

EXECUTIVE SUMMARY

This report synthesizes key information on the health care workforce in South Central/Southwest Wisconsin. Based on a subset of area health care employers surveyed in Spring 2013 (see list of participating employers, right), it provides a snapshot of the current workforce in 40 key occupations, and it projects near-term changes in that workforce based on future retirements and employers' anticipated staffing needs. Comparing the 2013 results to those of a nearly identical survey administered in 2008 allows us to assess key changes and continuities in the region's health care workforce over the last five years, and to gauge the accuracy of the 2008 predictions.

The health care workforce in the region has expanded over the last five years, an unsurprising finding given the region's aging population and their associated health care needs. More surprising was the precision of employers' 2008 projections across all occupations, given the economic turbulence of the last five years: employers predicted an overall workforce growth of eight percent between 2008 and 2013, and this is precisely what happened. Workers in 2013 were also slightly older than in 2008, and worked slightly more hours.

In both 2008 and 2013, Registered Nurses have employed the largest number of health care workers in both urban and rural facilities. In 2013, RNs made up a full 50 percent of the 10,523 member healthcare workforce covered in the survey, and the occupation is projected to grow by 101 jobs (FTE) over the next five years. Combining employers' staffing projections with employees' current age profiles and hours worked reveals that more than 520 new Registered Nurses will be needed in the next five years.

While RNs produce the largest numbers and the education and training of these workers will continue to be important into the near-term future, our data also reveal that significant numbers of Nursing Assistants, Medical Assistants, Respiratory Therapists, Physical Therapists, and Medical Technologists will be needed in the region. In contrast, the workforce in other occupations—namely, Medical Transcriptionists and LPNs in rural hospitals, and Phlebotomists in urban hospitals—is projected to contract, a continuation of a longer-standing decline. Hospitals in our survey experienced a reduction in the CNA workforce between 2008 and 2013; however changes in employment of CNAs are dominated by trends in other parts of the health care industry, outside hospitals.

Participating Health Care Facilities

Beaver Dam Community Hospitals, Inc.

Boscobel Area Health Center

Columbus Community Hospital

Divine Savior Healthcare - Portage

Grant Regional Health Center - Lancaster

Meriter Health Services - Madison

Monroe Clinic

Reedsburg Area Medical Center

Sauk Prairie Memorial Hospital and Clinics

St. Clare Hospital and Health Services -

Baraboo

St. Mary's Hospital - Madison

St. Mary's Janesville Hospital

Stoughton Hospital

UW Hospital and Clinics - Madison

*Facilities in bold text completed both the 2008 and 2013 surveys.

Funding for the project was provided by the Workforce Development Board of South Central Wisconsin. In addition to our funders, we thank the various health care institutions participating in the project. For more information on the report and its content, contact: Laura Dresser, ldresser@cow.org, 608.262.6944, or Michele Mackey, mmackey@cow.org, 608.262.1839. Copies of this report can be accessed at www.cow.org.

About COWS

Based at the University of Wisconsin-Madison, COWS is a national think-and-do tank that promotes "high road" solutions to social problems. These treat shared growth and opportunity, environmental sustainability, and resilient democratic institutions as necessary and achievable complements in human development. COWS is nonpartisan but values-based. We seek a world of equal opportunity and security for all.

Urban and rural hospitals exhibit many similar trends, but also show notable differences. The rural healthcare workforce is older than the urban workforce, and its employees have slightly higher rates of part-time work across all occupations. Urban hospitals grew at a faster rate than rural hospitals between 2008 and 2013, and employers' projections suggest that urban hospitals will continue to grow at a slightly higher rate between 2013 and 2018.

This report provides important information for continuing dialogue on the region's health care workforce, and for initiatives that can sustain and improve the industry in the coming years.

Introduction

This report offers an in-depth analysis of the state of the health care workforce in Wisconsin's South Central/Southwest region. In addition to providing a current picture of the region's health care workforce in selected occupations, it highlights changes and continuities over the last five years, and it forecasts regional workforce needs into the near-term future.

This report presents workforce data from 14 area health care facilities, most providers of hospital services. The participating facilities represent a broad geographic area, serving both urban and rural communities. While not comprehensive of the entire health care system, this report provides a regional picture of health care employment currently and into the future.

The bulk of the report draws on a Spring 2013 survey administered to 14 area health care employers. The survey gathered information on the age and demographic profile of 40 key health care occupations, and it asked employers to project changes to staffing levels in these occupations over the next five years. A similar survey administered to a subset of employers in 2008 provides a basis for comparison, and allows for analysis of trends over the past five years. It also allows us to gauge the accuracy of the 2008 predictions.

A list of the 14 hospitals* participating in the 2013 survey is provided on the first page of this report, and the 40 health care occupations considered are listed on the next page. Of course, the health care

facilities participating in the survey, and the occupations covered, comprise only a subset of all health care employers and workers in the region. That said, the participating hospitals represent wide geographical coverage and include the largest employers in the region, and the occupations considered here include those that employ the largest number of workers in the health care field. Thus, while the picture we draw in this report is incomplete, it provides an excellent representation of the state of the health care workforce in the region.

We present data for all participating hospitals in the region, and we also split that data between urban and rural facilities. For each occupation, we provide data on aggregate employment (including both FTE and total headcount), age, and demographic profile within occupations, and change over the next five years in total employment as projected by employers. Comparison with an earlier survey allows us to assess recent workforce growth and contraction, as well as any shifts in the numbers or in the demographic profile of workers in key occupations.

In combination, this information provides a detailed regional picture of health care employment currently and into the future. The report can be helpful to hospitals and key education and training institutions in their efforts to prepare and train the region's future health care workforce.

*We use the term 'hospitals' interchangeably with 'health care facilities' in this report; the majority—though not all—of employers participating in the survey provide hospital services.

40 Survey Occupations

AODA counselor	Medical coder	Physical therapist assistant
Cardiovascular technician/technologist	Medical/Clinical lab technician (2-yr degree)	Physician assistant
Certified nurse specialist	Medical records/health information technician	Radiation therapist
Certified registered nurse anesthetist	Medical technologist (4-yr degree)	Radiography/radiologic technician
Clinical dietician	Medical transcriptionist	Registered nurse
CT/PET/MRI technician	Nuclear medicine technologist	Registered nurse manager
Dialysis technician	Nursing aide/assist/attendant	Respiratory therapist
Emergency medical technician/paramedic	Nurse practitioner	Respiratory therapy assistant/technician
Home health aide	Occupational therapist	Social worker/Medical social worker
Licensed mental health counselor	Occupational therapist assistant	Speech therapist
Licensed practical/vocational nurse	Pharmacist	Surgical technologist
Licensed psychologist	Pharmacy technician/assistant	Ultrasound technician
Mammography technician	Phlebotomist	
Medical assistant	Physical therapist	

Background and Survey Administration

In 2008, the Workforce Development Boards of South Central and Southwest Wisconsin and local educational institutions collaborated with area healthcare employers and the Center on Wisconsin Strategy (COWS) to conduct a comprehensive assessment of the healthcare workforce needs in the region. Three Madison-based hospitals and 12 hospitals from the Rural Wisconsin Health Cooperative (RWHC) participated in this comprehensive assessment. Human Resources staff at participating hospitals completed an internal employer survey, in which they accounted for current staffing levels in 36 selected occupations. Employers also projected the future workforce needs for these occupations over the next five years. COWS was contracted to design and analyze the survey, and the 2008 report is available on the COWS website at <http://www.cows.org/the-future-of-the-health-care-workforce-in-south-central-southwest-wisconsin>.

The survey was re-administered to area employers in May and June of 2013 to provide an update on the state of the region's health care workforce, and to facilitate analysis of trends over the five years elapsing between surveys. Employers were asked about a nearly identical list of occupations (40 occupations in total). The same Madison-based hospitals and nine of the 12 RWHC hospitals that participated in the 2008 survey also participated in 2013. One additional urban hospital (in Janesville) and one additional hospital from the RWHC also completed the 2013 survey. For the 2008/2013 comparisons made in this report, we use data only from the 12 hospitals participating in both surveys.

The survey instruments developed and used in both 2008 and 2013 were adapted from those developed by the Fox Valley Health Care Alliance (FVHCA). Parts of this report parallel the structure of the summary reports published in 2007 and 2012 by FVHCA for the Fox Valley region (see www.fvhca.org for the Fox Valley reports). A template of the survey developed for this report can be accessed at http://www.cows.org/_data/documents/1526.pdf.

The results of this report are organized into three sections. Section 1 presents results on 40 key occupations from the updated staffing assessment conducted in 2013. Section 2 compares key information from the 2008 and 2013 surveys, allowing for an analysis of continuities and recent changes. Section 3 provides general conclusions based on our analysis of past, current, and future trends.

*EMTs/Paramedics are not included in the employee counts from urban hospitals, because they are employed by another agency.

SECTION 1: 2013 EMPLOYER SURVEY ANALYSES

Summary of Occupations

Tables 1, 2, and 3 provide a summary of key information from the staffing assessment survey completed by participating employers for the 40 selected occupations. Table 1 shows the overall regional picture, Table 2 provides data for the four urban hospitals (3 in Madison, plus 1 in Janesville), and Table 3 provides data for the 10 rural hospitals.

For all 40 occupations, Tables 1, 2, and 3 provide information on the size of the occupation (total headcount and FTE), the projected five year change in FTE, and both the number and percentage of employees over the age of 55 according to the age profile for the occupation. This information on age profile of employees and FTE projections, in combination with employee-to-headcount information presented in Table 4, allows us to estimate 5-year regional, urban, and rural health care workforce needs. These 5-year projections are presented in Tables 5, 6, and 7, and provide important information to area employers and educators/trainers planning for near-term staffing needs.

The occupational data can be ranked in a number of ways. Throughout this report, we list key occupations according to various ranking systems in a series of “top five” lists. These shorter lists are all derived from the larger tables in the report, which we sorted and ranked by key variables and then selected the top five in the list. Sometimes there was a ‘tie’ between two or more occupations in terms of the statistic being examined; in these cases, all occupations with the same rank are listed side-by-side in the same row.

Total Employment in Surveyed Health Care Occupations

Registered Nurses and Nursing Assistants are the largest occupations in both urban and rural hospitals, and in the region overall. Indeed, of the 10,523 member healthcare workforce covered in this survey, 50 percent are RNs, and another 10 percent are Nursing Assistants. In urban hospitals, Medical Assistants, Pharmacists, and Medical Technologists are also occupations with a relatively high number of employees. Radiography Technicians, LPNs, and Physical Therapists are relatively larger occupational groups in rural hospitals.

Occupations with Highest Total Employment (Top Five)

Regional	Urban	Rural
Registered Nurse	Registered Nurse	Registered Nurse
Nursing Assistant	Nursing Assistant	Nursing Assistant
Medical Assistant	Medical Assistant	Radiography Tech
Physical Therapist	Pharmacist	Licensed Practical Nurse
Medical Technologist	Medical Technologist	Physical Therapist

Projected Five-Year Growth or Reduction in Surveyed Health Care Occupations

Employer respondents provided estimates of five-year increases or decreases in total FTE employment for the 40 selected occupations. These estimates are anticipated growth/contraction in FTE employment levels, not accounting for and independent of the consideration of need for workers due to retirement. From these estimates we are able to identify the occupations that are expected to grow the most over the next five years, both in terms of absolute growth and percent growth, and the occupations where an employment contraction is anticipated. [Note: Some employers marked that they were unsure about the five-year projected change in FTE employment for certain occupations at their respective institutions. When aggregating across institutions, we assumed the five-year change in these cases to be zero.]

Occupations with Highest Projected Five-Year Growth (Total FTE Growth)

Regional	Urban	Rural
Registered Nurse (101)	Registered Nurse (72)	Registered Nurse (29)
Nursing Assistant (67)	Nursing Assistant (53)	Nursing Assistant; Phys Ther (14)*
Medical Assistant (60)	Medical Assistant (50)	Medical Assistant (10)
Surgical Technologist (29)	CT/PET/MRI Technician (22)	Surgical Technologist (9)
Respiratory Therapist (26)	Resp Ther; Pharm Tech; Surg Tech(20)*	Nurse Practitioners (8)

*In urban hospitals, three occupations registered the same projected absolute FTE growth. In rural hospitals, two occupations registered the same projected absolute FTE growth.

Not surprisingly, employers projected that the demand for RNs—the largest health care occupation in the region—will grow substantially (by 101 FTE) over the next five years. Other occupations projected to exhibit high absolute growth in FTE are Nursing Assistants (FTE increase of 67), Medical Assistants (FTE increase of 60), Surgical Technologists (FTE increase of 29), Respiratory Therapists (FTE increase of 26), and Pharmacy Technicians (FTE increase of 23).

Again, the projected increases are substantial for RNs and Nursing Assistants both in urban and rural hospitals. Urban hospitals project strong growth in their absolute demand for Medical Assistants, as well as in the demand for CT/PET/MRI Technicians, Respiratory Therapists, Pharmacy Technicians, and Surgical Technologists. Rural hospitals project highest absolute growth in Physical Therapist, Medical Assistant, Surgical Technologist and Nurse Practitioner positions.

In terms of the net effect of projections, urban hospitals projected slightly higher FTE growth over the next five years, with total workforce expected to expand by 5.6 percent between 2013 and 2018. Rural hospitals projected slightly lower growth overall, expecting workforce expansion in the occupations surveyed to be about four percent. As will be discussed in more detail in Section 2 of this report, net growth was similarly predicted by hospitals participating in the 2008 survey. Comparison of information from the hospitals participating in both the 2008 and 2013 surveys shows that growth did indeed occur over the last five years in both urban and rural areas. The projection for net growth between 2013 and 2018 is thus a continuation of a trend that is suggestive of a steadily expanding health care workforce in the region.

Occupations Projected to Decrease in Five Years

While the majority of occupations assessed in the survey are projected by area employers to increase over the next five years—and some substantially so—a handful of occupations are projected to decrease. The occupations that are expected to decline notably in the next five years are Medical Transcriptionists (projected decline of 26 FTE), LPNs (projected decline of 15 FTE) and Phlebotomists (projected decline of 12 FTE).

The majority of the reduction in staffing of these occupations (except Phlebotomists, Table 3) is expected by rural hospitals. All of the reduction in Medical Transcriptionist staffing is projected by rural employers, representing a more than 60 percent decrease in FTE for this occupation for the rural hospitals in our sample. Likewise, nearly all of the employment decreases for LPNs were projected by rural health care providers, and represent a 20 percent decrease in LPN staffing. Rural hospitals also expect a 10 percent decrease in their staffing of Medical Records/Health Information Technicians. For Phlebotomists, in contrast, all of the reduction in staffing is projected by urban employers, and represents a 19 percent decrease in FTE in this occupation for the four urban hospitals combined.

Employee Age Profiles for Surveyed Health Care Occupations

The age profile of the current workforce—particularly the number and proportion of workers close to retirement age in a given occupation—is another important factor to consider when projecting future staffing needs. Overall, the employees at participating rural hospitals are older than those at participating urban hospitals. For all 40 occupations under consideration, the proportion of employees aged 55 and older was 19 percent for rural hospitals, versus 16 percent for urban hospitals.

Occupations with Highest Number of Employees Aged 55 and Older (Total)

Regional	Urban	Rural
Registered Nurse (887)	Registered Nurse (678)	Registered Nurse (209)
Nursing Assistant (115)	Medical Technologist (70)	Nursing Assistant (48)
Medical Technologist (97)	Nursing Assistant (67)	Licensed Practical Nurse (30)
Registered Nurse Manager (49)	Registered Nurse Manager (36)	Medical Technologist (27)
Medical Assistant (46)	Physical Therapist (33)	Medical Transcriptionist (22)

Of course, large occupations are more likely to have workers in the 55 plus age range. Given the occupational predominance of RNs, it is unsurprising that they lead with 887 RNs at participating regional hospitals in the 55 plus age category. That is 17 percent of the RN workforce. RNs in the rural hospitals are slightly more likely to be in the 55 and older category, with 19 percent over 55 versus 16 percent in urban hospitals. Other occupations with a high absolute number of employees aged 55 and older are Nursing Assistants (115 employees), Medical Technologists (97 employees), Registered Nurse Managers (49 employees), Medical Assistants (46 employees), and Medical Coders (44 employees).

For urban hospitals, the top occupations in terms of number of employees aged 55 and older are RNs, Medical Technologists, Nursing Assistants, Registered Nurse Managers and Physical Therapists. For rural hospitals the top occupations are RNs, Nursing Assistants, LPNs, Medical Technologists and Medical Transcriptionists.

Occupations with Highest Percent of Employees Aged 55 and Older (Percent of Total)

Regional	Urban	Rural
Medical Transcriptionist (42%)	Licensed Practical Nurse (59%)	Cardiovascular Tech (60%)
Licensed Practical Nurse (34%)	Medical Transcriptionist (36%)	Medical Transcriptionist (45%)
Medical Technologist (34%)	Medical Technologist (33%)	AODA Counselor (43%)
Medical Coder (28%)	Nuclear Medicine Tech (29%)	Medical Technologist (40%)
AODA Counselor (26%)	Medical Coder (26%)	Medical Coder (33%)

Another way to consider the age profile of these occupations is to look for the occupations with the highest share in the older age cohort. According to our employer survey results, Medical Transcriptionists have the highest proportion of employees aged 55 and older (42 percent). Other occupations with a high proportion of employees aged 55 and older are LPNs (34 percent), Medical Technologists (34 percent), Medical Coders (28 percent), and AODA Counselors (26 percent).

For urban hospitals, the occupations with highest percentage of employees aged 55 and older are LPNs, Medical Transcriptionists, Medical Technologists, Nuclear Medicine Technologists, and Medical Coders. For rural hospitals the top occupations are Cardiovascular Technicians, Medical Transcriptionists, AODA Counselors, Medical Technologists and Medical Coders. A high proportion of rural employees who are Pharmacy Technicians (32 percent) and LPNs (29 percent) are also 55 and older.

As noted above, the employment of both Medical Transcriptionists and LPNs are projected to decline considerably over the next five years. It is therefore good news that these same occupations also consist of a relatively larger proportion of workers who are nearing retirement. It is suggestive of an education and workforce training system that is responsive to changing regional needs: it is good news that fewer young people are being trained and hired in these occupations if they are projected by employers to decline in the near-term future. However, for other occupations predicting substantial 5-year growth (for example, Medical Coders), the older age profile of employees suggests that more workers will likely need to be trained for these positions in the near future.

Gender and Racial Composition of Employees in Surveyed Health Care Occupations

In addition to the number of employees falling into various age categories, employers were asked about the racial and gender composition of their workforce. For all 40 occupations, employers reported on the proportion of employees who are female, and the proportion of employees who are white versus non-white. [Note: The survey did not contain any questions about employees' ethnicity, limiting our ability to comment on the growing Hispanic workforce in the region.]

The workforce for the 40 occupations surveyed is predominantly female. For the region as a whole, 89 percent of employees are women; the gender composition of the workforce is slightly more female in rural versus urban hospitals (women comprise 91 and 88 percent of the workforce in the rural and urban hospitals, respectively). In approximately half of the occupations surveyed in the region, women comprise 90 percent or more of employees. There are only five occupations in which women comprise less than two-thirds of employees: Pharmacists (64 percent female), Nuclear Medicine Technologists (59 percent), Certified Registered Nurse Anesthetists (CRNAs) (38 percent), EMTs/Paramedics (38 percent), and Respiratory Therapy Assistants (17 percent).

In terms of the racial composition of employees, the grand majority (95 percent) are white. The respective percentages for rural and urban hospitals are 97 percent and 94 percent. In the region as a whole, the only occupations comprised of 90 percent or fewer white employees are Phlebotomists (90 percent white), Nursing Assistants (89 percent white), Dialysis Technicians (84 percent white), and AODA Counselors (83 percent white).

Table 1: Regional Employer Reported Staffing Levels, 5-Year Staffing Projections, and Employees over 55 for Selected Occupations (Ranked by Total Headcount) (all 14 hospitals)

	<i>Total Headcount</i>	<i>Total FTE</i>	<i>Projected 5 yr change in FTE</i>	<i>Employees 55 yrs and older</i>	<i>Employees 55 yrs and older (percent)</i>
Registered Nurses	5,288	3,797	101	887	0.17
Nursing Assistants/Aides/Attendants	1,025	707	67	115	0.11
Medical Assistants	341	291	60	46	0.13
Physical Therapists	308	229	19	43	0.14
Medical Technologists (4-yr degree)	282	245	2	97	0.34
Pharmacists	273	235	16	42	0.15
Respiratory Therapists	224	163	26	40	0.18
Registered Nurse Managers	213	206	2	49	0.23
Pharmacy Technicians / Assistants	208	179	23	33	0.16
CT/PET/MRI Technicians	199	174	23	23	0.12
Surgical Technologists	169	152	29	14	0.08
Phlebotomists	161	121	-12	26	0.16
Radiography / Radiologic Technicians	161	115	3	16	0.10
Medical Coders	156	145	20	44	0.28
Social Workers / Medical Social Workers	141	106	0	32	0.23
Occupational Therapists	134	91	6	21	0.16
Licensed Practical / Vocational Nurses	125	87	-15	43	0.34
Medical Records / Health Information Techs	122	118	-3	28	0.23
Medical / Clinical Lab Technicians (2-yr deg)	90	68	2	14	0.16
Clinical Dieticians	81	57	8	17	0.21
Certified Nurse Specialists	78	75	3	17	0.22
Medical Transcriptionists	77	69	-26	32	0.42
Nurse Practitioners	72	53	9	16	0.22
Ultrasound Technicians	67	49	9	11	0.16
Dialysis Technicians	63	54	4	9	0.14
Cardiovascular Technicians / Technologists	62	50	1	13	0.21
Physical Therapist Assistants	54	47	12	1	0.02
Mammography Technicians	46	41	6	5	0.11
Physician Assistants	45	33	6	5	0.11
EMTs / Paramedics	36	24	0	6	0.17
Home Health Aides	36	21	-1	5	0.14
Certified Registered Nurse Anesthetists (CRNAs)	30	27	1	3	0.10
Nuclear Medicine Technologists	30	25	3	7	0.23
Speech Therapists	30	19	3	2	0.07
Radiation Therapists	27	24	3	1	0.04
Occupational Therapist Assistants	22	16	4	5	0.23
AODA Counselors	19	15	0	5	0.26
Licensed Psychologists	15	11	4	3	0.20
Licensed Mental Health Counselors	7	7	0	0	0.00
Respiratory Therapy Assistants	6	6	0	0	0.00
Total	10,523	7,952	417	1,776	0.17

Table 2: Urban Employer Reported Staffing Levels, 5-Year Staffing Projections, and Employees over 55 for Selected Occupations (Ranked by Total Headcount) (4 urban hospitals)

	<i>Total Headcount</i>	<i>Total FTE</i>	<i>Projected 5 yr change in FTE</i>	<i>Employees 55 yrs and older</i>	<i>Employees 55 yrs and older (percent)</i>
Registered Nurses	4,191	3,036	72	678	0.16
Nursing Assistants / Aides / Attendants	637	476	53	67	0.11
Medical Assistants	266	227	50	31	0.12
Pharmacists	226	202	15	32	0.14
Medical Technologists (4-yr degree)	215	186	0	70	0.33
Physical Therapists	205	151	5	33	0.16
CT/PET/MRI Technicians	172	154	22	20	0.12
Respiratory Therapists	163	125	20	30	0.18
Pharmacy Technicians / Assistants	155	136	20	16	0.10
Registered Nurse Managers	149	146	2	36	0.24
Surgical Technologists	120	108	20	9	0.08
Medical Coders	105	96	16	27	0.26
Social Workers / Medical Social Workers	104	82	0	20	0.19
Phlebotomists	98	79	-15	15	0.15
Occupational Therapists	96	63	2	14	0.15
Medical Records / Health Information Techs	81	80	1	16	0.20
Certified Nurse Specialists	78	75	3	17	0.22
Dialysis Technicians	60	51	3	9	0.15
Cardiovascular Technicians / Technologists	57	46	0	10	0.18
Clinical Dieticians	55	44	8	13	0.24
Ultrasound Technicians	48	39	6	9	0.19
Radiography / Radiologic Technicians	39	31	0	4	0.10
Medical / Clinical Lab Technicians (2-yr deg)	35	30	0	5	0.14
Physical Therapist Assistants	33	31	7	0	0.00
Medical Transcriptionists	28	27	0	10	0.36
Nurse Practitioners	28	25	1	6	0.21
Speech Therapists	26	16	2	2	0.08
Radiation Therapists	24	22	3	1	0.04
Licensed Practical / Vocational Nurses	22	19	-1	13	0.59
Nuclear Medicine Technologists	21	20	3	6	0.29
Mammography Technicians	18	15	5	4	0.22
Home Health Aides	15	15	0	1	0.07
Occupational Therapist Assistants	14	10	2	3	0.21
AODA Counselors	12	11	0	2	0.17
Licensed Psychologists	12	8	4	3	0.25
Physician Assistants	10	10	0	1	0.10
Respiratory Therapy Assistants	6	6	0	0	0.00
Total	7,624	5,896	328	1,233	0.16

Table 3: Rural Employer Reported Staffing Levels, 5-Year Staffing Projections, and Employees over 55 for Selected Occupations (Ranked by Total Headcount) (10 rural hospitals)

	<i>Total Headcount</i>	<i>Total FTE</i>	<i>Projected 5-yr change in FTE</i>	<i>Employees 55 yrs and older</i>	<i>Employees 55 yrs and older (percent)</i>
Registered Nurses	1,097	760	29	209	0.19
Nursing Assistants / Aides / Attendants	388	231	14	48	0.12
Radiography / Radiologic Technicians	122	84	3	12	0.10
Licensed Practical / Vocational Nurses	103	68	-14	30	0.29
Physical Therapists	103	77	14	10	0.10
Medical Assistants	75	64	10	15	0.20
Medical Technologists (4-yr degree)	67	59	2	27	0.40
Registered Nurse Managers	64	60	0	13	0.20
Phlebotomists	63	42	3	11	0.17
Respiratory Therapists	61	37	6	10	0.16
Medical / Clinical Lab Technicians (2-yr deg)	55	38	2	9	0.16
Pharmacy Technicians / Assistants	53	43	3	17	0.32
Medical Coders	51	49	4	17	0.33
Medical Transcriptionists	49	42	-26	22	0.45
Surgical Technologists	49	44	9	5	0.10
Pharmacists	47	33	1	10	0.21
Nurse Practitioners	44	28	8	10	0.23
Medical Records / Health Information Techs	41	39	-4	12	0.29
Occupational Therapists	38	28	4	7	0.18
Social Workers / Medical Social Workers	37	24	0	12	0.32
EMTs / Paramedics	36	24	0	6	0.17
Physician Assistants	35	23	6	4	0.11
Certified Registered Nurse Anesthetists (CRNAs)	30	27	1	3	0.10
Mammography Technicians	28	26	1	1	0.04
CT/PET/MRI Technicians	27	20	1	3	0.11
Clinical Dieticians	26	14	0	4	0.15
Physical Therapist Assistants	21	16	5	1	0.05
Home Health Aides	21	6	-1	4	0.19
Ultrasound Technicians	19	10	3	2	0.11
Nuclear Medicine Technologists	9	6	0	1	0.11
Occupational Therapist Assistants	8	6	2	2	0.25
Licensed Mental Health Counselors	7	7	0	0	0.00
AODA Counselors	7	4	0	3	0.43
Cardiovascular Technicians / Technologists	5	5	1	3	0.60
Speech Therapists	4	4	1	0	0.00
Radiation Therapists	3	3	0	0	0.00
Dialysis Technicians	3	3	1	0	0.00
Licensed Psychologists	3	3	0	0	0.00
Total	2,899	2,055	88	543	0.19

Total Employment vs. FTE Data: Which Employees are More Likely to Work Part-Time?

Part-time work is common for many health care employees. Importantly, this study allows for comparison of total employee headcount with full-time equivalent (FTE) data reported for each occupation by employer. This comparison is important to understanding employment projections and training requirements for future openings. For example, if all pharmacists worked half-time (they don't, see Table 4), then two pharmacists need to be trained for one projected opening.

In Table 4 (next page), we provide data on employees per FTE position for each occupation, and for urban and rural areas. Currently, in survey hospitals, 5,288 RNs hold the equivalent of 3,797 full-time RN positions. On average, then, each full-time position requires 1.39 workers.

Home Health Aides, Speech Therapists, EMTs/Paramedics, and Occupational Therapists require the most employees per FTE position. Registered Nurse Managers, Certified Nurse Specialists, and Medical Records/Health Information Techs nearly always work full-time.

Across all occupations, rural hospitals (averaging 1.41 workers per FTE) have higher rates of part-time work than urban hospitals (1.29 workers per FTE).

Table 4: Regional, Urban, and Rural Total employees per FTE, By Occupation

	<i>Total Employees (Headcount)</i>	<i>Total FTE</i>	<i>Employees per FTE</i>	<i>Urban Employees per FTE</i>	<i>Rural Employees per FTE</i>
Registered Nurses	5,288	3,797	1.39	1.38	1.44
Nursing Assistants/Aides/Attendants	1,025	707	1.45	1.34	1.68
Medical Assistants	341	291	1.17	1.17	1.17
Physical Therapists	308	229	1.35	1.35	1.34
Medical Technologists (4-yr degree)	282	245	1.15	1.15	1.14
Pharmacists	273	235	1.16	1.12	1.41
Respiratory Therapists	224	163	1.38	1.30	1.63
Registered Nurse Managers	213	206	1.04	1.02	1.07
Pharmacy Technicians / Assistants	208	179	1.17	1.14	1.24
CT/PET/MRI Technicians	199	174	1.14	1.11	1.36
Surgical Technologists	169	152	1.11	1.11	1.12
Phlebotomists	161	121	1.33	1.24	1.50
Radiography / Radiologic Technicians	161	115	1.40	1.25	1.46
Medical Coders	156	145	1.08	1.09	1.05
Social Workers / Medical Social Workers	141	106	1.33	1.26	1.56
Occupational Therapists	134	91	1.47	1.52	1.36
Licensed Practical / Vocational Nurses	125	87	1.43	1.17	1.51
Medical Records / Health Information Techs	122	118	1.03	1.02	1.05
Medical / Clinical Lab Technicians (2-yr deg)	90	68	1.33	1.15	1.46
Clinical Dieticians	81	57	1.41	1.26	1.88
Certified Nurse Specialists	78	75	1.04	1.04	n/a
Medical Transcriptionists	77	69	1.12	1.04	1.17
Nurse Practitioners	72	53	1.36	1.11	1.58
Ultrasound Technicians	67	49	1.36	1.23	1.85
Dialysis Technicians	63	54	1.17	1.18	1.00
Cardiovascular Technicians / Technologists	62	50	1.23	1.25	1.02
Physical Therapist Assistants	54	47	1.15	1.08	1.30
Mammography Technicians	46	41	1.12	1.20	1.08
Physician Assistants	45	33	1.38	1.00	1.56
EMTs / Paramedics	36	24	1.49	n/a	1.49
Home Health Aides	36	21	1.70	1.00	3.39
Certified Registered Nurse Anesthetists	30	27	1.10	n/a	1.10
Nuclear Medicine Technologists	30	25	1.18	1.08	1.53
Speech Therapists	30	19	1.55	1.64	1.14
Radiation Therapists	27	24	1.12	1.11	1.20
Occupational Therapist Assistants	22	16	1.37	1.40	1.31
AODA Counselors	19	15	1.24	1.09	1.63
Licensed Psychologists	15	11	1.36	1.50	1.00
Licensed Mental Health Counselors	7	7	1.03	n/a	1.03
Respiratory Therapy Assistants	6	6	1.09	1.09	n/a
Total	10,523	7,952	1.32	1.29	1.41

Projected Short-Term Workforce and Training Needs

Tables 5, 6, and 7 bring together the key information reported above to project five-year hiring expectations, given the age profile, the headcount per FTE position, and the projected five year demand change for each occupation.

Our estimates rely on two assumptions. First, we project that all workers age 60 and older will retire in the coming five years. Of course, some may not retire, and some may retire sooner than 60, but this is the best five-year projection given the available data. Second, we use our data on headcount per FTE position to project the total number of workers required to fill a certain number of FTE openings.

Taking RNs as an example, employers projected an increase in FTE demand for RNs of 101 FTE. But we know that, on average, each full-time opening will require 1.39 workers. So the 101 openings will require 141 RNs to fill them. Our total projected demand over the next five years adds together the headcount of nurses over 60 – 381 RNs – who will need to be replaced, to the headcount adjusted RNs projected over the five years – 141 RNs to fill projected openings. This process yields a projected demand for 522 new RNs in the region, over the next five years. That's 522 RNs just to fill the jobs in the 14 participating hospitals.

These estimates can shift quite substantially if headcount per FTE shifts for any occupational category. Obviously, if over the next five years every RN who fills a job worked full-time, then there would be need for substantially fewer nurses. However, the best guess right now is that incoming RNs will be much like the RNs already employed. Indeed, and as explained in more detail in Section 2, the employee-per-FTE ratio of 1.39 for RNs was identical in both the 2008 and 2013 assessments.

Again, RNs produce the most dramatic numbers, with 522 new workers projected to be required to fill openings. These data also suggest that 143 new Nursing Assistants will be needed in the region's hospitals over the next five years. We also project some 84 jobs for Medical Assistants, and approximately 50 jobs for both Respiratory Therapists and Physical Therapists.

For urban hospitals, a projected 33 Medical Technologists will also be needed in the near-term future, while in rural hospitals there is a projected need for 26 Physical Therapists, 16 Nurse Practitioners and 15 Medical Coders in the next five years (see 'Top Five' lists, below; note that urban and rural estimates do not always add exactly to regional estimates given rounding in the calculations).

In some occupations, the age profile suggests there may be significant hiring, even in the context of projected decline in the occupation. Employment of Medical Technologists, for example, is projected to only grow by 2 jobs over the next five years. But given a workforce with 44 staff aged 60 or older, there will still be significant hiring of Medical Technologists.

Occupations with Highest Estimated Short-Term Workforce and Training Need (Top Five)

Regional	Urban	Rural
Registered Nurse (522)	Registered Nurse (388)	Registered Nurse (134)
Nursing Assistant (143)	Nursing Assistant (91)	Nursing Assistant (50)
Medical Assistant (84)	Medical Assistant (70)	Physical Therapist (26)
Respiratory Therapist (51)	Respiratory Therapist (39)	Nurse Practitioner (16)
Physical Therapist (50)	Medical Technologist (33)	Medical Coder (15)

Table 5: Estimated Regional Short-Term Workforce and Training Need, By Occupation (all participating hospitals)

	<i>Current headcount 60+</i>	<i>Projected 5 yr change in headcount</i>	<i>Est. workforce need in 5 yrs (headcount)</i>
Registered Nurses	381	141.2	522.2
Nursing Assistants/Aides/Attendants	46	97.2	143.2
Medical Assistants	14	70.3	84.3
Respiratory Therapists	15	35.8	50.8
Physical Therapists	24	25.6	49.6
Medical Technologists (4-yr degree)	44	1.7	45.7
Medical Coders	21	21.5	42.5
Surgical Technologists	5	32.3	37.3
Pharmacy Technicians / Assistants	10	26.8	36.8
Pharmacists	18	18.6	36.6
CT/PET/MRI Technicians	8	26.3	34.3
Clinical Dieticians	7	11.3	18.3
Registered Nurse Managers	16	2.1	18.1
Nurse Practitioners	6	11.6	17.6
Social Workers / Medical Social Workers	17	0.0	17.0
Occupational Therapists	8	8.8	16.8
Physical Therapist Assistants	1	13.8	14.8
Radiography / Radiologic Technicians	10	4.2	14.2
Ultrasound Technicians	1	12.5	13.5
Medical Records / Health Information Techs	15	-3.1	11.9
Physician Assistants	3	8.3	11.3
Certified Nurse Specialists	7	3.1	10.1
Medical / Clinical Lab Technicians (2-yr degree)	7	2.0	9.0
Mammography Technicians	2	6.7	8.7
Dialysis Technicians	4	4.1	8.1
Nuclear Medicine Technologists	4	3.5	7.5
Occupational Therapist Assistants	2	5.5	7.5
Licensed Psychologists	1	5.5	6.5
Speech Therapists	0	4.7	4.7
Certified Registered Nurse Anesthetists (CRNAs)	3	1.1	4.1
Radiation Therapists	0	2.8	2.8
Licensed Practical / Vocational Nurses	24	-21.2	2.8
EMTs / Paramedics	2	0.0	2.0
Cardiovascular Technicians / Technologists	0	1.2	1.2
AODA Counselors	1	0.0	1.0
Home Health Aides	3	-2.0	1.0
Licensed Mental Health Counselors	0	0.0	0.0
Respiratory Therapy Assistants	0	0.0	0.0
Phlebotomists	9	-16.0	-7.0
Medical Transcriptionists	15	-28.7	-13.7
Total	754	539	1,293

Table 6: Estimated Urban Short-Term Workforce and Training Need, By Occupation (4 urban hospitals)

	<i>Current headcount 60+</i>	<i>Projected 5 yr change in headcount</i>	<i>Est. workforce need in 5 yrs (headcount)</i>
Registered Nurses	289	99.4	388.4
Nursing Assistants / Aides / Attendants	20	71.0	91.0
Medical Assistants	11	58.6	69.6
Respiratory Therapists	13	26.0	39.0
Medical Technologists (4-yr degree)	33	0.0	33.0
CT/PET/MRI Technicians	7	24.5	31.5
Pharmacists	14	16.8	30.8
Medical Coders	10	17.5	27.5
Pharmacy Technicians / Assistants	3	22.8	25.8
Surgical Technologists	3	22.2	25.2
Physical Therapists	17	6.8	23.8
Clinical Dieticians	5	10.1	15.1
Registered Nurse Managers	13	2.0	15.0
Certified Nurse Specialists	7	3.1	10.1
Occupational Therapists	7	3.0	10.0
Medical Records / Health Information Techs	8	1.0	9.0
Ultrasound Technicians	1	7.4	8.4
Mammography Technicians	2	6.0	8.0
Social Workers / Medical Social Workers	8	0.0	8.0
Licensed Practical / Vocational Nurses	9	-1.1	7.9
Physical Therapist Assistants	0	7.5	7.5
Licensed Psychologists	1	6.0	7.0
Dialysis Technicians	4	2.9	6.9
Nuclear Medicine Technologists	3	3.2	6.2
Medical Transcriptionists	4	0.0	4.0
Occupational Therapist Assistants	1	2.8	3.8
Speech Therapists	0	3.3	3.3
Nurse Practitioners	2	1.1	3.1
Radiation Therapists	0	2.8	2.8
Radiography / Radiologic Technicians	2	0.0	2.0
AODA Counselors	0	0.0	0.0
Cardiovascular Technicians / Technologists	0	0.0	0.0
Home Health Aides	0	0.0	0.0
Medical / Clinical Lab Technicians (2-yr degree)	0	0.0	0.0
Physician Assistants	0	0.0	0.0
Respiratory Therapy Assistants	0	0.0	0.0
Phlebotomists	6	-18.7	-12.7
Total	503	408.2	911.2

Table 7: Estimated Rural Short-Term Workforce and Training Need, By Occupation (10 rural hospitals)

	<i>Current headcount 60+</i>	<i>Projected 5 yr change in headcount</i>	<i>Est. workforce need in 5 yrs (headcount)</i>
Registered Nurses	92	42.4	134.4
Nursing Assistants / Aides / Attendants	26	23.5	49.5
Physical Therapists	7	18.7	25.7
Nurse Practitioners	4	11.9	15.9
Medical Coders	11	4.2	15.2
Medical Assistants	3	11.7	14.7
Medical Technologists (4-yr degree)	11	1.7	12.7
Radiography / Radiologic Technicians	8	4.4	12.4
Physician Assistants	3	9.3	12.3
Surgical Technologists	2	10.1	12.1
Respiratory Therapists	2	9.8	11.8
Pharmacy Technicians / Assistants	7	3.7	10.7
Medical / Clinical Lab Technicians (2-yr degree)	7	2.2	9.2
Social Workers / Medical Social Workers	9	0.0	9.0
Physical Therapist Assistants	1	6.5	7.5
Phlebotomists	3	4.5	7.5
Occupational Therapists	1	5.4	6.4
Ultrasound Technicians	0	5.9	5.9
Pharmacists	4	1.4	5.4
Certified Registered Nurse Anesthetists (CRNAs)	3	1.1	4.1
Occupational Therapist Assistants	1	2.6	3.6
Registered Nurse Managers	3	0.0	3.0
Medical Records / Health Information Technicians	7	-4.2	2.8
CT/PET/MRI Technicians	1	1.4	2.4
Clinical Dieticians	2	0.0	2.0
EMTs / Paramedics	2	0.0	2.0
Speech Therapists	0	1.1	1.1
Mammography Technicians	0	1.1	1.1
Cardiovascular Technicians / Technologists	0	1.0	1.0
AODA Counselors	1	0.0	1.0
Dialysis Technicians	0	1.0	1.0
Nuclear Medicine Technologists	1	0.0	1.0
Licensed Mental Health Counselors	0	0.0	0.0
Licensed Psychologists	0	0.0	0.0
Radiation Therapists	0	0.0	0.0
Home Health Aides	3	-4.1	-1.1
Licensed Practical / Vocational Nurses	15	-20.9	-5.9
Medical Transcriptionists	11	-30.1	-19.1
Total	251	127.4	378.4

SECTION 2: HAS ANYTHING CHANGED IN THE LAST FIVE YEARS?

Comparison of the 2008 and 2013 Assessments

As noted earlier, the 2013 survey of health care employers served as an update to a nearly identical survey administered to regional employers in 2008. Comparing the two surveys allows us to assess key changes and continuities in the region's health care workforce over the last five years.

In order to compare 'apples to apples', we analyze data only from the 12 hospitals (three urban, nine rural) that participated in both the 2008 and 2013 surveys. These health care facilities are highlighted in bold text on the front page of this report. We also limit our analysis to the 36 occupations (or occupational categories) that were included on both surveys.

Specifically, we excluded data from one occupation (Clinical Dieticians) that was asked about in the 2013 survey only. Next, we collapsed selected occupations included on the 2013 survey in order to facilitate comparison with the 2008 occupations. Namely, the 2008 survey asked about Mental Health Specialists, while in 2013 employers were asked instead about three more specific types of mental health workers: Licensed Mental Health Counselors, AODA Counselors, and Licensed Psychologists. We collapsed these three 2013 occupations in order to facilitate comparison with the broader 2008 Mental Health Specialist category. Similarly, in 2013 the survey asked employers about both RNs and Certified Registered Nurse Anesthetists (CRNAs), while in 2008 the survey asked about RNs only. We therefore collapse the CRNA/RN categories for purposes of comparison, relying on the assumption that employers included CRNAs among their RN count in 2008.

Table 8 presents summary comparisons between 2008 and 2013 for the 12 hospitals and 36 occupations surveyed in both years. Comparisons broken down by occupation are provided in Tables 9, 10 and 11 (for the region, for urban hospitals, and for rural hospitals, respectively).

Growth/Contraction in the Health Care Workforce and in Selected Occupations: 2008-13

Overall, the health care workforce in the region has experienced growth, an expected result given the state's aging population and their associated health care needs. Between 2008 and 2013, for the employers participating in both surveys, the number of employees in the key occupations of interest expanded by eight percent. Though both urban and rural hospitals experienced net growth, this expansion was more pronounced in urban hospitals (9 percent workforce growth) versus rural hospitals (4 percent workforce growth).

Throughout the region and in both 2008 and 2013, RNs and Nursing Assistants have constituted the largest occupations. However, while the RN workforce at the 12 hospitals has expanded over the last five years by 17 percent (from 4,408 to 5,141 employees), the number of Nursing Assistants has actually shrunk by 11 percent (from 1,098 to 982 employees). The decline in the Nursing Assistant workforce has been more pronounced in urban hospitals (13 percent decrease) than rural hospitals (7 percent decrease).

In addition to RNs and Nursing Assistants, Medical Technologists and Physical Therapists made the "top five" lists in both 2008 and 2013 in terms of number of workers employed. However, while LPNs were on the "top five" list in 2008, they fell off the list in 2013 and were replaced by a growing number of Medical Assistants. Notably, the Medical Assistant workforce at the 12 hospitals compared grew by 50 percent over the last five years (from 227 to 341 employees), while the LPN workforce shrank by 50 percent (from 247 to 123 employees).

Two occupations with extreme percent growth between 2008 and 2013 are CT/PET/MRI Technicians and Cardiovascular Technicians. The workforce of both of these occupations more than doubled over the last five years. Growth of CT/PET/MRI Technicians was also very substantial in absolute terms (increasing from 91 employees in 2008 to 188 employees in 2013) and was especially pronounced in urban hospitals.

Other occupations have declined notably. In addition to LPNs, Medical Transcriptionists have declined in the last five years (a drop from 191 to 74 employees, representing a 61 percent reduction). While the percent reduction is not as large (14 percent), the number of Phlebotomists has also declined in the region between 2008 and 2013. From employers' responses to the 2013 survey, both Medical Transcriptionists and Phlebotomists are projected to continue their decline between 2013 and 2018.

How Accurate Were the 2008 Predictions?

The last five years have been marked by economic uncertainty. Given that the 2008 staffing projections were made by employers at the beginning of the Great Recession, it would not be surprising if predicted and actual growth were not well aligned. Shockingly, as shown in Table 8, the surveyed occupations were projected to grow—and actually did grow—by eight percent for the region as a whole.

Behind this ‘perfect prediction’ for the 12 hospitals combined, Table 8 also shows that urban hospitals slightly underestimated and rural hospitals overestimated their workforce growth. Urban hospitals projected a seven percent increase in the workforce of the selected occupations, and the actual increase was nine percent. In contrast, rural hospitals projected an 11 percent increase but experienced only a four percent increase in their workforce.

Predictions within occupations were also not perfect. For example, while RNs were predicted to expand (by 9 percent) and actually did expand (by 17 percent, nearly twice as much growth as expected), Nursing Assistants were also predicted to expand (by 7 percent) but actually shrank (by 11 percent).

Despite these less than perfect projections, the fact that both urban and rural hospitals in the region both predicted and experienced net growth on average during a turbulent economic period is a positive indication of the resiliency of the region’s health care sector.

Health Care Employees Are Working Slightly More Hours...

In both 2008 and 2013, employers provided information both on the number of employees in selected occupations, as well as the full-time equivalent (FTE) of this workforce. From these two pieces of information we can calculate an employee-per-FTE ratio, an indicator of the extent to which employees are working part-time.

Between 2008 and 2013, the employee-to-FTE ratio for the region fell slightly, from 1.36 to 1.31. In other words, not only has the number of health care workers grown in the region over the last five years, but also these employees are working slightly more hours. The reduction in the ratio was more pronounced in urban hospitals (1.35 in 2008 to 1.28 in 2013) than in rural hospitals (1.41 in 2008 to 1.40 in 2013).

Not surprisingly, the employee-to-FTE ratio has dropped notably in several occupations that have experienced a reduction in the number of workers employed over the last five years. For example, and as mentioned above, the number of workers in Nursing Assistant positions has shrunk by 11 percent between 2008 and 2013, but the employee-to-FTE ratio has shrunk as well (from 1.61 to 1.45). In other words, the number of Nursing Assistants has declined in part because the employees in this occupation are working more hours on average.

...And They Are Slightly Older

Comparing the age profiles of 2008 and 2013 employees reveals that the workforce is slightly older today compared to five years ago. Specifically, while 15 percent of the workforce was 55 years of age or older in 2008, this proportion rose to 17 percent in 2013. While the rural workforce was older than the urban workforce in both 2008 and 2013, the five-year increase in the proportion of workers aged 55 and older has been more pronounced in urban hospitals. The aging of the workforce overall may be due in part to the Great Recession, which has led some older employees to postpone retirement due to shrinking incomes.

Again unsurprisingly, most of the occupations that have shrunk notably over the last five years also tend to have experienced a notable ‘aging’ of their workforce. For example, today 42 percent of Medical Transcriptionists at the 12 hospitals considered are aged 55 or older, while five years ago only 28 percent of workers fit this age profile. As noted above, the number of employees in this occupation has shrunk by 61 percent over the last five years. The older age profile of this declining occupation is a sign of an education and workforce training system that is responding nimbly to changing local needs.

Table 8: Summary Comparisons for Selected Occupations in 2008 and 2013 (12 hospitals: 3 urban, 9 rural)

	<i>Regional Hospitals (12)</i>	<i>Urban Hospitals (3)</i>	<i>Rural Hospitals (9)</i>
No. employees (2008)	9,350	6,702	2,648
No. employees (2013)	10,086	7,322	2,764
Percent change in number of employees: 2008-2013	8%	9%	4%
Projected percent change in number of employees by 2008 employers	8%	7%	11%
Employees per FTE (2008)	1.36	1.35	1.41
Employees per FTE (2013)	1.31	1.28	1.40
Percent of employees aged 55 and older (2008)	15%	14%	18%
Percent of employees aged 55 and older (2013)	17%	16%	19%

Table 9: Regional Comparisons for Selected Occupations in 2008 and 2013 (12 hospitals)

	Total Head-count (2013)	Total Head-count (2008)	% change in Head-count (2008-2013)	Emp. per FTE (2013)	Emp. per FTE (2008)	% Emp. 55 yrs and older (2013)	% Emp. 55 yrs and older (2008)
Registered Nurses	5,141	4,408	17%	1.37	1.38	0.17	0.16
Nursing Assistants / Aides / Attendants	982	1098	-11%	1.45	1.61	0.11	0.07
Medical Assistants	341	227	50%	1.17	1.18	0.13	0.13
Physical Therapists	296	244	21%	1.34	1.43	0.14	0.11
Medical Technologists (4-yr deg)	280	278	1%	1.15	1.15	0.34	0.32
Pharmacists	270	223	21%	1.16	1.21	0.16	0.20
Respiratory Therapists	211	213	-1%	1.35	1.33	0.18	0.10
Registered Nurse Managers	209	189	11%	1.03	1.06	0.23	0.19
Pharmacy Technicians / Assistants	203	202	0%	1.16	1.20	0.16	0.06
CT/PET/MRI Technicians	188	91	107%	1.13	1.14	0.12	0.08
Phlebotomists	161	187	-14%	1.33	1.45	0.16	0.11
Surgical Technologists	156	159	-2%	1.09	1.15	0.09	0.08
Medical Coders	154	121	27%	1.08	1.16	0.27	0.26
Radiography / Radiologic Technicians	151	218	-31%	1.42	1.33	0.11	0.09
Social Workers / Medical Social Workers	136	132	3%	1.33	1.41	0.22	0.29
Occupational Therapists	130	127	2%	1.49	1.91	0.16	0.13
Licensed Practical / Vocational Nurses	123	247	-50%	1.44	1.48	0.34	0.34
Medical Records / Health Info Techs	115	113	2%	1.03	1.28	0.21	0.22
Certified Nurse Specialists	78	62	26%	1.04	1.11	0.22	0.18
Medical / Clinical Lab Techs (2-yr deg)	75	92	-18%	1.34	1.28	0.12	0.11
Medical Transcriptionists	74	191	-61%	1.13	1.20	0.42	0.28
Nurse Practitioners	70	46	52%	1.36	1.51	0.21	0.20
Dialysis Technicians	63	43	47%	1.17	1.22	0.14	0.07
Ultrasound Technicians	63	68	-7%	1.36	1.26	0.17	0.07
Cardiovascular Technicians/ Technologists	62	29	114%	1.23	1.03	0.21	0.00
Physical Therapist Assistants	48	53	-9%	1.15	1.55	0.00	0.08
Mammography Technicians	46	34	35%	1.12	1.16	0.11	0.12
Physician Assistants	43	33	30%	1.36	1.66	0.09	0.06
Mental Health Specialists	41	33	24%	1.24	1.52	0.20	0.12
Home Health Aides	36	27	33%	1.70	1.60	0.14	0.07
EMTs / Paramedics	31	40	-23%	1.35	1.75	0.19	0.18
Nuclear Medicine Technologists	28	18	56%	1.19	1.06	0.25	0.11
Speech Therapists	28	31	-10%	1.56	2.07	0.07	0.06
Radiation Therapists	27	21	29%	1.12	1.11	0.04	0.10
Occupational Therapist Assistants	20	32	-38%	1.42	1.64	0.20	0.03
Respiratory Therapy Assistants	6	20	-70%	1.09	1.47	0.00	0.10
Total	10,086	9,350	8%	1.31	1.36	0.17	0.15

Table 10: Urban Comparisons for Selected Occupations in 2008 and 2013 (3 hospitals)

	Total Head-count (2013)	Total Head-count (2008)	% change in Head-count (2008-2013)	Emp. per FTE (2013)	Emp. per FTE (2008)	% Emp. 55 yrs and older (2013)	% Emp. 55 yrs and older (2008)
Registered Nurses	4,055	3,466	17%	1.36	1.37	0.16	0.15
Nursing Assistants / Aides / Attendants	605	693	-13%	1.34	1.57	0.11	0.06
Medical Assistants	266	156	71%	1.17	1.19	0.12	0.11
Pharmacists	223	187	19%	1.12	1.19	0.14	0.14
Medical Technologists (4-yr deg)	215	205	5%	1.15	1.15	0.33	0.32
Physical Therapists	200	168	19%	1.34	1.48	0.17	0.13
CT/PET/MRI Technicians	161	68	137%	1.09	1.11	0.12	0.10
Respiratory Therapists	153	167	-8%	1.27	1.34	0.19	0.12
Pharmacy Technicians / Assistants	151	164	-8%	1.15	1.19	0.11	0.05
Registered Nurse Managers	149	106	41%	1.02	1.04	0.24	0.21
Surgical Technologists	109	119	-8%	1.08	1.18	0.08	0.03
Medical Coders	105	84	25%	1.09	1.20	0.26	0.24
Social Workers / Medical Social Workers	101	95	6%	1.27	1.39	0.20	0.26
Phlebotomists	98	124	-21%	1.24	1.38	0.15	0.09
Occupational Therapists	94	95	-1%	1.54	2.07	0.15	0.13
Certified Nurse Specialists	78	59	32%	1.04	1.07	0.22	0.19
Medical Records / Health Info Techs	75	74	1%	1.02	1.43	0.17	0.18
Dialysis Technicians	60	40	50%	1.18	1.25	0.15	0.08
Cardiovascular Technicians/ Technologists	57	29	97%	1.25	1.03	0.18	0.00
Ultrasound Technicians	44	52	-15%	1.22	1.26	0.20	0.06
Radiography / Radiologic Technicians	34	125	-73%	1.30	1.30	0.12	0.11
Physical Therapist Assistants	31	36	-14%	1.08	1.48	0.00	0.06
Medical Transcriptionists	28	123	-77%	1.04	1.16	0.36	0.26
Nurse Practitioners	28	17	65%	1.11	1.09	0.21	0.24
Medical / Clinical Lab Techs (2-yr deg)	27	31	-13%	1.17	1.14	0.15	0.06
Mental Health Specialists	24	20	20%	1.26	1.77	0.21	0.05
Radiation Therapists	24	18	33%	1.11	1.10	0.04	0.11
Speech Therapists	24	27	-11%	1.67	2.19	0.08	0.07
Licensed Practical / Vocational Nurses	22	76	-71%	1.17	1.48	0.59	0.47
Nuclear Medicine Technologists	19	11	73%	1.07	1.06	0.32	0.09
Mammography Technicians	18	17	6%	1.20	1.16	0.22	0.18
Home Health Aides	15	6	150%	1.00	1.50	0.07	0.00
Occupational Therapist Assistants	13	26	-50%	1.45	1.85	0.23	0.00
Physician Assistants	10	4	150%	1.00	1.13	0.10	0.00
Respiratory Therapy Assistants	6	14	-57%	1.09	1.56	0.00	0.07
Total	7,322	6,702	9%	1.28	1.35	0.16	0.14

Table 11: Rural Comparisons for Selected Occupations in 2008 and 2013 (9 hospitals)

	Total Head-count (2013)	Total Head-count (2008)	% change in Head-count (2008-2013)	Emp. per FTE (2013)	Emp. per FTE (2008)	% Emp. 55 yrs and older (2013)	% Emp. 55 yrs and older (2008)
Registered Nurses	1,086	942	15%	1.43	1.44	0.19	0.20
Nursing Assistants / Aides / Attendants	377	405	-7%	1.66	1.69	0.12	0.10
Radiography / Radiologic Technicians	117	93	26%	1.46	1.37	0.10	0.06
Licensed Practical / Vocational Nurses	101	171	-41%	1.51	1.49	0.29	0.27
Physical Therapists	96	76	26%	1.35	1.34	0.09	0.07
Medical Assistants	75	71	6%	1.17	1.16	0.20	0.17
Medical Technologists (4-yr degree)	65	73	-11%	1.14	1.16	0.40	0.33
Phlebotomists	63	63	0%	1.50	1.61	0.17	0.14
Registered Nurse Managers	60	83	-28%	1.07	1.08	0.22	0.16
Respiratory Therapists	58	46	26%	1.64	1.29	0.17	0.04
Pharmacy Technicians / Assistants	52	38	37%	1.22	1.25	0.31	0.13
Medical Coders	49	37	32%	1.05	1.09	0.31	0.30
Medical / Clinical Lab Techs (2-yr deg)	48	61	-21%	1.47	1.37	0.10	0.13
Pharmacists	47	36	31%	1.41	1.34	0.21	0.47
Surgical Technologists	47	40	18%	1.12	1.09	0.11	0.20
Medical Transcriptionists	46	68	-32%	1.18	1.27	0.46	0.31
Nurse Practitioners	42	29	45%	1.60	1.95	0.21	0.17
Medical Records / Health Info Techs	40	39	3%	1.06	1.07	0.28	0.31
Occupational Therapists	36	32	13%	1.39	1.56	0.19	0.13
Social Workers / Medical Social Workers	35	37	-5%	1.53	1.43	0.29	0.35
Physician Assistants	33	29	14%	1.53	1.78	0.09	0.07
EMTs / Paramedics	31	40	-23%	1.35	1.75	0.19	0.18
Mammography Technicians	28	17	65%	1.08	1.15	0.04	0.06
CT/PET/MRI Technicians	27	23	17%	1.36	1.26	0.11	0.00
Home Health Aides	21	21	0%	3.39	1.63	0.19	0.10
Ultrasound Technicians	19	16	19%	1.85	1.27	0.11	0.13
Mental Health Specialists	17	13	31%	1.21	1.25	0.18	0.23
Physical Therapist Assistants	17	17	0%	1.31	1.74	0.00	0.12
Nuclear Medicine Technologists	9	7	29%	1.53	1.07	0.11	0.14
Occupational Therapist Assistants	7	6	17%	1.37	1.11	0.14	0.17
Cardiovascular Technicians/ Technologists	5	0	n/a	1.02	n/a	0.60	n/a
Speech Therapists	4	4	0%	1.14	1.54	0.00	0.00
Dialysis Technicians	3	3	0%	1.00	1.00	0.00	0.00
Radiation Therapists	3	3	0%	1.20	1.20	0.00	0.00
Certified Nurse Specialists	0	3	-100%	n/a	2.73	n/a	0.00
Respiratory Therapy Assistants	0	6	-100%	n/a	1.29	n/a	0.17
Total	2,764	2,648	4%	1.40	1.41	0.19	0.18

SECTION 3: CONCLUSIONS

This report synthesizes key information on the health care workforce in South Central/Southwest Wisconsin. We provide a snapshot of the current workforce in 40 selected health care occupations based on a representative subset of area employers surveyed in Spring 2013. We also project near-term changes in that workforce based on future retirements and employers' anticipated staffing needs. Comparing the 2013 results to those of a nearly identical employer survey in 2008 allows us to assess key changes and continuities in the region's health care workforce over the last five years, and to gauge the accuracy of the 2008 predictions.

Across all occupations considered, the health care workforce in the region has expanded considerably over the last five years. This expansion was perhaps expected given the region's aging population and their associated health care needs. Less expected was the precision of the 2008 projections across all occupations, given the economic turbulence of the last five years: employers predicted an overall workforce growth of eight percent between 2008 and 2013, and this is precisely what happened. Workers in 2013 were also slightly older than in 2008, a trend that may be driven in part by the Great Recession and the need by some workers to postpone retirement.

RNs continue to play a central role in the healthcare industry. In both 2008 and 2013, Registered Nurses have employed the largest number of health care workers in both urban and rural facilities. In fact, we calculate that the RN workforce in the region has expanded by 17 percent in the last five years, roughly twice the percent expansion projected by employers in 2008. In 2013, RNs made up a full 50 percent of the 10,523 member healthcare workforce covered in the survey, and the occupation is projected to grow by 101 jobs (FTE) over the next five years. In addition, some 887 RNs are currently aged 55 and over, and RNs commonly work less than full-time hours (on average, 1.4 workers fill one FTE RN position). Combining employers' staffing projections with employees' current age profiles and hours worked reveals that more than 520 new Registered Nurses will be needed in the next five years by our 14 participating health care institutions. Clearly, the education and training of additional RN workers will continue to be important into the near-term future.

Following RNs, Nursing Assistants employ the second largest number of health care employees in the region. In 2013, 1,025 Nursing Assistants were employed by our 14 participating hospitals, and some 143 employees in this occupation are projected to be needed in the next five years. However, the data also reveal that the number of Nursing Assistants in the region shrunk between 2008 and 2013 (by 11 percent), despite employers' expectations at that time that the occupation would grow. It remains to be seen whether the contraction in the Nursing Assistant workforce over the last five years will be followed by future contractions or by growth, as predicted by our participating 2013 employers.

While RNs and Nursing Assistants produce the largest numbers, our data indicate that 84 Medical Assistants, 51 Respiratory Therapists, 50 Physical Therapists, and 46 Medical Technologists will also be needed in the region in the near-term future. In contrast, the workforce in other occupations—namely, Medical Transcriptionists and LPNs in rural hospitals, and Phlebotomists in urban hospitals—is projected to contract, a continuation of a longer-standing decline.

Many trends highlighted in the report are suggestive of an education and workforce training system that is responding nimbly to changing regional needs. As noted, the employment of both Medical Transcriptionists and LPNs is declining notably, and these same occupations consist of a relatively larger proportion of older workers nearing retirement. In other words, fewer young people are being trained and hired in these declining occupations, and this is good news.

While urban and rural hospitals exhibit many similar trends, there are also notable differences. The rural healthcare workforce in the 40 occupations is older than the urban workforce (19 percent and 16 percent of the rural and urban workforce, respectively, are age 55 or older), and rural hospitals have slightly higher rates of part-time work across all occupations. In terms of net growth, urban hospitals grew at a faster rate than rural hospitals between 2008 and 2013, and they project to continue to grow at a slightly higher rate between 2013 and 2018.

This report provides data for continuing dialogue on the region's health care workforce, and for initiatives that can sustain and improve the industry in the coming years. The data is based on a subset of employers and a subset of occupations, and is necessarily incomplete. We know that area employers, in collaboration with leading education and workforce development institutions, will help to further develop, refine, and interpret these analyses.