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Overview:

Background

The <u>Pharmacy Workforce Center</u>, a nonprofit corporation comprised of nine national pharmacy professional organizations, financed the Pharmacy Aggregate Demand Index (ADI) and the Pharmacist Demand Indicator (PDI). The ADI (which began in 1999) and the PDI (which was transitioned from the ADI in 2016) collected and disseminated data on the demand for pharmacists in the United States utilizing a panel of pharmacist employers. In January 2019, the PDI was temporarily suspended due to inconsistency in the number of panelists participating in the survey which led to the inability to report results on a state-level.

The Pharmacy Demand Report (PDR) was developed to provide an enhanced measurement of pharmacist demand in the United States. The inaugural PDR was released by the PWC in August 2020.

Pharmacy Demand Report Sourcing and Components

The information contained in the Pharmacy Demand Report (PDR) is generated from the Burning Glass Technologies' Labor InsightTM Real-time Labor Market Information tool. Burning Glass Technologies delivers job market analytics that empower employers, workers, and educators to make data-driven decisions. The company's artificial intelligence technology analyzes hundreds of millions of job postings and real-life career transitions to provide insight into labor market patterns. This real-time strategic intelligence offers crucial insights, such as which jobs are most in demand, the specific skills employers need, and the career directions that offer the highest potential for workers.

The pharmacist demand information presented in the PDR reflects information generated the Burning Glass Occupations (BGTOCCs) Taxonomy which are derived from the Bureau of Labor Statistics (BLS) SOC and O*NET codes. Based on analysis of real-time job titles and requirements for skills and education, the BLS occupations were adapted to more accurately reflect current employer demand-separating out distinct occupations that BLS codes as one occupation in some cases and consolidating similar occupations that BLS splits out. The PDR information is generated from the Burning Glass Occupations of "Pharmacist/Pharmacy Director" and "Pharmacy Technician".

The pharmacist specialized occupations presented in the PDR are generated from the Specialized Occupations within the BGTOCCs that define occupation specializations and provide more granularity in occupation categorization. For example, the Pharmacist/Pharmacy Director category is split into several specialties, which include Hospital Pharmacist and Retail Pharmacist. The pharmacist information that will be reported include information generated for the following occupations:

- Clinical Pharmacist
- Hospital Pharmacist
- Pharmacy Director
- Other Pharmacist Occupations* (includes the pharmacist occupations Compounding Pharmacist, Informatics Pharmacist, Infusion Pharmacist, Long-Term Care Pharmacist, Nuclear Pharmacist, Oncology Pharmacist)
- Retail Pharmacist

The PDR information is generated from a query that includes all states in the United States, the BGTOCC or specialized occupation, and certification (pharmacist license for pharmacist occupations).

The PDR will be reported at the beginning of each calendar quarter. Each of the pharmacist occupations and the pharmacy technician occupation will have the following information presented in the PDR:

- The number of job postings by state (information presented for each quarter of the previous calendar year and each quarter of the current calendar year):
 - Each state will have the number of licensed pharmacists based on information acquired from the October 2019 National Association of Boards of Pharmacy (NABP) E-Profile Aggregate Data report. The number reflects the number of licensed pharmacists in the state as of October 2019.

- Due to the variability of pharmacy technician classifications by state boards of pharmacy, data on the number of licensed or registered pharmacy technicians from NABP is not provided in the PDR. The number of pharmacy technicians provided by state is generated from reports available from the Bureau of Labor Statistics."
- The Postings Quotient is provided for the total number of job postings for the previous calendar year and adjusts the number of job postings per 1,000 licensed pharmacists or 1,000 pharmacy technicians in the state. The Postings Quotient is generated by dividing the number of total job postings by the number of licensed pharmacists or pharmacy technicians reported for each state and multiplying by 1,000.
- The number of job postings for the Top 25 Hiring Regions for the occupation (information presented for the previous calendar year and the previous quarter for the current calendar year).
 - The Location Quotient recognizes how concentrated demand is for a particular geographic area relative to the national demand.

Additional Information

The PDR will be reported each quarter starting 3rd quarter 2020. Additional information will be added to the PDR over time to provide more information regarding pharmacist demand. Contact <u>Tom Maggio</u>, PWC Secretary/Treasurer at <u>TMaggio@aacp.org</u> or 703-479-3832 with any PDR-related questions.

*This is a PWC-generated category as the pharmacist job postings included were reported were very low numbers.

¹O*Net Resource Center: The O*Net-SOC Taxonomy. https://www.onetcenter.org/taxonomy.html. Accessed April 29, 2020.

[&]quot; U.S. Bureau of Labor Statistics: Occupational Employment Statistics. https://data.bls.gov/oes/#/home. Accessed April 29, 2020.

Occupational Definitions:

- Clinical Pharmacist: Provides medications to patients and educates patients and physicians on the proper use of
 medications. Works in a clinical setting, directly with physicians and other health professionals, often granted
 patient care privileges and responsibility of assisting in patient care management. Usually requires a Doctor of
 Pharmacy degree.
- **Hospital Pharmacist:** Provides medications to patients and educates patients on the proper use of medications. Works within a hospital setting. May consult with physicians about correct dosage and appropriate administration as well as discuss adverse reactions. The types of medications and their dispersal may differ significantly from those handled by retail pharmacists.

• Other Pharmacist Occupations

- Compounding Pharmacist: Provides medications to patients and educates patients and physicians on the proper use of medications. Works for a compounding pharmacy. Specializes in preparation of alternate modes of delivery and forms of commercial medication not available in retail or hospital pharmacies.
- Informatics Pharmacist: Improves precision and safety of prescribing and administering medications by using technology and data analysis. Draws on both pharmaceutical expertise and computer science to improve patient outcomes. Uses patient information in electronic health records (EHR) to prevent errors, streamline operations, share information and assess the dangers of full medication spread for a patient.
- o **Infusion Pharmacist:** Provides medications to patients and educates patients and physicians on the proper use of medications. Works primarily in healthcare facilities. May be directly involved in patient care or consult with healthcare facilities or insurance companies to develop efficient methods of prescription. Specializes in drugs delivered through infusion, using a needle or a catheter.
- Long-Term Care Pharmacist: Provides medications to patients and educates patients and physicians on the proper use of medications. Works in a long-term care facility or pharmacy. May be directly involved in patient care, working with physicians and healthcare workers to manage the long-term health of the patients in the facility.
- Nuclear Pharmacist: Provides medications to patients and educates patients and physicians on the
 proper use of medications. Works for a pharmacy or a healthcare facility dispensing nuclear medicines
 (made from radioactive materials). May be directly involved in patient care or consult with healthcare
 facilities or insurance companies to develop efficient methods of prescription.
- Oncology Pharmacist: Provides medications to patients and educates patients on the proper use of medications. Specializes in managing complex pharmacotherapeutic plans for treatment and prevention of cancer and cancer-related diseases.
- **Pharmacy Director:** Directs the operations and management of a pharmacy for a healthcare facility or institution. Manages pharmacists and pharmacy staff. Works with leadership of healthcare facility or institution on drug policy including safety, education, and finances.
- **Pharmacy Technician:** Works under the direction of a pharmacist to dispense prescription medications. Serves customers and helps to fill prescriptions. Works in a retail pharmacy or healthcare facility.
- **Retail Pharmacist:** Provides medications to patients and educates patients on the proper use of medications. Works in the pharmacy department of a retail store. Dispenses prescription and non-prescription medications. Manages prescription records and the pharmacy patient database. May consult with healthcare facilities or insurance companies to develop efficient methods of prescription.

^{*} The Burning Glass Technologies' Labor Insight™ Real-time Labor Market Information tool is utilized to generate the information in the Pharmacy Demand Report

Clinical Pharmacist

Job Postings Per State											
				2	019			2020			
State/Territory	Number of Pharmacists Licensed (as of Oct. 2019)	Q1 (Includes Carryover from 2018)	Q2	Q3	Q4	Total	Postings Quotient for 2019	Q1 (Includes Carryover from 2019)			
Alabama	9,581	4	3	3	7	17	1.77				
Alaska	1,083	4	1	1	0	6	5.54				
Arizona	11,461	46	28	35	24	133	11.60	3			
Arkansas	6,169	11	4	3	10	28	4.54				
California	44,864	206	216	169	276	867	19.33	34			
Colorado	8,351	50	25	6	26	107	12.81	3			
Connecticut	5,545	21	21	36	33	111	20.02	6			
Delaware	2,208	5	0	1	4	10	4.53				
District of Columbia	1,886	7	1	5	5	18	9.54				
Florida	37,366	126	113	108	127	474	12.69	20			
Georgia	15,216	33	19	23	44	119	7.82	7			
Hawaii	2,763	0	3	1	0	4	1.45				
Idaho	2,399	1	2	4	4	11	4.59	1			
Illinois	18,184	64	49	49	64	226	12.43	7			
Indiana	10,817	18	13	11	29	71	6.56	3			
lowa	11,521	6	2	7	9	24	2.08	1			
Kansas	6,533	8	7	5	6	26	3.98	1			
Kentucky	9,889	21	17	18	27	83	8.39	2			
Louisiana	8,780	4	2	6	19	31	3.53	2			
Maine	2,284	3	2	1	4	10	4.38				
Maryland	11,700	20	16	14	30	80	6.84	3			
Massachusetts	13,259	37	24	23	29	113	8.52	4			
Michigan	15,719	40	35	26	26	127	8.08	3			
Minnesota	8,911	40	35	24	30	129	14.48	4			
Mississippi	6,211	2	2	0	1	5	0.81				
Missouri	10,770	26	11	16	27	80	7.43	5			
Montana	2,104	2	2	0	1	5	2.38				
Nebraska	5,158	5	2	0	5	12	2.33				
Nevada	7,721	15	7	23	19	64	8.29	1			
New Hampshire	2,780	2	0	1	5	8	2.88				
New Jersey	17,656	25	15	13	22	75	4.25	3			
New Mexico	3,027	18	7	8	7	40	13.21				
New York	27,113	27	22	30	41	120	4.43	5			
North Carolina	16,517	28	15	14	22	79	4.78	3			
North Dakota	2,257	1	0	0	1	2	0.89	40			
Ohio	20,349	47	41	48	56	192	9.44	12			
Oklahoma	7,074	7	17	4	6	34	4.81				
Oregon	8,019	6	3	6	8	23	2.87	1			
Pennsylvania	22,781	66	28	28	26	148	6.50	5			
Puerto Rico	5,340	2	0	12	0	2	0.37				
Rhode Island	2,185	10	7	12	10	39 42	17.85	1			
South Carolina	9,045	10	14	9	_		4.64	1			
South Dakota	2,080	2	9		1	4	1.92	-			
Tennessee	12,180	18	1	15	24	66	5.42	2			
Texas	46,835	89	85	77	107	358	7.64	15			
Utah	3,270	31	10	13	14	68	20.80	2			
Vermont	1,180 14,976	4	0	0	2	6	5.08				
		18	7	9	33	67	4.47	2			
Virginia			4.5	0.0		٥.					
Washington	10,490	28	13	25	18	84	8.01	3			
		28 4 27	13 0 8	25 1 9	18 5 19	84 10 63	8.01 2.09 10.80	3			

	Job Po	stings in the Top 25 Me	tropolitan Statistical Areas (MSAs)						
	2019			2020					
ŗ	ull Year		Quarter 1						
Metro Area	Job Postings Location Quotient		Metro Area	Job Postings	Location Quotient				
Los Angeles-Long Beach-Anaheim, CA	289	Much Higher than National Average	Los Angeles-Long Beach-Anaheim, CA	122	Much Higher than National Average				
Chicago-Naperville-Elgin, IL-IN-WI	212	Higher than National Average	Miami-Fort Lauderdale-West Palm Beach, FL	70	Much Higher than National Average				
Miami-Fort Lauderdale-West Palm Beach, FL	194	Much Higher than National Average	Chicago-Naperville-Elgin, IL-IN-WI	68	Similar to National Average				
New York-Newark-Jersey City, NY-NJ-PA	143	Much Lower than National Average	New York-Newark-Jersey City, NY-NJ-PA	59	Much Lower than National Average				
San Diego-Carlsbad, CA	126	Much Higher than National Average	San Diego-Carlsbad, CA	48	Much Higher than National Average				
Dallas-Fort Worth-Arlington, TX	124	Similar to National Average	Atlanta-Sandy Springs-Roswell, GA	48	Higher than National Average				
Phoenix-Mesa-Scottsdale, AZ	109	Much Higher than National Average	Dallas-Fort Worth-Arlington, TX	47	Similar to National Average				
San Francisco-Oakland-Hayward, CA	108	Higher than National Average	St. Louis, MO-IL	45	Much Higher than National Average				
Houston-The Woodlands-Sugar Land, TX	106	Similar to National Average	Orlando-Kissimmee-Sanford, FL	43	Much Higher than National Average				
Minneapolis-St. Paul-Bloomington, MN-WI	93	Much Higher than National Average	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	39	Similar to National Average				
Riverside-San Bernardino-Ontario, CA	91	Much Higher than National Average	Cleveland-Elyria, OH	39	Much Higher than National Average				
Orlando-Kissimmee-Sanford, FL	91	Much Higher than National Average	Houston-The Woodlands-Sugar Land, TX	38	Similar to National Average				
Boston-Cambridge-Nashua, MA-NH	85	Similar to National Average	San Francisco-Oakland-Hayward, CA	37	Similar to National Average				
Detroit-Warren-Dearborn, MI	80	Higher than National Average	Boston-Cambridge-Nashua, MA-NH	35	Similar to National Average				
Denver-Aurora-Lakewood, CO	76	Much Higher than National Average	Baltimore-Columbia-Towson, MD	35	Much Higher than National Average				
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	71	Lower than National Average	New Haven, CT	31	Much Higher than National Average				
Cincinnati, OH-KY-IN	71	Much Higher than National Average	Tampa-St. Petersburg-Clearwater, FL	30	Much Higher than National Average				
New Haven, CT	70	Much Higher than National Average	SacramentoRosevilleArden-Arcade, CA	30	Much Higher than National Average				
Tampa-St. Petersburg-Clearwater, FL	68	Much Higher than National Average	Seattle-Tacoma-Bellevue, WA	29	Similar to National Average				
Seattle-Tacoma-Bellevue, WA	67	Similar to National Average	Minneapolis-St. Paul-Bloomington, MN-WI	29	Similar to National Average				
Baltimore-Columbia-Towson, MD	65	Much Higher than National Average	Phoenix-Mesa-Scottsdale, AZ	28	Similar to National Average				
St. Louis, MO-IL	58	Higher than National Average	San Antonio-New Braunfels, TX	27	Much Higher than National Average				
San Antonio-New Braunfels, TX	58	Much Higher than National Average	Riverside-San Bernardino-Ontario, CA	27	Higher than National Average				
SacramentoRosevilleArden-Arcade, CA	58	Much Higher than National Average	Cincinnati, OH-KY-IN	27	Much Higher than National Average				
Atlanta-Sandy Springs-Roswell, GA	58	Lower than National Average	Denver-Aurora-Lakewood, CO	22	Similar to National Average				

Clinical Pharmacist: Provides medications to patients and educates patients and physicians on the proper use of medications. Works in a clinical setting, directly with physicians and other health professionals, often granted patient care privileges and responsibility of assisting in patient care management. Usually requires a Doctor of Pharmacy degree.

Hospital Pharmacist

Job Postings Per State											
				2	019)		2020			
State/Territory	Number of Pharmacists Licensed (as of Oct. 2019)	Q1 (Includes Carryover from 2018)	Q2	Q3	Q4	Total	Postings Quotient for 2019	Q1 (Includes Carryover from 2019)			
Alabama	9,581	6	1	1	0	8	0.83				
Alaska	1,083	14	3	6	0	23	21.24				
Arizona	11,461	9	8	3	8	28	2.44	2			
Arkansas	6,169	0	1	13	0	14	2.27				
California	44,864	125	89	90	55	359	8.00	8			
Colorado	8,351	5	2	17	2	26	3.11	1			
Connecticut	5,545	5	2	13	10	30	5.41				
Delaware	2,208	0	0	0	0	0	0.00				
District of Columbia	1,886	0	0	0	0	0	0.00				
Florida	37,366	23	7	3	7	40	1.07	1			
Georgia	15,216	10	10	10	9	39	2.56	_			
Hawaii	2,763	4	9	3	1	17	6.15				
Idaho	2,399	1	1	1	0	3	1.25				
Illinois	18,184	14	12	8	16	50	2.75	1			
Indiana	10,817	7	0	1	1	9	0.83	-			
lowa	11,521	2	0	0	3	5	0.43				
Kansas	6,533	6	1	0	0	7	1.07				
Kentucky	9,889	4	3	3	1	11	1.11				
Louisiana	9,889	3	19	16	16	54	6.15	1			
Maine	2,284	1	3	6	7	17	7.44				
		2	3	2	10	17	1.45				
Maryland	11,700										
Massachusetts	13,259	7 9	5 4	2	1 5	15 19	1.13 1.21	1			
Michigan	15,719			4	5						
Minnesota	8,911	31	16	0	0	56	6.28				
Mississippi	6,211	1	1	_		2	0.32				
Missouri	10,770	32	17	5	3	57	5.29				
Montana	2,104	1	1	1	0	3	1.43				
Nebraska	5,158	2	1	0	4	7	1.36				
Nevada	7,721	35	7	7	3	52	6.73				
New Hampshire	2,780	0	0	0	0	0	0.00				
New Jersey	17,656	8	3	5	7	23	1.30				
New Mexico	3,027	0	5	6	1	12	3.96				
New York	27,113	24	9	4	7	44	1.62	1			
North Carolina	16,517	6	2	6	4	18	1.09				
North Dakota	2,257	2	1	0	0	3	1.33				
Ohio	20,349	24	33	21	24	102	5.01	1			
Oklahoma	7,074	2	9	0	0	11	1.55				
Oregon	8,019	8	7	2	0	17	2.12				
Pennsylvania	22,781	7	7	4	5	23	1.01	2			
Puerto Rico	5,340	0	0	0	0	0	0.00				
Rhode Island	2,185	0	0	0	1	1	0.46				
South Carolina	9,045	6	3	1	1	11	1.22				
South Dakota	2,080	0	0	2	0	2	0.96				
Tennessee	12,180	2	0	0	0	2	0.16				
Texas	46,835	43	12	47	18	120	2.56	4			
Utah	3,270	3	0	0	1	4	1.22				
Vermont	1,180	1	0	0	0	1	0.85				
Virginia	14,976	3	2	1	0	6	0.40				
Washington	10,490	23	20	3	6	52	4.96	1			
West Virginia	4,780	0	0	1	0	1	0.21	-			
Wisconsin	5,834	36	10	9	9	64	10.97	1			
Wyoming	1,407	2	3	0	1	6	4.26	1			

1100p1ta1111a1										
	Job P	ostings in the Top 25 Me	tropolitan Statistical Areas (MSAs)							
	2019			2020						
F	Full Year			Quarter 1						
Metro Area	Job Postings	Location Quotient	Metro Area	Job Postings	Location Quotient					
San Francisco-Oakland-Hayward, CA	98	Much Higher than National Average	San Francisco-Oakland-Hayward, CA	26	Much Higher than National Average					
SacramentoRosevilleArden-Arcade, CA	76	Much Higher than National Average	Phoenix-Mesa-Scottsdale, AZ	19	Much Higher than National Average					
Chicago-Naperville-Elgin, IL-IN-WI	45	Similar to National Average	Los Angeles-Long Beach-Anaheim, CA	19	Similar to National Average					
Seattle-Tacoma-Bellevue, WA	43	Much Higher than National Average	Chicago-Naperville-Elgin, IL-IN-WI	18	Higher than National Average					
Houston-The Woodlands-Sugar Land, TX	40	Higher than National Average	SacramentoRosevilleArden-Arcade, CA	16	Much Higher than National Average					
Dayton, OH	37	Much Higher than National Average	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	13	Much Higher than National Average					
New York-Newark-Jersey City, NY-NJ-PA	34	Much Lower than National Average	Seattle-Tacoma-Bellevue, WA	11	Much Higher than National Average					
Las Vegas-Henderson-Paradise, NV	33	Much Higher than National Average	New York-Newark-Jersey City, NY-NJ-PA	10	Much Lower than National Average					
Los Angeles-Long Beach-Anaheim, CA	31	Much Lower than National Average	Houston-The Woodlands-Sugar Land, TX	9	Similar to National Average					
Dallas-Fort Worth-Arlington, TX	27	Lower than National Average	Orlando-Kissimmee-Sanford, FL	8	Much Higher than National Average					
Phoenix-Mesa-Scottsdale, AZ	23	Similar to National Average	Denver-Aurora-Lakewood, CO	8	Much Higher than National Average					
Columbus, OH	20	Much Higher than National Average	South Bend-Mishawaka, IN-MI	7	Much Higher than National Average					
St. Louis, MO-IL	19	Higher than National Average	Baltimore-Columbia-Towson, MD	7	Much Higher than National Average					
Austin-Round Rock, TX	19	Much Higher than National Average	Austin-Round Rock, TX	7	Much Higher than National Average					
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	18	Much Lower than National Average	San Antonio-New Braunfels, TX	6	Much Higher than National Average					
Minneapolis-St. Paul-Bloomington, MN-WI	18	Similar to National Average	Milwaukee-Waukesha-West Allis, WI	6	Much Higher than National Average					
San Diego-Carlsbad, CA	17	Similar to National Average	Dallas-Fort Worth-Arlington, TX	6	Much Lower than National Average					
Denver-Aurora-Lakewood, CO	17	Similar to National Average	Albuquerque, NM	6	Much Higher than National Average					
Anchorage, AK	17	Much Higher than National Average	Albany-Schenectady-Troy, NY	6	Much Higher than National Average					
San Jose-Sunnyvale-Santa Clara, CA	16	Higher than National Average	Midland, TX	5	Much Higher than National Average					
Jefferson City, MO	16	Much Higher than National Average	Lexington-Fayette, KY	5	Much Higher than National Average					
Milwaukee-Waukesha-West Allis, WI	15	Much Higher than National Average	Lewiston-Auburn, ME	5	Much Higher than National Average					
Janesville-Beloit, WI	15	Much Higher than National Average	Lake Charles, LA	5	Much Higher than National Average					
Baltimore-Columbia-Towson, MD	15	Similar to National Average	Cleveland-Elyria, OH	5	Much Higher than National Average					
Urban Honolulu, HI	14	Much Higher than National Average	St. Louis, MO-IL	4	Similar to National Average					

Hospital Pharmacist: Provides medications to patients and educates patients on the proper use of medications. Works within a hospital setting. May consult with physicians about correct dosage and appropriate administration as well as discuss adverse reactions. The types of medications and their dispersal may differ significantly from those handled by retail pharmacists.

Other Pharmacist Occupations

(Compounding, Informatics, Infusion, Long-Term Care, Nuclear Pharmacist, Oncology)

	Job Postings Per State										
				2	019			2020			
State/Territory	Number of Pharmacists Licensed (as of Oct. 2019)	Q1 (Includes Carryover from 2018)	Q2	Q3	Q4	Total	Postings Quotient for 2019	Q1 (Includes Carryover from 2019)			
Alabama	9,581	28	3	1	1	33	3.44	4			
Alaska	1,083	0	3	1	0	4	3.69	1			
Arizona	11,461	39	16	14	8	77	6.72	18			
Arkansas	6,169	3	0	1	7	11	1.78	5			
California	44,864	117	110	111	101	439	9.79	148			
Colorado	8,351	15	42	5	9	71	8.50	16			
Connecticut	5,545	21	22	14	5	62	11.18	11			
Delaware	2,208	1	1	1	0	3	1.36	0			
District of Columbia	1,886	2	1	0	0	3	1.59	2			
Florida	37,366	79	43	37	30	189	5.06	61			
Georgia	15,216	14	19	8	14	55	3.61	23			
Hawaii	2,763	3	3	0	1	7	2.53	4			
Idaho	2,399	8	6	4	4	22	9.17	8			
Illinois	18,184	66	58	42	23	189	10.39	38			
Indiana	10,817	21	8	15	17	61	5.64	24			
lowa	11,521	9	0	2	2	13	1.13	2			
Kansas	6,533	19	11	17	12	59	9.03	6			
Kentucky	9,889	13	5	4	5	27	2.73	10			
Louisiana	8,780	6	7	3	34	50	5.69	36			
Maine	2,284	1	3	4	2	10	4.38	3			
Maryland	11,700	16	11	7	9	43	3.68	7			
Massachusetts	13,259	17	23	11	12	63	4.75	21			
Michigan	15,719	53	27	53	44	177	11.26	72			
Minnesota	8,911	18	6	5	3	32	3.59	9			
Mississippi	6,211	0	2	4	0	6	0.97	1			
Missouri	10,770	27	14	7	32	80	7.43	35			
Montana	2,104	2	20	3	4	29	13.78	9			
Nebraska	5,158	3	2	0	0	5	0.97	3			
Nevada	7,721	14	7	4	5	30	3.89	21			
New Hampshire	2,780	2	1	3	1	7	2.52	7			
New Jersey	17,656	31	23	28	24	106	6.00	50			
New Mexico	3,027	18	4	1	7	30	9.91	8			
New York	27,113	75	31	25	29	160	5.90	48			
North Carolina	16,517	11	6	2	14	33	2.00	17			
North Dakota	2,257	0	1	0	0	1	0.44	0			
Ohio	20,349	31	34	52	43	160	7.86	139			
Oklahoma	7,074	7	4	5	3	19	2.69	8			
Oregon	8,019	27	10	12	2	51	6.36	6			
Pennsylvania	22,781	61	20	14	17	112	4.92	44			
Puerto Rico	5,340	0	0	0	4	4	0.75	2			
Rhode Island	2,185	0	1	0	0	1	0.46	8			
South Carolina	9,045	11	9	8	9	37	4.09	3			
South Dakota	2,080	0	1	0	1	2	0.96	2			
Tennessee	12,180	9	5	1	8	23	1.89	6			
Texas	46,835	52	29	24	41	146	3.12	62			
Utah	3,270	5	9	4	3	21	6.42	8			
Vermont	1,180	0	1	0	0	1	0.85	1			
Virginia	14,976	12	14	2	4	32	2.14	6			
Washington	10,490	36	19	28	23	106	10.10	22			
West Virginia	4,780	1	0	0	0	1	0.21	0			
Wisconsin	5,834	22	8	5	3	38	6.51	5			
Wyoming	1,407	0	2	0	0	2	1.42	2			

	Job P	ostings in the Top 25 Me	tropolitan Statistical Areas (MSAs)					
	2019	•		2020				
Fi	ıll Year		Quarter 1					
Metro Area	Job Postings	Location Quotient	Metro Area	Job Postings	Location Quotient			
New York-Newark-Jersey City, NY-NJ-PA	183	Similar to National Average	New York-Newark-Jersey City, NY-NJ-PA	76	Similar to National Average			
Chicago-Naperville-Elgin, IL-IN-WI	170	Much Higher than National Average	Cleveland-Elyria, OH	74	Much Higher than National Average			
Detroit-Warren-Dearborn, MI	101	Much Higher than National Average	Detroit-Warren-Dearborn, MI	51	Much Higher than National Average			
Los Angeles-Long Beach-Anaheim, CA	98	Lower than National Average	Los Angeles-Long Beach-Anaheim, CA	40	Similar to National Average			
Kansas City, MO-KS	97	Much Higher than National Average	Chicago-Naperville-Elgin, IL-IN-WI	34	Similar to National Average			
Miami-Fort Lauderdale-West Palm Beach, FL	90	Much Higher than National Average	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	32	Much Higher than National Average			
San Diego-Carlsbad, CA	76	Much Higher than National Average	San Diego-Carlsbad, CA	31	Much Higher than National Average			
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	73	Higher than National Average	Miami-Fort Lauderdale-West Palm Beach, FL	28	Higher than National Average			
Seattle-Tacoma-Bellevue, WA	72	Much Higher than National Average	SacramentoRosevilleArden-Arcade, CA	21	Much Higher than National Average			
Phoenix-Mesa-Scottsdale, AZ	64	Much Higher than National Average	St. Louis, MO-IL	20	Much Higher than National Average			
Cleveland-Elyria, OH	60	Much Higher than National Average	Dallas-Fort Worth-Arlington, TX	20	Lower than National Average			
SacramentoRosevilleArden-Arcade, CA	58	Much Higher than National Average	Boston-Cambridge-Nashua, MA-NH	20	Similar to National Average			
Houston-The Woodlands-Sugar Land, TX	52	Similar to National Average	Baton Rouge, LA	20	Much Higher than National Average			
Dallas-Fort Worth-Arlington, TX	44	Much Lower than National Average	Houston-The Woodlands-Sugar Land, TX	19	Similar to National Average			
Cincinnati, OH-KY-IN	44	Much Higher than National Average	Seattle-Tacoma-Bellevue, WA	18	Higher than National Average			
Portland-Vancouver-Hillsboro, OR-WA	41	Much Higher than National Average	Las Vegas-Henderson-Paradise, NV	18	Much Higher than National Average			
Boston-Cambridge-Nashua, MA-NH	41	Lower than National Average	Atlanta-Sandy Springs-Roswell, GA	18	Similar to National Average			
Riverside-San Bernardino-Ontario, CA	40	Higher than National Average	Akron, OH	18	Much Higher than National Average			
San Francisco-Oakland-Hayward, CA	39	Lower than National Average	San Francisco-Oakland-Hayward, CA	17	Similar to National Average			
Tampa-St. Petersburg-Clearwater, FL	38	Higher than National Average	Kansas City, MO-KS	16	Much Higher than National Average			
St. Louis, MO-IL	37	Higher than National Average	Phoenix-Mesa-Scottsdale, AZ	14	Similar to National Average			
Denver-Aurora-Lakewood, CO	37	Higher than National Average	Ann Arbor, MI	14	Much Higher than National Average			
Atlanta-Sandy Springs-Roswell, GA	36	Lower than National Average	Denver-Aurora-Lakewood, CO	13	Similar to National Average			
Pittsburgh, PA	34	Higher than National Average	Pittsburgh, PA	11	Higher than National Average			
New Haven, CT	31	Much Higher than National Average	Louisville/Jefferson County, KY-IN	10	Much Higher than National Average			

Compounding Pharmacist: Provides medications to patients and educates patients and physicians on the proper use of medications. Works for a compounding pharmacy. Specializes in preparation of alternate modes of delivery and forms of commercial medication not available in retail or hospital pharmacies.

Informatics Pharmacist: Improves precision and safety of prescribing and administering medications by using technology and data analysis. Draws on both pharmaceutical expertise and computer science to improve patient outcomes. Uses patient information in electronic health records (EHR) to prevent errors, streamline operations, share information and assess the dangers of full medication spread for a patient.

Infusion Pharmacist: Provides medications to patients and educates patients and physicians on the proper use of medications. Works primarily in healthcare facilities. May be directly involved in patient care or consult with healthcare facilities or insurance companies to develop efficient methods of prescription. Specializes in drugs delivered through infusion, using a needle or a catheter.

Long-Term Care Pharmacist: Provides medications to patients and educates patients and physicians on the proper use of medications. Works in a long-term care facility or pharmacy. May be directly involved in patient care, working with physicians and healthcare workers to manage the long-term health of the patients in the facility.

Nuclear Pharmacist: Provides medications to patients and educates patients and physicians on the proper use of medications. Works for a pharmacy or a healthcare facility dispensing nuclear medicines (made from radioactive materials). May be directly involved in patient care or consult with healthcare facilities or insurance companies to develop efficient methods of prescription.

Oncology Pharmacist: Provides medications to patients and educates patients on the proper use of medications. Specializes in managing complex pharmacotherapeutic plans for treatment and prevention of cancer and cancer-related diseases.

Pharmacy Director

	Job Postings Per State									
				2	019			2020		
State/Territory	Number of Pharmacists Licensed (as of Oct. 2019)	Q1 (Includes Carryover from 2018)	Q2	Q3	Q4	Total	Postings Quotient for 2019	Q1 (Includes Carryover fror 2019)		
Alabama	9,581	1	1	1	2	5	0.52			
Alaska	1,083	2	0	1	1	4	3.69			
Arizona	11,461	5	6	3	8	22	1.92	1		
Arkansas	6,169	2	0	1	1	4	0.65			
California	44,864	64	66	51	45	226	5.04	5		
Colorado	8,351	1	3	8	2	14	1.68			
Connecticut	5,545	1	0	1	0	2	0.36			
Delaware	2,208	0	0	0	0	0	0.00			
District of Columbia	1,886	0	1	0	0	1	0.53			
Florida	37,366	12	6	12	10	40	1.07	1		
Georgia	15,216	6	0	0	0	6	0.39			
Hawaii	2,763	0	0	1	1	2	0.72			
Idaho	2,399	0	3	1	3	7	2.92			
Illinois	18,184	7	15	7	7	36	1.98			
Indiana	10,817	1	3	1	6	11	1.02			
lowa	11,521	4	0	4	1	9	0.78			
Kansas	6,533	2	2	0	0	4	0.61			
Kentucky	9,889	5	6	0	2	13	1.31			
Louisiana	8,780	19	8	3	4	34	3.87			
Maine	2,284	0	0	0	0	0	0.00			
Maryland	11,700	0	2	8	9	19	1.62			
Massachusetts	13,259	4	6	0	2	12	0.91			
Michigan	15,719	22	18	9	7	56	3.56	1		
Minnesota	8,911	3	2	1	1	7	0.79			
Mississippi	6.211	1	0	0	0	1	0.16			
Missouri	10,770	5	3	4	3	15	1.39			
Montana	2.104	0	0	0	0	0	0.00			
Nebraska	5,158	1	0	2	6	9	1.74			
Nevada	7.721	2	4	3	3	12	1.55			
New Hampshire	2,780	1	1	0	0	2	0.72			
New Jersey	17,656	9	2	9	7	27	1.53			
New Mexico	3,027	2	0	1	1	4	1.32			
New York	27,113	5	2	1	3	11	0.41			
North Carolina	16,517	9	4	4	3	20	1.21			
North Dakota	2,257	0	1	1	0	20	0.89			
Ohio	20,349	7	7	1	10	25	1.23	1		
Oklahoma	7.074	2	2	1	1	6	0.85	-		
Oregon	8.019	4	6	9	3	22	2.74			
Pennsylvania	22.781	5	2	3	5	15	0.66	1		
Puerto Rico	5,340	2	0	0	0	2	0.37	1		
Rhode Island	2,185	4	0	0	0	4	1.83			
South Carolina	9.045	3	2	0	1	6	0.66			
South Dakota	2,080	0	0	0	0	0	0.00			
Tennessee	12,180	5	2	3	0	10	0.82			
Texas	12,180 46,835	27	14	22	14	77	1.64	3		
Utah	3,270	0	0	1	14	2	0.61	3		
Vermont	1,180	0	0	0	0	0	0.00			
		5	2	3	2	12				
Virginia	14,976 10,490	21	14	9	6	50	0.80 4.77			
Washington	10,490			0	3	50	1.67			
West Virginia	,	4	1							
Wisconsin	5,834	2	3	2	5	12	2.06			
Wyoming	1.407	1	1	0	0	2	1.42	ı		

Job Postings in the Top 25 Metropolitan Statistical Areas (MSAs)										
	2019		2020							
	Full Year		Quarter 1							
Metro Area	Job Postings	Location Quotient	Metro Area	Job Postings	Location Quotient					
os Angeles-Long Beach-Anaheim, CA	84	Much Higher than National Average	Los Angeles-Long Beach-Anaheim, CA	26	Much Higher than National Average					
eattle-Tacoma-Bellevue, WA	36	Much Higher than National Average	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	15	Much Higher than National Average					
lew York-Newark-Jersey City, NY-NJ-PA	36	Much Lower than National Average	Phoenix-Mesa-Scottsdale, AZ	14	Much Higher than National Average					
iverside-San Bernardino-Ontario, CA	30	Much Higher than National Average	New York-Newark-Jersey City, NY-NJ-PA	10	Much Lower than National Average					
an Francisco-Oakland-Hayward, CA	29	Much Higher than National Average	San Diego-Carlsbad, CA	8	Much Higher than National Average					
hicago-Naperville-Elgin, IL-IN-WI	27	Similar to National Average	Dayton, OH	7	Much Higher than National Average					
etroit-Warren-Dearborn, MI	24	Much Higher than National Average	Corpus Christi, TX	7	Much Higher than National Average					
cramentoRosevilleArden-Arcade, CA	20	Much Higher than National Average	Seattle-Tacoma-Bellevue, WA	6	Much Higher than National Average					
ouston-The Woodlands-Sugar Land, TX	20	Similar to National Average	San Francisco-Oakland-Hayward, CA	6	Higher than National Average					
altimore-Columbia-Towson, MD	19	Much Higher than National Average	San Antonio-New Braunfels, TX	6	Much Higher than National Average					
ortland-Vancouver-Hillsboro, OR-WA	18	Much Higher than National Average	Milwaukee-Waukesha-West Allis, WI	6	Much Higher than National Average					
allas-Fort Worth-Arlington, TX	18	Similar to National Average	Miami-Fort Lauderdale-West Palm Beach, FL	6	Higher than National Average					
hoenix-Mesa-Scottsdale, AZ	17	Higher than National Average	Houston-The Woodlands-Sugar Land, TX	6	Similar to National Average					
ew Orleans-Metairie, LA	16	Much Higher than National Average	Chicago-Naperville-Elgin, IL-IN-WI	6	Lower than National Average					
Niami-Fort Lauderdale-West Palm Beach, FL	16	Similar to National Average	Riverside-San Bernardino-Ontario, CA	5	Much Higher than National Average					
hiladelphia-Camden-Wilmington, PA-NJ-DE-MD	14	Lower than National Average	Louisville/Jefferson County, KY-IN	5	Much Higher than National Average					
an Antonio-New Braunfels, TX	12	Much Higher than National Average	Detroit-Warren-Dearborn, MI	5	Higher than National Average					
irand Rapids-Wyoming, MI	12	Much Higher than National Average	Dallas-Fort Worth-Arlington, TX	5	Lower than National Average					
t. Louis, MO-IL	11	Higher than National Average	Baltimore-Columbia-Towson, MD	5	Much Higher than National Average					
xnard-Thousand Oaks-Ventura, CA	11	Much Higher than National Average	Austin-Round Rock, TX	5	Much Higher than National Average					
leveland-Elyria, OH	11	Much Higher than National Average	Portland-Vancouver-Hillsboro, OR-WA	4	Much Higher than National Average					
oston-Cambridge-Nashua, MA-NH	11	Lower than National Average	Orlando-Kissimmee-Sanford, FL	4	Much Higher than National Average					
Prlando-Kissimmee-Sanford, FL	10	Higher than National Average	Las Vegas-Henderson-Paradise, NV	4	Much Higher than National Average					
resno, CA	10	Much Higher than National Average	Boston-Cambridge-Nashua, MA-NH	4	Lower than National Average					
Tampa-St. Petersburg-Clearwater, FL	9	Similar to National Average	Boise City, ID	4	Much Higher than National Average					

Pharmacy Director: Directs the operations and management of a pharmacy for a healthcare facility or institution. Manages pharmacists and pharmacy staff. Works with leadership of healthcare facility or institution on drug policy including safety, education, and finances.

Pharmacy Technician

	Jo	b Postings	Per	State	!			
				20)19			2020
State/Territory	Number of Employeed Pharmacy Technicians According to BLS (as of May 2019)	Q1 (Includes Carryover from 2018)	Q2	Q3	Q4	Total	Postings Quotient for 2019	Q1 (Includes Carryover from 2019)
Alabama	6,790	527	397	305	346	1,575	231.96	515
Alaska	590	98	48	51	56	253	428.81	73
Arizona	8,900	1,443	1,012	1,023	1,018	4,496	505.17	1,680
Arkansas	4,880	191	138	141	140	610	125.00	208
California	36,560	3,836	2,882	2,696	2,913	12,327	337.17	5,014
Colorado	5,600	902	640	625	705	2,872	512.86	1,201
Connecticut	3,870	381	306	261	326	1,274	329.20	566
Delaware	1,360	112	88	66	79	345	253.68	112
District of Columbia	670	111	73	65	74	323	482.09	115
Florida	29,800	2,636	1,770	1,536	1,999	7,941	266.48	3,052
Georgia	11,360	1,128	883	775	783	3,569	314.17	1,031
Guam	200	1	1	0	0	2	10.00	0
Hawaii	1,790	135	118	104	93	450	251.40	130
Idaho	2,190	189	109	124	165	587	268.04	225
Illinois	21,090	1,631	1,152	1,293	1,353	5,429	257.42	1,977
Indiana	9,610	1,102	765	674	799	3,340	347.55	1,214
lowa	4,270	523	341	188	267	1,319	308.90	398
Kansas	4,220	594	364 495	268 586	297	1,523	360.90	418 751
Kentucky	8,840	637 479	495	304	514 466	2,232	252.49	751
Louisiana	6,150		_			1,668	271.22	
Maine	2,270	165	166	157	156	644	283.70	208
Maryland	7,640	887	608	513	681	2,689	351.96	904
Massachusetts	9,150	1,308	1,060	786	996	4,150	453.55	1,522
Michigan	15,040 8,120	2,234 1,279	1,554 744	1,587 685	1,440 745	6,815 3,453	453.13 425.25	2,162 1,038
Minnesota Mississippi	3,450	268	182	179	235	3,453	250.43	1,038
Missouri	9,970	849	621	470	608	2,548	250.43	919
Montana	1,180	849	103	53	68	310	262.71	129
Nebraska	2,510	302	220	185	177	884	352.19	312
Nevada	3,750	352	213	204	231	1.000	266.67	404
New Hampshire	1,870	262	223	217	227	929	496.79	344
New Jersey	9,810	1,347	993	866	923	4,129	420.90	1,450
New Mexico	2,340	224	147	146	138	655	279.91	227
New York	20,360	1,598	1,337	1,062	1,201	5,198	255.30	2,055
North Carolina	13,560	1,296	992	792	882	3,962	292.18	1,421
North Dakota	890	48	73	47	47	215	241.57	71
Ohio	16,470	2,015	1,549	1,524	1,370	6,458	392.11	2,558
Oklahoma	4,940	372	226	252	268	1,118	226.32	426
Oregon	4,900	628	433	375	484	1,920	391.84	581
Pennsylvania	18,250	1,992	1,549	1,258	1,409	6,208	340.16	2,297
Puerto Rico	5,530	38	37	28	21	124	22.42	40
Rhode Island	1,840	166	122	111	155	554	301.09	180
South Carolina	7,110	447	391	301	320	1,459	205.20	508
South Dakota	1,250	56	48	39	54	197	157.60	63
Tennessee	10,270	1,077	762	789	684	3,312	322.49	995
Texas	38,550	3,260	2,314	2,389	2,443	10,406	269.94	4,076
Utah	3,700	359	259	229	237	1,084	292.97	467
Vermont	740	91	56	45	64	256	345.95	68
Virgin Islands	70	0	1	0	0	1	14.29	3
Virginia	10,320	1,039	771	724	745	3,279	317.73	1,121
Washington	7,150	949	677	807	688	3,121	436.50	1,073
West Virginia	3,270	196	151	172	178	697	213.15	198
Wisconsin	7,990	1,063	615	527	601	2,806	351.19	952
Wyoming	570	35	40	21	26	122	214.04	34

Job Postings in the T	op 25 Metr	opolitan Statistical Areas (MSAs)						
2019		2020						
Full Year		Quarter 1						
Metro Area	Job Postings	Metro Area	Job Postings					
New York-Newark-Jersey City, NY-NJ-PA	5,971	New York-Newark-Jersey City, NY-NJ-PA	2,238					
Chicago-Naperville-Elgin, IL-IN-WI	4,300	Chicago-Naperville-Elgin, IL-IN-WI	1,617					
Los Angeles-Long Beach-Anaheim, CA	4,048	Los Angeles-Long Beach-Anaheim, CA	1,532					
Dallas-Fort Worth-Arlington, TX	3,792	Dallas-Fort Worth-Arlington, TX	1,529					
Detroit-Warren-Dearborn, MI	3,679	Phoenix-Mesa-Scottsdale, AZ	1,339					
Phoenix-Mesa-Scottsdale, AZ	3,585	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	1,306					
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	3,352	Detroit-Warren-Dearborn, MI	1,219					
Boston-Cambridge-Nashua, MA-NH	2,964	Boston-Cambridge-Nashua, MA-NH	1,198					
Minneapolis-St. Paul-Bloomington, MN-WI	2,306	Houston-The Woodlands-Sugar Land, TX	895					
Miami-Fort Lauderdale-West Palm Beach, FL	2,255	Miami-Fort Lauderdale-West Palm Beach, FL	838					
Atlanta-Sandy Springs-Roswell, GA	2,202	Cleveland-Elyria, OH	823					
Seattle-Tacoma-Bellevue, WA	2,180	San Francisco-Oakland-Hayward, CA	823					
Houston-The Woodlands-Sugar Land, TX	2,161	Minneapolis-St. Paul-Bloomington, MN-WI	760					
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,023	Seattle-Tacoma-Bellevue, WA	732					
San Francisco-Oakland-Hayward, CA	1,884	Denver-Aurora-Lakewood, CO	731					
Baltimore-Columbia-Towson, MD	1,806	Washington-Arlington-Alexandria, DC-VA-MD-WV	682					
Denver-Aurora-Lakewood, CO	1,682	Atlanta-Sandy Springs-Roswell, GA	659					
Pittsburgh, PA	1,649	Tampa-St. Petersburg-Clearwater, FL	636					
Tampa-St. Petersburg-Clearwater, FL	1,638	Indianapolis-Carmel-Anderson, IN	615					
Kansas City, MO-KS	1,637	Pittsburgh, PA	598					
Indianapolis-Carmel-Anderson, IN	1,541	Baltimore-Columbia-Towson, MD	589					
Cleveland-Elyria, OH	1,473	St. Louis, MO-IL	584					
Nashville-DavidsonMurfreesboroFranklin, TN	1,458	Orlando-Kissimmee-Sanford, FL	526					
St. Louis, MO-IL	1,419	Riverside-San Bernardino-Ontario, CA	512					
Portland-Vancouver-Hillsboro, OR-WA	1,411	San Diego-Carlsbad, CA	491					

Pharmacy Technician: Works under the direction of a pharmacist to dispense prescription medications. Serves customers and helps to fill prescriptions. Works in a retail pharmacy or healthcare facility.

Retail Pharmacist

	Job Postings Per State											
			2020									
State/Territory	Number of Pharmacists Licensed (as of Oct. 2019)	Q1 (Includes Carryover from 2018)	Q2	Q3	Q4	Total	Postings Quotient for 2019	Q1 (Includes Carryover from 2019)				
Alabama	9,581	19	1	6	8	34	3.55	8				
Alaska	1,083	22	3	3	3	31	28.62					
Arizona	11,461	58	60	59	64	241	21.03	8				
Arkansas	6,169	0	1	2	6	9	1.46					
California	44,864	253	191	172	159	775	17.27	32:				
Colorado	8,351	33	20	18	23	94	11.26	4:				
Connecticut	5,545	12	19	6	10	47	8.48					
Delaware	2,208	2	0	3	2	7	3.17					
District of Columbia	1,886	5	4	6	1	16	8.48					
Florida	37,366	97	54	35	65	251	6.72	10				
Georgia	15,216	44	22	26	43	135	8.87	3:				
Hawaii	2,763	2	1	0	0	3	1.09					
Idaho	2,399	8	10	3	5	26	10.84					
Illinois	18,184	63	28	53	27	171	9.40	4				
Indiana	10,817	50	9	7	23	89	8.23	2				
lowa	11,521	12	9	5	4	30	2.60					
Kansas	6,533	11	41	8	12	72	11.02	1				
Kentucky	9,889	20	15	3	12	50	5.06	2				
Louisiana	8,780	7	10	14	12	43	4.90	1				
Maine	2,284	4	4	4	3	15	6.57					
Maryland	11,700	16	13	7	9	45	3.85	1				
Massachusetts	13,259	26	25	16	15	82	6.18	2				
Michigan	15,719	62	39	36	22	159	10.12	4:				
Minnesota	8,911	17	11	13	7	48	5.39					
Mississippi	6,211	9	5	5	2	21	3.38					
Missouri	10,770	21	30	8	27	86	7.99	3				
Montana	2,104	9	16	2	8	35	16.63	1				
Nebraska	5,158	9	17	12	12	50	9.69	2				
Nevada	7,721	12	14	17	13	56	7.25	3				
New Hampshire	2,780	2	4	4	12	22	7.91	1				
New Jersey	17,656	37	26	42	37	142	8.04	4				
New Mexico	3,027	8	13	6	11	38	12.55	1				
New York	27,113	71	70	43	34	218	8.04	6				
North Carolina	16,517	8	7	15	6	36	2.18	1				
North Dakota	2,257	28	19	4	35	86	38.10	3				
Ohio	20,349	70	55	52	38	215	10.57	7.				
Oklahoma	7,074	5	8	13	10	36	5.09					
Oregon	8,019	40	23	12	13	88	10.97	2				
Pennsylvania	22,781	68	83	65	72	288	12.64	11				
Puerto Rico	5,340	0	2	1	3	6	1.12					
Rhode Island	2,185	3	2	2	2	9	4.12					
South Carolina	9,045	16	15	7	7	45	4.98	2				
South Dakota	2,080	5	0	0	3	8	3.85					
Tennessee	12,180	7	8	7	3	25	2.05	1				
Texas	46,835	61	46	64	99	270	5.76	12				
Utah	3,270	7	3	10	6	26	7.95					
Vermont	1,180	5	1	2	0	8	6.78					
Virginia	14,976	10	24	21	9	64	4.27	1				
Washington	10,490	60	28	26	39	153	14.59	7				
West Virginia	4,780	4	2	5	0	11	2.30					
Wisconsin	5,834	46	7	9	13	75	12.86	3				
Wyoming	1,407	6	3	4	2	15	10.66					

Job Postings in the Top 25 Metropolitan Statistical Areas (MSAs)							
		2020					
Full Year			Quarter 1				
Metro Area	Job Postings	Location Quotient	Metro Area	Job Postings	Location Quotient		
New York-Newark-Jersey City, NY-NJ-PA	229	Lower than National Average	New York-Newark-Jersey City, NY-NJ-PA	73	Lower than National Average		
Phoenix-Mesa-Scottsdale, AZ	184	Much Higher than National Average	Phoenix-Mesa-Scottsdale, AZ	63	Much Higher than National Average		
Chicago-Naperville-Elgin, IL-IN-WI	141	Similar to National Average	San Francisco-Oakland-Hayward, CA	51	Much Higher than National Average		
San Francisco-Oakland-Hayward, CA	137	Much Higher than National Average	Seattle-Tacoma-Bellevue, WA	49	Much Higher than National Average		
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	115	Higher than national Average	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	47	Higher than national Average		
Los Angeles-Long Beach-Anaheim, CA	113	Much Lower than Nation Average	SacramentoRosevilleArden-Arcade, CA	43	Much Higher than National Average		
Atlanta-Sandy Springs-Roswell, GA	93	Similar to National Average	Los Angeles-Long Beach-Anaheim, CA	43	Much Lower than Nation Average		
Miami-Fort Lauderdale-West Palm Beach, FL	86	Similar to National Average	Chicago-Naperville-Elgin, IL-IN-WI	38	Lower than National Average		
SacramentoRosevilleArden-Arcade, CA	79	Much Higher than National Average	Dallas-Fort Worth-Arlington, TX	37	Similar to National Average		
Seattle-Tacoma-Bellevue, WA	75	Similar to National Average	Pittsburgh, PA	34	Much Higher than National Average		
Dallas-Fort Worth-Arlington, TX	71	Lower than National Average	Miami-Fort Lauderdale-West Palm Beach, FL	28	Similar to National Average		
Houston-The Woodlands-Sugar Land, TX	67	Lower than National Average	Milwaukee-Waukesha-West Allis, WI	26	Much Higher than National Average		
Pittsburgh, PA	60	Much Higher than National Average	Atlanta-Sandy Springs-Roswell, GA	26	Similar to National Average		
Boston-Cambridge-Nashua, MA-NH	57	Lower than National Average	St. Louis, MO-IL	25	Much Higher than National Average		
San Diego-Carlsbad, CA	53	Similar to National Average	Orlando-Kissimmee-Sanford, FL	22	Much Higher than National Average		
Orlando-Kissimmee-Sanford, FL	51	Higher than national Average	Denver-Aurora-Lakewood, CO	22	Higher than national Average		
Milwaukee-Waukesha-West Allis, WI	50	Much Higher than National Average	San Diego-Carlsbad, CA	20	Similar to National Average		
St. Louis, MO-IL	46	Similar to National Average	Cleveland-Elyria, OH	20	Much Higher than National Average		
Fresno, CA	43	Much Higher than National Average	Cincinnati, OH-KY-IN	19	Much Higher than National Average		
Detroit-Warren-Dearborn, MI	41	Lower than National Average	Stockton-Lodi, CA	18	Much Higher than National Average		
Kansas City, MO-KS	39	Similar to National Average	Las Vegas-Henderson-Paradise, NV	18	Much Higher than National Average		
Omaha-Council Bluffs, NE-IA	37	Much Higher than National Average	Houston-The Woodlands-Sugar Land, TX	18	Much Lower than Nation Average		
Cincinnati, OH-KY-IN	37	Similar to National Average	Riverside-San Bernardino-Ontario, CA	16	Similar to National Average		
Tampa-St. Petersburg-Clearwater, FL	36	Similar to National Average	Boston-Cambridge-Nashua, MA-NH	16	Much Lower than Nation Average		
Cleveland-Elyria, OH	36	Similar to National Average	Fresno, CA	15	Much Higher than National Average		

Retail Pharmacist: Provides medications to patients and educates patients on the proper use of medications. Works in the pharmacy department of a retail store. Dispenses prescription and non-prescription medications. Manages prescription records and the pharmacy patient database. May consult with healthcare facilities or insurance companies to develop efficient methods of prescription.

All Pharmacist Positions

(Excluding Pharmacy Technician)

				2	019			2020
State/Territory	Number of Pharmacists Licensed (as of Oct. 2019)	Q1 (Includes Carryover from 2018)	Q2	Q3	Q4	Total	Postings Quotient for 2019	Q1 (Include Carryover fro 2019)
Alabama	9,581	58	9	12	18	97	10.12	
Alaska	1,083	42	10	12	4	68	62.79	
Arizona	11,461	157	118	114	112	501	43.71	1
Arkansas	6,169	16	6	20	24	66	10.70	
California	44,864	765	672	593	636	2,666	59.42	
Colorado	8,351	104	92	54	62	312	37.36	
Connecticut	5,545	60	64	70	58	252	45.45	
Delaware	2,208	8	1	5	6	20	9.06	
District of Columbia	1.886	14	7	11	6	38	20.15	
Florida	37.366	337	223	195	239	994	26.60	
Georgia	15.216	107	70	67	110	354	23.26	
Hawaii	2,763	9	16	5	3	33	11.94	
Idaho	2,399	18	22	13	16	69	28.76	
Illinois	18.184	214	162	159	137	672	36.96	
Indiana	10,817	97	33	35	76	241	22.28	
lowa	11,521	33	11	18	19	81	7.03	
Kansas	6,533	46	62	30	30	168	25.72	
Kentucky	9,889	63	46	28	47	184	18.61	
Louisiana	8,780	39	46	42	85	212	24.15	
Maine	2,284	9	12	15	16	52	22.77	
Maryland	11,700	54	45	38	67	204	17.44	
		91	83	52	59	285	21.49	
Massachusetts	13,259							
Michigan	15,719	186	123	125	104	538	34.23	
Minnesota	8,911	109	70	47	46	272	30.52	
Mississippi	6,211	13	10	9	3	35	5.64	
Missouri	10,770	111	75	40	92	318	29.53	
Montana	2,104	14	39	6	13	72	34.22	
Nebraska	5,158	20	22	14	27	83	16.09	
Nevada	7,721	78	39	54	43	214	27.72	
New Hampshire	2,780	7	6	8	18	39	14.03	
New Jersey	17,656	110	69	97	97	373	21.13	
New Mexico	3,027	46	29	22	27	124	40.96	
New York	27,113	202	134	103	114	553	20.40	
North Carolina	16,517	62	34	41	49	186	11.26	
North Dakota	2,257	31	22	5	36	94	41.65	
Ohio	20,349	179	170	174	171	694	34.10	
Oklahoma	7,074	23	40	23	20	106	14.98	
Oregon	8,019	85	49	41	26	201	25.07	
Pennsylvania	22,781	207	140	114	125	586	25.72	
Puerto Rico	5,340	4	2	1	7	14	2.62	
Rhode Island	2,185	17	10	14	13	54	24.71	
South Carolina	9,045	46	43	25	27	141	15.59	
South Dakota	2,080	7	2	2	5	16	7.69	
Tennessee	12,180	41	24	26	35	126	10.34	
Texas	46,835	272	186	234	279	971	20.73	4
Utah	3,270	46	22	28	25	121	37.00	
Vermont	1,180	10	2	2	2	16	13.56	
Virginia	14,976	48	49	36	48	181	12.09	
Washington	10,490	168	94	91	92	445	42.42	
West Virginia	4,780	13	3	7	8	31	6.49	
Wisconsin	5.834	133	36	34	49	252	43.20	
Wyoming	1.407	10	9	4	3	26	18.48	

Job Postings in the Top 50 Metropolitan Statistical Areas (MSAs)							
2019 Full Year			2020 Quarter 1				
New York-Newark-Jersey City, NY-NJ-PA	625	Lower than National Average	Los Angeles-Long Beach-Anaheim, CA	250	Similar to National Average		
Los Angeles-Long Beach-Anaheim, CA	615	Similar to National Average	New York-Newark-Jersey City, NY-NJ-PA	228	Lower than National Average		
Chicago-Naperville-Elgin, IL-IN-WI	599	Higher than National Average	Chicago-Naperville-Elgin, IL-IN-WI	164	Similar to National Average		
San Francisco-Oakland-Hayward, CA	411	Much Higher than National Average	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	146	Higher than National Average		
Phoenix-Mesa-Scottsdale, AZ	397	Much Higher than National Average	Cleveland-Elyria, OH	140	Much Higher than National Average		
Miami-Fort Lauderdale-West Palm Beach, FL	395	Much Higher than National Average	San Francisco-Oakland-Hayward, CA	138	Much Higher than National Average		
Seattle-Tacoma-Bellevue, WA	294	Higher than National Average	Phoenix-Mesa-Scottsdale, AZ	138	Much Higher than National Average		
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	292	Similar to National Average	Miami-Fort Lauderdale-West Palm Beach, FL	136	Higher than National Average		
SacramentoRosevilleArden-Arcade, CA	291	Much Higher than National Average	Dallas-Fort Worth-Arlington, TX	115	Similar to National Average		
Houston-The Woodlands-Sugar Land, TX	285	Similar to National Average	San Diego-Carlsbad, CA	114	Much Higher than National Average		
Dallas-Fort Worth-Arlington, TX	284	Lower than National Average	Seattle-Tacoma-Bellevue, WA	113	Much Higher than National Average		
San Diego-Carlsbad, CA	280	Much Higher than National Average	SacramentoRosevilleArden-Arcade, CA	112	Much Higher than National Average		
Detroit-Warren-Dearborn, MI	250	Higher than National Average	Atlanta-Sandy Springs-Roswell, GA	97	Similar to National Average		
Riverside-San Bernardino-Ontario, CA	205	Higher than National Average	St. Louis, MO-IL	94	Much Higher than National Average		
Boston-Cambridge-Nashua, MA-NH	203	Lower than National Average	Houston-The Woodlands-Sugar Land, TX	90	Lower than National Average		
Atlanta-Sandy Springs-Roswell, GA	201	Lower than National Average	Detroit-Warren-Dearborn, MI	90	Higher than National Average		
Cincinnati, OH-KY-IN	173	Much Higher than National Average	Orlando-Kissimmee-Sanford, FL	86	Much Higher than National Average		
St. Louis, MO-IL	171	Higher than National Average	Boston-Cambridge-Nashua, MA-NH	77	Lower than National Average		
Orlando-Kissimmee-Sanford, FL	171	Higher than National Average	Denver-Aurora-Lakewood, CO	67	Higher than National Average		
Denver-Aurora-Lakewood, CO	171	Similar to National Average	Baltimore-Columbia-Towson, MD	63	Higher than National Average		
Kansas City, MO-KS	170	Much Higher than National Average	San Antonio-New Braunfels, TX	60	Much Higher than National Average		
Minneapolis-St. Paul-Bloomington, MN-WI	167	Similar to National Average	Pittsburgh, PA	60	Higher than National Average		
Baltimore-Columbia-Towson, MD	161	Similar to National Average	Cincinnati, OH-KY-IN	59	Much Higher than National Average		
Cleveland-Elvria, OH	154	Higher than National Average	Riverside-San Bernardino-Ontario, CA	56	Similar to National Average		
Tampa-St. Petersburg-Clearwater, FL	153	Similar to National Average	Milwaukee-Waukesha-West Allis, WI	51	Much Higher than National Average		
Pittsburgh, PA	149	Higher than National Average	Las Vegas-Henderson-Paradise, NV	51	Higher than National Average		
Las Vegas-Henderson-Paradise, NV	145	Higher than National Average	Austin-Round Rock, TX	51	Higher than National Average		
Milwaukee-Waukesha-West Allis, WI	127	Higher than National Average	Tampa-St. Petersburg-Clearwater, FL	49	Similar to National Average		
San Antonio-New Braunfels, TX	126	Higher than National Average	Minneapolis-St. Paul-Bloomington, MN-WI	45	Much Lower than National Average		
Portland-Vancouver-Hillsboro, OR-WA	119	Similar to National Average	Louisville/Jefferson County, KY-IN	44	Much Higher than National Average		
New Haven, CT	119	Much Higher than National Average	Kansas City, MO-KS	39	Similar to National Average		
Louisville/Jefferson County, KY-IN	113	Much Higher than National Average	New Haven, CT	38	Much Higher than National Average		
Washington-Arlington-Alexandria, DC-VA-MD-WV	104	Much Lower than National Average	Fresno, CA	36	Much Higher than National Average		
Fresno. CA	104	Much Higher than National Average	Baton Rouge, LA	36	Much Higher than National Average		
Columbus, OH	104	Similar to National Average	Ann Arbor, MI	34	Much Higher than National Average		
San Jose-Sunnyvale-Santa Clara, CA	97	Similar to National Average	Salt Lake City, UT	33	Higher than National Average		
Indianapolis-Carmel-Anderson, IN	93	Similar to National Average	Dayton, OH	33	Much Higher than National Average		
Salt Lake City, UT	80	Similar to National Average	Columbus, OH	32	Similar to National Average		
Dayton, OH	74	Much Higher than National Average	Akron, OH	32	Much Higher than National Average		
Austin-Round Rock, TX	72	Lower than National Average	Buffalo-Cheektowaga-Niagara Falls, NY	30	Higher than National Average		
New Orleans-Metairie, LA	69	Similar to National Average	Reno. NV	28	Much Higher than National Average		
Virginia Beach-Norfolk-Newport News, VA-NC	68	Similar to National Average	Hartford-West Hartford-East Hartford, CT	28	Higher than National Average		
Nashville-DavidsonMurfreesboroFranklin, TN	68	Lower than National Average	Bakersfield, CA	28	Much Higher than National Average		
Providence-Warwick, RI-MA	67	Similar to National Average	Washington-Arlington-Alexandria, DC-VA-MD-WV	27	Much Lower than National Average		
Ann Arbor, MI	67	Much Higher than National Average	San Jose-Sunnyvale-Santa Clara, CA	27	Lower than National Average		
Omaha-Council Bluffs, NE-IA	64	Higher than National Average	New Orleans-Metairie, LA	27	Higher than National Average		
Bakersfield, CA	64	Much Higher than National Average	Providence-Warwick, RI-MA	26	Similar to National Average		
Santa Rosa, CA	63	Much Higher than National Average Much Higher than National Average	Albuquerque, NM	26	Much Higher than National Average		
Hartford-West Hartford-East Hartford, CT	61	Similar to National Average	Portland-Vancouver-Hillsboro, OR-WA	26	Much Lower than National Average		
Albuquerque, NM	61			24			
Albuquerque, NIVI	61	Much Higher than National Average	Indianapolis-Carmel-Anderson, IN	24	Lower than National Average		