



Enacted by the 2004 Legislature

2010 Workforce Demand in Nursing Survey Reports and Recommendations



2010 Vacancy and Turnover Rates of hospitals with regard to Registered Nurses,
Licensed Practical Nurses, Advance Practice Nurses, and survey of Schools of Nursing
for Workforce Needs

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Workforce Demand Survey Results for 2010

Executive Summary

The West Virginia Center for Nursing conducted surveys of hospital nurse employers and nursing deans and directors in 2010. The Center for Nursing worked with the West Virginia Hospital Association to distribute the hospital surveys. The results were returned to the Hospital Association who collected and redacted the facility identifiers and sorted the data into Workforce Investment Areas. Each facility was asked to provide their data on the previous year's vacancy and turnover rates for Registered Nurses, Licensed Practical Nurses, and Advanced Practice Nurses. In addition, the survey offered an opportunity for the facilities' representatives to make any additional comments that affected their recruitment and retention efforts. The Nursing Faculty Workforce Needs Survey was distributed via email to the schools' deans and directors with reminders. Additional questions were asked regarding retirements, ability to expand their programs, and salaries to name a few.

As for the hospitals 60 surveys were sent with 53 hospitals responding to the request for information. Seven hospitals did not respond, despite reminders. No state hospitals responded to the survey. This represents an 88% response rate.

As for the schools of nursing 20 surveys were sent and 18 surveys were completed for a return rate of 90%. One public and one private university did not participate in the survey. Of the schools responding, 12 are state supported schools and 6 are privately funded institutions. The schools participating in this survey reported employment of 263 full-time FTE's (1 FTE = 40 hours per week), 25 Part-time FTE's, and 93 Temporary Part-time/Adjunct faculty.

- Registered Nurse vacancy rates were 0% to 7.9%. Turnover rates were 9.9% to 14.8%.
- Licensed Practical Nurse vacancy rates were 0% to 10.2%. Turnover rates were 12.4% to 26.3%
- Advanced Practice Nurse vacancy rates were 0% to 5.8%. Turnover rates were 0% to 66%.
- The schools of nursing reported a turnover of 40 faculty during the two years prior to this report, representing 10% of the nursing faculty workforce. The two most common reasons for departure were career advancement and salary enhancement.

Recommendations have been made for each survey result including exploring methods to improve employer participation in demand surveys, including state hospitals.

**West Virginia Center for Nursing
Survey of Registered Nurse Turnover Rates
West Virginia Hospitals**

In accordance with HB 4143 passed by the West Virginia Legislature in 2010, the West Virginia Center for Nursing tracks the changing nature of the nursing labor market by conducting a survey of nurse employers in West Virginia. Employers of nurses are required by HB 4143 to report the requested information annually to the WV Center for Nursing.

The WV Center for Nursing collaborated with the WV Hospital Association to collect data on vacancies, turnover and other nursing workforce demand issues in West Virginia Hospitals during the Fall of 2010. A cover letter was sent jointly from the Center and the WVHA to all hospitals assuring confidentiality of the data, and outlining the plan for aggregating data by region. Data were aggregated by Workforce Region and reported here. For reference, the following Workforce regions were used for data organization:



Response Rate

Fifty three hospitals responded to the request for information. Seven hospitals did not respond, despite reminders. No state hospitals responded to the survey.

Turnover Rates

Turnover rates were calculated according to the following standard, a nationally accepted formula used by nursing workforce centers nationally:

Turnover Rate= $[A \div ((B + C) / 2)] \times 100$

- A. Total # of nurses who voluntarily left the organization during the last fiscal year period (ie. not as a result of termination or downsizing)
- B. Total # of nurses employed as of the first day of the last fiscal year
- C. Total # of nurses employed as of the last day of the last fiscal year

RN Turnover rates: WV Hospitals, 2010

Workforce Region	RN's who left the organization	Total RN's employed first day of last fiscal year	Total RN's employed last day of last fiscal year	Total number of participating agencies/Percent of hospitals in region responding to request for data	Turnover rate
1	113	913	905	9 (90%)	12.4%
2	191	1915	1938	9 (90%)	9.9%
3	293	2397	2536	5 (56%)	11.9%
4	114	790	835	7 (100%)	14.0%
5	149	1264	1194	7 (100%)	12.1%
6	424	2770	2923	11 (91.6%)	14.8%
7	70	510	539	4 (57.1%)	13.3%

2009 RN Median Wages, National, West Virginia, and surrounding states

State	Median Hourly salary
WV	\$24.31
Ohio	\$27.99
Kentucky	\$27.00
Virginia	\$29.43
Maryland	\$36.38
Pennsylvania	\$29.24
National	\$30.65

Source: US Bureau of Labor Statistics, May 2009 (<http://www.bls.gov/oes/2009/may/oes291111.htm>)

Discussion

- Regional turnover rates for registered nurses in reporting WV hospitals range from 9.9% to 14.8% during the reporting period. This compares favorably to a recent 2010 Texas study of RN turnover rates which ranged from 16.5% to 26.7% using similar methodology and formulas in Texas regions. The Florida Center for Nursing reported in their similar study an average 16.3% turnover rate for hospital RNs in direct care for the period ending June 30, 2009.
- The lowest RN turnover rates are in regions 2 and 3. Region 2 had a 90% response rate among hospitals in the region, while Region 3 had a lower response rate of 56% of hospitals responding to the request for data. Data should be interpreted with caution, given less than 100% response rates.
- The highest RN turnover rates are in regions 4, 6, and 7. These regions border urban markets in Pennsylvania, Ohio, Maryland, and Washington DC, and which have been noted in past Center for Nursing reports to have significantly higher mean RN salaries than in WV. A respondent from Region 6 indicated “There is a need to remain competitive with counties on the borders of surrounding states”.
- Turnover rates nationally have been fairly low during the economic downturn. A respondent in region 6 indicated that this is a temporary condition stating “...we have not had difficulty in retaining and recruiting nurses during the last 2 years however I am aware that this will change when the economy improves and our nurses begin retiring in mass in the next 5 years...”.
- Turnover costs—which include the costs of advertising, recruiting, and hiring, as well as orientation and loss of productive capacity—can be as high as a year’s salary for a registered nurse. High rates of staffing instability can cause heavier workloads and increased dissatisfaction among existing personnel. Continuity and quality of care may also be affected.

Limitations

These data are limited by lower response rates in some regions. Data were self reported by hospitals, and errors in reporting and coding cannot be ruled out by the WV Center for Nursing.

Recommendations

- **The Center should continue to replicate the 2010 employer survey biennially and track trends.**
- **The Center should continue to explore methods to improve employer participation in demand surveys, including state hospitals.**
- **The Center should emphasize and support methods to retain the current nursing workforce, especially considering the needs of the aging nursing workforce.**
- **Access to and quality of care must be carefully monitored as the nursing shortage intensifies.**

West Virginia Center for Nursing Survey of Registered Nurse Vacancy Rates West Virginia Hospitals

In accordance with HB 4143 passed by the West Virginia Legislature in 2010, the West Virginia Center for Nursing tracks the changing nature of the nursing labor market by conducting a survey of nurse employers in West Virginia. Employers of nurses are required by HB 4143 to report the requested information annually to the WV Center for Nursing.

The WV Center for Nursing collaborated with the WV Hospital Association to collect data on vacancies, turnover and other nursing workforce issues in West Virginia Hospitals during the Fall of 2010. A cover letter was sent jointly from the Center and the WVHA to all hospitals assuring confidentiality of the data, and outlining the plan for aggregating data by region. Data were aggregated by Workforce Region and reported here. For reference, the following Workforce regions were used for data organization:



Response Rate

Fifty three hospitals responded to the request for information. Seven hospitals did not respond, despite reminders. No state hospitals responded to the survey.

Vacancy Rates

Average Vacancy rates by region were calculated according to the following standard, a nationally accepted formula used by nursing workforce centers nationally:

Average Vacancy Rate = ((SUM (vacant positions in each agency / (total vacant positions + total filled positions in each agency))/total number of participating agencies) X 100

Average RN Vacancy Rates: WV Hospitals, 2010

Workforce Region	Total Number of Vacant Positions in Region	Total Number of Filled Positions in Region	Total number of responding agencies (Percent of hospitals in region responding to request for data)	Average Vacancy Rate for Region	Number (percent) of responding hospitals in region reporting no (zero) vacancies
1	244	215	9 (90%)	5.9%	3 of 9 (33%)
2	355	358	9 (90%)	0% *	3 of 9 (33%)
3	456	317	5 (56%)	6.5%	1 of 5 (20%)
4	264	209	7 (100%)	7.9%	2 of 7 (28.5%)
5	143	423	7 (100%)	0%*	3 of 7 (42.8%)
6	697	1048	11 (91.6%)	0%*	4 of 11 (36.3%)
7	140	181	4 (57.1%)	0%*	1 of 4 (25%)

**Average vacancy rates consider vacancies in the aggregate by region. Individual hospitals could have higher vacancy rates. In addition, job growth in particular agencies can account for more filled positions than vacancies reported. Response rates in some areas limit the ability to generalize to the region.*

Discussion

- The regional RN vacancy rates in WV hospitals participating in this survey range from 0% to 7.9%. Job growth and creation in the RN workforce possibly accounts for more filled positions in the four regions reporting 0% vacancy rates. In regions reporting more than 0% average vacancy rates, there appear to be 223 unfilled vacancies at the time of reporting. However, these rates should be viewed with caution, as they do not represent 100% of hospitals reporting in each region. These values compare to the median vacancy rates in Texas of 6.9% in their 2010 survey, and 4.6% in Florida’s 2009 survey.
- Regions 1, 3, and 4 appear to have the highest vacancy rates. There appear to be no commonalities among these regions, which range from urban to rural. Each has at least one nursing school in the region preparing registered nurses. A respondent from region 2, where a 0% vacancy rate is reported by participating hospitals, indicates that presence of nursing schools allows them to meet their workforce needs, stating “we are surrounded by 3 nursing schools, recruiting is usually not a problem for us.” Other organizations have indicated that the use of nurse externs, typically nursing students, is a valuable recruitment tool. Quality applicants have been an issue for respondents in filling vacancies. A respondent in region 4 indicated “several of our new graduate RNs that we hired had significant problems with NCLEX passage”.
- Of 53 hospitals reporting difficulty recruiting specific types of nurses, 51 reported difficulty recruiting registered nurses. Of these, the specialty areas of *intensive care units*

(ICU), emergency room and the operating room were the most difficult to recruit. Organizations also reported difficulties in other specialty areas such as *obstetrics, rehabilitation and psychiatric nursing*.

- Implications of vacancies reported by respondents include increased overtime costs, increased expenses due to use of agency staff, occasional closing of beds on units, and difficulty retaining staff who are consistently asked to work overtime. Strategies noted by respondents to cover vacant positions include increased shift and overtime differential pay, flexible scheduling, and cross training for specialty areas.

Limitations

These data are limited by lower response rates in some regions. Data were self reported by hospitals, and errors in reporting and coding cannot be ruled out by the WV Center for Nursing.

Recommendations

- **The Center should continue to replicate the 2010 employer survey biennially and track trends.**
- **The Center should continue to explore methods to improve employer participation in demand surveys, including state hospitals.**
- **The Center should work with partners to assist with recruitment for vacant positions across the state.**
- **The Center should consider focused scholarship support for nurses preparing to work in specialty areas identified as needed by employers.**
- **The Center should work with partners in nursing education to evaluate how to prepare and recruit nurses for specialty positions across the state.**

**West Virginia Center for Nursing
Survey of Licensed Practical Nurse Turnover Rates
West Virginia Hospitals**

In accordance with HB 4143 passed by the West Virginia Legislature in 2010, the West Virginia Center for Nursing tracks the changing nature of the nursing labor market by conducting a survey of nurse employers in West Virginia. Employers of nurses are required by HB 4143 to report the requested information annually to the WV Center for Nursing.

The WV Center for Nursing collaborated with the WV Hospital Association to collect data on vacancies, turnover and other nursing workforce demand issues in West Virginia Hospitals during the Fall of 2010. A cover letter was sent jointly from the Center and the WVHA to all hospitals assuring confidentiality of the data, and outlining the plan for aggregating data by region. Data were aggregated by Workforce Region and reported here. For reference, the following Workforce regions were used for data organization:



Response Rate

Fifty three hospitals responded to the request for information. Seven hospitals did not respond, despite reminders. No state hospitals responded to the survey.

Turnover Rates

Turnover rates were calculated according to the following standard, a nationally accepted formula used by nursing workforce centers nationally:

Turnover Rate= $[A \div ((B + C) / 2)] \times 100$

- A. Total # of nurses who voluntarily left the organization during the last fiscal year period (ie. not as a result of termination or downsizing)
- B. Total # of nurses employed as of the first day of the last fiscal year
- C. Total # of nurses employed as of the last day of the last fiscal year

Licensed Practical Nurse (LPN) Turnover rates: WV Hospitals, 2010

Workforce Region	LPN's who left the organization	Total LPN's employed first day of last fiscal year	Total LPN's employed last day of last fiscal year	Total number of participating agencies/Percent of hospitals in region responding to request for data	Turnover rate
1	62	221	250	9 (90%)	26.3%
2	34	271	278	9 (90%)	12.4%
3	40	225	237	5 (56%)	17.3%
4	26	132	128	7 (100%)	20.0%
5	24	197	182	7 (100%)	12.7%
6	48	344	311	11 (91.6%)	14.7%
7	13	65	54	4 (57.1%)	18.7%

2009 LPN Median Wages, National, West Virginia, and surrounding states

State	Median Hourly salary
WV	\$15.19
Ohio	\$19.00
Kentucky	\$17.28
Virginia	\$17.89
Maryland	\$23.82
Pennsylvania	\$19.23
National	\$19.14

Source: US Bureau of Labor Statistics, May 2009 (<http://www.bls.gov/oes/2009/may/oes291111.htm>)

Discussion

- Regional turnover rates for licensed practical nurses in reporting WV hospitals range from 12.4% to 26.3% during the reporting period. This compares favorably to a recent 2010 Texas study of LPN turnover rates using similar methodology and formulas which ranged from 12.7% to 33.3% in Texas regions. The Florida Center for Nursing reported in their similar study an average 22.1% turnover rate for hospital LPNs in direct care for the period ending June 30, 2009.
- The lowest LPN turnover rates are in regions 2 and 5. Region 2 had a 90% response rate among hospitals in the region, while Region 5 had 100% of hospitals responding to the request for data.
- The highest LPN turnover rates are in regions 1, 4, and 7. These regions border urban markets in Virginia, Ohio, Maryland, and Washington DC, and which have been noted in past Center for Nursing reports to have significantly higher mean LPN salaries than in WV. Data should be interpreted with caution, given less than 100% response rates in regions 1 and 7.
- Turnover rates nationally have been fairly low during the economic downturn. A respondent in region 6 indicated that this is a temporary condition stating "...we have not had difficulty in retaining and recruiting nurses during the last 2 years however I am aware that this will change when the economy improves and our nurses begin retiring in mass in the next 5 years...".
- Turnover costs—which include the costs of advertising, recruiting, and hiring, as well as orientation and loss of productive capacity—can be as high as a year's salary for a registered nurse. High rates of staffing instability can cause heavier workloads and increased dissatisfaction among existing personnel. Continuity and quality of care may also be affected.

Limitations

These data are limited by lower response rates in some regions. Data were self reported by hospitals, and errors in reporting and coding cannot be ruled out by the WV Center for Nursing.

Recommendations

- **The Center should continue to replicate the 2010 employer survey biennially and track trends.**
- **The Center should continue to explore methods to improve employer participation in demand surveys, including state hospitals.**
- **The Center should explore reasons for LPN turnover, some of which may be due to an increase in students enrolled in LPN-RN programs in the state.**
- **The Center should emphasize and support methods to retain the current nursing workforce, especially considering the needs of the aging nursing workforce.**
- **Access to and quality of care must be carefully monitored as the nursing shortage intensifies.**

West Virginia Center for Nursing Survey of Licensed Practical Nurse Vacancy Rates West Virginia Hospitals

In accordance with HB 4143 passed by the West Virginia Legislature in 2010, the West Virginia Center for Nursing tracks the changing nature of the nursing labor market by conducting a survey of nurse employers in West Virginia. Employers of nurses are required by HB 4143 to report the requested information annually to the WV Center for Nursing.

The WV Center for Nursing collaborated with the WV Hospital Association to collect data on vacancies, turnover and other nursing workforce issues in West Virginia Hospitals during the Fall of 2010. A cover letter was sent jointly from the Center and the WVHA to all hospitals assuring confidentiality of the data, and outlining the plan for aggregating data by region. Data were aggregated by Workforce Region and reported here. For reference, the following Workforce regions were used for data organization:



Response Rate

Fifty three hospitals responded to the request for information. Seven hospitals did not respond, despite reminders. No state hospitals responded to the survey.

Vacancy Rates

Average Vacancy rates by region were calculated according to the following standard, a nationally accepted formula used by nursing workforce centers nationally:

Average Vacancy Rate = ((SUM (vacant positions in each agency / (total vacant positions + total filled positions in each agency))/total number of participating agencies) X 100

Average LPN Vacancy Rates: WV Hospitals, 2010

Workforce Region	Total Number of Vacant LPN Positions in Region	Total Number of Filled LPN Positions in Region	Total number of responding agencies (Percent of hospitals in region responding to request for data)	Average Vacancy Rate for Region	Number (percent) of responding hospitals in region reporting no (zero) vacancies
1	124	109	9 (90%)	5.9%	5 of 9 (55.6%)
2	66	66	9 (90%)	0%	6 of 9 (66.7%)
3	76	73	5 (56%)	10.2%	3 of 5 (60%)
4	38	36	7 (100%)	7.3%	5 of 7 (71.4%)
5	11	35	7 (100%)	0%	6 of 7 (85.7%)
6	76	124	11 (91.6%)	0%	9 of 11 (81.8%)
7	12	18	4 (57.1%)	0%	2 of 4 (50%)

**Average vacancy rates consider vacancies in the aggregate by region. Individual hospitals could have higher vacancy rates. In addition, job growth in particular agencies can account for more filled positions than vacancies reported. Response rates in some areas limit the ability to generalize to the region.*

Discussion

- The regional LPN vacancy rates in WV hospitals participating in this survey range from 0% to 10.2%. Job growth and creation in the LPN workforce possibly accounts for more filled positions in the four regions reporting 0% vacancy rates. Aggregate RN vacancy rates are reported at 0% in these same regions. In regions reporting more than 0% average vacancy rates, there appear to be 18 unfilled LPN vacancies at the time of reporting. **However, these rates should be viewed with caution, as they do not represent 100% of hospitals reporting in each region.** These values compare to the median vacancy rates in Texas of 8.7% in their 2010 survey. Florida reports a lower average facility vacancy rate for LPNs of 3.5% in their 2009 survey.
- Similar to RN Vacancy data, Regions 1, 3, and 4 appear to have the highest LPN vacancy rates. There appear to be no commonalities among these regions, which range from urban to rural. Each has at least one nursing school in the region preparing licensed practical nurses (region 1, 8 LPN schools, region 3 has 1 LPN school, region 4 has 2 LPN schools). A respondent from region 2, where a 0% vacancy rate is reported by participating hospitals, indicates that presence of nursing schools allows them to meet their workforce needs, stating “we are surrounded by 3 nursing schools, recruiting is usually not a problem for us.”
- Of 53 hospitals reporting difficulty recruiting specific types of nurses, only one hospital (in Region 1) reported difficulty recruiting licensed practical nurses.
- Implications of vacancies reported by respondents include increased overtime costs, increased expenses due to use of agency staff, occasional closing of beds on units, and difficulty retaining staff who are consistently asked to work overtime. Strategies noted by respondents to cover vacant positions include increased shift and overtime differential pay, flexible scheduling, and cross training for specialty areas.

Limitations

These data are limited by lower response rates in some regions. Data were self reported by hospitals, and errors in reporting and coding cannot be ruled out by the WV Center for Nursing.

Recommendations

- **The Center should continue to replicate the 2010 employer survey biennially and track trends.**
- **The Center should continue to explore methods to improve employer participation in demand surveys, including state hospitals.**
- **The Center should survey LPNs to analyze numbers who are seeking education to qualify for RN licensure and planned retirements, to analyze possible impact on the future LPN workforce.**
- **The Center should re-evaluate the use of scholarship dollars to support LPN faculty given the low number of LPN vacancies in the state.**
- **The Center should work with partners to assist with recruitment to fill LPN vacancies.**

West Virginia Center for Nursing Survey of Advanced Practice Nurse Turnover Rates West Virginia Hospitals

In accordance with HB 4143 passed by the West Virginia Legislature in 2010, the West Virginia Center for Nursing tracks the changing nature of the nursing labor market by conducting a survey of nurse employers in West Virginia. Employers of nurses are required by HB 4143 to report the requested information annually to the WV Center for Nursing.

The WV Center for Nursing collaborated with the WV Hospital Association to collect data on vacancies, turnover and other nursing workforce demand issues in West Virginia Hospitals during the Fall of 2010. A cover letter was sent jointly from the Center and the WVHA to all hospitals assuring confidentiality of the data, and outlining the plan for aggregating data by region. Data were aggregated by Workforce Region and reported here. For reference, the following Workforce regions were used for data organization:



Response Rate

Fifty three hospitals responded to the request for information. Seven hospitals did not respond, despite reminders. No state hospitals responded to the survey. 17 hospitals report no advanced practice nurses in their workforce numbers.

Turnover Rates

Turnover rates were calculated according to the following standard, a nationally accepted formula used by nursing workforce centers nationally:

$$\text{Turnover Rate} = [A \div ((B + C) / 2)] \times 100$$

- A. Total # of nurses who voluntarily left the organization during the last fiscal year period (ie. not as a result of termination or downsizing)
- B. Total # of nurses employed as of the first day of the last fiscal year
- C. Total # of nurses employed as of the last day of the last fiscal year

APN Turnover rates: WV Hospitals, 2010

Workforce Region	APNs who left the organization	Total APNs employed first day of last fiscal year	Total APNs employed last day of last fiscal year	Total number of participating agencies/Percent of hospitals in region responding to request for data	Turnover rate
1	2	3	3	9 (90%)	66.0%*
2	6	66	67	9 (90%)	4.5%
3	9	129	135	5 (56%)	3.4%
4	2	13	13	7 (100%)	7.7%
5	5	28	25	7 (100%)	9.4%
6	3	32	34	11 (91.6%)	4.5%
7	0	1	1	4 (57.1%)	0%

**Low total numbers of APNs in this region in respondent hospitals makes this turnover rate appear high. However, this represents the turnover of 2 APNs with all APNs replaced at end of fiscal year.*

Discussion

- Regional turnover rates for advanced practice nurses in reporting WV hospitals range from 0% to 66% (see note above). All regions, with the exception of Region 1 have APN turnover rates below 10% during the reporting period. This compares favorably to a recent 2010 Texas study of APN hospital turnover rates which ranged from 0% to 30% using similar methodology and formulas in Texas regions. The Florida Center for Nursing reported in their similar study an average 7.0 % turnover rate for hospital APNs for the period ending June 30, 2009.
- Data should be interpreted with caution, given less than 100% response rates.
- Turnover costs—which include the costs of advertising, recruiting, and hiring, as well as orientation and loss of productive capacity—can be as high as a year’s salary for an advanced practice nurse. High rates of APN staffing instability can alter the patient care model in hospitals, and can influence patient length of stay, patient wait time, and patient satisfaction.

Limitations

These data are limited by lower response rates in some regions. Data were self reported by hospitals, and errors in reporting and coding cannot be ruled out by the WV Center for Nursing.

Recommendations

- **The Center should continue to replicate the 2010 employer survey biennially and track trends.**
- **The Center should continue to explore methods to improve employer participation in demand surveys, including state hospitals.**
- **The Center should emphasize and support methods to retain the current APN nursing workforce, and should work to promote incentive programs to maintain APNs in the WV workforce.**
- **Access to and quality of care must be carefully monitored as the nursing shortage intensifies.**

West Virginia Center for Nursing Survey of Advanced Practice Nurse Vacancy Rates West Virginia Hospitals

In accordance with HB 4143 passed by the West Virginia Legislature in 2010, the West Virginia Center for Nursing tracks the changing nature of the nursing labor market by conducting a survey of nurse employers in West Virginia. Employers of nurses are required by HB 4143 to report the requested information annually to the WV Center for Nursing.

The WV Center for Nursing collaborated with the WV Hospital Association to collect data on vacancies, turnover and other nursing workforce issues in West Virginia Hospitals during the Fall of 2010. A cover letter was sent jointly from the Center and the WVHA to all hospitals assuring confidentiality of the data, and outlining the plan for aggregating data by region. Data were aggregated by Workforce Region and reported here. For reference, the following Workforce regions were used for data organization:



Response Rate

Fifty three hospitals responded to the request for information. Seven hospitals did not respond, despite reminders. No state hospitals responded to the survey. Seventeen hospitals reported no advanced practice nurses in their workforce numbers.

Vacancy Rates

Average Vacancy rates by region were calculated according to the following standard, a nationally accepted formula used by nursing workforce centers nationally:

Average Vacancy Rate = ((SUM (vacant positions in each agency / (total vacant positions + total filled positions in each agency))/total number of participating agencies) X 100

Average APN Vacancy Rates: WV Hospitals, 2010

Workforce Region	Total Number of Vacant APN Positions in Region	Total Number of Filled APN Positions in Region	Total number of responding agencies (Percent of hospitals in region responding to request for data)	Average Vacancy Rate for Region	Number (percent) of responding hospitals in region reporting no (zero) vacancies**
1	2	2	9 (90%)	0 %	9 of 9 (100%)
2	10	9	9 (90%)	5.8%	7 of 9 (77.8%)
3	16	16	5 (56%)	0%	5 of 5 (100%)
4	1	2	7 (100%)	0%	7 of 7 (100%)
5	5	11	7 (100%)	0%	7 of 7 (100%)
6	12	12	11 (91.6%)	0%	11 of 11 (100%)
7	0	0	4 (57.1%)	0%	4 of 4 (100%)

***Average vacancy rates consider vacancies in the aggregate by region. Individual hospitals could have higher vacancy rates. In addition, job growth or changes in care models in particular agencies can account for more filled APN positions than vacancies reported. Response rates in some areas limit the ability to generalize to the region.*

Discussion

- Only one region reports APN vacancies in WV hospitals participating in this survey. Job growth and creation and the introduction of new care models utilizing APNs in hospitals possibly accounts for more filled positions in the regions reporting 0% vacancy rates. However, these rates should be viewed with caution, as they do not represent 100% of hospitals reporting in each region. These values compare favorably to the median vacancy rates for APNs in Texas of 4.5% for certified nurse midwives to 15.9% for Clinical Nurse Specialists in their 2010 survey, and 7.0% for all APNs in Florida's 2009 survey.
- Of 53 hospitals reporting difficulty recruiting specific types of nurses, 12 reported difficulty recruiting advanced practice nurses. Of these, the specialty area of family nurse practitioners (3 agencies), Clinical Nurse Specialists (2 agencies), Certified registered nurse anesthetists (1 agency), Certified nurse midwives (1 agency), Psychiatric Nurse Practitioners (1 agency), and Acute Care Nurse Practitioners (1 agency) were most difficult to recruit. Two agencies indicated difficulty recruiting "mid level providers" and "advanced practice nurses for our rural clinics". One respondent indicated that the need for Acute Care Nurse Practitioners was being driven by "by medical necessity and a limitation on the hours residents can work" indicating that new care models are perhaps driving needs for specialty APNs as substitutes for resident physicians. Of note, there are currently 4 education programs preparing family nurse practitioners in the state, none prepare Clinical Nurse Specialists, 2 prepare Certified registered nurse anesthetists, none prepare certified nurse midwives, psychiatric nurse practitioners or acute care nurse practitioners.
- Implications of vacancies reported by respondents include increased length of stay in the emergency room, missing corporate benchmarks, decreased patient satisfaction scores, and increased patient wait times. One respondent indicated the difficulty with substituting other mid level providers for APNs, noting that "usually if you cannot recruit a FNP you will hire a Physician Assistant (PA) in that place. A new PA fresh out of school cannot write prescriptions for a year, where a FNP can immediately".

Limitations

These data are limited by lower response rates in some regions. Data were self reported by hospitals, and errors in reporting and coding cannot be ruled out by the WV Center for Nursing.

Recommendations

- **The Center should continue to replicate the 2010 employer survey biennially and track trends.**
- **The Center should continue to explore methods to improve employer participation in demand surveys, including state hospitals.**
- **The Center should work with partners to assist with recruitment for vacant APN positions across the state.**
- **The Center should work with partners in nursing to evaluate the availability and potential feasibility of APN education in areas of need identified by hospital employers. In addition, the Center should facilitate partnerships between established programs both within the state and outside of the state to create effective and feasible education models to meet the need of state employers.**
- **The Center should work with partners in nursing education to evaluate how best to prepare and recruit APNs for specialty positions across the state.**

West Virginia Center for Nursing Survey of Nursing Faculty Workforce Needs West Virginia Schools of Nursing

In accordance with HB 4143 passed by the West Virginia Legislature in 2010, the West Virginia Center for Nursing tracks the changing nature of the nursing labor market by conducting a survey of nurse employers in West Virginia. Employers of nurses are required by HB 4143 to report the requested information annually to the WV Center for Nursing.

The WV Center for Nursing collaborated with the WV Association of Deans and Directors in Nursing Education to collect data on nursing faculty workforce issues. The Nurse Faculty Demand survey was conducted during the fall of 2009, with all responses received by spring 2010. The survey was conducted via a web based survey instrument. Email reminders were sent to program deans and directors from each school of nursing. Only schools preparing registered nurses at a variety of levels (associate, bachelor's, master's and doctoral) were surveyed.

Where appropriate, data were aggregated by Workforce Region. For reference, the following Workforce regions were used for data organization:



Response Rate

Response Rate

Of the 20 survey invitations that were emailed, 18 surveys were completed and returned for a return rate of 90%. One public and one private university did not participate in the survey. Of the schools responding, 12 are state supported schools and 6 are privately funded institutions. The schools participating in this survey reported employment of 263 Full-time FTE's (1 FTE = 40 hours/week), 25 Part-time FTE's, and 93 Temporary Part-time/Adjunct faculty.

Faculty Vacancies

Respondents reported that 40 nurse faculty left their positions the 2 years prior to the study. Deans and Directors were asked the primary reasons for faculty resignations in the past two years (Table 1). Respondents also reported the amount of time it took to fill vacant faculty positions (Table 2). Respondents were also requested to report anticipated faculty retirements in 2009 and 2010 (Table 3).

Table 1: Number and reasons for faculty departures, WV schools of nursing, 2009-2010

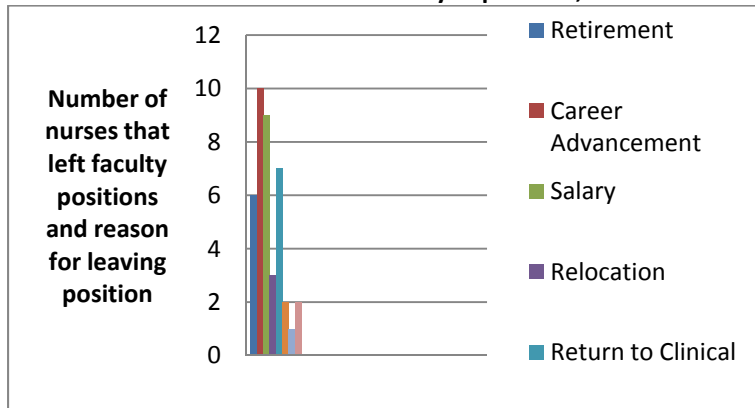
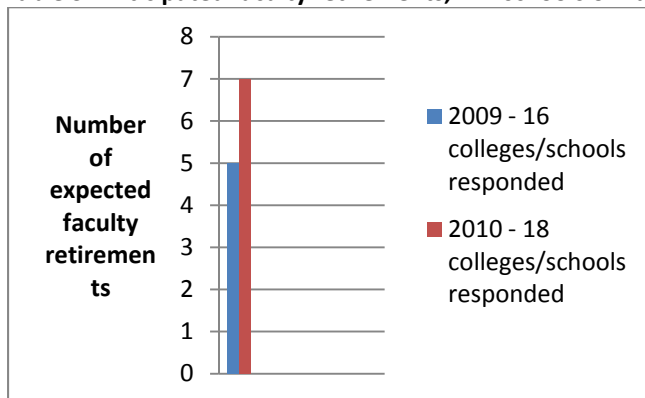


Table 2: Time to fill vacant nursing faculty positions, WV schools of nursing, 2009-2010 by WIA

Workforce Investment Area (WIA)	Time to fill vacant faculty position
1	0 – 3 months
2	0 – 6 months
3	0 – 11 months
4	4 – 6 months
5	0 – 11 months
6	4 months – 2 years
7	7 – 11 months

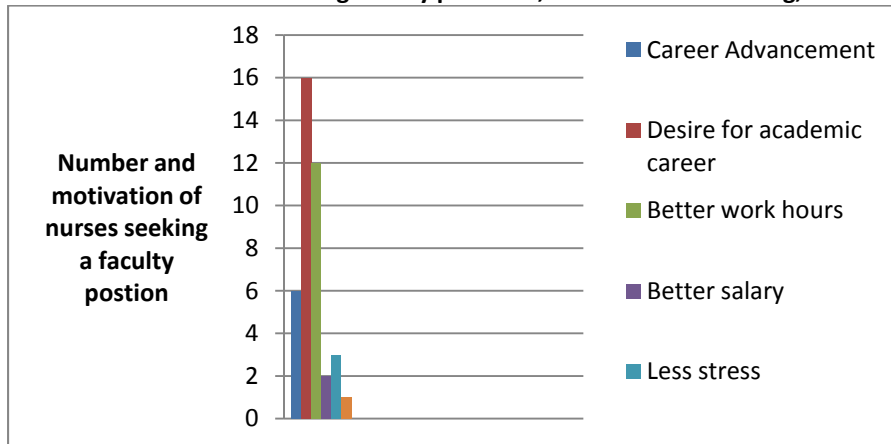
Table 3: Anticipated faculty retirements, WV schools of nursing, 2009-2010



Faculty Recruitment

Respondents reported filling 40 nurse faculty positions over the past two years, filling vacant full-time, part-time or temporary faculty positions. Data were collected to ascertain the perceived motivations for nurses to seek a faculty position in a West Virginia School of Nursing. Respondents reported the primary motivation for individuals seeking a faculty position over the last two years.

Table 4: Motivation for seeking faculty positions, WV schools of nursing, 2009-2010



Anticipated Needs to support Program Expansion

Respondents were asked to estimate the number of additional faculty FTE's (1.0 FTE = 40 hours/week) needed in order to expand student enrollment by 20 admissions/year/program (Table 5) and the perceived barriers for program expansion (Table 6).

Table 5: Faculty FTE needs for program expansion, WV schools of nursing, 2009-2010

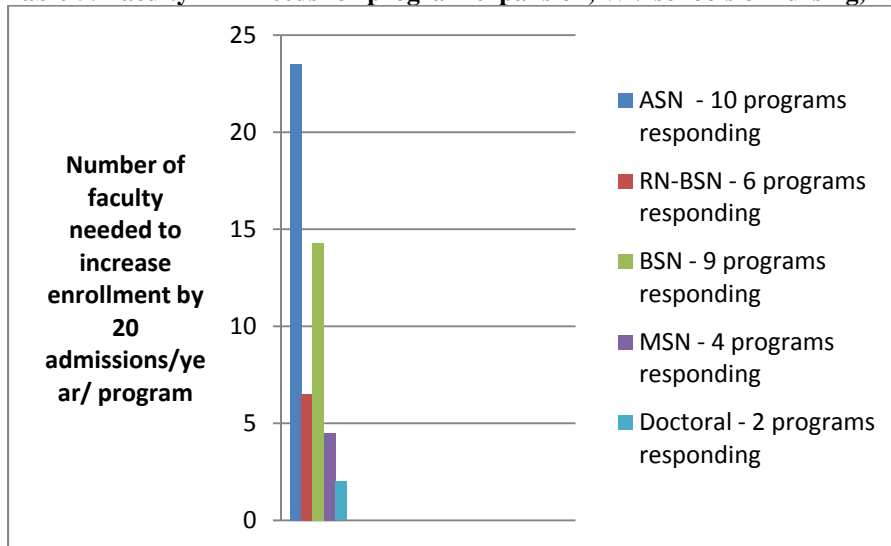
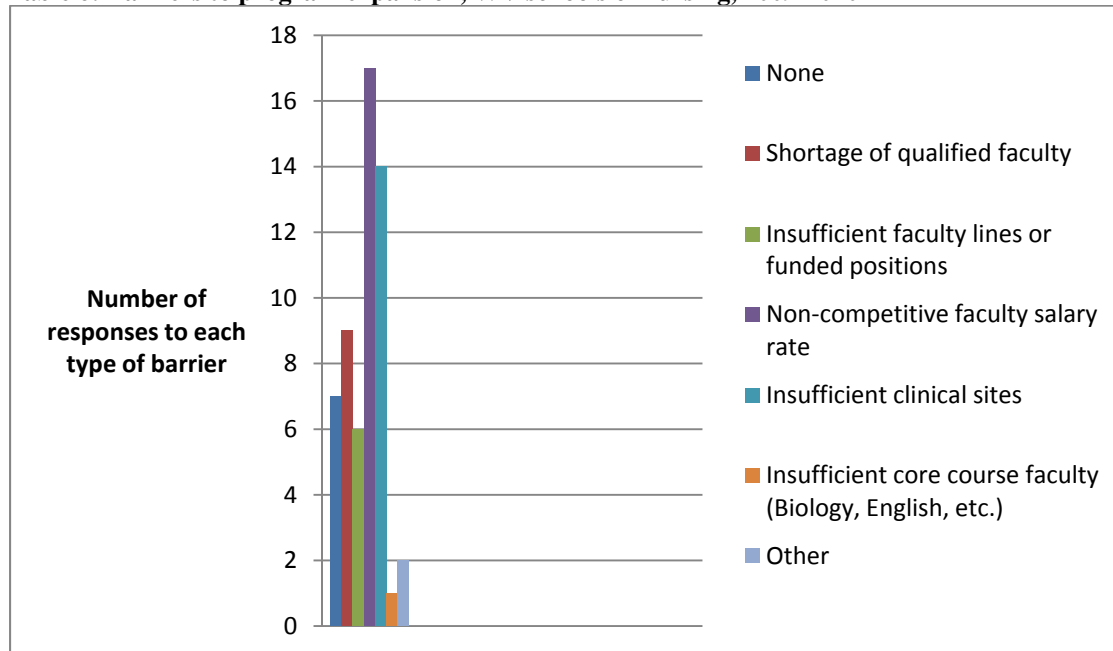


Table 6: Barriers to program expansion, WV schools of nursing, 2009-2010



Faculty Salaries

Respondents reported the following faculty salary rates by rank and length of contract.

Table 7: WV Faculty Salaries by rank and length of contract, 2009-2010

Position/Time	9 months	10 months	12 months
Instructor	\$32,215.00 - \$46,922.00	\$56,000.00*	\$35,000.00 - \$54,944.00
Assistant Professor	\$35,236.00 - \$55,705.00	\$61,400.00*	\$68,661.00*
Associate Professor	\$42,260.00 - \$63,760.00	\$75,000.00*	\$85,353.00*
Professor	\$46,500.00 - \$78,000.00	\$54,210.00 - \$85,000.00	\$65,000.00 - \$102,417.00

**Only one school in each of these categories reported salary data for these categories, hence, no salary range is provided.*

Discussion

- Of the 381 faculty positions reported here, 40 turned over during the 2 years prior to this reporting period, representing over 10% of the nursing faculty workforce. The two most common reasons for departure were career advancement and salary enhancement.
- Salaries for faculty remain low, compared to service positions in nursing in the state, and compared to faculty salaries in other disciplines and in other states.
- Regions reporting the longest time to fill faculty positions include regions 3, 5, 6 and 7. While schools of nursing preparing students at the master's and doctoral levels (required to teach in schools of nursing preparing RN's) exist in each of these regions, these regions also contain a number of nursing schools competing for nursing faculty. Additionally, regions 5, 6 and 7 are border regions, competing across state lines for nursing faculty.

- School of nursing faculty members are aging, with a reported average of 6 retirements anticipated per year during this reporting period. Replacement needs for retirements in nursing faculty will likely increase over the next 5 years with the improvement of the economy, and the continued aging of faculty.
- With nursing faculty shortages and difficulties in recruitment of qualified faculty, expansion of nursing programs beyond current capacity is worrisome. An estimated 50 new faculty positions would be needed to increase enrollment by 20 students per respondent program in WV schools of nursing. Increased funding to nursing education would need to include funding for faculty lines and salary enhancement support.

Limitations

These data are limited by less than 100% response rates in some regions. Data were self reported by Deans and Directors of WV schools of nursing, and errors in reporting cannot be ruled out by the WV Center for Nursing.

Recommendations

- **The Center should continue to replicate the 2010 nurse faculty survey biennially and track trends.**
- **The Center should continue to explore methods to improve school of nursing participation in surveys.**
- **The Center should continue to support programs to prepare nurse faculty, given anticipated retirements and faculty turnover.**
- **The Center should consider programs to support new nursing faculty in their role, including mentoring programs.**
- **The Center should continue to support education partners in filling vacant faculty positions, through continuation of the faculty employment opportunity section of the Center's website, and continued support of the nursing faculty repository, updating these data biennially, and evaluating faculty placement through the use of this service.**
- **The Center should work with partners in education and policy makers to develop programs to retain the current nurse faculty workforce, and should work to promote incentive programs, including salary enhancements and tax credits to maintain nursing faculty in the WV workforce.**