a system of licensing physician assistants from the current method of certifying, while retaining all current requirements and scope of practice limitations, little impact would be expected.

There has been a national trend over the past decade from certification and registration systems toward physician assistant licensing systems. Since 1992, more than 30 states have changed from these systems to licensure systems. Officials interviewed from states that made this transition reported that there were no major impacts from the change in regulatory systems.

While the requirements to obtain approval to practice as a physician assistant, regardless of the naming convention of the system, were similar between states, there were differences in opinion among interested parties in Kentucky about the effects of Kentucky changing to a licensing system. Three groups interviewed—the Kentucky Academy of Physician Assistants, American Academy of Physician Assistants, and the University of Kentucky Physician Assistant Studies program—fully support licensing. The Kentucky Board of Medical Licensure, Kentucky Medical Association, Kentucky Academy of Family Physicians, Kentucky Psychiatric Medical Association, Kentucky Society of Interventional Pain Physicians, and the Kentucky Nurses Association oppose any change from the current certification system.

No academic literature specifically examines the difference in certifying and licensing physician assistants. Literature on a number of outcomes was researched, including the impact of a change in regulatory systems for physician assistants on access to health care, quality of health care, cost of health care, health care labor markets, and medical liability. While some literature examined the impact of state practice environments on the number of physician assistants in a state, none specifically addressed whether a state had a licensing, certification, or registration system of regulation. The literature is silent on the impact of the different regulatory systems used by states and deals more with the overall authority and scope of practice differences among them.

The authorized scope of practice for physician assistants is largely similar among states regardless of the regulation system. However, some differences exist. One difference among states is in the area of prescriptive authority. While most states allow physician

assistants to write prescriptions, two do not. Within the states that allow physician assistants to write prescriptions, the extent of this authority varies. Other practice differences and similarities among states were found in the level of physician supervision required and the laws governing reimbursement of physician assistant services.

Physician assistant labor market differences among states were also investigated. In 2004, physician assistants in Kentucky had an average salary of $74,987, slightly less than the national average of $78,251. That same year Kentucky had approximately 1.4 physician assistants per 10,000 citizens, less than the national average of 1.6 physician assistants per 10,000 people but second only to West Virginia in contiguous states. Kentucky also has retained a larger percentage of in-state trained physician assistants than have most other states.

Chapter 1

Introduction

House Concurrent Resolution 121 of the 2005 General Assembly directed the Legislative Research Commission to study the effect of licensing physician assistants. The resolution directed the study to compare and contrast the services physician assistants are allowed to perform in Kentucky with services allowed in other states and to compare employment patterns of physician assistants among states. In addition, HCR 121 directed that the testimony and opinions of interested parties and groups be collected concerning the advantages and disadvantages of licensing physician assistants in Kentucky.

To fulfill these requirements, staff researched academic literature, trade literature, and state statutes and regulations in all 50 states and the District of Columbia on physician assistant regulation. Staff also collected data on the characteristics of the physician assistant labor market. In addition, interested parties in Kentucky were contacted and interviewed concerning the effect of licensing physician assistants. Officials in states that have changed regulatory systems over the past decade were also contacted as were officials in the three other states that continue to certify physician assistants.

The general finding of this research is that there is little difference, other than name, between Kentucky's current system of certifying physician assistants and other states' systems that license, register, or certify them. There are more similarities in how states regulate physician assistants than there are differences.

Physician Assistant Background

Physician Assistant Practice

A physician assistant's practice has traditionally been linked to the practice of his or her supervising physician.

While their scope of practice and range of duties can differ from state to state and practice to practice, physician assistants "conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel on preventive healthcare, assist in surgery, and—in most states...—can write prescriptions" (Strand 225). However, while physician assistants provide a range of health care services, their practice has from its origins been linked to a supervising physician. In describing this relationship, the American Academy of Physician Assistants (AAPA) states "that the physician-PA team

relationship is fundamental to the PA profession and enhances the delivery of high quality health care" (Issue Brief: The Physician 2). American Medical Association material states that "The physician is ultimately responsible for coordinating and managing the care of patients and, with the appropriate input of the physician assistant, ensuring the quality of health care provided to patients." While physician assistants are regulated medical practitioners who treat patients, their practice is linked to a supervising physician's practice.

History of the Physician Assistant Profession

The first formal program to train physician assistants started at Duke University in 1965.

The first physician assistant education program in the United States was started at Duke University Medical Center by Dr. Eugene A. Stead, Jr. in 1965 (Physician Assistant History Center). This program, and the new profession it helped start, was implemented in response to the short supply of primary care physicians, the trend for physicians to become more specialized, and a desire to expand primary care access (Hooker 31). The initial entrants into the program were Navy corpsmen who, though they had extensive medical training from their military service, were generally unable to find employment utilizing this training in the civilian world (Strand 225).

The physician assistant occupation developed with a high level of collaboration among physician groups, educators, and policy makers.

The physician assistant occupation has undergone substantial growth and change, both of which continue today. Professional standards, professional organizations, and recognition followed soon after the start of the first academic program. In 1970, the American Medical Association House of Delegates passed a resolution urging state authorities and boards to amend statutes and regulations to include physician assistants as medical practitioners and in 1971 established formal educational standards for physician assistant education programs (Hooker 31). In the early formative period of the physician assistant profession, there was substantial collaboration among organized physician groups, physician assistant educators, professional leaders, regulatory bodies, and public policy agencies in building the foundation of the physician assistant occupation (Hooker 30).

Physician Assistant Training and National Certification

Physician assistant training programs typically consist of two years of study including course and clinical work.

Physician assistant training, both today and historically, is based on a medical model intended to complement the training and practice of physicians. Physician assistant programs typically consist of approximately two years of training, generally split into two equal parts: course work and rotating

clerkships/preceptorships in major clinical disciplines (Hooker 71). The programs can be found at all levels of higher education: community colleges, comprehensive institutions, and major research universities. However, there has been a trend in physician assistant programs toward becoming masters-level programs (Hooker 68). The executive director of the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA), stated he sees a trend in many institutions requiring physician assistant programs to include "an upper developmental if not graduate level" component for graduation. Examples include research projects, capstone projects, and residencies or internships. In addition, he believes that more institutions in the future will require a bachelor's degree in the sciences rather than accept one in any subject area for eligibility to enter a physician assistant program and that community college physician assistant programs will be phased out (McCarty). The University of Kentucky, with a satellite program at Morehead State University, is home to the only accredited physician assistant program in Kentucky and only offers a master's-level physician assistant program.

The standards of accreditation for physician assistant programs are developed jointly by a variety of medical industry groups.

There are more than 130 accredited physician assistant training programs in the United States (Accreditation. Accredited). Accreditation standards are developed through cooperation of the American Academy of Family Physicians, American Academy of Pediatrics, American Academy of Physician Assistants, American College of Physicians, American College of Surgeons, American Medical Association, and Association of Physician Assistant Programs (Accreditation. Accreditation 1).

The goal of the ARC-PA for physician assistant training is to produce professionals who can complement the care provided by physicians. To achieve this, the ARC-PA states: "The professional curriculum for PA education includes basic medical, behavioral, and social sciences; patient assessment and clinical medicine; supervised clinical practice; and health policy and professional practice issues" (Accreditation. Accreditation 1).

Physician assistants can attain national certification through the National Commission of Certification of Physician Assistants, though this does not authorize them to practice.

In addition to an independent accrediting agency for physician assistant programs, there is also a national independent entity responsible for credentialing physician assistants individually: the National Commission of Certification of Physician Assistants (NCCPA). NCCPA was established in 1975 through the efforts of the American Medical Association (AMA) and the National Board of Medical Examiners to be a freestanding agency to "assure the PA profession, employers, state boards, and most important, patients of the competency of this type of health professional"

(Hooker 221). Today, NCCPA nationally certifies physician assistants through examination and continuing education requirements. Certification through the NCCPA allows a physician assistant to use the professional title "PA-C." To be certified by NCCPA, a physician assistant must be a graduate of an ARC-PA-accredited program and pass the Physician Assistant National Certifying Examination. Initial certification lasts six years at which time, to be recertified, a physician assistant must pass the Physician Assistant National Recertifying Exam and present evidence of 100 hours of continuing medical education every two years (National).

Occupational Regulation History

States generally have the responsibility and authority to regulate professions.

The regulation of occupations has a long history, especially in medical professions (Hollings xvi). This regulation has generally been considered a state issue, though the federal government has influenced policy for the medical professions in particular (Pew 46). The United States Supreme Court has repeatedly held that states have the power to regulate occupations, applying a "rational basis" standard that states must meet to justify the regulation (Hollings xv).

Traditional Definitions of Occupational Regulation

Occupational regulation is typically composed of three categories of regulation: licensing, certification, and registration. While these three categories of regulation have generally accepted definitions, they have been used in physician assistant regulation differently from the standard convention. These traditional and generally accepted definitions are provided for context in evaluating the issue of physician assistant licensure. While physician assistant regulation has used these terms differently, many states, as they have changed their systems of physician assistant regulation to licensure systems, have become more aligned with the traditional terminology.

Licensing is typically considered the most restrictive form of occupational regulation and normally provides a practice monopoly to an occupation.

Licensing is generally considered the most restrictive of the three types of occupational regulation (Hollings xvii). Under licensing, "boards sanctioned by the state typically set entry requirements, enact rules governing conduct, and discipline individuals for rule violations" (Cox 3). Licenses are conferred exclusively by governmental entities. A licensing system of regulation for a profession generally prohibits a person from legally practicing in the profession without first receiving the required license.

Certification is traditionally a voluntary form of regulation meant to show competency and provide quality assurances.

Certification is usually a medium level of regulation (Hollings xviii). Certification may be granted by a governmental entity or by a nongovernmental entity, such as a professional organization or private board. Certification may be voluntary, especially in nongovernmental programs, but it extends the benefit of allowing the individual to use a title that is restricted. Certification is meant to indicate a certain level of expertise or training that the practitioner may announce or list as a means of ensuring potential customers that quality services will be rendered. Cox and Foster indicated that under the traditional definition of certification, anyone may practice the occupation, but formal certificates of competency, with any accompanying assurances of quality, are awarded to qualifying individuals (43-44).

Registration is typically the least restrictive form of occupational regulation.

Registration, in its traditional form, is the least restrictive form of occupational regulation (Hollings xviii). Registration usually involves individual practitioners adding their names to a combined list of registrants. Registration may be mandatory and involve regular fees. However, registration traditionally does not confer any kind of special status or guarantee. Traditionally, registration differs from licensing and certification in that occupations are not required to meet educational or professional requirements in order to practice, and applicants for registration only submit appropriate information along with a fee to be added to the registration list (Cox 49).

Organization of This Report

The remainder of this report is organized into two chapters. Chapter 2 provides an overview of states' regulation of physician assistants, including changes in regulation over the past decade. The report reviews the form of regulatory system, regulatory organization responsible for overseeing physician assistants, education requirements, the level of prescriptive authority, reimbursement authority, and the required level of supervision. Labor market and provider population measures are also provided. The chapter concludes by presenting the opinions of interested parties regarding the issue of licensing physician assistants in Kentucky.

Chapter 3 provides further information on the potential impacts of Kentucky moving to a licensure system. It evaluates the differences between Kentucky and other states in physician assistant regulation and examines the potential impacts of Kentucky moving to a system of licensure. It includes a review of applicable academic literature, analysis of the differences and

similarities between states in their regulation of physician assistants, and results of information received from other states that have moved from a certification system to a licensure system of regulation. The chapter discusses potential impacts that were identified in interviews and through staff research that could result from a change in Kentucky's regulation of physician assistants. The chapter ends with a summary of conclusions.

Chapter 2

Introduction

This chapter presents information on the current and recent historical regulation of physician assistants and labor market status in all 50 states and the District of Columbia.[1] It is organized into three sections. The first section covers the regulation of physician assistants in Kentucky and other states. For this section, state statutes and regulations and a number of industry publications, most notably the American Academy of Physician Assistants' *Physician Assistants: State Laws and Regulation* series (2002, 2000, 1998, 1992, and 1987), were reviewed. The second section details physician assistant labor market characteristics in Kentucky and other states. This section incorporates data on labor market measures and provider populations obtained from the American Academy of Physician Assistants (AAPA), Kentucky Board of Medical Licensure (KBML), and the University of Kentucky. The last section provides the results of staff interviews with interested parties concerning physician assistant licensing in Kentucky.

States' Physician Assistant Regulation

Every characteristic of physician assistant occupational regulation was not investigated for this report. Rather, two broad categories of regulation were selected: professional regulation and practice regulation. These two categories were further broken into smaller components. Table 2.1 shows this breakdown.

For professional regulation, three areas were considered: the type of regulatory system used by states; the entity in each state responsible for overseeing physician assistant practice; and the educational requirements in each state for a physician assistant.

For practice regulations, three regulation characteristics were selected for comparisons: prescriptive authority; the level of supervision required by a physician for physician assistants; and laws and regulations concerning reimbursement for services provided by physician assistants.

[1] It should be noted that this research did not specifically separate osteopathic physician assistants from the larger group of allopathic physician assistants. Some states regulate these two groups separately though differences in regulation were not generally substantial.

Table 2.1
Components of Occupational Regulation Used To Compare Physician Assistant Regulation Among States

Professional Regulations	Practice Regulations
1. Form of regulatory system	1. Prescriptive authority
2. Regulating entity	2. Level of supervision
3. Educational requirements	3. Reimbursement

These measures of occupational regulation were selected as general measures to compare physician assistant practice environments among states. They are not exhaustive measures of the respective state regulatory environments. Characterizing every difference in states' regulation of physician assistants prevents concise comparisons. Rather, in selecting measures of regulation that cover the major areas of practice and authority for physician assistants, states can readily be compared and contrasted while retaining important differences.

This report looks at the systems of regulation for physician assistants and makes a nationwide comparison of the practice requirements and scope of practice.

This treatment and categorization of regulation is largely consistent with how academic studies have examined physician assistant regulation and scope of practice differences among states (Wing et al.; Shi and Samuels; Sekscenski et al.).[2] The academic literature generally does not consider whether a state licenses, certifies, or registers physician assistants. As directed in the study resolution, more attention was dedicated to whether a state uses a licensing, certification, or registration system and the requirements the systems set as conditions to practice. This report seeks to provide a comparison first of whether states license, certify, or register physician assistants and then of states' requirements for physician assistant practice and scope of practice.

Professional Regulations

Forty-two states and the District of Columbia currently license physician assistants; four register them; and four, including Kentucky, certify them.

Form of Regulatory Systems. States use three different systems to regulate physician assistants: certification, registration, and licensure. Currently, 42 states and the District of Columbia license physician assistants. Four states, including Kentucky, certify physician assistants. The remaining states register physician assistants. Table 2.2 lists the states and their current systems.

[2] The academic literature also commonly develops a numeric scoring system to rank each state and weights each category of regulation considered. This report does not develop a numeric index to rank states because of the somewhat subjective nature of determining emphasis to assign each regulatory component.

Table 2.2
Physician Assistant Regulatory Systems by State
2005

State	Regulatory System		State	Regulatory System
Alabama	License		Montana	License
Alaska	License		Nebraska	License
Arizona	License		Nevada*	License
Arkansas	License		New Hampshire	License
California	License		New Jersey	License
Colorado	License		New Mexico	License
Connecticut	License		New York	Registration
Delaware	License		North Carolina	License
District of Columbia	License		North Dakota	License
Florida	License		Ohio	Registration
Georgia	License		Oklahoma	License
Hawaii	License		Oregon	License
Idaho	License		Pennsylvania	License
Illinois	License		Rhode Island	License
Indiana	Certification		South Carolina	License
Iowa	License		South Dakota	License
Kansas	License		Tennessee	License
Kentucky	Certification		Texas	License
Louisiana	License		Utah	License
Maine	License		Vermont	Certification
Maryland	Certification		Virginia	License
Massachusetts	Registration		Washington	License
Michigan	License		West Virginia	License
Minnesota	Registration		Wisconsin	License
Mississippi	License		Wyoming	License
Missouri	License			

Source: Staff research of state statutes.
*Nevada regulates osteopathic and allopathic physician assistants separately. Nevada osteopathic physician assistants are certified.

The trend has been for states to move to licensing systems. Since 1992, more than 30 states have moved from a certification or registration system of regulating physician assistants to a licensure system. Before moving to a licensure system, these states typically had required physician assistants to meet certain standards before being granted approval to practice. The majority of states that changed to a licensure system previously certified physician assistants. No state has changed from a licensure system to another regulatory system.

Most states, including Kentucky, regulate physician assistants through the same entity that regulates physicians.

Regulating Entity. The governing body responsible for regulating physician assistants in each state was also identified. The Kentucky Board of Medical Licensure regulates physician assistants in Kentucky. Currently, 46 states and the District of Columbia regulate their physician assistants through their respective medical

boards, which also regulate physician practice. However, many also have physician assistant committees or councils to assist the medical boards. Only five states regulate physician assistants through an independent physician assistant board. Appendix A provides a list of states and the entity responsible for regulating physician assistants.

All states require physician assistants to be graduates of an approved and accredited training program.

Educational Requirements. The most common requirements are educational for initial regulatory approval to practice, whether that authority is granted through licensing, certification, or registration. These educational requirements are similar among states. All states and the District of Columbia require physician assistants to have graduated from an approved training program. An "approved" program is generally a program that is accredited by the ARC-PA. However, provisions in some state statutes and regulations mandate that the physician assistant must be a graduate of a program approved by the regulating board.

All states require passage of the Physician Assistant National Certifying Examination for initial regulatory approval.

In addition to this graduation requirement for initial regulatory approval, all states require physician assistants to pass the Physician Assistant National Certifying Examination. Upon successful completion of the exam and graduation from an approved program, a physician assistant becomes nationally certified.[3] Seventeen states, including Kentucky, require recertification through NCCPA as a condition for ongoing regulatory renewal. Seven other states will accept national recertification through NCCPA as a form of continuing education required for renewal. Twenty-six states currently do not require recertification through NCCPA for renewal of regulatory approval.

Most states do not have formal educational requirements for physician assistants beyond graduating from an accredited program.

Most states do not require a bachelor's or master's degree in addition to completing an accredited physician assistant program. Ten states require a physician assistant to have a bachelor's degree; one state requires a master's degree. Kentucky does not require formal education beyond graduation from an accredited physician assistant program.

After initial regulatory approval, physician assistants normally must renew their credentials with their regulating agency. Most states require some level of continuing education to renew authority to practice. Kentucky requires physician assistants to

[3] This national certification is different from being certified by Kentucky. The national certification is obtained through a private organization and is similar to the traditional meaning of certification.

complete 100 hours of continuing education over a two-year period (KRS 311.844(3)(b)).[4]

Practice Regulations

Physician assistants' authority to write prescriptions varies from state to state. All but two states allow physician assistants to write prescriptions

Prescriptive Authority. The greatest variation among state regulation of physician assistant practice environments was the various levels of prescriptive authority granted. All states but Indiana and Ohio allow physician assistants to prescribe medications. However, of those states that allow physician assistants to write prescriptions, 44 grant the authority to prescribe controlled substances.[5] Kentucky physician assistants can only prescribe noncontrolled substances (KRS 311.858(4)).

States, over the last decade, have generally increased the authority of physician assistants to write prescriptions.

The trend over the past decade in state regulation of prescriptive authority for physician assistants has been to authorize and increase the level of prescriptive authority. From 1992 to 2005, the number of states, including the District of Colombia, that granted some form of authority to write prescriptions increased from 36 to 49. In addition, from 1992 to 2005, 20 states increased prescriptive authority by allowing physician assistants to prescribe controlled substances. Table 2.3 lists the number of states by the level of prescriptive authority granted to physician assistants in 1992 and today.

Table 2.3
Physician Assistant Prescriptive Authority
1992 and 2005

		1992		2005
Number of states where PAs have no prescriptive authority		15		2
Number of states and District of Columbia where PAs have some prescriptive authority		36		49
Number of states where PAs have some form of controlled-substance prescriptive authority		24		44

Source: Staff research of state regulations and statutes and American Academy of Physician Assistants' *Physician Assistant State Laws and Regulations*, 1992.

[4] A physician assistant seeking initial certification in Kentucky must complete an educational course on the transmission of HIV and AIDS within six months of certification. A physician assistant seeking renewal must provide evidence of completion of a continuing education course on HIV and AIDS at least one time in the previous 10 years.

[5] Controlled substances are a special subset of substances with potential for abuse or physical or psychological dependence established by the Controlled Substance Act of 1970.

Physician assistants in all states must have a supervising physician. The general levels of physician assistant supervision by a supervising physician are direct, on-site, and off-site.

Level of Supervision. There was also variation among states' supervision requirements. In all states, physician assistants are employed and supervised by a physician. No state allows independent physician assistant practice. Physician assistants typically work under one of three forms of supervision: direct, on-site, and off-site, though the definition of these levels of supervision can vary among states. Direct physician supervision is typically viewed as the direct, immediate presence with the physician assistant at all times. Generally, on-site supervision requires a physician to be at the same location as a physician assistant, but does not require the direct and immediate presence of the physician at all times. Off-site supervision allows a physician assistant to practice at a different location from the supervising physician but requires the supervising physician to be in close contact with the physician assistant. All states currently allow some form of off-site supervision.

Most states limit how many physician assistants a physician may supervise. Most, including Kentucky, allow a maximum of two physician assistants per supervising physician.

States typically limit the number of physician assistants that a physician may supervise. In Kentucky, a physician can supervise up to two physician assistants (KRS 311.854(5)). This physician assistant/physician ratio is the same in 30 other states. Eighteen states have a less stringent requirement, allowing supervising physicians to oversee more than two physician assistants. Two states permit a physician to supervise one physician assistant. Appendix B provides the current legal limit of physician assistants to supervising physician in all states.

Kentucky requires physician assistants with less than two years of experience to have direct physician supervision.

Another area of supervision examined was the requirement in Kentucky that physician assistants with fewer than two years of experience have direct physician supervision at all times (KRS 311.860). The KBML has the authority to waive this restriction. Nine other states, in addition to Kentucky, have some form of continuous supervision requirement for new physician assistants, though Kentucky's requirement is the most extensive.

Physician assistants are normally employees and cannot bill for their services independently in any state.

Reimbursement. Another aspect of practice regulation deals with reimbursement for services. Physician assistants are typically employees of a supervising physician and do not independently bill for services. Some states, including Kentucky, prevent physician assistants from independently billing for services in statute (KRS 311.858(5)). Generally, supervising physicians bill for services provided by their employed physician assistants. Thirteen states mandate that third-party payers (such as health insurance companies) reimburse for physician assistant services to some degree. However, the majority of states, including Kentucky, do not have such a mandate.

Reimbursement for physician assistants' services is not wholly dependent upon whether there is a statutory requirement. According to the American Academy of Physician Assistants materials on reimbursement practices, insurers reimburse physician assistants' services to the appropriate supervising physician more often than not (Issue Brief: Third Party). The status of physician assistant reimbursement in Kentucky is discussed further in Chapter 3.

Medicaid and Medicare reimburse for services provided by physician assistants.

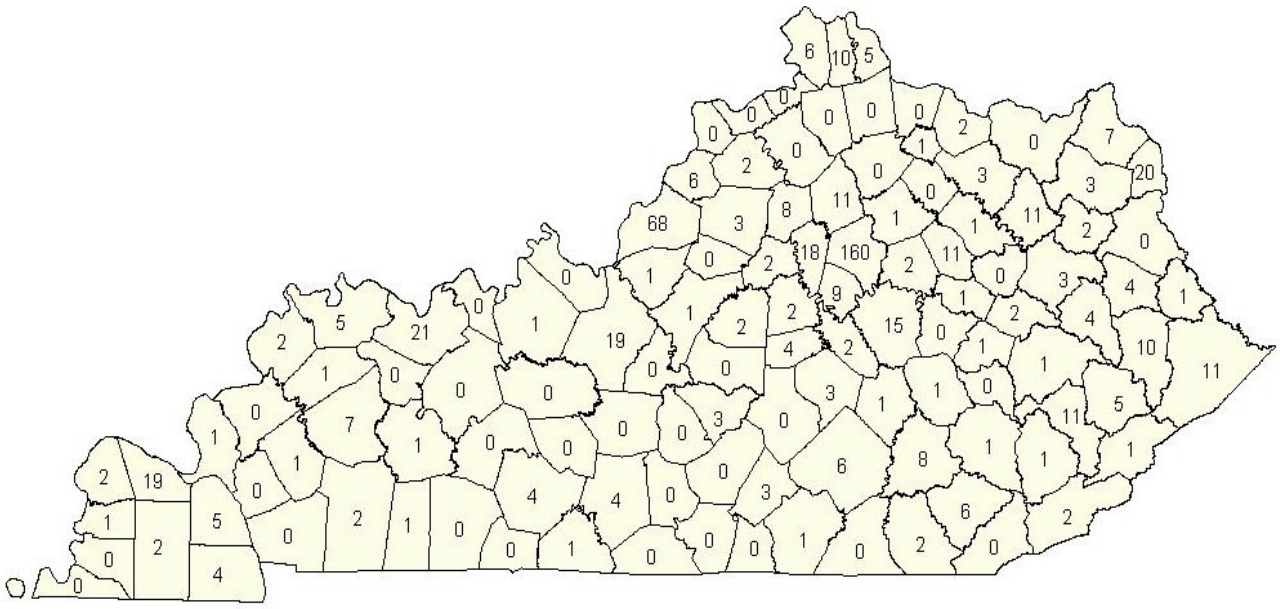
Aside from private third-party payers, Medicaid and Medicare both reimburse employing physicians for services performed by physician assistants in all 50 states and the District of Columbia. In Kentucky, Medicaid began reimbursing for physician assistant services in 1999 and currently covers physician assistant services at 75 percent of the physician reimbursement rate (907 KAR 3:010). Other states have reimbursed physician assistants at different levels and different times. Medicare started covering physician assistant services in a limited manner in 1977 through the Federal Rural Health Clinic Services Act and incrementally expanded coverage to other health settings the following two decades. In the Federal Balanced Budget Act of 1997, Congress extended reimbursement to employers of physician assistants in all practice settings at 85 percent of the physician fee schedule.

Labor Market

Provider Populations

Figure 2.1 shows the number of physician assistants with active certifications located in each county as of July 29, 2005. Generally, the counties with the largest number of physician assistants also have the largest population. Jefferson and Fayette Counties have the largest numbers of physician assistants, while several counties have no physician assistants.

Figure 2.A
Number of Active Physician Assistants in Kentucky by County
2005



Source: Brooks

As of July 29, 2005, there were 664 active physician assistants certified in Kentucky.

According to KBML, there were 664 active physician assistants in Kentucky as of July 29, 2005, compared to more than 9,000 physicians with a practice address in Kentucky. Generally, areas with more physicians tend to also have more physician assistants.

Table 2.4 shows the estimated number of physician assistants in each state for 2005, as calculated by AAPA. Table 2.4 also shows the number of practitioners per 10,000 residents in each state in 2004, the latest year general population estimates are available. This provides a measure of the number of providers in a given state relative to the population.

Table 2.4
Number of Physician Assistants by State

State	Number of Physician Assistants in Clinical Practice (2005)	Number of Physician Assistants in Clinical Practice Per 10,000 Residents (2004)*		State	Number of Physician Assistants in Clinical Practice (2005)	Number of Physician Assistants in Clinical Practice Per 10,000 Residents (2004)*
Alabama	288	0.65		Montana	269	2.61
Alaska	283	4.24		Nebraska	581	3.16
Arizona	1,106	1.76		Nevada	311	1.18
Arkansas	61	0.24		New Hampshire	289	2.18
California	5,324	1.36		New Jersey	890	0.86
Colorado	1,318	2.57		New Mexico	418	2.09
Connecticut	1,066	2.80		New York	6,277	3.09
Delaware	156	1.77		North Carolina	2,611	2.84
DC	191	3.43		North Dakota	212	3.44
Florida	3,119	1.59		**Ohio**	**1,458**	**1.19**
Georgia	1,725	1.83		Oklahoma	774	2.05
Hawaii	128	0.90		Oregon	563	1.40
Idaho	352	2.22		Pennsylvania	3,117	2.32
Illinois	**1,356**	**1.00**		Rhode Island	187	1.70
Indiana	**449**	**0.63**		South Carolina	516	1.06
Iowa	599	1.98		South Dakota	316	4.01
Kansas	605	2.16		**Tennessee**	**681**	**1.04**
Kentucky	**657**	**1.42**		Texas	3,365	1.36
Louisiana	368	0.78		Utah	485	1.92
Maine	437	3.33		Vermont	182	2.75
Maryland	1,488	2.46		**Virginia**	**1,019**	**1.23**
Massachusetts	1,186	1.73		Washington	1,475	2.21
Michigan	2,260	2.06		**West Virginia**	**544**	**2.67**
Minnesota	813	1.43		Wisconsin	1,136	1.88
Mississippi	59	0.22		Wyoming	133	2.61
Missouri	**464**	**0.71**		**U.S.**	**53,667**	**1.69**

Source: Kraditor and U.S. Census Bureau
*Note: The latest state population figures from the U.S. Census Bureau are for 2004.
**Note: Contiguous states shaded.

The ratio of physician assistants to residents in Kentucky is lower than the national average but higher than all but one contiguous states.

Kentucky had slightly more than 1.4 physician assistants for every 10,000 residents in 2004. This compares with a national ratio of 1.7 physician assistants for every 10,000 residents. Kentucky has the second highest ratio of physician assistants to residents when compared to its contiguous states, shaded in Table 2.4. Only West Virginia has more physician assistants per 10,000 residents than Kentucky. Kentucky and its contiguous states also have a lower ratio of physician assistants to residents than the national average.

Incomes

The average income for a full-time physician assistant in clinical practice in Kentucky was $74,987 in 2004. Nationally, the average was $78,251.

The average income of physician assistants by state and year was also collected. These figures were provided by AAPA using data from its annual census of physician assistants. The average income for a full-time physician assistant working more than 32 hours a week in Kentucky was estimated to be $74,987 in 2004. This compares to a national average of $78,251. Table 2.5 shows how Kentucky's average salary compares to that of the surrounding states and the national average. Kentucky physician assistants have higher average incomes than their peers in three of the seven states. A listing of all 50 states and the District of Columbia average salaries can be found in Appendix C. It is important to note when viewing income amounts that, in some states, physician assistants work in more specialized roles while in other states they are more general practice caregivers. Income can be very different depending on the area of practice, much like incomes can be different for physicians. For example, cardiovascular surgeons normally have higher incomes than general practice physicians, other factors the same. The numbers provided do not account for these, or other, potential differences.

Table 2.5
Average Physician Assistant Income
by Contiguous State
2004

State	Average Income
Kentucky	$74,987
Illinois	$76,022
Indiana	$72,380
Missouri	$78,503
Ohio	$74,230
Tennessee	$80,568
Virginia	$75,376
West Virginia	$67,517
U.S.	$78,251

Source: Kraditor

Locational Choice

Another aspect of the physician assistant labor market is where physician assistants locate to practice. Table 2.6 provides the total proportion of physician assistants in Kentucky's contiguous states and the national average that practice in metropolitan and

nonmetropolitan areas as defined by the U.S. Census Bureau. Information on all 50 states and the District of Columbia can be found in Appendix D.

Kentucky has a higher proportion of physician assistants working in nonmetropolitan areas than most other states.

In 2004, approximately 38 percent of Kentucky's physician assistants practiced in a nonmetro area. This compares with a national average of 19 percent. Of Kentucky's contiguous states, only West Virginia has a higher proportion of physician assistants working in nonmetro areas.[6]

Table 2.6
Percentage of Physician Assistants Practicing in a Metropolitan or Nonmetropolitan Area by Contiguous State
2004

State	Nonmetro Status	Metro Status
Kentucky	38%	62%
Illinois	23%	77%
Indiana	8%	92%
Missouri	24%	76%
Ohio	10%	90%
Tennessee	24%	76%
Virginia	15%	85%
West Virginia	63%	37%
U.S.	19%	81%

Source: Kraditor

Related to physician assistant practice location is the level of turnover of physician assistants in a state. A physician assistant can choose to move to or from a state for a variety of reasons. Estimates of past physician assistant movement between states were obtained from AAPA. Two different measures of mobility were provided. The first shows the percentage of physician assistants currently eligible to practice in the state that were trained in the state. The second measure looks at the total population of physician assistants trained in a state over time and shows the percentage that has remained in the state. Complete figures for all 50 states can be found in Appendix E. Table 2.7 lists the figures for Kentucky's contiguous states as well as the national figures.

[6]The academic literature has examined the locational pattern of physician assistants. See Larson et al.; Strickland et al.; and Martin. There are no clear results from this literature and the issue of licensing and certification is not addressed.

Table 2.7
Movement and Locational Choices of Physician Assistants

	PAs Practicing in State as of 8/1/2005		All PAs Trained in State as of 8/1/2005	
State	*Percent Trained In-State*	*Percent Imported from another State*	*Percent Retained*	*Percent Exported to another State*
Kentucky	67%	33%	65%	35%
Illinois	58%	42%	51%	49%
Indiana	50%	50%	61%	39%
Missouri	46%	54%	31%	69%
Ohio	73%	27%	57%	43%
Tennessee	38%	62%	49%	51%
Virginia	22%	78%	54%	46%
West Virginia	78%	22%	34%	66%
U.S.	53%	47%	53%	47%

Source: Kraditor

The proportion of physician assistants practicing in Kentucky and trained in Kentucky is higher than the national average and the proportion in four of the seven contiguous states.

Of physician assistants currently eligible to practice in Kentucky, approximately 67 percent were trained in the Commonwealth. The remaining 33 percent were trained in other states and moved into Kentucky. This compares to national figures of 53 percent of physician assistants currently eligible to practice being trained in their current state and 47 percent being imported from another state. Compared to surrounding states, Kentucky has the third highest proportion of native-trained physician assistants currently eligible to practice.

Kentucky has retained a larger proportion of physician assistants trained in the state than most other states.

The figures for the total population of physician assistants trained in the state over time show that approximately 65 percent of all physician assistants trained in Kentucky have remained in state. Approximately 35 percent have left Kentucky. This compares nationally to estimates that 53 percent of physician assistants trained in a given state remain in state while approximately 47 percent practice in a different state than the one they trained in. Compared to contiguous states, Kentucky has retained the highest proportion of physician assistants trained in state and ranks eighth nationally in the total percent of physician assistants retained in state. Historically, Kentucky has retained a larger proportion of physician assistants trained in the state on average than have other states.

Additional information was obtained from KBML concerning all newly certified physician assistants in Kentucky and where they came from for 2000 through 2004. A newly certified physician assistant in Kentucky can be a new graduate from an in- or out-of-state physician assistant program or an experienced physician assistant moving into Kentucky from another state. Table 2.8 provides a breakdown of newly certified physician assistants. KBML could not provide any information about physician assistants who left the state.

Table 2.8
Number of Newly Certified Physician Assistants by Classification in Kentucky by Year

	2000	2001	2002	2003	2004
New Graduates of the University of Kentucky	64	53	16	25	36
New Graduates From Out of State	21	13	20	8	14
Transfers From Other States	19	16	22	29	20
Total Newly Certified in Kentucky	104	82	58	62	70

Source: Brooks

Over the last five years, 52 percent of new physician assistants in Kentucky were new graduates of the University of Kentucky Physician Assistant Studies program. Twenty-eight percent were physician assistants relocating to Kentucky from other states.

In 2004, Kentucky issued new certifications to 70 physician assistants. Of these, 50 were new graduates and 20 were transfers to Kentucky from other states. Of the 50 new graduates, 28 percent graduated from physician assistant programs outside Kentucky. Over the entire five-year period, approximately 20 percent of newly certified physician assistants were new graduates from outside Kentucky. Approximately 52 percent of these newly certified physician assistants in Kentucky were new graduates of the University of Kentucky (UK) Physician Assistant Studies program. The remaining 28 percent over this period were physician assistants transferring from out of state.

There is variation in the number of newly certified physician assistants from 2000 to 2004. In 2000, 104 physician assistants were newly certified in Kentucky. That number dropped to 58 in 2002 and rose to 70 in 2004. KBML did not know the exact reason for this drop but attributed some of the differences to UK's physician assistant program changing from a bachelor's-level program to a master's-level program in 2001.

The University of Kentucky, home of Kentucky's only physician assistant training program, changed to a master's-level program from a bachelor's-level program with the entering January

Graduation statistics for 2003 from UK's College of Health Sciences show that UK graduated 55 new physician assistants. In 2004, UK graduated 39; in 2005 there have been 47; and an additional 6 expected to complete the program in January 2006. Starting with the January 2001 class, the UK program moved from a bachelor's program to a master's degree program. Officials from the UK program confirmed there were no physician assistant graduates in 2002 (Boissonneault).

The number of physician assistants being trained in Kentucky has remained relatively flat. However, with 664 physician assistants with active certifications in Kentucky, a graduating class of 47 represents approximately 7 percent of the active physician assistants. While UK reports that 70 percent of its recent masters-level physician assistant graduates have remained in Kentucky to practice, this represents new, in-state production of physician assistants of approximately 5 percent.

Opinions of Interested and Affected Parties

Interested parties were interviewed concerning the effects of physician assistant licensure.

Staff identified and contacted appropriate entities and provided them an opportunity to comment. Interview questions were related to the potential effects of changing to a licensure system from the current certification system. Interested parties were also asked to provide any additional comment or information they felt important.

Overview

Interested parties agreed that a change from certification to licensure, absent any change in scope of practice or supervision, would likely have little direct impact on Kentucky.

The groups that participated in the study represented physician assistants, medical doctors, nurses, and various other professionals within the medical field. Most were organizations in Kentucky, but one, AAPA, is located outside Kentucky. The groups expressed differing opinions as to whether physician assistants should be licensed. While each group had a variety of thoughts on the impact of licensure, when asked about the effect of changing to a licensure system in Kentucky if there were no accompanying changes in the scope of practice or level of supervision of physician assistants, all interested parties responded that there would likely be little immediate or direct impact. All parties agreed that a change from certification to licensure would mostly be semantic, with little overall impact in Kentucky.

However, the interested parties disagreed on how a change to licensure could affect the scope of practice for physician assistants in the future. This difference in how a change in the regulatory system might impact the future and what the change may signal was a primary difference between the opponents and proponents.

Proponents view the licensure of physician assistants as a single step, bringing Kentucky in line with the 42 other states and the District of Columbia that license physician assistants. The opponents view a move to licensure of physician assistants as a first step toward an increase in scope of practice and authority. Interested parties generally agreed that a move from certification to licensure, without a change in scope of practice, supervision, or other requirements to practice, would not directly impact the physician assistant labor market, other health care provider labor markets, disciplinary actions against physician assistants, or physician supervision. In addition, interested parties generally agreed that a change to licensure would not affect medical liability insurance premiums for the physician assistant or supervising physician if other aspects of physician assistant regulation in Kentucky remained the same. If a change in the regulatory system was accompanied by any scope of practice or authority changes, the interested parties noted there could be impacts in any or all of the above outcomes, though they differed on the positive or negative impacts of such changes. All parties also agreed that KBML should remain the regulating entity of physician assistants. The major arguments of each group are summarized below.

Proponent Opinions

Proponents argue that licensure would bring Kentucky in line with the 42 other states and the District of Columbia that license physician assistants.

Officials with the Kentucky Academy of Physician Assistants (KAPA), AAPA, and the Physician Assistant Studies program at UK's College of Health Sciences support a change to licensure of physician assistants in Kentucky. These groups stated that licensure would increase the accountability of the profession and make Kentucky consistent with the 42 other states and the District of Columbia that license physician assistants.

Proponents commented that licensure is the most rigorous form of regulation and that physician assistants want to be held to the highest level of accountability.

They also stated that physician assistants as a group are one of the few categories of health care providers that are not licensed in Kentucky. Physician assistants, according to proponents, desire to be held to the same standard as other licensed health care providers. AAPA noted that licensure is the most rigorous level of credentialing and is the most appropriate form of health care regulation for physician assistants in Kentucky.

Some proponents commented that licensure could help supervising physicians be reimbursed for services of physician assistant by third-party payers.

Proponents also stated that a change to licensure would help keep more physician assistants practicing within the state and make them more employable. Officials with KAPA commented that there is anecdotal evidence that some physician assistants are leaving Kentucky upon graduation to practice in states that offer

licensure in part because of reimbursement issues. The officials noted that licensing physician assistants in Kentucky could potentially alleviate its reimbursement concerns that some insurance companies only reimburse for services provided by a licensed provider. KAPA officials commented that addressing this reimbursement issue could ultimately make physician assistants more valuable and employable to physicians, potentially leading to better access to health care in Kentucky.

Licensure is mostly a semantic change for Kentucky, according to proponents, and would have no impact on the physician assistant's scope of practice or level of authority in Kentucky.

Proponents also noted that moving from certification to licensure is a simple semantic issue meant to clarify and promote consistency in statute and regulation. Proponents maintain that licensure would not change physician assistant scope of practice, level of supervision, or other regulatory and educational requirements. Specifically, AAPA officials commented that in states that have moved to a licensure system, scope of practice changes have not normally been a result or a part of the change. Rather, they said, for most states the change to licensing has been largely a simple, noncontroversial move. Proponents also stated that making Kentucky consistent with the 42 other states and the District of Columbia that license physician assistants is essential for any emergency or medical situation that requires physician assistants from Kentucky to provide medical services in another state or territory that requires medical services to be provided by a licensed health professional.

Proponents feel that there are advantages to licensing physician assistants. While proponents believe the change is mostly a semantic language change that would not have dramatic impacts on Kentucky, it could clear up confusion, provide consistency with the majority of other states, and promote better health care. Proponents also note that this is a single step and not related to scope of practice or supervision issues.

Opponent Opinions

Opponents feel that licensure is a first step toward more independent practice, which they believe is not in the best interest of Kentucky.

The KBML, Kentucky Medical Association (KMA), Kentucky Nurses Association, Kentucky Academy of Family Physicians (KAFP), Kentucky Society of Interventional Pain Physicians, and Kentucky Psychiatric Medical Association endorse the current certification regulatory environment for physician assistants and do not support a change to licensure. These groups said that licensure of physician assistants could ultimately lead to an increased scope of practice. Opponents support the current relationship and supervision requirements between a physician assistant and physician. Further, opponents noted that Kentucky's certification

requirements for physician assistants are comparable to, and in some instances more stringent than, those in states that license physician assistants.

Some groups stated commented that licensure implies independent practice. Physician assistants, they state, derive their practice authority through their licensed supervising physician, making licensure an inappropriate terminology for physician assistants.

KBML, KMA, and KAFP officials identified four main reasons for concluding that certification best reflects the regulatory environment for physician assistants in Kentucky. First, they state that certification of physician assistants accurately describes the regulatory process. They commented that licensure typically allows individuals to engage in specifically defined tasks and prevents persons not licensed from engaging in those tasks. Physician assistants are delegated their scope of practice from their licensed supervising physician and cannot practice without a supervising physician. Thus, physician assistants do not derive their scope of practice through the regulatory process as is typically the case with licensed professionals. Rather, they derive their scope of practice from their licensed supervising physician. Therefore, KBML, KMA, and KAFP maintain licensing is an inappropriate term for the regulation of physician assistants.

Some opponents said certification reflects the public understanding of the dependent nature of physician assistant practice.

Second, KBML, KMA, and KAFP officials maintain that certification of physician assistants best reflects public understanding of the dependent nature physician assistants have with supervising physicians. The term "licensure," according to KBML, KMA, and KAFP, suggests that a person has the ability to perform independently in an occupation. Since physician assistants can only practice under physician supervision, they maintain that licensure is an inappropriate naming convention.

These opponents noted that a change to licensure would not decrease health care costs, medical error rates, or improve patient safety.

Third, these opponents stated that certification of physician assistants upholds responsible standards. These officials indicated that Kentucky's current regulatory environment provides more oversight and is more responsible than many other states that license physician assistants. They emphasized that changing to a licensure system in Kentucky would not decrease health care costs, decrease medical errors, or improve patient safety.

Reimbursement for physician assistant services being denied because they are certified has not been a material issue, according to some opponents.

Fourth, they stated that the certification of physician assistants assures compliance with current laws. Opponents of certification also noted that physician assistant services not being reimbursed because of licensure status has not been an issue to employing physicians. As such, they do not see this issue as an overriding reason to change from certification to licensure. They noted that if reimbursement for physician assistants were an issue, physicians who employ physician assistants would also raise this issue.

Opponents feel that Kentucky's current system of regulating physician assistants is working, and a change to licensure would not improve the system or health care services in Kentucky.

Opponents believe that Kentucky's current system of certification is working. They do not believe there are significant benefits of changing to licensure. They believe that certification is the appropriate terminology to describe the physician assistant and physician relationship. In addition, opponents of licensure feel that any regulatory change could be a first step toward an expanded scope of practice, which, in their view, would not benefit the Commonwealth.

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Chapter 3

Introduction

The first section of this chapter further discusses the differences and similarities of the existing regulatory systems and other states' experiences with changing their regulation of physician assistants. Next, the potential impacts of Kentucky moving from its current system of certifying physician assistants to a system of licensing physician assistants are discussed. The chapter ends with a summary of what can be inferred and concluded from this research.

State Comparisons

While all states require regulatory approval of physician assistants as a condition to practice, they have both currently and historically called their systems of regulation by different names. The similarities of the regulatory requirements among states demonstrates that the naming of the systems is not a meaningful measure of their stringency or comprehensiveness. This suggests that the effect of a change from a certification system to a licensing system in Kentucky, if all other regulatory requirements remained the same, would have little impact. Regardless of their position on licensure, interested parties responded that if there was no change in the scope of practice or supervision requirements of physician assistants, then a change to a licensing system would likely have little impact on Kentucky.

The trend has been for states to move to licensure systems from other regulatory systems.

To better understand any potential effects of a change from a certification to licensure system, 16 states that changed from a certification system to a licensing system since 1998 or that made the change and were located in the Southeast were contacted. Staff contacted the agency responsible for regulating physician assistants and inquired about its respective regulatory change, the reasons for the change, and the effects of the change. A list of contacted states can be found in Appendix F**.**

The 16 states contacted that have moved from certifying to licensing physician assistants reported that little, if any, effect resulted from the change.

Officials of the contacted states responded that there was generally nothing of significance that led to the change in their regulatory systems. Officials of West Virginia, Louisiana, Florida, and Arizona commented that the change was in response to regulatory terminology used and suggested by AAPA. These four states changed their terminology so they could license nationally certified physician assistants rather than state certify nationally certified

physician assistants. All 16 state officials who were contacted reported that they did not see a significant effect from changing their regulatory systems.

The three states besides Kentucky that currently certify physician assistants responded that there has been no discussion of changing to a system of licensure and were unsure of the impact any change might have.

In addition to contacting states that have moved from a system of certification to a system of licensure, the three states other than Kentucky that currently certify physician assistants were contacted. Officials in these states (Indiana, Maryland, and Vermont) were asked whether there had been any recent move or discussion about changing their current system of certification to a licensure system and whether any such change would have an effect on the state. All respondents stated that there had been no discussion about changes to their state's respective certification systems. In addition, officials from each state commented that they were unsure if there would be any impact. Representatives from Indiana commented that the most significant discussion occurring with regard to physician assistants related to prescriptive authority. Currently, physician assistants in Indiana cannot write prescriptions. Officials in Maryland commented that while there has been no discussion in their state about changing to licensure, an Attorney General's opinion stated that in Maryland, licensure and certification are interchangeable regulatory terms.

Reimbursement for Services

Reimbursement for services was identified as an area potentially impacted by a change to a licensing system. To the extent that physicians are not reimbursed for the services performed by physician assistants they supervise, physician assistants become less economically beneficial as employees. It was reported by KAPA officials that there is anecdotal evidence that some health insurers only reimburse licensed practitioners, meaning that physician assistants in Kentucky could be excluded from payment. Staff requested further information and examples from interested parties of such instances, and KAPA and AAPA officials directed staff to a 1996 Franklin Circuit Court Case involving Medicaid as well as current Medicare reimbursement language but did not provide other examples.

Insurance organizations in Kentucky were contacted to better understand physician assistant reimbursement practice in Kentucky.

The Kentucky Association of Health Plans (KAHP) was contacted for comment and information concerning physician assistant reimbursement practices in Kentucky of its member companies. KAHP represents many health insurers, some of which also provide third-party administration for self-insured employer plans, in Kentucky, including Anthem/Wellpoint, Bluegrass Family

Health, United Healthcare, and CHA. In addition, staff also contacted Humana, which is not represented by KAHP.[7]

The Kentucky Association of Health Plans said its member companies typically reimburse physician assistant services, and a change to licensure would not have an impact.

KAHP responded that its member companies typically reimburse for physician assistant services. However, it also reported that at least one of its member companies, while normally reimbursing for physician assistant services in other contracts, specifically excludes physician assistant services for at least one national contract. However, KAHP noted that the exclusion is not related to physician assistant regulatory status and is a national exclusion. This example also demonstrates that every insurance contract can be different from another contract as to what services and providers are covered, even with the same carrier. In addition, KAHP noted that it would make no difference if physician assistants were licensed in Kentucky as to whether their services would be reimbursed.

Humana reported that all of its plans and contracts reimburse physician assistant services, and a change to licensure would have no impact.

Humana, which does not belong to KAHP, responded it currently reimburses physician assistant services for all plans and contracts. A physician assistant must hold state regulatory approval and practice within his or her scope of practice to qualify for reimbursement. Humana reported that it did not matter if a physician assistant was certified or licensed. Additionally, if Kentucky did change to a system of licensure from the current system of certification, there would be no effect on its reimbursement policies.

While Medicaid and Medicare currently reimburse for physician assistant services. However, they were cited as examples of where regulatory language could cause confusion.

Medicaid and Medicare also reimburse for services provided by physician assistants. However, both were cited as examples in how the terminology of certification and licensure can lead to confusion in reimbursement. For Medicare, the current reimbursement language lists two paths by which physician assistants may be qualified for reimbursement. Table 3.1 lists the qualifications for each path.

[7] Staff also contacted a number of large employers in Kentucky with self-insured health plans. All employers who commented indicated that their plans use third-party administrators and typically defer reimbursement policy to the third-party administrators.

Table 3.1
Medicare Reimbursement Policy for Physician Assistant Services

Path	Requirement
1.	Have graduated from a physician assistant educational program that is accredited by the Accreditation Review Commission on Education for the Physician Assistant (its predecessor agencies, the Commission on Accreditation of Allied Health Education Programs and the Committee on Allied Health Education and Accreditation).
2.	Have passed the national certification examination that is administered by the National Commission on Certification of Physician Assistants; and Be licensed by the State to practice as a physician assistant.

Source: U.S. Department of Health and Human Services

The first path requires the physician assistant to be a graduate of an educational program accredited by ARC-PA. The second path requires a physician assistant to hold national certification from NCCPA and be licensed by a state to practice as a physician assistant. To obtain certification in Kentucky, physician assistants must be a graduate of an ARC-PA-accredited program and thus qualify for reimbursement through the first path. It is not clear how being certified in Kentucky would impact qualifying for reimbursement under Medicare under the second path since it states that the physician assistant must be licensed by a state. While Medicare is reimbursing for physician assistant services in Kentucky, this is one example of the confusion that can exist from different regulatory terminology.

Another example of the confusion that can stem from the certification of physician assistants was presented in a 1996 Franklin Circuit Court case *Mullins et al. v. Childers*. The issue was the policy of Medicaid not to reimburse for physician assistant services because physician assistants were certified, rather than licensed practitioners, in Kentucky. The judge ruled that the distinction made by the defendant between physician assistants being certified and licensed was "hypertechnical." The judge further noted that, even if physician assistants were licensed, Medicaid could still choose not to reimburse for physician assistant services.

This case, while of limited legal significance, is illustrative of the reimbursement issue concerning physician assistants. The judge's

finding that there is little difference between licensure and certification in Kentucky, as it pertains to physician assistant regulation, is consistent with the finding that states' requirements to obtain authority to practice as a physician assistant are more similar than different, irrespective of regulation system. In addition, the case finding that Medicaid could choose to reimburse physician assistant services whether physician assistants were licensed or certified is also similar to insurers' statements to staff.

AAPA officials commented that they could not identify examples of physician assistants in Kentucky being denied reimbursement because of being certified rather than licensed. They noted in their interview with staff that physician assistants being denied reimbursement because of being certified is possible; however, this does not appear to be the standard in practice.

No evidence was found that a change to licensure would significantly impact physician assistant reimbursement practices in Kentucky.

No evidence was found that Kentucky certifying physician assistants has a significant impact on the reimbursement of physician assistant services by health insurers. Nothing prevents or compels insurers from reimbursing for physician assistant services in Kentucky. While insurers indicated physician assistant services are typically covered, it was noted that in some insurance contracts physician assistant services are specifically excluded. However, this exclusion was reportedly not related to certification or licensing. According to insurers, a change in Kentucky's regulatory system from certification to licensing would not impact the current reimbursement environment. Likewise, a change from certification to licensure would also not likely impact Medicare or Medicaid reimbursement for physician assistant services, as they currently do reimburse for services.

Standardization of Regulatory Terms

A 1995 Pew task force recommended that all health professionals should be regulated using uniform language and the approval should be termed licensure.

In 1995, the Pew Health Professions Commission Taskforce on Health Care Workforce Regulation recommended that states use the term "license" when regulating health professions. The report stated, "The lack of uniformity in language among the states and the professions limits effective professional practice and mobility, creates barriers to high quality health care, and confuses regulators, legislators, professionals, and the public" (1). The task force examined health occupations generally, including physician assistants, and not any single occupation in particular.

Kentucky using the regulatory terminology of certification differently from most other states and the generally accepted definition has the potential to lead to confusion for practitioners,

policy makers, and the public. One example occurred when staff contacted interested parties for their comments on licensing physician assistants. Some parties believed that Kentucky already licensed physician assistants.

Kentucky and the National Commission of Certification of Physician Assistants, a private organization, both certify physician assistants.

Another example of confusion that could occur is that physician assistants who graduate from an ARC-PA-accredited program and pass the NCCPA examination are "certified" physician assistants. Being certified by NCCPA allows a physician assistant to use the "PA-C" professional title. This private, national certification is separate from the regulatory requirements to practice in Kentucky and is consistent with the more standard definition of certification being a voluntary achievement administered by a private organization. Physician assistants in Kentucky must have NCCPA certification. In 47 states and the District of Columbia, physician assistants are nationally certified but are licensed or registered to practice by their states. In Kentucky, physician assistants are nationally certified and "certified" by the Commonwealth.

A potential consequence of regulatory language being used differently among states is confusion to the public, policy makers, and health care practitioners.

A potential effect of using regulatory language differently from its more common meaning is the potential to facilitate unintended consequences. A specific example of this is the confusion related to reimbursement issues, as previously addressed. Another example could be the impact of federal or state legislation that applies specifically to licensed health care workers. It is not clear how such hypothetical legislation would affect physician assistants who are certified or registered by their states. Legislation could be drafted so to clearly include or exclude physician assistants who are certified or registered, but it could also be unclear.

One example of this lack of clarity, provided for illustrative purposes by AAPA, is S. 975, a bill under consideration by the 109th Congress. This bill deals with national emergency preparedness. On the issue of medical license reciprocity of practitioners among states, the proposed legislation states:

SEC. 1203. MEDICAL LICENSE RECIPROCITY.

Section 319 of the Public Health Service Act (42 U.S.C. 247d) (as amended by section 1202) is further amended by adding at the end the following:

`(g) MEDICAL LICENSE RECIPROCITY- The Secretary may issue regulations requiring the establishment of reciprocity of medical ***licensing and certification*** between or among States during a national or local public health emergency determined pursuant to subsection (a).

`(h) MINIMUM STANDARDS- Medical ***licensing*** for the purposes of subsection (g) shall include the licensing of allopathic and osteopathic physicians, registered nurses, nurse practitioners, ***physician assistants***, pharmacists, paramedics, respiratory therapists, and other first responders or allied health professionals.

(emphasis added)
(S.975, 109th Cong. Sec 1203 (2005))

In this federal legislation, Congress authorizes the secretary of the federal Department of Health and Human Services to regulate the reciprocity of medical licensing and certification among states during an emergency. However, the legislation also, in addressing minimum standards, refers solely to "medical licensing" of physician assistants. It is unclear how certification states such as Kentucky might be affected. This lack of clarity could arise with the use of different naming conventions for similar regulatory practices across states.

While only a single example, the possible effects of this legislation demonstrate the potential for confusion if regulatory terminology is inconsistent. It is not clear whether this a widespread or material issue.

Impact on Scope of Practice and Supervision Requirements

The impact of licensure on physician assistant authority was investigated. Generally, there is no requirement that a change in regulatory system must be linked with a change in level of authority.

The issue of whether a change to licensure would impact either the scope of practice or supervision requirements was reviewed. Some interested parties commented that a move to licensure would be a first step to expanding the scope of practice or authority of physician assistants. Other interested parties disagreed and commented that a change to licensure was unrelated to any such change. In general, a change in the form of regulation does not necessarily impact either the requirements to be granted regulatory approval or the authority that the regulatory approval provides. Scope of practice elements can be changed without impacting the form of regulation; and the form of regulation can be changed without impacting scope of practices. However, all states that made a change to licensure since 1992 were reviewed to determine if changes had also been made in the level of physician assistant

authority as measured through prescriptive authority, supervision, and reimbursement status.

Examining the change in regulatory status alongside changes in physician assistant authority can only provide limited information.

It is important to note that examining the changes made in scope of practice or supervision requirements along with changes in regulatory status can yield only limited insight. While changes in regulatory status and scope of practice could be correlated, they do not imply that one causes or leads to the other. It could be that another influence (or multiple, unrelated influences) is the reason for all respective regulatory changes. Looking solely at the change in regulatory status and authority could give a misleading picture. Without being able to take other influences into account, any comparison must be tempered by this possibility. This seems to be especially important for the current investigation since there is no requirement that changes in regulatory status and scope of practice be linked. Rather, any changes can be independent and distinct from the other.

Of the 32 states that changed to licensure since 1992, 14 expanded prescriptive authority to include controlled substances. The 18 other states did not expand prescriptive authority to include controlled substance or had already granted controlled substance authority to physician assistants. Whether states had any increase in prescriptive authority as measured as either being granted some form of prescriptive authority where none was previously present or having prescriptive authority expanded was also reviewed. Eighteen states granted some form of increase in prescriptive authority since 1992 while 14 made no significant change.

In examining supervision requirements, it was found that only one state changed during this time period to allow some form of off-site practice. All other states that changed to licensure already granted some form of off-site practice privilege to physician assistants. In addition, six states made the supervision requirements, as measured by the number of physician assistants a physician can supervise, more strict while 10 lessened the restriction and 16 made no change.

Few states have provisions dealing with the reimbursement of physician assistants by third parties. Of the states that changed to licensing physician assistants, three increased the reimbursement status of physician assistants by requiring their services be covered in some form.

In the measures used to examine changes in physician assistant authority, a strong link does not exist between expansions in

authority and movement to licensure. For nearly every category, the number of states increasing a measure of authority is close to the number either decreasing the authority or maintaining the level of authority. While there are likely a number of influences not being accounted for in these comparisons, these findings imply that the changes in regulatory status and physician assistant authority are not closely related in a statistical sense. This also tends to support the notion that a change to licensure does not necessarily lead to expanded physician assistant authority. However, this does not address whether the reasons for a respective state changing either the regulatory system or physician assistant authority are the same as or different from another state's.

Labor Market Impacts

A change from certifying physician assistants to licensing, absent other scope of practice regulatory changes, is not expected to impact the physician assistant labor market.

HCR 121 directed investigation of the physician assistant labor market in Kentucky and other states. Chapter 2 provided an overview of some labor markets and practitioner measures. No academic literature was found that addressed the differences that certification and licensure have on physician assistant labor markets. This is understandable given that states generally have similar educational and other requirements for physician assistants. With similar underlying requirements, it is expected that these different regulation systems among states do not lead to significant differences in the physician assistant labor markets. Because the states' systems are more alike than different in their practice requirements, few differences in market outcomes can be attributed to differences in the systems, regardless of whether they call authority to practice licensure, certification, or registration.

Scope of practice or supervision regulatory changes could impact the physician assistant and other health care providers' labor markets.

The material differences among state regulations that likely impact the physician assistant labor market concern the scope of practice and supervision requirements. It is in these areas that meaningful variation was found between the regulation of physician assistants and their practice. For example, the labor market in a state that allows physician assistants to prescribe all pharmaceuticals and work with limited levels of physician supervision is likely to be different than the labor market in a state that does not allow physician assistants to prescribe medications and requires a high degree of physician supervision, other factors being the same.

Some academic literature has examined the impact of different regulatory and practice environments on the number of physician assistants. In 1994, Sekscenski et al. examined the state practice environments for physician assistants as well as nurse practitioners and certified nurse-midwives. To measure state practice

environments, the researchers rated state environments for practitioners in their current legal status, level of reimbursement for services, and prescriptive authority. They found a positive correlation between favorable practice environments for physician assistants and the number of these practitioners in a state. Wing et al. in a follow-up to the Sekscenski et al. study, and 1997 research by Shi and Samuels, also found that more favorable practice environments were associated with a higher number of physician assistants. None of the research specifically discussed whether a state licensed, certified, or registered physician assistants.

While this research is informative, it also has limitations. For the Sekscenski et al. and the Wing et al. research, only the correlation between practice environments and provider populations was examined. The researchers did not account for other differences among states that may explain differences in the number of practitioners. The research by Shi and Samuels also does not control for many influences that could be important. In addition, it could be the case that the more practitioners a state has, the more favorable the practice environment will become over time through lobbying and other professional activity. It is not clear from the literature whether favorable practice environments lead to higher numbers of practitioners or whether larger numbers of practitioners lead to more favorable practice environments. Generally, researchers have not addressed this issue.[8]

Other Potential Impacts

Other areas that could potentially be impacted by a change to licensure were investigated and no research was discovered addressing the issues.

Staff researched literature and reviewed input from interested parties on a variety of other areas that theoretically could be affected by a change in regulatory system. Topics included the impact on the quality, cost, and accessibility of health care, and on medical liability. No academic research literature was found that discussed the effects of changing the regulatory system. In addition, all interested parties responded that, if there is no scope of practice, supervision, or requirement changes for regulatory approval of physician assistants, a change in regulatory system terminology would not likely affect any of the above materially.

Conclusion

All 50 states and the District of Columbia regulate physician assistants. Of these, 42 states and the District of Columbia currently license physician assistants; 4 register physician

[8] One exception is Dueker et al., who considers the issue of causality for nurse practitioner occupational regulation.

assistants; and 4, including Kentucky, certify physician assistants. While the names of the regulatory systems are different, few differences were found in the actual requirements to practice. In fact, authority to practice, whether licensed, certified, or registered, was similar across the nation.

The trend has been for states to move to licensing physician assistants from certifying them.

There has also been a trend of states moving to licensure of physician assistants. Since the early 1990s, more than 30 states have moved from a nonlicensure system of regulation to a licensure system, most moving from a certification system. The officials of the 16 states contacted who had made this change responded that the change in regulatory system was largely noncontroversial and that there were no significant impacts. Four states' officials reported that their states changed to licensure to align their statutes and regulations to allow them to license nationally certified physician assistants. No state was found to have moved from a system of licensure to another regulatory system.

While physician assistant practice is similar among states, important differences exist, including differences in prescriptive authority.

Physician assistant practice is generally similar among all states but there are also differences. One area of practice in which Kentucky is different from most other states is in the level of prescriptive authority. In Kentucky, physician assistants can write prescriptions for noncontrolled substances. However, in most states, physician assistants can write prescriptions for both non-controlled and controlled substances. In two states, physician assistants do not have prescriptive authority. The trend over the last decade has been for states to grant greater levels of prescriptive authority to physician assistants.

Physician assistants are required to practice under the supervision of a physician and are normally regulated by state medical licensure boards.

All states require physician assistants to practice under the supervision of a physician. Most states, like Kentucky, allow a supervising physician to supervise up to two physician assistants. In addition, physician assistants are most commonly regulated through a state's medical board. In Kentucky, KBML has the authority to regulate the physician assistant profession.

Proponents maintain that a change to licensure is mostly a semantic issue that would make Kentucky consistent with 42 other states and the District of Columbia.

While the regulation and practice of physician assistants is relatively similar across states, there were significant differences of opinion by interested and affected parties as to the effect of licensing physician assistants. Proponents maintain that licensure is mostly a semantic issue that would not change physician assistants' scope of practice or level of authority. It is meant to clarify language and make the regulation of physician assistants more consistent with the rest of the nation, which, in turn, would have a positive impact on Kentucky. Proponents also maintain that a

change to licensure could help retain physician assistants in Kentucky.

Opponents stated that certification is the appropriate terminology and emphasized that any departure from certification may be a first step toward expanded authority for physician assistants.

Opponents stated that certification is the appropriate regulatory status for physician assistants. They noted that licensure implies independent authority to practice, and since physician assistants can only practice under the supervision of a physician, licensure is inappropriate. Opponents also emphasized that any change from certification is potentially a first step by physician assistants to expand their scope of practice and authority.

Proponents and opponents responded that if scope of practice and supervision regulations were not changed, a change from certification to licensure would likely have little overall impact in Kentucky.

Proponents and opponents agreed, however, that there would be little, if any, direct impact of moving to licensure if no change in scope of practice or level of supervision was made. Each group generally thought that any effects would be indirect: opponents felt it was a first step toward increased scope of practice and authority; and proponents felt that it would standardize language, prevent confusion, and facilitate reimbursement for services. Proponents and opponents of physician assistant licensure agreed that the regulation of physician assistants should remain with KBML.

Kentucky certifying physician assistants while most other states license them potentially causes confusion, but the extent of the problem is unclear.

The most significant issue in changing from certification to licensure would be a clarification in language. That the majority of other states license physician assistants and other health professions raises the possibility of confusion both for the public as well as for legislation intended to apply to physician assistants. Kentucky does not use the term certification in its traditional meaning. Certification is typically a voluntary process meant to designate some level of professional competence in which individuals in an occupation meet certain standards and achieve "certification;" however, individuals who are not certified may still perform in the occupation (Kleiner 191). Under licensure, on the other hand, it is generally illegal for someone to practice in an occupation without meeting the specified requirements. In Kentucky, certification is required to practice as a physician assistant and is used more like the traditional definition of licensure. It is not clear the level of confusion that this causes or if it is a significant problem, but the possibility exists for it to be an issue.

Other areas that could be impacted by a change in regulatory system without a change in scope of practice include reimbursement authority, quality of care, access to care, cost of care, medical liability, and labor market impacts. These were not found likely to be significantly affected. All interested parties generally agreed that any effect on these areas would be minor,

absent a change in the scope of practice or authority of physician assistants. The academic literature did not address these issues.

Kentucky's requirements for a physician assistant to practice are similar to those in other states. A change to licensure from certification, absent changes in scope of practice or supervision requirements, is likely to have little impact.

The conclusion of this research is that a change to licensure for physician assistants in Kentucky would likely have very little, if any, impact. This stems from the one primary finding: Kentucky's certification of physician assistants has similar requirements as other states that license physician assistants. The difference between Kentucky's and others states' regulatory systems is mostly semantic. In changing to licensure, the main change would be consistency with other states.

There are differences in how states regulate physician assistants with respect to their scope of practice and required supervision. However, the requirements to practice as a physician assistant, regardless of the scope of practice, are nearly the same in every state. Changing the name of the regulatory approval to practice from certification to licensure would not likely have any impact in Kentucky. The states contacted that have made this regulatory change reported that this was their experience. Statutory and regulatory changes affecting scope of practice and supervision requirements could impact the physician assistant market as well as other the markets for other health care providers. However, a change from certification to licensure of physician assistants does not have to be linked with a change in scope or practice and by itself is not expected to have a substantial impact in Kentucky.

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Appendix A

Entity with Regulatory Authority for Physician Assistants by State 2005

State	Who Regulates
Alabama	Alabama State Board of Medical Examiners
Alaska	Alaska State Medical Board, Division of Occupational Licensing, Department of Commerce, Community and Economic Development
Arizona	Arizona Regulatory Board of Physician Assistants
Arkansas	Arkansas State Medical Board
California	Physician Assistant Committee; Medical Board of California, Department of Consumer Affairs
Colorado	Colorado Board of Medical Examiners
Connecticut	Connecticut Medical Examining Board, Department of Public Health
Delaware	Delaware Board of Medical Practice
District of Columbia	DC Board of Medicine, Department of Health
Florida	Council on PAs; Florida Board of Medicine, Florida Dept of Health
Georgia	Georgia Composite State Board of Medical Examiners
Hawaii	Hawaii Board of Medical Examiners
Idaho	Idaho Board of Medicine
Illinois	Illinois Division of Professional Regulation
Indiana	Medical Licensing Board of Indiana
Iowa	Iowa Board of PA Examiners, Dept of Public Health
Kansas	Kansas State Board of Healing Arts
Kentucky	Kentucky Board of Medical Licensure
Louisiana	Louisiana State Board of Medical Examiners
Maine	Maine Board of Licensure in Medicine
Maryland	Maryland Board of Physicians
Massachusetts	Massachusetts Board of Registration of PAs & Dept of Public Health/Division of Health Professions
Michigan	Michigan Task Force on PAs, Dept of Community Health
Minnesota	Minnesota Board of Medical Practice
Mississippi	Mississippi State Board of Medical Licensure
Missouri	Missouri State Board of Registration for the Healing Arts
Montana	Montana Board of Medical Examiners
Nebraska	Nebraska Board of Medicine and Surgery; Department of Health and Human Services Regulation and Licensure, Credentialing Division
Nevada	Nevada Board of Medical Examiners
New Hampshire	New Hampshire State Board of Medicine
New Jersey	New Jersey State Board of Medical Examiners

New Mexico	New Mexico Medical Board
New York	New York State Education Department; Office of the Professions
North Carolina	North Carolina Medical Board
North Dakota	North Dakota State Board of Medical Examiners
Ohio	State Medical Board of Ohio
Oklahoma	Oklahoma State Board of Medical Licensure and Supervision
Oregon	Oregon Board of Medical Examiners
Pennsylvania	Pennsylvania State Board of Medicine
Rhode Island	Rhode Island Board of Licensure of PAs, Department of Health
South Carolina	South Carolina Board of Medical Examiners
South Dakota	South Dakota Board of Medical and Osteopathic Examiners
Tennessee	Tennessee Committee on Physician Assistants, Board of Medical Examiners
Texas	Texas State Board of Physician Assistant Examiners; State Board of Medical Examiners
Utah	Utah PA Licensing Board, Division of Occupational and Professional Licensing
Vermont	Vermont Board of Medical Practice
Virginia	Virginia Board of Medicine
Washington	Washington State Medical Quality Assurance Commission
West Virginia	West Virginia Board of Medicine
Wisconsin	Wisconsin Medical Examining Board, Department of Regulation and Licensing
Wyoming	Wyoming Board of Medicine

Source: Staff research.

Appendix B

Ratio of Physician Assistants to Supervising Physician by State 2005

State	Number of PAs per Supervising Physician		State	Number of PAs per Supervising Physician
Alabama	3		Montana	1
Alaska	No provision		Nebraska	2
Arizona	2		Nevada	3
Arkansas	No provision		New Hampshire	2
California	2		New Jersey	2
Colorado	2		New Mexico	2
Connecticut	More than 4		New York	2
Delaware	2		North Carolina	No provision
District of Columbia	2		North Dakota	2
Florida	4		Ohio	2
Georgia	2		Oklahoma	2
Hawaii	2		Oregon	4
Idaho	3		Pennsylvania	2
Illinois	2		Rhode Island	No provision
Indiana	2		South Carolina	2
Iowa	2		South Dakota	1
Kansas	2		Tennessee	Unlimited
Kentucky	2		Texas	3
Louisiana	2		Utah	2
Maine	No provision		Vermont	Unlimited
Maryland	2		Virginia	2
Massachusetts	2		Washington	3
Michigan	4		West Virginia	3
Minnesota	2		Wisconsin	2
Mississippi	2		Wyoming	2
Missouri	3			

Source: Staff statute and regulation research.

Appendix C

Average Income From Primary Employer for Full-time Clinically Practicing Physician Assistants by State 2004

State	Mean Income		State	Mean Income
Alabama	$76,281		Montana	$74,915
Alaska	$90,714		Nebraska	$76,110
Arizona	$80,836		Nevada	$88,750
Arkansas	$85,521		New Hampshire	$78,382
California	$86,644		New Jersey	$80,722
Colorado	$72,746		New Mexico	$75,134
Connecticut	$86,818		New York	$76,833
Delaware	$80,127		North Carolina	$75,990
District of Columbia	$78,684		North Dakota	$71,573
Florida	$82,404		Ohio	$74,230
Georgia	$80,464		Oklahoma	$81,290
Hawaii	$78,542		Oregon	$75,768
Idaho	$76,854		Pennsylvania	$68,216
Illinois	$76,022		Rhode Island	$81,792
Indiana	$72,380		South Carolina	$75,960
Iowa	$76,492		South Dakota	$72,727
Kansas	$71,719		Tennessee	$80,568
Kentucky	$74,987		Texas	$83,758
Louisiana	$81,315		Utah	$76,514
Maine	$75,597		Vermont	$71,633
Maryland	$78,351		Virginia	$75,376
Massachusetts	$78,084		Washington	$77,810
Michigan	$78,748		West Virginia	$67,517
Minnesota	$76,237		Wisconsin	$77,545
Mississippi	$83,030		Wyoming	$76,271
Missouri	$78,503		**U.S**	**$78,251**

Source: Kraditor

Appendix D

Percent of Clinically Practicing Physician Assistants in Nonmetroplitan Areas by State 2004

State	Percent Metropolitan		State	Percent Metropolitan
Alabama	10		Montana	65
Alaska	64		Nebraska	44
Arizona	10		Nevada	15
Arkansas	44		New Hampshire	27
California	5		New Jersey	0
Colorado	13		New Mexico	36
Connecticut	0		New York	10
Delaware	15		North Carolina	26
District of Columbia	0		North Dakota	51
Florida	6		Ohio	10
Georgia	23		Oklahoma	30
Hawaii	21		Oregon	34
Idaho	55		Pennsylvania	15
Illinois	23		Rhode Island	0
Indiana	8		South Carolina	20
Iowa	49		South Dakota	58
Kansas	45		Tennessee	24
Kentucky	38		Texas	16
Louisiana	10		Utah	27
Maine	40		Vermont	62
Maryland	6		Virginia	15
Massachusetts	0		Washington	19
Michigan	20		West Virginia	63
Minnesota	26		Wisconsin	28
Mississippi	41		Wyoming	69
Missouri	24		**U.S**	19

Source: Kraditor

Appendix E

Mobility of Physician Assistants by State

	Currently in State		Trained in State	
	Percent Trained In-State	Percent Trained Out of State	Percent Retained	Percent Exported
Alaska	0%	100%	N.A.	N.A.
Alabama	62%	38%	30%	70%
Arkansas	0%	100%	N.A.	N.A.
Arizona	35%	65%	52%	48%
California	72%	28%	78%	22%
Colorado	34%	66%	65%	35%
Connecticut	38%	62%	37%	63%
District Of Columbia	59%	41%	6%	94%
Delaware	0%	100%	N.A.	N.A.
Florida	45%	55%	72%	28%
Georgia	57%	43%	53%	47%
Hawaii	0%	100%	N.A.	N.A.
Iowa	58%	42%	37%	63%
Idaho	36%	64%	73%	27%
Illinois	58%	42%	51%	49%
Indiana	50%	50%	61%	39%
Kansas	72%	28%	57%	43%
Kentucky	67%	33%	65%	35%
Louisiana	44%	56%	73%	27%
Massachusetts	46%	54%	53%	47%
Maryland	35%	65%	61%	39%
Maine	24%	76%	49%	51%
Michigan	71%	29%	74%	26%
Minnesota	18%	82%	86%	14%
Missouri	46%	54%	31%	69%
Mississippi	4%	96%	57%	43%
Montana	19%	81%	44%	56%
North Carolina	50%	50%	51%	49%
North Dakota	66%	34%	12%	88%
Nebraska	75%	25%	54%	46%
New Hampshire	25%	75%	37%	63%
New Jersey	32%	68%	47%	53%
New Mexico	17%	83%	64%	36%
Nevada	0%	100%	N.A.	N.A.
New York	81%	19%	65%	35%
Ohio	73%	27%	57%	43%
Oklahoma	65%	35%	62%	38%

Oregon	27%	73%	49%	51%
Pennsylvania	80%	20%	49%	51%
Rhode Island	0%	100%	N.A.	N.A.
South Carolina	43%	57%	49%	51%
South Dakota	28%	72%	57%	43%
Tennessee	38%	62%	49%	51%
Texas	72%	28%	43%	57%
Utah	55%	45%	42%	58%
Virginia	22%	78%	54%	46%
Vermont	0%	100%	N.A.	N.A.
Washington	38%	62%	53%	47%
Wisconsin	58%	42%	68%	32%
West Virginia	78%	22%	34%	66%
Wyoming	0%	100%	N.A.	N.A.
U.S.	**53%**	**47%**	**53%**	**47%**

Source: Kraditor

Appendix F

States Contacted That Changed From Certifying Physician Assistants to Licensing Physician Assistants

State
Alabama
Arizona
Colorado
Florida
Georgia
Hawaii
Louisiana
Nevada
Oklahoma
Pennsylvania
South Carolina
South Dakota
Tennessee
West Virginia
Wisconsin
Wyoming

Source: Staff