

Wyoming Department of Workforce Services
Research & Planning

Health Care Workforce Needs in Wyoming: Update 2017

Presented by: Tom Gallagher, R&P Manager
Tony Glover, Workforce Information Supervisor

Wyoming Workforce Development Council, July 20, 2017

This presentation is available at: http://doe.state.wy.us/LMI/presentations/wwdc_072017.ppt
The entire publication is available at: http://doe.state.wy.us/lmi/health/2017/Health_Care_Update_2017.pdf

Research & Planning

<http://doe.state.wy.us/LMI>

OUR ORGANIZATION:

R&P is a separate, exclusively statistical entity.

WHAT WE DO:

R&P collects, analyzes, and publishes timely and accurate labor market information (LMI) meeting established statistical standards.

OUR CUSTOMERS:

LMI makes the labor market more efficient by providing the public and the public's representatives with the basis for informed decision making.



Research & Planning
Wyoming DWS

Research & Planning's Mission:

To establish an empirically based comprehensive understanding of the labor market: its constituent elements, systems integrating its components, and subsequent outcomes.



How Research & Planning is Funded

- ▶ **U.S. Department of Labor**
 - ▶ Bureau of Labor Statistics Contract
 - ▶ Employment and Training Administration Workforce Information Grant
 - ▶ Unemployment Insurance Grant
- ▶ **Employment Support Fund**

Introduction

- ▶ History of health care research and the scope of the research community
- ▶ Classification systems
- ▶ Barriers to generalizing the report's findings

Nursing in Wyoming, Part One: Supply and Retention

by: *Tony Glover, Statistical Analyst*

“Turnover data indicate that Wyoming graduates are more likely to remain in Wyoming than out-of-state graduates.”

Federal research suggests our country is currently in the middle of a nursing shortage which will increase substantially over the next decade. The General Accounting Office (GAO) report, “Emerging Nurse Shortages Due to Multiple Factors,” states that “national data are not adequate to describe the nature and extent of nurse workforce shortages, nor are the data sufficiently sensitive or current to compare nurse workforce availability across states, specialties, or provider types.”¹ Research and Planning’s (R&P) analysis is based on Wyoming administrative databases and has

the capacity to answer issues of nurse shortages specifically for the State. Our findings on Wyoming’s supply of nurses are similar to many of the conclusions of the GAO report regarding national trends. This article presents part one of a three-part series exploring Wyoming’s nursing supply and demand.

Scope

The shortage of nursing-related health care practitioners is not limited to Registered Nurses (RNs) but also includes many of the



**Best Practices in State Health
Workforce Data and Planning**
May 15-16, 2012 * Westin Hotel, Alexandria, VA

Thomas
Thomas Gallagher
Department of Workforce Services
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1

From: **Geddie Lojas** <geddiekl@yahoo.com>

Date: Tue, Aug 4, 2015 at 2:34 PM

Subject: Thank you for Survey Use – Washington State University College of Nursing

To: Tom Gallagher <tom.gallagher@wyo.gov>

Hello Tom,

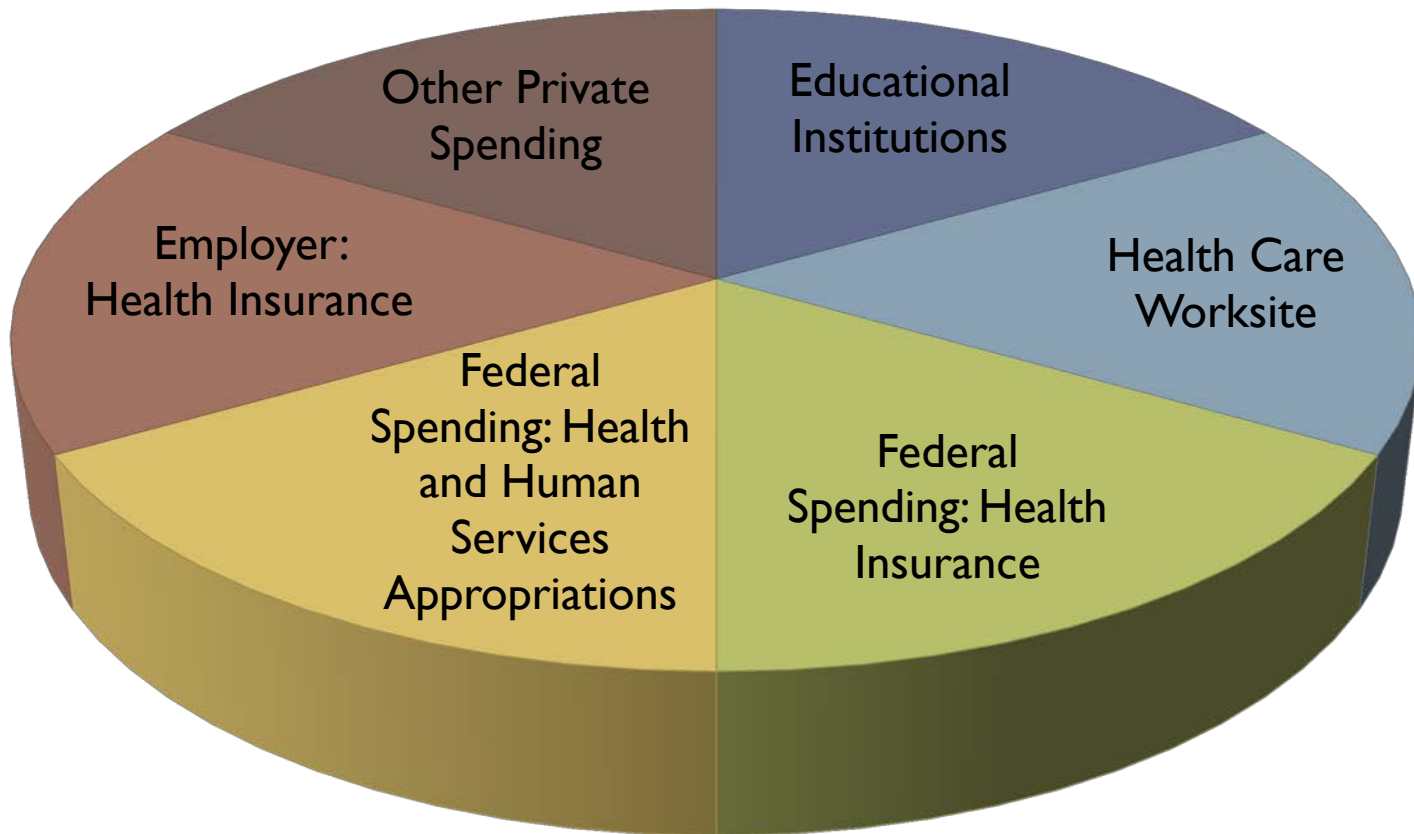
We wanted to thank you for the use of your study Retention of Nurses in Wyoming survey from 2008. It was such a big help when developing the questions to ask for the commuting rural nurses pilot study. We have attached a copy of the thesis and we are in the process of writing up results for an article, and your survey will again be cited and referenced.

Hierarchical Classification Systems

Industry – North American Industry Classification System (NAICS)	Example of NAICS Code Structure
	2-Digit NAICS: 620000 Health Care and Social Assistance
	4-Digit NAICS: 621000 Ambulatory Health Care Services
	5-Digit NAICS: 62111 Offices of Physicians
	6-Digit NAICS: 621111 Offices of Physicians (except Mental Health Specialists)
6-Digit NAICS: 621112 Offices of Physicians, Mental Health Specialists	
Course of Study – Classification of Instructional Programs (CIP)	Example of CIP Code Structure
	2-Digit CIP: 510000 Health Professions and Related Programs
	4-Digit CIP: 510200 Communication Disorders Sciences and Services
	6-Digit CIP: 510204 Audiology/Audiologist & Speech Language Pathology/Pathologist
	4-Digit CIP: 513800 Registered Nursing, Nursing Administration, Nursing Research, & Clinical Nursing
6-Digit CIP: 513801 Registered Nursing/Registered Nurse	
Jobs – Standard Occupational Classification (SOC)	Example of SOC Code Structure
	Major Group: 29-0000 Healthcare Practitioners and Technical Occupations
	Minor Group: 29-1000 Health Diagnosing and Treating Practitioners
	Broad Occupation: 29-1140 Registered Nurses
Detailed Occupation: 29-1141 Registered Nurses	



Key Components of the Health Care System



In Wyoming-

The number of persons working in licensed health care (nurses, physicians, physical therapist assistants, etc.) increased by 11.7% between 2010 and 2015 (Table 5.2), or almost 4 times faster than the total number of all persons working in Wyoming.

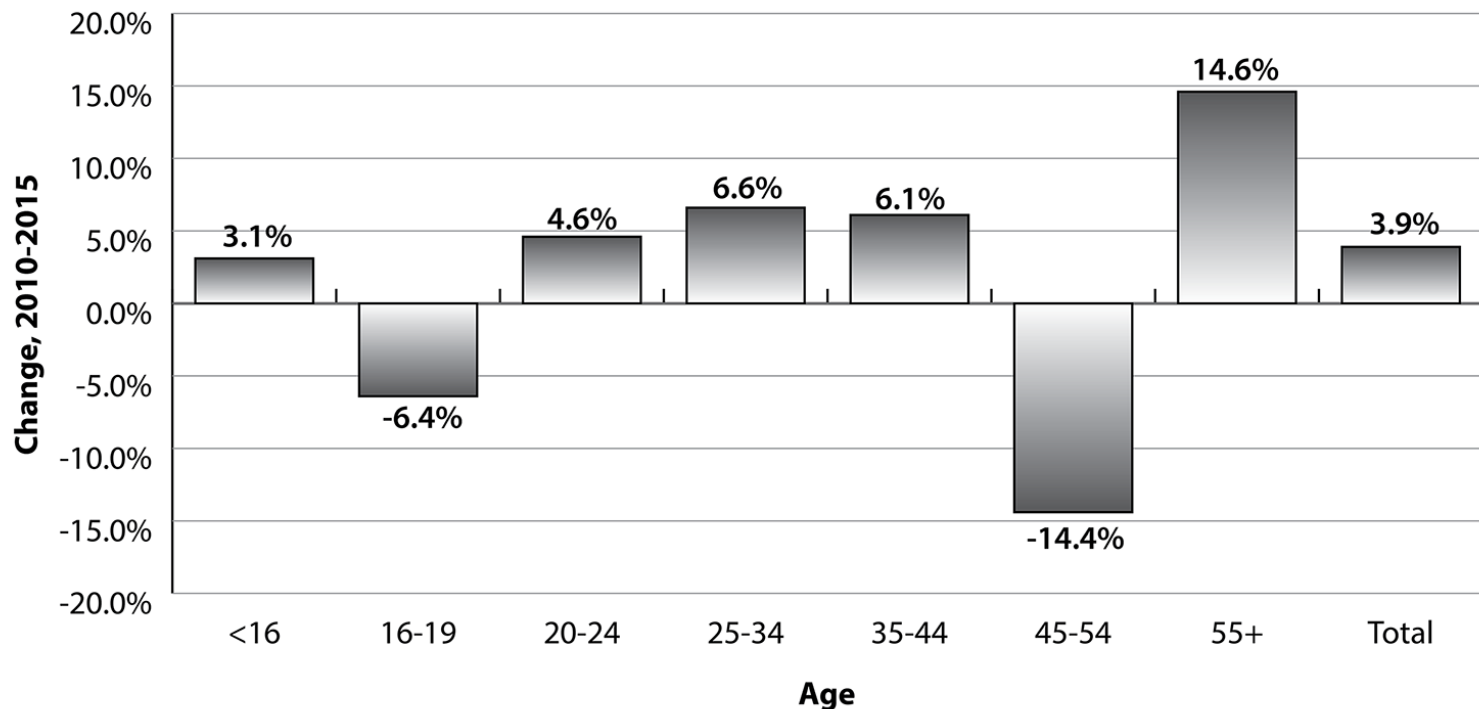
- Why did that happen?
- What are the prospects for the future demand for health care workers?

Drivers in the Demand for Health Care

- ▶ Population growth
- ▶ Population age
- ▶ Educational attainment
- ▶ Health care prices
- ▶ Business cycle
- ▶ Health insurance price and availability
- ▶ Public spending

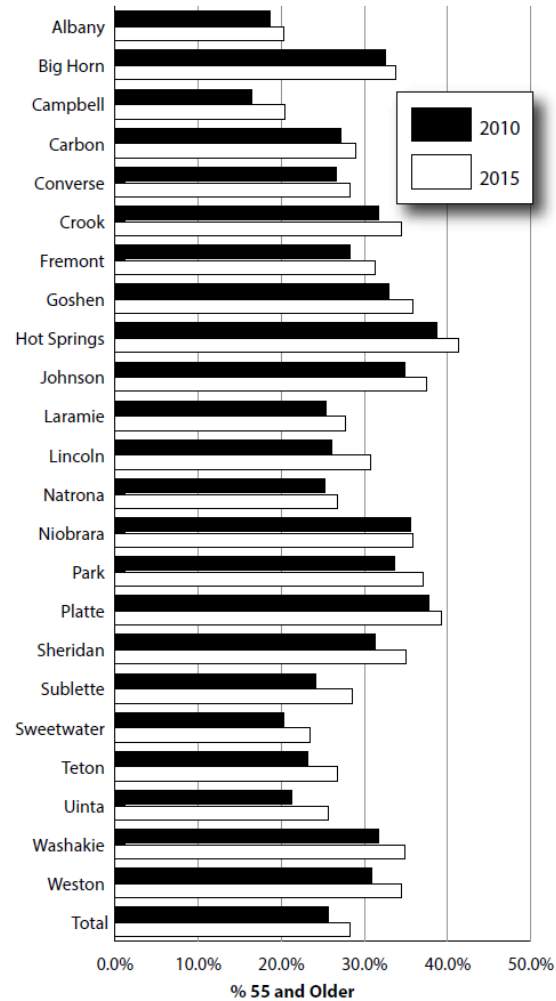
Wyoming's Population Continues to Age

Percentage Change in Wyoming Estimated Population by Age, 2010 to 2015



Source: U.S. Census Bureau.
Revised by M. Moore, Research & Planning, WY DWS, 7/18/17.

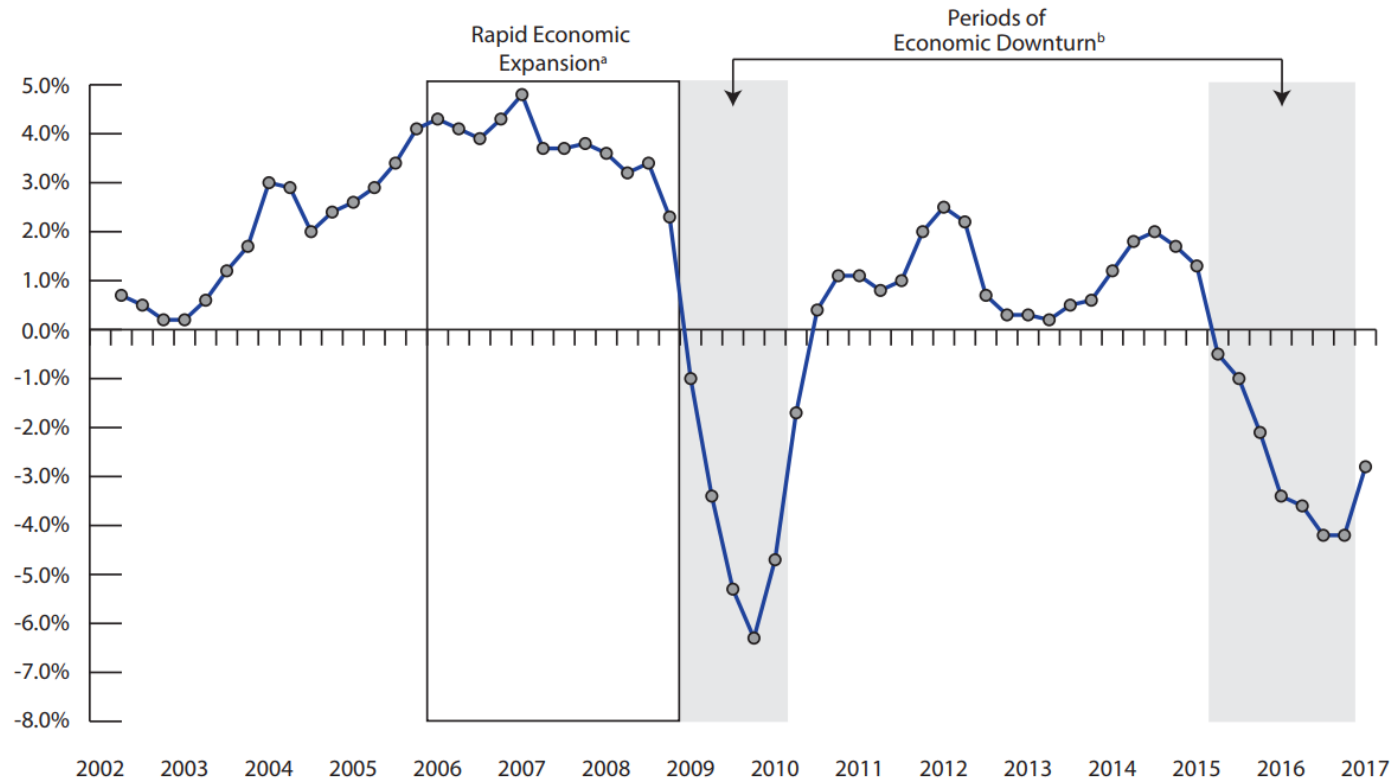
Percent of Wyoming Population Age 55 and Older by County of Residence, 2010 and 2015



Source: U.S. Census Bureau.
 Revised by L. Knapp and M. Moore, Research & Planning, WY DWS, 2/21/17.

Wyoming's Business Cycle

Over-the-Year Percentage Change in Average Monthly Employment (Jobs Worked) Across All Industries in Wyoming, 2002Q2 to 2017Q1



*Rapid Economic Expansion: 2006Q1 to 2008Q4.

^bPeriods of Economic Downturn: 2009Q1 to 2010Q1 and 2015Q2 to 2016Q4. 2017Q1 data are preliminary.

Source: Quarterly Census of Employment and Wages.

Revised by M. Moore, Research & Planning, WY DWS, 7/14/17.

Per Capita Health Care Spending in Wyoming

Per capita health care spending in Wyoming was slightly more than the national average and increased at a greater rate from 2004 to 2014. Wyoming ranked 10th in the nation in private health insurance spending and 17th in Medicaid spending in 2014 (Lassman et al., 2017).

Lassman, D., et al. (2017). Health Spending By State 1991-2014: Measuring Per Capita Spending By Payers and Programs. *Health Affairs*. doi:10.1377/hlthaff.2017.0416

Persons Working in Wyoming

Table: Total Number of Persons Working in Wyoming at Any Time by Industry and Age, 2008-2010 and 2014-2016

Industry	Age	2008-2010				2014-2016			
		2008	2010	Change		2014	2016	Change	
				N	%			N	%
Total, All	<20	28,340	20,992	-7,348	-25.9	21,676	18,526	-3,150	-14.5
Industries	20-24	41,885	37,695	-4,190	-10.0	37,125	31,217	-5,908	-15.9
	25-34	73,627	73,491	-136	-0.2	77,061	68,953	-8,108	-10.5
	35-44	61,175	58,422	-2,753	-4.5	61,911	59,137	-2,774	-4.5
	45-54	70,394	65,574	-4,820	-6.8	58,575	53,081	-5,494	-9.4
	55-64	45,093	48,353	3,260	7.2	52,557	50,722	-1,835	-3.5
	65-Up	13,103	13,580	477	3.6	17,114	17,689	575	3.4
	Nonresidents ^a	48,158	33,402	-14,756	-30.6	42,109	44,277	2,168	5.1
	Total		381,775	351,509	-30,266	-7.9	368,128	343,602	-24,526
Health Care & Social Assistance (NAICS ^b 62)	<20	1,521	1,198	-323	-21.2	937	1,067	130	13.9
	20-24	3,756	3,690	-66	-1.8	3,702	3,684	-18	-0.5
	25-34	7,237	8,086	849	11.7	8,667	8,696	29	0.3
	35-44	6,259	6,593	334	5.3	7,045	7,220	175	2.5
	45-54	7,086	7,017	-69	-1.0	6,438	6,339	-99	-1.5
	55-64	4,865	5,401	536	11.0	5,918	5,874	-44	-0.7
	65-Up	1,317	1,506	189	14.4	1,884	2,007	123	6.5
	Nonresidents	1,130	955	-175	-15.5	1,329	2,089	760	57.2
Total		33,171	34,446	1,275	3.8	35,920	36,976	1,056	2.9

^aNonresidents are individuals for whom demographic data are not available.

^bNorth American Industry Classification System.

Source: Wage Records database. Research & Planning, WY DWS.

Prepared by T. Glover and M. Moore, Research & Planning, WY DWS, 5/16/17.



Uncertainty

H.R. 1628 – The American Health Care Act of 2017 – passed the House on May 4, 2017.

In 2010, 29% of Wyoming's population was on either Medicare or Medicaid.

By 2015, the percentage had risen to 30.5%.

Findings

Given this level of market volatility, what can we say for sure about the future?

Can the industry and occupational projections for health care be trusted, and serve as a guide for workforce planning?

Despite the difficulty, do we still need to understand labor supply issues?



Findings

In Wyoming, periods of rapid employment growth followed by rapid decline characterize the labor supply system and result in a state comprised of non-natives. It also means that the role of formal education in the supply chain for labor is more or less important depending upon the business cycle.

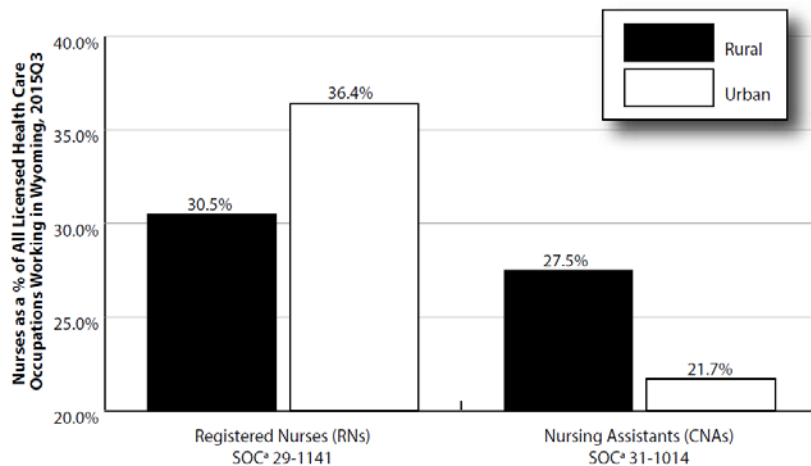
Findings

SOC Code	SOC Title	2010Q3	2015Q3	Change N	% Change
		Totals	Totals		
394031	Morticians, Undertakers, and Funeral Directors	21	65	44	209.5
312021	Physical Therapist Assistants	112	171	59	52.7
291127	Speech-Language Pathologists	209	312	103	49.3
211019	Counselors, All Other	385	553	168	43.6
291069	Physicians and Surgeons, All Other	184	262	78	42.4
211029	Social Workers, All Other	296	408	112	37.8
211011	Substance Abuse and Behavioral Disorder Counselors	55	75	20	36.4
292034	Radiologic Technologists and Technicians	482	625	143	29.7
291123	Physical Therapists	309	385	76	24.6
291063	Internists, General	117	145	28	23.9
292021	Dental Hygienists	332	411	79	23.8
291011	Chiropractors	69	82	13	18.8
319091	Dental Assistants	337	400	63	18.7
291021	Dentists, General	183	215	32	17.5
291122	Occupational Therapists	308	361	53	17.2
291065	Pediatricians, General	42	49	7	16.7
292052	Pharmacy Technicians	641	743	102	15.9
211013	Marriage and Family Therapists	46	53	7	15.2
291141	Registered Nurses	4,899	5,625	726	14.8
291041	Optometrists	71	81	10	14.1
291064	Obstetricians and Gynecologists	56	62	6	10.7
291126	Respiratory Therapists	236	257	21	8.9
291061	Anesthesiologists	45	49	4	8.9
291081	Podiatrists	12	13	1	8.3
291067	Surgeons	126	133	7	5.6
291066	Psychiatrists	34	34	-	0.0
292092	Hearing Aid Specialists	11	11	-	0.0
291051	Pharmacists	579	566	(13)	-2.2
311014	Nursing Assistants (CNAs)	4,323	4,149	(174)	-4.0
291062	Family and General Practitioners	242	224	(18)	-7.4
292061	Licensed Practical and Licensed Vocational Nurses	784	724	(60)	-7.7
291181	Audiologists	26	24	(2)	-7.7
193031	Clinical, Counseling, and School Psychologists	101	86	(15)	-14.9
394011	Embalmers	44	2	(42)	-95.5
Totals		15,725	17,558	1,833	11.7

Number and Percent Change in Persons Working in Licensed Health Care Occupations Across All Industries in Wyoming from 2010Q3 to 2015Q3.

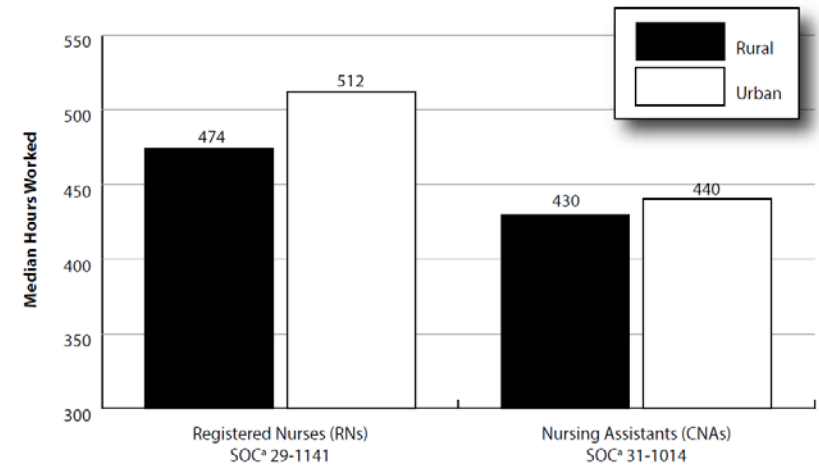
Findings

Figure 5.1: Nurses as a Percentage of Individuals Working in All Licensed Health Care Occupations in Health Care & Social Assistance (NAICS^b 62) in Wyoming 2015Q3



*Standard Occupational Classification.
^bNorth American Industry Classification System.
 Source: Workforce Data Quality Initiative (WDQI) custom extract.
 Prepared by M. Moore, Research & Planning, WY DWS, 4/6/17.

Figure 5.2: Median Quarterly Hours Worked by Registered Nurses (RNs) and Nursing Assistants (CNAs) in Health Care & Social Assistance (NAICS^b 62) in Rural and Urban Areas in Wyoming 2015Q3



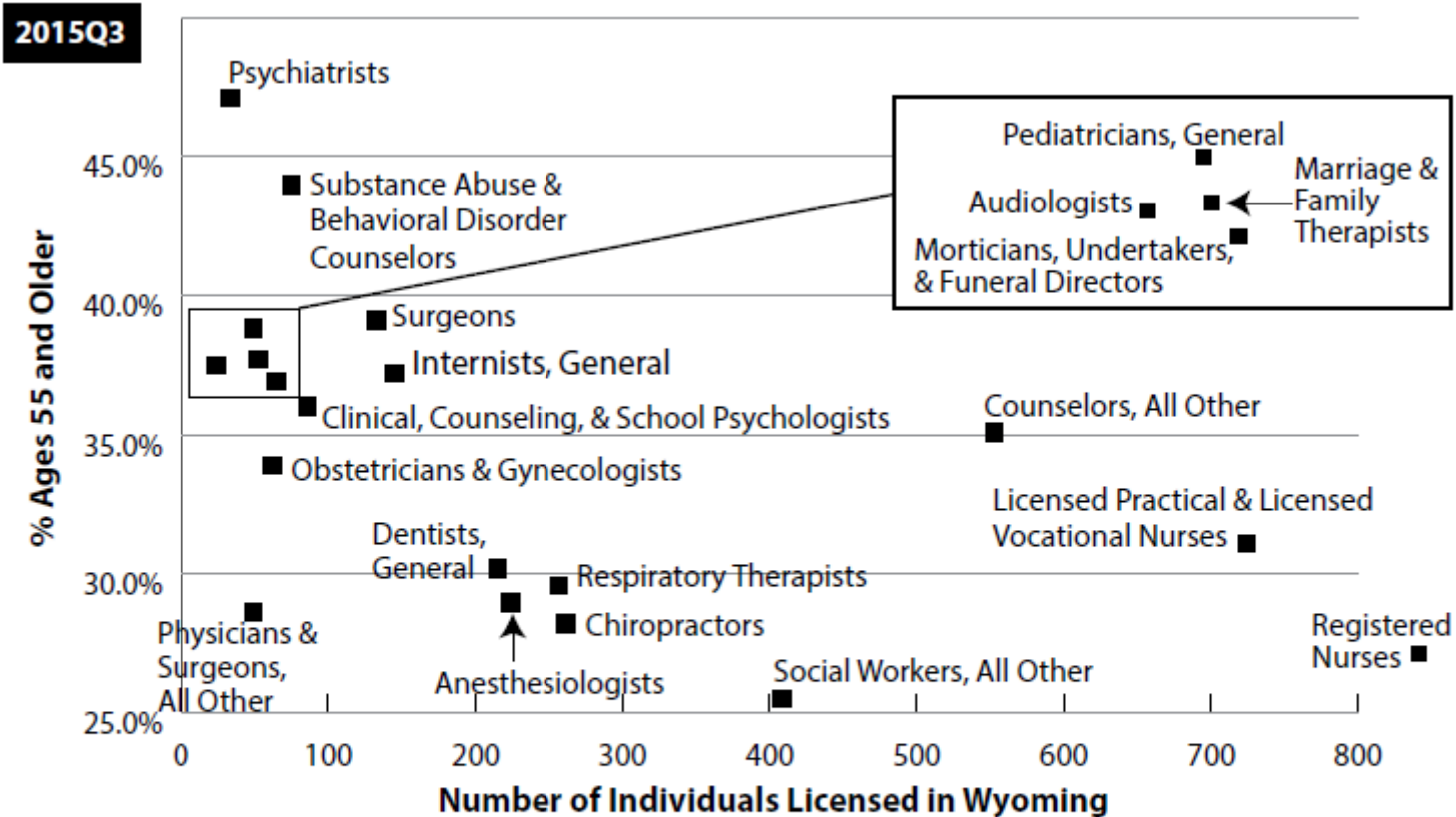
*Standard Occupational Classification.
^bNorth American Industry Classification System.
 Source: Workforce Data Quality Initiative (WDQI) custom extract.
 Prepared by M. Moore, Research & Planning, WY DWS, 4/6/17.

Certified Nursing Assistants in Wyoming

Table 4.4: Employment and Wages by Post-Certification Educational Attainment from UW/WCCC 5 Years After Certification Date for CNAs Who Held a Certificate in 2010 (N=5,833).

Approximate Year	Year Relative to Cert. Date		Total	Never Enrolled /No Degree	Enrolled /No Degree	Certificate Only	Associate's Only	Certificate & Associate's	Bachelor's Only
2015	5	N	4,506	2,081	1,400	74	441	206	195
		%	100.0	46.2	31.1	1.6	9.8	4.6	4.3
		Median Annual Wage (\$)	24,189	24,859	20,419	24,719	28,247	33,170	39,023

Licensed Health Care Occupations in Which Individuals Age 55 and Older Made up at Least 25% of the Total, 2015Q3



Source: Workforce Data Quality Initiative (WDQI) custom extract.
 Prepared by M. Moore, Research & Planning, WY DWS, 3/24/17.
 Excerpted from *Health Care Workforce Needs in Wyoming: Update 2017* (in press).

Key Takeaways

- ▶ ~25,000 fewer consumers of health care in Wyoming
- ▶ Population is aging
- ▶ Aging is occurring unevenly across the state
- ▶ Unstable labor market
- ▶ Per capita health care spending is increasing
- ▶ Health care occupations associated with caring for an aging population are seeing some of the greatest increases
- ▶ Only a small percentage of Certified Nursing Assistants go on to complete a degree program at a Wyoming college or university
- ▶ Health care workforce is aging

Topics We Did Not Cover (But Should Have)



Palliative Care

- ▶ “Treatments intended to provide relief from the symptoms and stress of serious chronic disease, such as pain, nausea, dizziness, anxiety, and depression, as opposed to the disease itself.” – The Pew Charitable Trusts

Ollove, M. (2017). *Why Some Patients Aren't Getting Palliative Care*. Retrieved from The Pew Charitable Trusts website: <http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2017/07/10/why-some-patients-arent-getting-palliative-care?>

“Also if there is agreement on a framework of team based care in the country and how many areas this is applied in Wyoming, that would be helpful. It might be beyond the scope of the study, but identifying ‘panel sizes’ or practice size by these newer delivery organizational models could allow an alternative projection of need if the state for example incentivized practitioners organizing themselves into these types of structures for delivery care.”

– J.S. (personal communication, October 28, 2016)

Alaska draws major federal funding to shore up individual health insurance market

“Alaska will receive more than \$300 million in new funding over the next five years to shore up the state’s individual health insurance market, federal officials announced Tuesday.

The waiver program draws its name from Section 1332 of the Affordable Care Act, which allows states to apply for an ‘innovation waiver’ when they try new strategies aimed at offering high-quality and affordable health insurance...

‘We’re still concerned for Alaska, though,’ CMS Administrator Seema Verma said in an interview Tuesday. ‘I think having just one insurer, that means that there’s not enough choices for people in Alaska. We think that this is an important step forward to at least stabilizing the marketplace’” (Martinson, 2017).

Martinson, E. (2017, July 12). Alaska draws major federal funding to shore up individual health insurance market. *Alaska Dispatch News*. Retrieved from <http://www.adn.com>

May 2016 Occupational Employment Statistics Jobs

	Home Health Aides	Personal Care Aides
Employment	880	1,890
Median Hourly Wage	\$13.21	\$10.85
Annual Wage	\$26,680	\$23,090

Data source: https://www.bls.gov/oes/current/oes_wy.htm

“Many direct care workers – home health aides, nursing assistants, and direct support professionals... – struggle to make ends meet. Despite the physical and social skills required, direct care workers are some of the lowest-paid workers in the nation, on par with fast-food workers.” Oh, S. (2017). The future of work is the low-wage health care job. Retrieved from <http://www.vox.com>

What R&P Needs: Feedback

From: **Christine McGrath** <christine.mcgrath@wyo.gov>
Date: Thu, Jun 22, 2017 at 9:29 AM
Subject: New from Research & Planning: Licensed Health Care Occupation Tables
To:

The Research & Planning (R&P) section of the Wyoming Department of Workforce Services has published new tables on licensed health care occupations in Wyoming that include employment numbers, wages, and hours worked. The new tables are available at http://doe.state.wy.us/LMI/health/2017/Health_Care_Update_2017_Ch5_Appendix_Tables.pdf.

From: **Mary E. Burman** <MBurman@uwyo.edu>
Date: Thu, Jul 6, 2017 at 1:48 PM
Subject: RE: New from Research & Planning: Licensed Health Care Occupation Tables
To: Tom Gallagher <tom.gallagher@wyo.gov>

Hi Tom: This is REALLY helpful! A small group of us has been meeting and I'll let you know how we use the information. We are debating about our next steps but may write a "white paper" on long-term care in Wyoming and use the data as part of that.

Recommendations for Future Monitoring

Persons Working in Selected Licensed Health Care Occupations Across All Industries in Wyoming by Age, 2015Q3 (Table A15)

SOC ^a Code	Occupation		<=34	35-44	45-54	55+	Non. ^b	Total
211011	Substance Abuse & Behavioral Disorder Counselors	N	8	15	19	33	-	75
		Row%	10.7	20.0	25.3	44.0	0.0	100.0
211019	Counselors, All Other	N	116	131	N/D	194	N/D	553
		Row%	21.0	23.7	N/D	35.1	N/D	100.0
211029	Social Workers, All Other	N	90	106	108	104	-	408
		Row%	22.1	26.0	26.5	25.5	0.0	100.0
291021	Dentists, General	N	44	61	40	65	5	215
		Row%	20.5	28.4	18.6	30.2	2.3	100.0
291041	Optometrists	N	15	24	23	19	-	81
		Row%	18.5	29.6	28.4	23.5	0.0	100.0
291051	Pharmacists	N	183	145	90	138	10	566
		Row%	32.3	25.6	15.9	24.4	1.8	100.0
291062	Family & General Practitioners	N	N/D	56	85	65	N/D	224
		Row%	N/D	25.0	37.9	29.0	N/D	100.0
291064	Obstetricians & Gynecologists	N	N/D	10	28	21	N/D	62
		Row%	N/D	16.1	45.2	33.9	N/D	100.0
291141	Registered Nurses	N	1,544	1,403	1,131	1,449	98	5,625
		Row%	27.4	24.9	20.1	25.8	1.7	100.0
311014	Nursing Assistants	N	2,469	674	515	475	16	4,149
		Row%	59.5	16.2	12.4	11.4	0.4	100.0
	Total	N	6,204	4,013	3,322	3,770	249	17,558
		Row%	35.3	22.9	18.9	21.5	1.4	100.0

There is No Funding in WIOA for R&P

Tom Gallagher, Manager

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