Utah Department of Commerce
Office of Professional Licensure Review

2025 Periodic Review

Physician Assistants

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Executive Summary

Background

Physician assistants (PAs) are medical providers trained at a graduate level who diagnose and treat patients and prescribe medications. They provide advanced care and help increase access to primary care, especially in rural areas.

Utah requires PAs to be licensed. Education requirements, such as graduation from an accredited education program and passing an examination, are common in states throughout the country. States differ, however, in the level of physician supervision and collaboration required of PAs. Utah is one of five states that allows PAs to transition from a collaborative agreement with a physician or seasoned PA to independent practice, and among these states Utah requires the most time in collaboration before independent practice.

Regulatory Model Recommendation: *Continue to license PAs*

- PAs provide complex medical care with the potential for severe and permanent harm.
- Some PAs provide care independently and without the oversight of others after a period of collaboration.

Recommended Regulatory Adjustments:

1) *Reduce the time a PA must first work under collaboration from 10,000 to 8,000 hours*
    - Data available to OPLR indicates that PA safety is in line with that of other medical providers with similar scopes of practice.
    - Utah's 10,000 hour collaboration period, like many such provisions, was not based on rigorous evidence and is longer than other states that allow a transition to independent practice.
    - Reducing hours would more closely align requirements for independent practice between PAs and nurse practitioners, who have a similar scope of practice.

2) *Clarify regulations for ketamine and IV hydration clinics*
    - Ketamine and IV hydration clinics are becoming more common, but state regulation is unclear and underdeveloped relative to the PA's role.
    - While there is evidence that ketamine can be effective in treating certain mental health conditions, there is a risk (though rare) of serious complications. There is a lack of clinical evidence for the effectiveness of IV hydration for otherwise healthy patients, and harm can occur.

Context

Consistent with its legislative mandate,[1] the Office of Professional Licensure Review (OPLR) reviewed Utah's licensing laws for physician assistants. The review evaluated how well current regulations:

1. Protect the public from present and consequential physical and financial harm
2. Balance public and practitioner access to the occupation
3. Limit the economic impact of regulation on consumers, practitioners and the state[2]

OPLR's research for this review included analysis of Utah's current laws and rules, licensing and complaint data from the Division of Professional Licensing (DOPL), licensee survey results, as well as laws and policies in other states. OPLR also conducted interviews and focus groups with employers, educators, and state agencies. See Appendix 1 for more information.

Background

Profession Overview

A physician assistant (PA) is a health care provider educated at the graduate level to diagnose and treat patients and prescribe medications.[3] While trained as generalists, PAs often go on to specialize through experience in areas such as family medicine, primary care, emergency medicine, or surgical care.[4] PAs have a similar scope of practice as a physician, but they cannot perform surgery and often work under mandated supervision by or collaboration with a physician (see 'Approaches in Other Jurisdictions' below).[5] PAs most commonly work in physician offices but also work in hospitals and outpatient clinics.[6]

PAs help increase access to health care, particularly in primary care in rural and other underserved communities.[7] The number of Medicare patients who are cared for by PAs has increased over time,[8] and evidence shows that PAs provide safe, cost-effective care.[9]

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[1] UCA 13-1b-203(2)
[2] UCA 13-1b-302
[3] Mayo Clinic
[4] Mayo Clinic
[5] University of Medicine and Health Sciences; Mayo Clinic; PAs with a surgery speciality assist surgeons but do not independently perform surgery.
[6] "Physician Assistants," U.S. Bureau of Labor Statistics
[7] Bruza-Augatis et al. (2024) found that almost a quarter (23%) of PAs provide care in health professional shortage areas (HPSAs) or medically underserved areas (MUAs).
[8] Patel et al. (2023); In 2019, an estimated 8% of Medicare-covered health checkups were performed by PAs. This was up from an estimated 5% in 2013.
[9] See, for example, Brink et al. (2021), Rajan et al. (2021), and Halter et al. (2018).

Evolution of Profession

The PA profession emerged in the United States in the 1960s as a response to physician shortages.[10] As physicians increasingly left general practice in favor of medical specialties and more Americans became insured and gained access to primary care, the need for general practitioners became more urgent. The first PA education program was created at Duke University in 1965 and drew heavily from a cohort of Vietnam War veterans who had medical experience in the military.[11] Over the subsequent decades, the federal government provided funding to expand the profession and designated PAs as Medicare-eligible providers in order to help address health care access and cost issues.[12]

The first PA program requirements were developed in 1971 by the American Medical Association.[13] Over time, the PA profession gained more control over their education requirements, and in 2001 the Accreditation Review Committee on Education for the Physician Assistant (ARC-PA) became an independent organization and the primary accreditor for PA programs.[14] While PAs traditionally could enter the profession through a bachelor or certification program, in 2010 ARC-PA mandated that all PA programs offer a graduate degree by 2020.[15]

PAs were recognized in every state by 2000 and were allowed to prescribe in every state by 2007.[16] Traditionally, PAs have been required to work under the superversion of, or in collaboration with, a physician in order to practice in the United States.[17] However, since 2019 several states (including Utah) have allowed PAs to work independently of a physician, usually after a period of collaboration (see 'Approaches in Other Jurisdictions' below for more detail).[18]

Profession in Utah

At the time of OPLR's review, there were 3,043 PAs licensed in Utah.[19] PAs in Utah most commonly work in offices and clinics (both multi- and single-specialty groups), followed by hospitals.[20]

In Utah, the scope of practice for a PA includes, broadly, "diagnosing, treating, advising, or

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[10] Mittman et al. (2002)
[11] Miller (2016)
[12] Miller (2016); "History of AAPA & the PA Profession," AAPA
[13] "Accreditation Committee/Commission History Timeline", ARC-PA; "Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician," AMA
[14] "Accreditation Committee/Commission History Timeline", ARC-PA
[15] Rolfs et al. (2025); ARC-PA Accreditation Standards 4th Edition and 5th Edition.
[16] "History of AAPA & the PA Profession," AAPA
[17] Mittman et al. (2002); Mayo Clinic; While dependent on the policies of the clinic or hospital a PA works at, direct supervision is generally not required.
[18] "History of AAPA and the PA Profession," AAPA; See, for example "PAs Across America Celebrate…," AAPA and "Wyoming Landmark Legislation…", AAPA.
[19] DOPL Licensee Data, accessed January 2025
[20] DOPL PA Licensee Renewal Survey, March 2024; of respondents working in Utah, 44% reported working in an office or clinic (25% in a single-speciality group and 20% in a multi-specialty group) and 18% work in an inpatient (10%) or outpatient (8%) hospital.

prescribing." They are allowed to perform "any medical services that are not specifically prohibited" by law and "that are within the physician assistant's skills and scopes of competence."[21] This includes providing mental health therapy by those PAs with a mental health specialty.[22]

To become licensed as a PA in Utah, an applicant must complete a PA program accredited by the ARC-PA[23], pass the Physician Assistant National Certifying Exam (PANCE) or the Physician Assistant National Recertifying Exam (PANRE),[24] and pass a criminal background check.[25] There are additional requirements for PAs seeking to specialize in mental health, including obtaining a psychiatric certification,[26] completing additional schooling,[27] and acquiring 10,000 hours of mental health practice.[28] Like physicians and advanced practitioners, any PA wanting to prescribe controlled substances must also hold a controlled substance license issued by DOPL.[29]

After initial licensure, a PA must work under a collaborative agreement with a physician for 4,000 hours and then under a collaborative agreement with a physician or experienced PA for the next 6,000 hours.[30] Afterwards, a PA may work independently of other providers (though many continue to work in group settings).[31] If a PA wants to change their specialty to one in which they have fewer than 4,000 hours of experience, they must enter into a new collaborative agreement with a physician in that speciality for an additional 4,000 hours before practicing

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[21] 58-70a-501(1); the PA Practice Act only explicitly prohibits specific services for the mental health specialty (see 58-70a-501(3)(b) and 58-70a-501(4)). The PA scope of practice, then, is limited mainly by what is taught in PA programs rather than explicit provisions in law.
[22] UCA 58-70a-501.2(1)(a)
[23] UCA 58-70a-302(3); ARC-PA required all programs to offer a master's degree by 2020 (see ARC-PA Accreditation Standards 4th Edition and 5th Edition).
[24] UCA 58-70a-302(4); R156-70a-302; the PANCE and PANRE are administered by the National Commission on Certification of Physician Assistants (NCCPA).
[25] UCA 58-70a-302(6); until 2025, only PAs wanting to participate in the PA Compact needed to pass a background check. However, S.B. 44 changed the law to require all PAs in Utah to pass a background check.
[26] 58-70a-501.1(1)(b); "Psychiatry CAQ," NCCPA; to receive an NCCPA psychiatric certification, an applicant must 1) complete 75 hours of psychiatry-related continuing education hours in the prior six years, 2) acquire 2,000 hours of psychiatric specialty experience in the prior six years, 3) submit an attestation from a "physician, lead/senior PA, or physician/PA post graduate program director" that they have performed certain care tasks and are competent to provide psychiatric care, and 4) pass the NCCPA's psychiatry exam.
[27] 58-70a-501.1(1)(c); requires either a doctorate degree, a post-graduate certificate, or a post-graduate psychiatric residency.
[28] 58-70a-501.1(1)(d); 58-70a-501.1(4); the first 4,000 hours must be done "under the supervision of a psychiatrist," and 2,000 hours must be done "under the supervision of a mental health therapist or psychiatrist."
[29] UCA 58-37-6(2); "Controlled Substance" DOPL; to get a controlled substance license, a person must show evidence of licensure in a profession that can prescribe controlled substances. There are no additional requirements.
[30] UCA 58-70a-307; a collaborative agreement must "describe how collaboration will occur" and provide a way for others to evaluate the PAs "competency, knowledge, and skills."
[31] UCA 58-70a-501(2). Physician collaboration, when needed, remains a professional standard.

independently.[32] Only a small percentage (~5%) of PAs in Utah work independently.[33]

PAs must renew their license every two years by either completing 40 hours of continuing education (CE) or maintaining NCCPA certification.[34] PAs who hold a controlled substance license must also renew this credential by completing three and a half hours of CE related to controlled substances.[35] PAs with a psychiatric mental health speciality must maintain their NCCPA psychiatric certification.[36]

Approaches in Other Jurisdictions

Initial requirements for PA licensure are relatively standardized throughout the country, with all states requiring completion of an accredited education program and a passing score on the PANCE.[37]

However, states differ in the level of supervision or collaboration required for PA practice after licensure. Under a supervisory model, physicians maintain more direct oversight of PAs and maintain responsibility for the care provided, whereas in a collaborative model, oversight is more needs-based and a PA accepts more responsibility for care given.[38] Twenty-four (24) states require PAs to be supervised by a physician, 5 states allow PAs to transition from a supervisory relationship to a looser, collaborative relationship, 15 states require PAs to work under a collaborative relationship, 5 states (including Utah) allow PAs to transition from a collaborative agreement to independent practice, and 1 state allows PAs to work independently immediately upon licensure (WY).[39] Of the five states that allow PAs to transition to independent practice, Utah requires the most hours of collaboration.[40] See Appendix 2.1 for more information.

In 2023, Utah became the first state to adopt the PA Licensure Compact.[41] With 19 states now signed on, the compact is currently active.[42] Under the compact, a PA living in a compact state who meets uniform requirements (e.g. active licensure, NCCPA certification, graduation from an accredited program, etc.) can apply for a license in another compact state, allowing them to provide services to patients in that state.[43] PAs involved in the compact are still subject to the

[32] UCA 58-70a-307(4)
[33] DOPL PA Licensee Renewal Survey, March 2024; of respondents working in Utah, 5% reported being self-employed or working as a consultant.
[34] UCA 58-70a-303; UCA 58-70a-304; R156-70a-304(2); "Maintain Certification," NCCPA; to maintain an NCCPA credential, a PA must complete 100 hours of continuing education every two years and pass a recertifying exam every 10 years. Licensees must also watch a suicide prevention video.
[35] UCA 58-37-6.5
[36] Conversation with DOPL administrator; "Psychiatry CAQ," NCCPA; recertification with NCCPA requires repassing the qualifying exam and completing 125 hours of psychiatric CE every 10 years.
[37] "Statutory and Regulatory Requirements for Initial Licensure and License Renewal," AAPA
[38] Turitzin (2025)
[39] OPLR Policy Scan
[40] OPLR Policy Scan; in ND, PAs can only transition to independent practice in rural areas.
[41] "History of AAPA and the PA Profession," AAPA
[42] "Home," PA Compact; "History of AAPA and the PA Profession," AAPA
[43] UCA 58-70c; "What is the PA Licensure Compact?" PA Compact

supervision or collaboration requirements of the member state they are providing services in.[44]

Regulatory Model Assessment

The Framework

In an effort to standardize how appropriate regulatory models are determined for each profession (e.g. license, registry, no regulation, etc.), OPLR developed a framework which incorporates its statutory review criteria.[45] Appropriate models are determined principally by an evaluation of the potential for harm and related factors that may aggravate or mitigate the potential for harm. These factors include the availability of consumer choice, vulnerability of patients, and independence of practice. See Appendix 3.1 for potential regulatory models and the factors in OPLR's framework.

Recommendation

OPLR concludes that the PA profession warrants continued licensure.

Potential for Harm

Similar to APRNs, PAs provide complex medical care that has the potential to cause serious harm. For example, a patient's health issues could go untreated or be exacerbated from misdiagnosis. Prescribing medications comes with risk of adverse reactions and dependence. These harms could be severe and/or permanent, including hospitalization or even death. The U.S. Department of Labor's O*Net Consequence of Error Ranking, which estimates and ranks the severity of harm that could arise from different professions, places PAs at 87 out of 100.[46] This is comparable to nurse practitioners (see OPLR's APRN report). Additionally, while many PAs work in primary care related settings with patients who may be generally healthy, some PAs work in specialties (e.g. surgery) and settings (e.g. hospitals) with more vulnerable patients.[47] All PAs, regardless of specialty, physically touch their patients as they provide care. This is often done in private with patients who may be in various stages of undress.

Related Harm Factors

The potential harm caused by PAs is heightened by the high level of clinical independence that

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[44] "PA Licensure Compact," AAPA

[45] Among other criteria, OPLR is required to evaluate "whether the regulation of the occupation is necessary to address a present, recognizable, and significant harm to the health, safety, or financial welfare of the public" and consider "potentially less burdensome alternatives to the… existing regulation". UCA 13-1b-302

[46] O*Net Consequence of Error Ranking

[47] DOPL PA Licensee Renewal Survey, March 2024; 36% of respondents who indicated working in Utah report working in primary care (13%) or a related field (family medicine (12%), internal medicine (7%), or pediatrics (4%)), while 27% report working in specialties that likely entail more acute patients (surgery (18%), emergency medicine (5%), and hospital medicine (4%)).

PAs generally exercise. While the level of clinical independence is dependent on the policies of a clinic or hospital and the length of a PA's career, PAs are rarely supervised directly and generally diagnose and treat their own patients. PAs who work as part of a care team likely have robust employer oversight of their practice, but those who in solo practice do not.

Harm is mitigated, in part, by patients' ability to choose their PA and access to information about the quality of potential providers. In many specialties patients can look up available providers in an area to compare PA credentials and reviews[48] and make an informed decision.[49] However, patients cannot choose their PA in all settings (such as in an acute hospital).

The NCCPA, the PA credentialing body, can deny, suspend, or revoke a practitioner's credential for poor behavior.[50] However, the NCCPA's investigation and enforcement resources do not match those of the state. Given the potential for harm, licensure enables states to investigate and remove practitioners from practice if needed.

For more details on OPLR's analysis of PAs according to the framework, see Appendix 3.2.

Model Adjustments

After determining an appropriate regulatory model, OPLR's framework also evaluates whether adjustments should be made within a recommended model to address any material and existing safety and access issues affecting the Utah public and practitioners. Regulatory model adjustments may include changing entry qualifications, the scope of practice, unprofessional or unlawful conduct, and/or supervision and independence provisions (see Appendix 4.1).

Safety

Neither quantitative or qualitative data indicate major systemic issues with the safe practice of PAs in Utah. Between 2017 and 2022, PAs had a DOPL complaint rate of 2.8, which is in line with other advanced providers (e.g. nurse practitioners and physicians).[51] Approximately one in five (21%) complaints closed during this period were categorized as 'client harm or endangerment.'[52] However, in an analysis of 18 randomly selected complaint cases during this period, including 6 labeled 'client harm or endangerment,' only two contained evidence of patient harm.[53] See Appendix 4.2 for more information on how OPLR uses DOPL complaint data.

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[48] For example, see Healthgrades, a website that lists providers in certain areas and contains reviews.
[49] Patient choice is restricted somewhat by factors such as affordability and insurance coverage.
[50] "Policies and Procedures for PA Disciplinary Matters," NCCPA
[51] DOPL Complaint Data; While OPLR considers DOPL complaint data holistically, direct comparisons across occupations are difficult as each work in different contexts and with patients of varying acuity. Fine comparisons are likely less meaningful than very large differences.
[52] DOPL Complaint Data
[53] DOPL investigator analysis of 18 randomly chosen PA complaints between 2017 and 2022. One of the cases involving patient harm involved a PA working independently and resulted in an overdose death. The other involved a PA working as part of a care team and was related to inserting an IUD improperly. It resulted in discomfort that was addressed with further medical attention.

Additionally, employers did not raise major safety issues. In surveys taken before focus groups, most facility administrators did not express concern about the safe practice of PAs, with ten expressing confidence, four being neutral and only two expressing concern.[54] No major safety concerns emerged during the focus groups, though one stressed the importance of the 10,000 hours of collaboration in ensuring competent practice.[55]

One area of potential safety concern with advanced practitioners generally, including PAs, is the increase in ketamine and IV hydration clinics and the state's nascent regulatory landscape in this space. Ketamine is gaining popularity as a treatment for mental health disorders but can be harmful. IV clinics offer health benefits that may not be substantiated and involve risks from infection and side effects. While not specific to PAs, OPLRs discussions with regulators revealed that Utah has a confusing, under-developed regulatory structure in these emerging areas.[56] This is relevant to PAs because it is not clear whether they can operate these clinics independently as advanced providers. See Appendix 4.3 for more detail on ketamine and IV clinics in Utah.

Access

Utah appears to have a sufficient number of PAs, though the distribution of PAs throughout the state may not be optimal. The number of PAs in the state has grown an average of 6% annually over the last decade, outpacing population growth (see Appendix 4.4).[57] Additionally, the Health and Resources Service Administration (HRSA), which uses state-specific data to estimate the supply and demand of healthcare professionals, estimates that Utah currently has more than enough PAs to meet demand (115% adequacy), though this surplus is expected to decrease somewhat by 2037 (104% adequacy).[58] There is evidence that PAs are filling care gaps in some rural areas, particularly in eastern Utah, but other rural areas are not covered as well (see Appendix 4.5 for details on OPLR's PA geographic distribution analysis).

Utahns interested in entering the profession have options for PA education, though program costs are high. There are currently four accredited PA programs in the state (one private and three public).[59] In-state tuition costs range from about $77,500 to $124,000 for the whole program.[60] While median salaries are high in Utah ($134,000), licensees take on high levels of debt.[61]

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[54] OPLR Survey of Facility Administrators, July 2025.
[55] OPLR Focus Groups with Facility Administrators, July 2025.
[56] OPLR Interview Series
[57] DOPL Licensee Data; Utah experienced 1.9% annualized population growth between 2014 and 2024 (Public Health Indicator Based Information System, DHHS).
[58] Health Resources Service Administration Workforce Projections
[59] See "Entry Level Accredited Programs," ARC-PA; The four PA programs are at Rocky Mountain University, the University of Utah, Utah Valley University, and Weber State University.
[60] OPLR analysis of tuition costs for all four PA programs in Utah.
[61] "Physician Assistants," Utah Department of Workforce Services; DOPL PA Licensee Renewal Survey, March 2024; almost half (49%) or respondents reported having more than $100,000 of debt upon graduation.

One area of concern is in the supply of PAs within the psychiatric specialty. OPLR's 2023 review of behavioral health licenses revealed a concerning gap in mental health coverage in the state.[62] Theoretically, psychiatric PAs could help fill this care gap. However, the number of PAs who have completed all of the requirements to practice independently in the psychiatric space is extremely low.[63] This may be due, in part, to Utah having only one post-graduate certificate program that would fulfill the education requirement for a psychiatric PA.[64]

Recommendation: Reduce the required time a PA must first work under collaboration to 8,000 hours

OPLR recommends reducing the required number of hours a PA must work under a collaborative agreement from 10,000 to 8,000. This should include 4,000 hours of collaboration with a physician and a subsequent 4,000 hours of collaboration with either a physician or a PA with more than 8,000 hours of experience.

This change is unlikely to increase risk to patients for several reasons. First, DOPL data indicates that PA safety is in line with other advanced medical providers with similar scopes of practice.[65] Second, the current 10,000 hour requirement was loosely based on medical residency benchmarks rather than rigorous studies related to patient safety.[66] Lastly, Utah's 10,000-hour requirement puts Utah on the high end of states allowing PAs to transition to independent practice. The hours requirements for those states range from 4,000-8,000 hours.[67]

Additionally, reducing mandated collaboration practice hours would more closely align the minimum clinical practice hours required for nurse practitioners (NPs) and PAs before independent practice authority. Currently, the statutory minimum amount of clinical practice required for independent practice is significantly higher for PAs than NPs. OPLR found that, under minimum requirements in law, an NP could become licensed with independent practice authority with just over 1,200 hours of nursing experience.[68] PAs, by contrast, complete almost 2,000 hours of clinical training in school and then must practice under a collaborative agreement for 10,000 hours before practicing independently.[69] Reducing PA collaboration hours to 8,000, as well as implementing OPLR's recommendation for higher statutory minimum NP clinical practice requirements (see OPLR's APRN Report), would create a more standardized training expectation of advanced practitioners who can practice independently with essentially the same scope of practice.

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[62] "2023 Periodic Review: Behavioral Health," OPLR
[63] OPLR Interview Series
[64] This certificate is offered by Rocky Mountain University.
[65] DOPL Complaint Data
[66] OPLR Interview Series; the most robust argument OPLR heard for the 10,000 hour requirement is that it mirrors a medical school residency.
[67] OPLR Policy Scan. See also Appendix 2.1.
[68] See OPLR's APRN Report for more information.
[69] OPLR PA Licensee Survey, August 2025; OPLR surveyed all PAs in the state regarding the clinical experience they received in school. On average, PAs received 1,830 clinical hours during their program. See Appendix 4.6 for more information on OPLR's survey of PAs.

While Utah appears to have enough PAs generally, reducing the required number of hours of collaboration before PAs can practice independently may help bolster access in areas that may not have enough PAs.

Recommendation: Clarify regulations related to clinics administering IV hydration and ketamine for non-anesthetic purposes

OPLR recommends that DOPL create guidance documents that clearly outline current regulations related to ketamine and IV hydration clinics. DOPL should then highlight any gaps in regulation that should be addressed to ensure patient safety in these settings, including the ambiguity about whether PAs can operate clinics.

Regulation in Utah related to ketamine and IV hydration clinics is minimal, vague, and spread across sections of law and rule. This likely causes confusion for practitioners seeking to offer these services and may contribute to unsafe practice. A clear guidance document from DOPL would help address these issues. DOPL should address what current regulation says about who can provide the different aspects of these services (e.g. who can prescribe the intervention, who can prepare the infusion, who can perform the service, etc.) and the procedures that must be followed. It is likely that, as DOPL writes this document based on current regulations, gaps will emerge that need to be addressed through new legislation or rules. DOPL can then ask the legislature to consider any statutory gaps that need to be addressed to ensure patient safety.

At least 25 states have agencies or boards that have issued guidance documents related to IV hydration clinics. Common issues addressed in these documents are 1) whether nurses can work from standing orders rather than individualized care plans for patients developed by an advanced practitioner and 2) the type of informed consent required to offer IV services.[70]

At least eight states have issued guidance surrounding ketamine clinics and address issues such as standing orders, informed consent, and who can perform different parts of the process.[71]

Other Considerations

Address supply concerns with psychiatric PAs

OPLR's review only briefly covered PAs with a psychiatric mental health specialty. There is evidence that Utah could benefit from a greater supply of these practitioners, however OPLR does not feel confident recommending changes at this time. Given the continued importance of increasing the supply of mental health care providers, OPLR may revisit the issue of psychiatric PAs during the 2026 review of medical professions (including psychiatrist MDs). Possible recommendations could include reducing the 10,000 hour mental health clinical experience

[70] OPLR Policy Scan; aided by Sivakumar (2025)
[71] OPLR Policy Scan

requirement.

Allow PAs to serve as medical directors of med spas

One area in which there remains a discrepancy between the privileges of a PA and an NP is the operation of medical spas ("med spas"). Under current law, a facility may not call itself a "medical spa" unless they have an NP or physician (MD or DO) on site.[72] Additionally, the statute that outlines required supervision of nonablative cosmetic medical procedures does not allow PAs to act as supervisors. [73] As a result, PAs cannot open med spas. OPLR did not prioritize this issue as medical spas do not provide critical healthcare services and access does not appear to be an issue. However, there does appear to be a discrepancy between what PAs and NPs can do in this space that may be unwarranted, given their education and training. OPLR will continue to monitor this issue alongside the regulation of ketamine and IV hydration clinics as part of next year's review.

Rule Review

In accordance with Utah Code 13-1b-203(5), OPLR conducted an in-depth review of DOPL's PA rules, found in R156-70a.

The rule review covered potential rule changes needed to:

1. address specific rules that may be either overly burdensome (e.g., for individuals seeking to practice a profession or given the potential risk to public safety from a profession, etc) or insufficient (e.g., to ensure safe practice);
2. address rules misaligned with statutory language;
3. clarify language and correct references to statute or other rules; or
4. support OPLR's recommendations.

OPLR's review of R156-70a found:

1. one rule for DOPL to monitor for potential burdens to PAs. This is outlined in Appendix 5.1;
2. no rules misaligned with statutory language;
3. no unclear language but three incorrect references to rule or statute. These are outlined in Appendix 5.2; and
4. no new rules will need to be written for the recommended decrease in collaborative practice hours.

[72] UCA 58-1-507

[73] See UCA 58-1-506; this statute describes the supervision needed for PAs, registered nurses (RNs), licensed practical nurses (LPNs), estheticians, and medical assistants to be able to perform nonablative cosmetic medical procedures. A 'nonablative procedure' is defined in UCA 58-1-102(10) and a 'cosmetic medical procedure' is defined in UCA 58-67-102(11).

Appendix

Contents

1 Context

1.1 General Methodology

OPLR's methodology combines qualitative and quantitative methods with robust stakeholder engagement. Methods include:

- Analyzing data from workforce surveys administered by the Department of Professional Licensing (DOPL) as part of licensure renewal
- Conducting quantitative analyses of DOPL licensee and complaint data and publicly available data from other state and federal government entities (e.g., Utah Department of Health and Human Services, Utah Department of Workforce Services, Health Resources and Services Administration, National Practitioner Database)
- Reviewing academic literature and reports on a profession's practice, efficacy and safety
- Scanning education and credentialing requirements, programs and content
- Reviewing state occupational regulation policies across the U.S.
- Engaging with a wide range of stakeholders, including: Utah and other state governments and agencies, industry organizations, researchers, practitioners, business owners and employers within a variety of settings (e.g., acute inpatient hospital, private outpatient, hospital system outpatient, home health, and skilled nursing facilities)

1.2 DOPL PA Licensee Renewal Survey

Survey overview

OPLR utilized a survey available to PAs during their 2024 license renewal period for information on the workforce in Utah. This survey is administered by DOPL for use by the Health Workforce Information Center (HWIC) to inform legislators and the public about workforce trends and projections. For more information regarding the information collected, the survey instrument can be found **here**.

Survey Limitations

The survey was available to all PA licensees during their license renewal process so results were not affected by sampling bias. The response rate was a robust 56%. Results may be affected by non-response bias (e.g., if those who chose to respond to the survey shared characteristics not representative of the true population). Survey respondents were more likely to be older, further in their career, and living in Utah than non-respondents.

Other possible limitations include measurement error (which occurs when questions do not accurately measure the variable interest due to errors in question design) and recall bias (where respondents misremember and inaccurately answer questions). For example, recall bias may impact the estimates of hours worked per week or debt at graduation. All of these potential errors may cause some variability or systematic bias.

OPLR uses the survey data to provide background understanding of a profession, outline patterns, and identify general trends rather than to provide exact estimates. Therefore, the limitations articulated above should not unduly impact OPLR's findings or recommendations.

1.3 PA Policy Scans

To better understand the regulatory environment for PAs, OPLR used the deep research function of Gemini (Google's AI tool). OPLR analysts validated all results produced by Gemini. The validated sources were then used to map the national policy landscape, find patterns in regulation, make cross-state comparisons, and discover outliers. OPLR also used the data to help inform recommendations.

OPLR used the following prompt to research the supervision and collaboration requirements for PAs in each state:

"*I want to see what every state in the US does for physician assistants and if they are able to practice independently. Please give me the following information in a chart format 1. state 2. is physician collaboration needed for the physician assistant to practice (yes, no, or for a limited period collaboration is required) 3. If limited, how long is that period? (ex. Utah says 10,000 hours) 4. Full URL of sources for information so I can copy and paste into the search bar.*"

OPLR analysts then verified Gemini's results for every state.

To research which states issued guidance documents for IV hydration clinics, OPLR utilized both Gemini and a report by Anishaa Sivakumar.[74]

This approach does contain limitations related to normal human error. It is possible that there is slight misreporting of some data due to limited accessible state information, errors in data entry, or mistakes made by Gemini that were not caught by OPLR's manual verification.

2 Background

2.1 PA Supervision/Collaboration Requirements by State

The requirements for PA supervision and collaboration differ by state. OPLR views supervision as a more stringent requirement than collaboration and practice agreements.

[74] Sivakumar (2025)

Supervision and Collaboration Requirements*	
Requirement	States
Supervision	AL, AR, CA, CT, FL, GA, HI, IL, KS, KY, LA, MA, MS, NE, NJ, NY, NC, OH, OK, PA, SC, TX, WV, WI
Transition from supervision to collaboration	WA (4,000 hours), IA (2 years), CO (5,000 hours), NM (3 years)**, AZ (8,000 hours)
Collaboration/practice agreement	AK, DE, ID, IN, MD, ME***, MI, MN****, MO, NV, OR, RI, TN, VT, VA
Transition from collaboration to independence	ND (4,000 hours)*****, SD (6,000 hours), MT (8,000 hours), NH (8,000 hours), UT (10,000 hours)
Independent	WY

* OPLR Policy Scan
** Transition to collaboration only allowed in primary care
*** Allows a transition from a collaborative agreement to a practice agreement after 4,000 hours
**** Allows a transition from a collaborative agreement to a practice agreement after 2,080 hours
***** Transition to independence only allowed in approved rural areas

3 Regulatory Model Assessment & Recommendation

3.1 Menu of Regulatory Models and Factors Considered in Framework

Please see **this working document**, OPLR's Occupational Regulation Framework, for a more detailed explanation of OPLR's approach to assessing occupational regulation and evaluating different regulatory models.[75]

3.2 Model Assessment of PAs

The following table summarizes OPLR's analysis of PAs according to factors that OPLR determined should influence the appropriate regulatory model for an occupation. Factors that OPLR considered as particularly determinative in its assessment of the PA professions are highlighted in bold.

[75] The document is also available on OPLR's website in the "About OPLR" section, accessible here: https://oplr.utah.gov/about-oplr/

Model Assessment of Physician Assistants (PAs)	
Harm Factors	
Mechanism of Harm	**If a PA misdiagnoses, a patient may not receive the care they need or may receive care that exacerbates issues. Incorrect prescribing can cause serious side effects, including death. If a PA is undisciplined in their prescription of controlled substances, patients could fall into dependency.**
Severity, Permanence, and Likelihood of Harm	**Misdiagnosis and improper prescribing can lead to severe and permanent harm, including disability or death. Improper care is likely if a person is untrained given the comprehensive scope of health care provided by PAs.**
Consequence of Error	**87 out of 100***
Downstream Impact	If a primary care PA fails to provide proper care, a patient's health may deteriorate, necessitating further medical attention.
Patient Vulnerability	**PAs work with a variety of populations, many of which are vulnerable (e.g. sick and injured, elderly or disabled, children).**
Frequency of Physical Touch	**PAs frequently touch their patients, including in invasive ways.**
Frequency of Private Setting	**PAs are often alone with patients for extended periods of time. Additionally, patients may be in various stages of undress.**
Information Asymmetry	PAs provide complex care that a typical patient would not fully understand.
Independence	**While PAs often work in care teams with other providers, they are legally allowed to work without collaboration after 10,000 hours of practice. However, only an estimated 5% of PAs working in Utah are self-employed or a consultant.****
Patient Choice	In many instances, a patient can choose who their PA will be (e.g. a primary care PA provider). However, there are situations in which a patient does not choose their PA (e.g. if cared for by a PA in a hospital).
Information Availability	In situations where a patient can choose their PA, there is often information available to indicate provider quality (e.g., website directories with provider bios and reviews).***
Level of Oversight	*Employers:* The level of oversight from employers is variable. PAs

	who work in large hospital systems likely have extensive oversight, those working in smaller clinics likely have modest employer oversight, and those who work independently are not overseen by employers. *State/Federal:* Besides licensing from DOPL, PAs are subject to state oversight through facility rules from the Department of Health and Human Services (DHHS) as well as Medicaid reimbursement policies. Federal oversight of PAs comes through Medicare and Medicaid reimbursement policies. *Private Bodies:* The NCCPA, the credentialing body for PAs, can deny, suspend, or revoke PA certifications but lacks robust enforcement powers.****

* O*Net Consequence of Error Ranking

** DOPL PA Licensee Renewal Survey, March 2024

*** See Healthgrades, for example.

**** "Policies and Procedures for PA Disciplinary Matters," NCCPA

4 Regulatory Model Adjustments & Recommendations

4.1 Possible Adjustments

Please see **this working document**, OPLR's Occupational Regulation Framework, for a more detailed explanation of how OPLR approaches whether adjustments should be made within a recommended regulatory model.[76]

4.2 DOPL Complaint Data

The Division of Professional Licensing (DOPL) receives complaints from individuals, other state agencies, co-workers, professional associations, and licensing boards. DOPL is required to "investigate unlicensed practice in regulated professions, acts or practices inconsistent with recognized standards of conduct, allegations of gross negligence or incompetence, and patterns of gross negligence or incompetence."[77] Violations that meet the criteria for investigation are then prioritized and assigned to an investigator. DOPL may resolve investigations in a variety of ways, including: closing an investigation due to a lack of evidence; referring the case to another agency or to law enforcement if appropriate; carrying out informal or formal administrative sanctions or stipulated agreements; issuing a citation; or denying, suspending, or revoking an individual's license.

To analyze complaints sent to DOPL, OPLR used My License Office (MLO) to access closed

[76] The document is also available on OPLR's website in the "About OPLR" section, accessible here: https://oplr.utah.gov/about-oplr/

[77] An Explanation of the Complaint Handling Process for the Division of Occupational and Professional Licensing, DOPL

complaints investigated by DOPL between 2017-2022 for all licenses/professions. This data contains information on the license name, the complaint type, and the disposition of the complaint, among many other data fields not relevant to OPLR's analysis. DOPL personnel helped code the complaint dispositions as either substantiated, unsubstantiated, or no jurisdiction. Substantiated complaints are those where a disposition includes some type of disciplinary action, whether formal or informal (e.g., letter of concern, verbal warning, surrender of license). Unsubstantiated complaints have dispositions without a disciplinary action (e.g., dismissed, lack of evidence, unfounded). 'No jurisdiction' complaints are complaints that may or may not have basis, but DOPL was not able to take action on the case.

OPLR filtered complaints to exclude any likely duplicates and then used substantiated complaints to calculate the number of complaints per license type or profession. OPLR estimated the complaint rate for each license type by dividing the number of substantiated complaints by the number of unique individuals who held that license type over the same period.

Complaint Case Notes Analysis

A more detailed analysis of historical case notes was conducted on a sample of 18 randomly chosen PA complaints closed between 2017-2022.

An initial stratified random sample was pulled from all 'substantiated', 'pending', or 'no jurisdiction' complaints,[78] with stratification based on complaint type. OPLR chose to oversample complaints labeled 'client harm or endangerment' given that the intent of the analysis was to understand the type of harm caused by professions. In its final sampling, OPLR randomly chose 8 'unprofessional conduct' cases, 6 'client harm or endangerment' cases, 2 'unlicensed or aiding unlicensed' cases, and 2 'scope violation' cases. The cases represent about 16% of all PA complaints during this time. DOPL investigators then reviewed these case files and pulled specific information, such as whether a patient was harmed from the incident and how long the individual had been licensed when it occurred.

Limitations

There are significant limitations to this analysis, and the information collected should not be interpreted as a precise estimate of harm caused by PAs. DOPL data likely underestimates true harm, as many instances of harm may be handled in other ways (e.g., directly by employers), reported to other entities, or may never be reported.

There could also be latent factors correlated with both the likelihood of complaint and the profession, systematically biasing the comparisons across professions. This is especially true in

[78] "No jurisdiction" complaints were included in the case note analysis and not the complaint rate analysis because they are not complaints where DOPL took an action, but they may include legitimate client harm that DOPL had to refer to another agency. Although they can not be classified as "substantiated", OPLR felt these complaints could help contextualize client harm resulting from PAs.

healthcare, as certain professions, by their nature, include a greater scope and potential for harm (e.g., surgeons) and may generate more complaints.

For these reasons, OPLR uses DOPL complaint data as directionally informative but avoids direct comparisons across professions wherever possible. Fine comparisons across professions are unwarranted and unsupported by this data.

4.3 Ketamine and IV Hydration Clinics

Ketamine, a schedule III drug most commonly used as an anesthetic, is increasingly being used to help treat mental health disorders, such as treatment resistant depression and post-traumatic stress disorder (PTSD). A growing body of research indicates that the dissociative effects of a small dose of ketamine, administered through IV, intramuscular shot, or nasal spray, can help alleviate these issues.[79] However, while the most common side effects from properly administered ketamine are temporary and of minor concern (e.g. headache, nausea, etc.), in rare cases and when taken at higher doses, ketamine can cause damage to the urinary tract or liver, psychotic episodes, or dependency that can lead to death.[80] Utah statute currently only mentions ketamine explicitly twice, once to classify it as a schedule III drug[81] and once to require anyone administering ketamine for a 'non-anesthetic purpose' to have someone on site who has "advanced airway training and the knowledge and skills to recognize and treat airway complications and rescue a patient who entered a deeper than intended level of sedation."[82]

IV hydration clinics offer IV-administered 'cocktails' made up of various vitamins and minerals and promoted as a means of addressing ailments such as dehydration, fatigue, and hangovers.[83] There is little evidence that such treatments benefit healthy individuals, and there are risks of infection, allergic reaction, and vitamin toxicity.[84] A recently released study found that a majority of clinics made claims about the health benefits of IV hydration without citing evidence, and that a majority did not discuss potential side effects with prospective clients.[85] While there is not an available estimate of the number of IV hydration clinics in Utah, industry members report a growing number in the state.[86] Researchers have found that states differ widely in the extent to which they regulate these clinics and that Utah lacks a regulatory framework for this space.[87]

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[79] See, for example, Almeida et al. (2024), Kryst et al. (2020), Grunebaum et al. (2017), and Newport et al. (2015).
[80] Grinspoon (2024); Northwestern Medicine; Rogers (2024); Beck et al. (2020); Chaves et al. (2023).
[81] UCA 58-37-4(2)(c)(ii)(G)
[82] 58-1-510(2)(g)(ii)
[83] Sivakumar et al. (2025)
[84] Alangari (2025); Gregory (2024); There is evidence to support the delivery of vitamins using IV for patients with conditions that lead to vitamin deficiencies and dehydration.
[85] Sivakumar et al. (2025)
[86] Peterson (2023)
[87] Sivakumar et al. (2025)

4.4 DOPL Licensee Data

OPLR used DOPL licensee data queried in January 2025 to conduct analyses on the number of licensees per year, inflow and outflow of licensees, overlap of licenses, and time with license. The dataset included individuals first licensed after 1970 to those actively licensed as of January 2025. Each row in this dataset was a unique combination of individual and license type and contained information regarding when the license was issued, the status of the license, the date the status was last updated, and the sex and year of birth of the individual. OPLR estimated the number of licensees in each year by summing the number of unique individuals whose licenses were active during any point in each year. Additionally, OPLR excluded any individual with a null or incorrect value for their license issue date and license expiration date, as OPLR could not determine how long or for what years they were actively licensed. License counts may slightly underestimate the true number of licensees due to this, but the effect is fairly negligible given OPLR's use of the data to determine trends over time rather than estimate with precision for specific dates.

4.5 Physician Assistant Supply by Region

OPLR estimated the distribution of PAs across Utah using employment data from the U.S. Bureau of Labor Statistics (BLS) and population data from the U.S. Census Bureau. Estimates show that the number of PAs per 100,000 people differs across BLS-defined regions in Utah. Estimates for the U.S., Utah, and BLS-defined regions in Utah are as follows:[88]

- Salt Lake City: 61
- Eastern Utah: 51
- United States: 46[89]
- **Whole State: 45**
- St. George: 40
- Ogden-Clearfield: 36
- Provo-Orem: 34
- Logan: 28
- Central Utah: 19

4.6 OPLR PA Licensee Survey

To help understand the typical amount of clinical experience that PAs receive both before and during their program, OPLR sent a survey to all PA licensed in Utah. OPLR used DOPL data to generate contact information for the licensees and sent the survey using Qualtrics.

The survey was open from July 29th-August 5th. OPLR sent an initial email with an invitation to participate as well as three reminder emails. The response rate was 22%.

[88] "Utah…," U.S. Bureau of Labor Statistics; "State Population…," U.S. Census Bureau
[89] "May 2023…," U.S. Bureau of Labor Statistics; "U.S. Population Trends…", U.S. Census Bureau

The survey asked licensees to report the number of clinical hours they received in their PA program and the amount of health care experience they obtained before their PA program. It also asked about employment status, year of graduation, time spent working as a PA, and confidence in their ability to practice independently. It also included an open-ended question allowing licensees to share their opinions about state licensing.

Limitations

OPLR sent the survey to all actively licensed PAs in Utah, so the data is free from sampling bias. However, results may be affected by non-response bias (e.g., if those who chose to respond to the survey shared characteristics not representative of the true population). Survey responses were not tied to license numbers, so OPLR is unable to compare the characteristics of respondents to the characteristics of non-respondents.

Other possible limitations include: measurement error (which occurs when questions do not accurately measure the variable interest due to errors in question design) and recall bias (where respondents misremember and inaccurately answer questions). Recall bias is of particular concern for this survey given that questions asked licensees to report the number of clinical hours included in their education programs that they may have completed decades ago. All of these potential errors may cause some variability or systematic bias.

5 Rule Review

5.1 Potential Rule Burdens

Currently, the only exams approved by DOPL to become a PA are those offered by the National Commission on Certification of Physician Assistants (NCCPA).[90] While likely appropriate, as OPLR is not aware of other organizations that administer rigorous PA exams, DOPL should loosely monitor whether other organizations emerge that provide this service as effectively.

5.2 Incorrect References

OPLR identified the following incorrect references in the Physician Assistant Practice Act Rule (R156-70a):

Rule	Incorrect Reference	Correct Reference
R156-70a-104	R156-1-107	Section 58-1-107
R156-70a-304	Subsection 58-70a-303(4)	This provision no longer exists in statute.
R156-70a-304	Section 58-1-308d	R156-1-308d

[90] See R156-70a-102(5)&(6); R156-70a-302

6 Stakeholder Engagement

6.1 OPLR Interview & Focus Group Series

OPLR relied heavily on stakeholder engagement and qualitative interview data, combined with OPLR's other analysis, to conduct this review and develop recommendations. OPLR engaged with employers, educators, industry associations, Utah legislators, and Utah and other state regulators. OPLR prioritized diversity of perspective and relevance to the industry in selecting stakeholders.

Interviews were conducted in person, over the phone, and via video conferencing using semi-structured interview methods.They were conducted one-on-one and with multiple members. Extensive notes were taken for all interviews.

OPLR conducted initial interviews to understand the role of PAs, determine the largest issues related to safety and access, and identify potential areas for change. OPLR engaged with stakeholders later in its review to test initial findings from analysis and preliminary recommendations. OPLR reflected on and synthesized feedback across multiple discussion sessions to develop clear and achievable evidence-based recommendations.

Additionally, OPLR conducted six focus groups with administrators from various health care facility types: rural hospitals (eight administrators), rural health clinics (five administrators), ambulatory surgical centers (two administrators), skilled nursing facilities (four administrators), assisted living facilities (eight administrators), and home health and hospice companies (five administrators). Industry association leaders helped OPLR identify participants for these focus groups. Before the sessions, OPLR sent participants a short survey to identify any hiring and safety concerns for the nursing and related professions covered in this year's review (including PAs). During the focus groups, OPLR asked participants follow-up questions on these topics. Insights from the focus groups were used to direct OPLR's analysis and help refine recommendations.

Limitations

This interview sample was not randomly selected and, therefore, is not completely representative. OPLR spoke to individuals most likely to represent the broad aims and concerns of their groups. Additionally, OPLR did not contact "consumers" of PAs (patients), so these perspectives were not incorporated. Thus, the stakeholder engagement and findings from these interviews should not be understood as fully representative of the views of all Utahns, employers or any other person, group, or population.

Note that stakeholders' views are not always reflected in OPLR's recommendations. OPLR is directed by Utah Code 13-1b-302 to apply specific review criteria. These can and do lead to

recommendations that diverge from stakeholder preferences. A stakeholder's appearance here is not an endorsement of OPLR's recommendations as such.

6.2 Stakeholder Engagement Summary

The following is a comprehensive list of individuals OPLR engaged with throughout the review of nursing and related professions. Professional credentials (such as MD and DNP) were omitted for simplicity. Stakeholders who contributed to the PA review specifically are highlighted in gray.

Stakeholder Engagement Summary	
Utah State Legislature	
Legislative Working Group	**Rep. Bridger Bolinder** **Rep. Steve Eliason** **Rep. Katy Hall** **Rep. Cory Maloy** **Rep. Logan Monson** **Rep. Angela Romero** **Rep. Douglas Welton** **Sen. Luz Escamilla** **Sen. Keith Grover** **Sen. Ann Millner** **Sen. Jen Plumb** **Sen. Evan Vickers** **Seth Anderson,** Policy Analyst, LRGC **Brian Bean,** Senior Policy Advisor, Utah Senate **Greg Gun,** Associate General Counsel, LRGC **Alan Houston,** Associate General Counsel, LRGC **Tyler Moore,** Associate General Counsel, LRGC **Rohnin Randles,** Policy Analyst, LRGC **Lisa Sorenson,** Policy Analyst, LRGC **Chris Williams,** Associate General Counsel, LRGC **Robert Wood,** Policy Analyst, LRGC
Other Government Stakeholders	
Utah Department of Commerce	**Margaret Busse,** Executive Director **Carolyn Dennis,** Deputy Director **Jacob Hart,** Deputy Director **Mark Steinagel,** Managing Director & Director, Division of Professional Licensing **Deborah Blackburn,** Assistant Division Director, Division of Professional Licensing **Jana Johansen,** Assistant Division Director, Division of Professional Licensing **Connie Kitchens,** Assistant Division Director, Division of Professional Licensing **Benjamin Baker,** Chief Investigator, Division of Professional Licensing **Jeff Busjahn,** Licensing Administrator, Division of Professional Licensing

	Camille Farley, Chief Investigator, Division of Professional Licensing **James Garfield,** Bureau Manager, Division of Professional Licensing **Dean Healey,** Investigator, Division of Professional Licensing **Larry Marx,** Licensing Administrator, Division of Professional Licensing **Sharilee Scheller,** Investigator, Division of Professional Licensing **Kirsten Shumway,** Legal Analyst, Division of Professional Licensing
Division of Professional Licensing (DOPL) Boards	**David Escobar,** Board Member, Respiratory Care Board **William Hamilton,** Board Member, Medical Board **Erica Nelson,** Board Member, Nursing Board **Curtis Nielsen,** Board Member, Nursing Board **Marie Pittman Cherrington,** Medical Board **Ralph Pittman,** Board Member, Nursing Board **Wendy Rusin,** Board Member, Nursing Board **Sheryl Steadman,** Board Chair, Nursing Board **Shane Yardley,** Board Member, Nursing Board
Utah Department of Health & Human Services	**Nate Checketts,** Deputy Director **Heather Borski,** Assistant Deputy Director **Laurie Baksh,** Director, Office of Maternal & Child Health **Stacey Bank,** Medical Director **Kendyl Brockman,** Health Workforce Policy Analyst, Office of Primary Care & Rural Health **Jared Brown,** Program Manager, Office of Licensing **Trent Brown,** Assistant Director, Office of Reimbursement Continued Care & Audit **Matt Cottrell,** Research Analyst, Health Workforce Information Center **Liz Craker,** Health Program Coordinator, Office of Primary Care & Rural Health **John Curless,** Director, Office of Reimbursement, Coordinated Care & Audit **Jessica Fiedel,** Licensing Manager, Office of Licensing **Heather Flint,** Licensing Manager, Office of Licensing **Michelle Geller,** Policy Specialist, Office of Primary Care & Rural Health **Eric Grant,** Director, Office of Financial Services **Shanna Jaggers,** Research Consultant, Office of Research & Evaluation **Rick Little,** Director, Office of Research & Evaluation **Kyle Lunt,** Director, Office of Data, Systems & Evaluation **Stephanie McVicars,** Director, Early Hearing Detection & Intervention (EHDI); Cytomegalovirus (CMV) Public Health Initiative; Children's Hearing Aid Program (CHAP) **Ashley Moretz,** Director, Health Access Division **Nune Phillips,** Senior Policy Advisor **Mary Rindler,** Manager, Newborn Screening Program **Heather Sarin,** Quality Improvement Director, Utah Women & Newborns Quality Collaborative **Florencia Schapira De Grout,** Director, Office of Licensing **Suzanne Smith,** Coordinator, Perinatal Mortality Review

	Jim Stamos, Director, Office of Healthcare Policy & Authorization **Jennifer Strohecker,** Director, Division of Integrated Healthcare & State Medicaid **Heidi Sylvester,** Outreach Coordinator, Perinatal Mortality Review **Greg Trollan,** Director, Office of Managed Healthcare **Marc Watterson,** Director, Office of Primary Care & Rural Health **Anna West,** Workforce Development Coordinator, Office of Primary Care & Rural Health
Utah Department of Workforce Services	**Ben Crabbe,** Chief Economist **Dave Forgerty,** Assistant Director, Division of Workforce Research & Analysis **Chris Williams,** Director, Division of Workforce Research & Analysis
Government Employees from Other States	**Amanda Boulay,** Assistant Executive Director, Maine Board of Nursing **Emma Cozart,** Data Consultant, Washington Board of Nursing **Angela Duvall,** Manager for Health Education & Training Unit, Missouri Department of Health & Senior Services **Mary Sue Gorski,** Director of Research in Advanced Practice, Washington Board of Nursing **Ruby Grantham,** Manger, Laboratory & In-Home Services Unit, Florida Agency for Health Care Administration **Andrea Hager,** Program Information Manager, Maryland Prescription Drug Monitoring Program **Roberta Hills,** Program Director, Colorado Board of Nursing **Tamara McDaniel,** Executive Director, Kentucky Board of Respiratory Care **Patricia McNamee,** Nursing Practice Coordinator, Massachusetts Board of Nursing **Carol Moreland,** Executive Administrator, Kansas Board of Nursing **Sarah Wickenhagen,** Policy Analyst, Oregon State Board of Nursing
Industry Stakeholders	
Industry Associations	**Bonnie Baker,** Director of Professional Accountability, Utah Midwives Organization **Amy Bard,** Associate Executive Director, Utah Academy of Physician Assistants **Fara Bitter,** Vice President, Utah Midwives Organization **Michelle Buck,** APRN Senior Policy Advisor, National Council of State Boards of Nursing **Brittany Carver,** Executive Director, Utah Assisted Living Association **Liz Close,** Executive Director, Utah Nurses Association **Ranae Cowley,** Partner, Foxley & Pignanelli **Jon Cox,** Principal, Utah Public Affairs **Julia Dieperink,** State Policy Analyst, American Association of Nurse Practitioners **Lynsey Drew,** President, Utah Academy of Family Physicians **Leslie Fabian,** President, Utah Academy of Physician Assistants **Joan Gallegos,** Co-Lead, Utah Action Coalition for Health

	Teresa Garrett, Co-Lead, Utah Action Coalition for Health **Cheryl Gerdy,** President, Utah Organization of Nurse Leaders **David Gessel,** Executive Vice President, Utah Hospital Association **Francis Gibson,** President/CEO, Utah Hospital Association **Matt Hansen,** Executive Director, Homecare & Hospice Association of Utah **Bryanna Hazelwood,** President, Utah Midwives Organization **Melissa Hinton,** Interim President & Legislative Committee Chair, Utah Nurse Practitioner Association **Colby Jacobsen,** President, Utah Association of Nurse Anesthetists **Tay Kopanos,** Vice President of State/National Government Affairs, American Association of Nurse Practitioners **Viet Le,** Past President, Utah Academy of Physician Assistants **Nicole Livanos,** Director of Government Affairs, National Council of State Boards of Nursing **Stan Lockhart,** Executive Director, Utah Academy of Physician Assistants **Daniel Logsdon,** Director, National Center for Interstate Compacts, The Council of State Governments **Maryann Martindale,** CEO, Utah Academy of Family Physicians **Matthew McCullough,** Rural Hospital Improvement Director, Utah Hospital Association **Michelle McOmber,** CEO, Utah Medical Association **Abigail Mortell,** Policy Analyst, National Center for Interstate Compacts, The Council of State Governments **Miriam O'Day,** Senior Vice President, American Association for Respiratory Care **Michell Oki,** President, Utah Society for Respiratory Care **Ron Pasewald,** Co-Chair, Respiratory Care Interstate Compact **Camille Plowman,** Executive Director, Utah Association of Nurse Anesthetists **Nancy Sechrest,** Owner, Sechrest Consulting **Carl Sims,** Deputy Director, National Center for Interstate Compacts, The Council of State Governments **Daniel Sowards,** VP of Operations, Utah Health Care Association **Allison Spangler,** President/CEO, Utah Health Care Association **Matt Holton,** Partner, Stokes Strategies **Sherri Vasas,** Vice President, Utah Society for Respiratory Care **Sarah Woolsey,** Medical Director, Association for Utah Community Health; Speaker of the House, Utah Medical Association
Employers	**Larson Alder,** Executive Director, Symbii Home Health and Hospice **Greg Atwood,** VP of Clinical Operations, Avista Senior Living **Clint Barney,** Executive Director, Western States Lodging **Grant Barraclough,** Chief Clinical Officer, Ashley Regional Medical Center **Brenda Bartholomew,** Chief Administrative Officer, Gunnison Valley Hospital **Randall Bennett,** VP of Human Resources, Uintah Basin Medical Center **Heather Brace,** Chief HR Officer, Intermountain Health **Colten Bracken,** Owner, Main Street Family Medicine

	Danelle Brinkerhoff, Uintah Basin Medical Center **DeAnn Brown,** President, Garfield Memorial Hospital and Nursing Home **Jesse Buntjer,** VP of Clinical Operations, Avista Senior Living **Angela Chavez,** Student Programs Director, Intermountain Health **Amy Christensen,** Chief Nursing Operator, Intermountain Health Canyons Region **Jeff Christensen,** Executive Director, Millard Care & Rehabilitation **Julie Christensen,** Office Manager, Beaver and Parowan Medical Clinics **Dave Clarke,** Owner/COO, Covington Senior Living **Esmeralda Comer,** Practice Manager, Coalville and Kamas Health Centers **Reuben Evans,** Chief Nursing Officer, Intermountain Health St. George Hospital **Kurt Forsyth,** President, Delta and Fillmore Community Hospitals **Frank Fox,** CEO, Surgery Center at South Ogden, SCA Health **Nicholas Fox,** San Juan Health **Kris Friedli,** Nurse Administrator, Sunshine Home Health **Greg Gardiner,** Chief Nursing Officer, Uintah Basin Medical Center **Amanda Hartman,** Administrator, Uintah Basin Rehab and Senior Villa **Clayton Holt,** CEO, San Juan Health **Joleen Huber,** Owner, Caregiver Support Network **Kelly Jensen,** Assistant Vice President of Respiratory-Sleep-EEG Services, Intermountain Health Canyons, Desert, Peaks Regions **Ryan Kidman,** Administrator, The Lodge at Riverton and Jordan River **Shawn Kinross,** Advanced Practice Director of Anesthesia, Intermountain Health **Sulane Knight,** Chief Nursing Officer, Blue Mountain Hospital **Tiffiny Lipscomb,** VP of Human Resources, Intermountain Health **Kurt Loveless,** CEO, Kane County Hospital **Heather Mills,** Pediatric Director, Harmony Home Health and Hospice **Scott Monson,** CEO/Partner, SAL Management Group **Miranda Moss,** Executive Director, Legacy Village of Sugar House **Tracey Nixon, RN,** Chief Nursing Officer, University of Utah Health **Kim Nuttal,** HR Director, Kane County Hospital **Jerry Olson,** Administrator, Southern Utah Veterans Home **Brett Ottley,** Executive Director, Monument Health **Susan Robel,** President, Canyons Region, Intermountain Health **Angel Roundy,** Chief Nursing Officer, Sevier Valley Hospital, Intermountain Health **Brent Schmidt,** President, Sevier Valley Hospital, Intermountain Health **Rachel Seamons,** Partner, Wasatch Senior Living **Will Shakespeare,** Senior Medical Director for Anesthesia, Intermountain Health **Beau Sorenson,** COO, First Choice Home Health and Hospice **Bethany Taylor,** Avista Senior Living **Shaylynn Uresk,** Director of Payroll, Uintah Basin Medical Center **Carrie Winberg,** Operations Director for Respiratory Care Services, Intermountain Health **Lori Wright,** CEO, Family Healthcare

Higher Education	**Jonathan Baird,** Assistant Program Director for the Physician Assistant Program, Rocky Mountain University **Jodie Buttars,** LPN Program Coordinator, Davis Technical College **Cherie Crezee,** Director, Utah Nursing Assistant Registry at Davis Technical College **Marla De Jong,** Dean, University of Utah College of Nursing **Eric Haskell**, LPN Program Coordinator, Bridgerland Technical College **Vic Hockett,** Associate Commissioner, Talent Ready Utah **Michelle Hofmann,** Senior Associate Dean, Spencer Fox Eccles School of Medicine, University of Utah **Jane Lassetter,** Dean, Brigham Young University College of Nursing **Timothy McCreary,** Psychiatry Concentration Track Director of Doctor of Medical Science, Rocky Mountain University **Rita Osborne,** Executive Director, Utah Center for Rural Health, Southern Utah University **Lauren Stanford,** Director of Didactic Education for the Physician Assistant Program, Rocky Mountain University **Carrie Torgersen,** Assistant Director, Utah Center for Rural Health, Southern Utah University
Subject-Matter Experts	
Academics, Practitioners & Researchers	**Melanie Beagley,** Senior Health Research Analyst, Kem C. Gardner Policy Institute **Trent Bell,** Uintah Basin Medical Center **Kevin Byrne,** Huntsman Mental Health Institute, University of Utah **Erin Clark,** Associate Professor of Obstetrics & Gynecology,, Spencer Fox Eccles School of Medicine, University of Utah **Kirsten Corazzini,** Dean, College of Health & Human Services, University of New Hampshire **Tim Dall,** Managing Director for Life Sciences Consulting, GlobalData **Jessica Davidson,** Assistant Professor in Neonatology, University of Utah and Co-Medical Director of NICU at Intermountain Medical Center **Trish Hentre-Barrus,** Riverwoods Behavioral Health **Lydia Howes,** Assistant Librarian, Eccles Health Sciences Library, University of Utah **Louise Kaplan,** University of Washington Center for Health Workforce Studies **Sri Koduri,** Consultant, SiriS Consulting **Benjamin Lewis,** Huntsman Mental Health Institute, University of Utah **Jonathan Martin,** Intermountain Health **Carissa Monroy,** Sacred Circle Healthcare **Christine Mueller,** University of Minnesota (retired) **Patricia Pittman,** Director, Fitzhugh Mullan Institute for Health Workforce Equity, George Washington University **Benjamin McMichael,** Associate Professor, The University of Alabama School of Law **John Poelman,** Director of Innovation, One Utah Health Collaborative **Amber Rasmussen,** Sacred Circle Healthcare

	Brett Richards, Orthopedic Surgeon, Ogden Clinic **Lee Rogers,** Community Health Centers **Clark Ruttinger,** Health Workforce Consulting Director, GlobalData **Nena Schvaneveldt,** Associate Librarian, Eccles Health Sciences Library, University of Utah **Georgianna Sergakis,** Director, Master of Respiratory Therapy Program, The Ohio State University **Laura Summers,** Director of Industry Research, Kem C. Gardner Policy Institute **Matthew Wells,** South Market OBGYN Medical Director, Canyon Region, Intermountain Health **Jamie Wissler,** Executive Director, One Utah Health Collaborative

7 References

Accreditation Review Commission on Education for the Physician Assistant. “Accreditation Committee/Commission History Timeline,” July 3, 2025. https://www.arc-pa.org/arc-pa-history/.

Accreditation Review Commission on Education for the Physician Assistant. “Accreditation Standards for PA Education, 5th Edition,” September 2019. https://www.arc-pa.org/wp-content/uploads/2025/05/Standards-5th-Ed-July-2024.pdf.

Accreditation Review Commission on Education for the Physician Assistant. “Accreditation Standards for Physician Assistant Education, 4th Edition,” March 2010. https://paeaonline.org/wp-content/uploads/imported-files/12b-ARC-PA-Standards.pdf.

Accreditation Review Commission on Education for the Physician Assistant. “Entry Level Accredited Programs,” n.d. https://www.arc-pa.org/entry-level-program/currently-accredited-programs/.

Alangari, Abdulrahman . “To IV or Not to IV: The Science behind Intravenous Vitamin Therapy.” Cureus 17, no. 6 (June 22, 2025). https://doi.org/10.7759/cureus.86527.

Almeida, Thales Marcon, Ursula Raianny Lacerda da Raianny, Jeully Pereira Pires, Isaac Neri Borges, Clara Rosa Muniz Martins, Quirino Cordeiro, and Ricardo R Uchida. “Effectiveness of Ketamine for the Treatment of Post-Traumatic Stress Disorder - a Systematic Review and Meta-Analysis.” Clinical Neuropsychiatry 21, no. 1 (February 2024): 22–31. https://doi.org/10.36131/cnfioritieditore20240102.

American Academy of Physician Associates. “History of AAPA & the PA Profession,” n.d. https://www.aapa.org/about/history/.

American Academy of Physician Associates. “PAs across America Celebrate First State with Key Components of Optimal Team Practice Following the Legislative Victory in North Dakota,” April 9, 2019.

https://www.aapa.org/news-central/2019/04/pas-across-america-celebrate-first-state-with-key-components-of-optimal-team-practice-following-the-legislative-victory-in-north-dakota/.

American Academy of Physician Associates. “PA Licensure Compact.” https://www.aapa.org/advocacy-central/pa-licensure-compact/.

American Academy of Physician Associates. “Statutory and Regulatory Requirements for Initial Licensure and License Renewal,” April 2025. https://www.aapa.org/download/19739/.

American Academy of Physician Associates. “Wyoming Landmark Legislation a Victory for PAs and Patients,” April 5, 2021. https://www.aapa.org/news-central/2021/04/wyoming-landmark-legislation-a-victory-for-pas-and-patients/.

American Medical Association; Council on Medical Education. “Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician,” December 1971. https://medspace.mc.duke.edu/pdfjs/reduced?file=/downloads/kw52j8113?locale=en.

Beck, Katherine, Guy Hindley, Faith Borgan, Cedric Ginestet, Robert McCutcheon, Stefan Brugger, Naomi Driesen, et al. “Association of Ketamine with Psychiatric Symptoms and Implications for Its Therapeutic Use and for Understanding Schizophrenia.” JAMA Network Open 3, no. 5 (May 21, 2020): e204693. https://doi.org/10.1001/jamanetworkopen.2020.4693.

Brink, G. T. W. J. van den, R. S. Hooker, A. J. Van Vught, H. Vermeulen, and M. G. H. Laurant. “The Cost-Effectiveness of Physician Assistants/Associates: A Systematic Review of International Evidence.” PLOS ONE 16, no. 11 (November 1, 2021): e0259183. https://doi.org/10.1371/journal.pone.0259183.

Bruza-Augatis, Mirela, Bettie Coplan, Kasey Puckett, and Andrzej Kozikowski. “Providing Care in Underresourced Areas: Contribution of the Physician Assistant/Associate Workforce.” BMC Health Services Research 24, no. 1 (July 25, 2024). https://doi.org/10.1186/s12913-024-11190-x.

Chaves, Tharcila V., Bob Wilffert, and Zila M. Sanchez. “Overdoses and Deaths Related to the Use of Ketamine and Its Analogues: A Systematic Review.” The American Journal of Drug and Alcohol Abuse 49, no. 2 (March 4, 2023): 141–50. https://doi.org/10.1080/00952990.2022.2132506.

Gregory, Sara Youngblood. “IV Vitamin Therapy: Understanding the Lack of Proven Benefit and Potential Risks of This Health Fad - Mayo Clinic Press.” Mayo Clinic Press, October 3, 2024. https://mcpress.mayoclinic.org/living-well/iv-vitamin-therapy-understanding-the-lack-of-proven-benefit-and-potential-risks-of-this-health-fad/.

Grinspoon, Peter . “Ketamine for Treatment-Resistant Depression: When and Where Is It Safe?” Harvard Health Publishing. Harvard Medical School, February 15, 2024. https://www.health.harvard.edu/blog/ketamine-for-treatment-resistant-depression-when-and-where-is-it-safe-202208092797.

Grunebaum, Michael F., Hanga C. Galfalvy, Tse-Hwei Choo, John G. Keilp, Vivek K. Moitra, Michelle S. Parris, Julia E. Marver, et al. “Ketamine for Rapid Reduction of Suicidal Thoughts in Major Depression: A Midazolam-Controlled Randomized Clinical Trial.” The American Journal of Psychiatry 175, no. 4 (December 5, 2017): 327–35. https://doi.org/10.1176/appi.ajp.2017.17060647.

Halter, Mary, Carly Wheeler, Ferruccio Pelone, Heather Gage, Simon de Lusignan, Jim Parle, Robert Grant, Jonathan Gabe, Laura Nice, and Vari M Drennan. “Contribution of Physician Assistants/Associates to Secondary Care: A Systematic Review.” BMJ Open 8 (June 19, 2018): e019573. https://doi.org/10.1136/bmjopen-2017-019573.

Healthgrades. “Home,” n.d. https://www.healthgrades.com/.

Health Resources & Service Administration. “Workforce Projections,” n.d. https://data.hrsa.gov/topics/health-workforce/nchwa/workforce-projections.

Kryst, Joanna, Paweł Kawalec, Alicja Mikrut Mitoraj, Andrzej Pilc, Władysław Lasoń, and Tomasz Brzostek. “Efficacy of Single and Repeated Administration of Ketamine in Unipolar and Bipolar Depression: A Meta-Analysis of Randomized Clinical Trials.” Pharmacological Reports 72 (April 16, 2020). https://doi.org/10.1007/s43440-020-00097-z.

Mayo Clinic. “Physician Assistant,” n.d. https://college.mayo.edu/academics/explore-health-care-careers/careers-a-z/physician-assistant/.

Miller, Loren. “The Birth of the Physician Assistant.” National Library of Medicine, November 15, 2016. https://circulatingnow.nlm.nih.gov/2016/11/15/the-birth-of-the-physician-assistant/.

Mittman, David E., James F. Cawley, and William H. Fenn. “Physician Assistants in the United States.” BMJ 325, no. 7362 (August 31, 2002): 485–87. https://doi.org/10.1136/bmj.325.7362.485.

National Commission on Certification of Physician Assistants. “About NCCPA,” n.d. https://www.nccpa.net/about-nccpa/

National Commission on Certification of Physician Assistants. “Attestation of Knowledge and Skills of a Board Certified PA,” n.d. https://www.nccpa.net/wp-content/uploads/2022/06/AttestationForm-Psychiatry-6-2-22.pdf.

National Commission on Certification of Physician Assistants. “Maintain Certification,” n.d. https://www.nccpa.net/maintain-certification/.

National Commission on Certification of Physician Assistants. “Policies and Procedures for PA Disciplinary Matters,” n.d. https://www.nccpa.net/wp-content/uploads/Policies-and-Procedure-for-PA-Disciplinary-Matters.pdf.

National Commission on Certification of Physician Assistants. “Psychiatric CAQ.” Specialty Certificates, n.d. https://www.nccpa.net/specialty-certificates/#psychiatry.

Newport, D. Jeffrey, Linda L. Carpenter, William M. McDonald, James B. Potash, Mauricio Tohen, and Charles B. Nemeroff. “Ketamine and Other NMDA Antagonists: Early Clinical Trials and Possible Mechanisms in Depression.” The American Journal of Psychiatry 172, no. 10 (October 1, 2015): 950–66. https://doi.org/10.1176/appi.ajp.2015.15040465.

Northwestern Medicine. “Ketamine Treatment for Mental Health,” n.d. https://www.nm.org/conditions-and-care-areas/behavioral-health/depression/ketamine-infusion-program.

PA Compact. “Home,” n.d. https://www.pacompact.org/.

PA Compact. “What Is the PA Licensure Compact?,” n.d. https://www.pacompact.org/about-pa-licensure-compact/.

Patel, Sadiq, David Auerbach, Haiden A Huskamp, Austin Frakt, Hannah Neprash, Michael L Barnett, Hannah O James, Laura Barrie Smith, and Ateev Mehrotra. “Provision of Evaluation and Management Visits by Nurse Practitioners and Physician Assistants in the USA from 2013 to 2019: Cross-Sectional Time Series Study.” BMJ, September 14, 2023. https://doi.org/10.1136/bmj-2022-073933.

Peterson, Kolbie. “Vitamin IV ‘Wellness Centers’ Are Cropping up around Utah. Does the Trendy Service Work?” The Salt Lake Tribune, May 25, 2023. https://www.sltrib.com/news/2023/05/25/vitamin-iv-wellness-centers-are/.

Rajan, Suja S., Julia M. Akeroyd, Sarah T. Ahmed, David J. Ramsey, Christie M. Ballantyne, Laura A. Petersen, and Salim S. Virani. “Health Care Costs Associated with Primary Care Physicians versus Nurse Practitioners and Physician Assistants.” Journal of the American Association of Nurse Practitioners 33, no. 11 (November 2021). https://doi.org/10.1097/jxx.0000000000000555.

Rocky Mountain University. “Psychiatry Certificate,” n.d. https://rm.edu/psych-cert/.

Rogers, Lindsay Smith. “What to Know about Ketamine.” John Hopkins Bloomberg School of Public Health. John Hopkins University, January 26, 2024. https://publichealth.jhu.edu/2024/what-to-know-about-ketamine.

Rolfs, Jenna, Debra Munsell, James Kilgore, Jeremy Welsh, Michael Roscoe, Blake Rogers, Thomas Colletti, et al. “Review of Post Professional Doctoral Education for the Physician Assistant/Associate: Recommendations for Entry-Level Curriculum.” Medical Research Archives 13, no. 8 (August 31, 2025). https://doi.org/10.18103/mra.v13i8.6835.

“S.B. 44 Professional Licensure Amendments.” Utah State Legislature, 2025. https://le.utah.gov/~2025/bills/static/SB0044.html.

Sivakumar, Anishaa. “State Regulation and Implementation Landscapes of Iv Hydration Spas .” Yale Medicine Thesis Digital Library, January 2025. https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=4352&context=ymtdl.

Sivakumar, Anishaa, Howard P Forman, Isabel Wang, Peter Lurie, and Joseph S Ross. “State Policies and Facility Practices of IV Hydration Spas in the US.” JAMA Internal Medicine, October 6, 2025. https://doi.org/10.1001/jamainternmed.2025.5028.

Torres, Callie. “PA vs MD: A Comprehensive Comparison,” n.d. https://www.umhs-sk.org/blog/pa-vs-md.

Turitzin, Chris. “Collaborating Physician vs. Supervising Physician: What’s the Difference and Why It Matters?” Single Aim Health, August 25, 2025. https://www.singleaimhealth.com/article/collaborating-vs-supervising-physician-difference.

United States Bureau of Labor Statistics. “May 2023 National Occupational Employment and Wage Estimates,” April 3, 2024. https://www.bls.gov/oes/2023/may/oes_nat.htm.

United States Bureau of Labor Statistics. “Physician Assistants.” Occupational Outlook Handbook, n.d. https://www.bls.gov/ooh/healthcare/physician-assistants.htm#tab-3.

United States Bureau of Labor Statistics. “Utah - May 2023 OEWS State Occupational Employment and Wage Estimates,” April 3, 2024. https://www.bls.gov/oes/2023/may/oes_ut.htm#otherlinks.

United States Census Bureau. “State Population Totals and Components of Change: 2020-2024,” December 2024. https://www.census.gov/data/tables/time-series/demo/popest/2020s-state-total.html#v2024.

United States Census Bureau. “U.S. Population Trends Return to Pre-Pandemic Norms as More States Gain Population.”

https://www.census.gov/newsroom/press-releases/2023/population-trends-return-to-pre-pandemic-norms.html.

Utah Department of Commerce; Division of Professional Licensing. “An explanation of the Complaint Handling Process for the Division of Occupational and Professional Licensing.” https://le.utah.gov/interim/2014/pdf/00004741.pdf.

Utah Department of Commerce; Division of Professional Licensing. “Controlled Substance,” n.d. https://dopl.utah.gov/controlled-substance/apply-for-a-license/.

Utah Department of Commerce; Office of Professional Licensure Review. “2023 Periodic Review: Behavioral Health,” 2024. https://oplr.utah.gov/wp-content/uploads/2024/01/OPLR-2023-Periodic-Review-Behavioral-Health-1.pdf.

Utah Department of Commerce; Office of Professional Licensure Review. “OPLR Occupational Regulation Framework,” Working Paper. https://oplr.utah.gov/wp-content/uploads/2025/12/OPLR-Occupational-Regulation-Framework-Dec-2025-vPOSTED.pdf.

Utah Department of Health and Human Services. “Query Builder for Kem C. Gardner Policy Institute Population Estimates Query Module for Utah Counties and Local Health Districts - Count.” Public Health Indicator Based Information System (IBIS). https://ibis.utah.gov/ibisph-view/query/builder/pop/PopKemG/Count.html.

Utah Department of Workforce Services. “Physician Assistants.” Utah Economic Data Viewer, n.d. https://jobs.utah.gov/utwid/occupation-information/29-1071.00/overview.

“Work Context - Consequence of Error.” O*NET OnLine. https://www.onetonline.org/find/descriptor/result/4.C.3.a.1.