

**APPENDIX A:**

**DATA FROM THE NATIONAL SAMPLE SURVEY OF REGISTERED NURSES (2000)**

**Table 1: Percent of respondents who live and work in the same county, type of RN degree received, highest degree received, and employment status.**

	<b>II. Total</b> <b>(n=35,452)</b>	<b>Metro</b> <b>(n=28,208)</b>	<b>Micro</b> <b>(n=4,364)</b>	<b>NonCore</b> <b>(n=2,880)</b>		<b>Non-Frontier</b> <b>(n=32,849)</b>	<b>Frontier</b> <b>(n=2,603)</b>
<b>Weighted percent of the total</b>	100	85.3	9.8	4.9		97.2	2.8
<b>Live and work in same county</b>	p<.000					p<.000	
No	24.9	25.4	20.7	24.0		25.1	15.3
Yes	75.2	74.6	79.3	76.0		74.9	84.7
<b>Race/Ethnicity (n=34,486)</b>	p<.000					p=.003	
White	87.2	86.2	92.9	94.1		87.1	91.2
Other	12.8	13.8	7.1	6.0		12.9	8.8
<b>Type of Education Program to become RN (n=34,801)</b>	p<.000					p<.000	
Diploma	29.8	30.2	27.8	27.6		30.0	24.7
Associate	40.3	38.3	50.6	54.5		40.0	49.9
Bachelor	29.5	31.1	21.6	17.7		29.6	25.0
Masters/Doctorate	0.4	0.5	0.0	0.3		0.4	0.3
<b>Highest Degree Received (n=34,801)</b>	p<.000					p<.000	
Diploma	22.7	22.8	22.7	22.0		22.8	19.2
Associate	34.3	32.3	44.2	48.2		34.0	44.0
Bachelor	32.8	34.1	26.0	24.0		32.9	30.3
Masters/Doctorate	10.2	10.9	7.1	5.8		10.3	6.5
<b>Employment Status (n=34,722)</b>	p<.000					p<.769	
Nursing - FT	58.3	57.9	60.3	61.4		58.3	57.8
Nursing - PT	23.2	23.7	20.2	18.8		23.2	22.8
Not Employed in Nursing	18.5	18.4	19.5	19.8		18.5	19.4

**Table 2: Percent of respondents and income earned, by county type (county of employment)**

	<b>III. Total</b> (N=35,452)	<b>Metro</b> (n=28,208)	<b>Micro</b> (n=4,364)	<b>NonCore</b> (n=2,880)		<b>Non-Frontier</b> (n=32,849)	<b>Frontier</b> (n=2,603)
<b>Income 1: PT &amp; FT Employment in Nursing (n=28,880)</b>	p<.000					p<.000	
Unknown/Refused	7.5	7.6	6.8	6.3		7.5	6.5
15,000 or less	0.5	0.5	0.3	0.6		0.4	1.0
15,001-25,000	1.5	1.4	2.2	2.2		1.4	3.1
25,001-35,000	5.5	5.0	8.5	7.5		5.4	8.6
35,001-50,000	18.6	17.7	23.0	25.6		18.4	23.5
50,001-75,000	28.7	28.0	31.4	32.7		28.5	30.1
75,001-100,000	21.0	21.6	18.2	15.6		21.2	14.7
100,001-150,000	12.8	13.8	7.3	7.3		12.9	10.3
> 150,000	4.2	4.5	2.5	2.1		4.2	2.2
<b>Income 2: FT Employment in Nursing (n=20,737)</b>	p<.000					p<.000	
Unknown/Refused	6.4	6.5	5.3	5.7		6.4	5.2
15,000 or less	0.1	0.1	0.0	0.0		0.1	0.2
15,001-25,000	0.7	0.6	1.1	1.1		0.6	1.9
25,001-35,000	5.0	4.6	7.7	6.9		4.9	7.7
35,001-50,000	20.1	19.4	23.3	26.1		20.0	24.4
50,001-75,000	30.0	29.5	32.4	33.7		30.0	31.1
75,001-100,000	21.2	21.6	20.5	17.0		21.4	16.5
100,001-150,000	13.0	13.9	7.9	7.1		13.0	11.3
> 150,000	3.5	3.8	1.8	2.1		3.5	1.8
<b>Income 3: BSN Employed Full-time in Nursing (n=6,485)</b>	p<.000					p=.106	
Up to 50,000	28.7	27.9	33.2	37.1		28.5	34.8
50,001-75,000	31.0	30.6	33.5	35.4		31.0	33.3
75,001-100,000	22.6	22.8	23.8	14.7		22.8	16.5
100,001 or more	17.7	18.6	9.6	12.8		17.8	15.4

Data Source: National Sample Survey of Registered Nurses, 2000, County Public Use Data Files; data analyzed in Stata 8.0 using SVR, a Stata module developed for complex survey data. Per the survey documentation, a jackknife procedure (in the SVR module, the jk2 method) was used to produce weighted estimates with replication-based standard errors. Replication based population=2,647,754.

p-values based on corrected Pearson chi square test of independence.

**APPENDIX B**  
**LIST OF HOSPITAL BASED NURSING SHORTAGE COUNTIES AND**  
**COUNTIES WITHOUT HOSPITALS (1999)**

STATE	FRONTIER COUNTIES		NON-FRONTIER COUNTIES	
	Nurse Shortage	No Hospital	Nurse Shortage	No Hospital
AL	Greene		Bibb	Choctaw
			Bullock	Cleburne
			Chambers	Coosa
			Clay	Henry
			Coffee	Lamar
			Crenshaw	Lowndes
			Elmore	Macon
			Fayette	Perry
			Geneva	Sumter
			Jackson	
			Marion	
			Pickens	
			Talladega	
			Washington	
			Winston	
AK	Kodiak Island	Aleutians East		Denali
	Nome	Aleutians West		Yakutat
	Wrangell-Petersburg	Bristol Bay		
		Haines		
		Lake and Peninsula		
		Prince of Wales-Outer Ketchikan		
		Skagway-Hoonah- Angoon		
		Southeast Fairbanks		
		Wade Hampton		
		Yukon-Koyukuk		
AZ	Cochise	Greenlee	Pinal	
	Santa Cruz			
	Yavapai			
AR	Arkansas	Calhoun	Clay	Conway
	Pike	Cleveland	Crittenden	Grant
	Scott	Lafayette	Jackson	Howard
		Lee	Lawrence	Lincoln
		Madison	Little River	Lonoke
		Monroe	Mississippi	Marion
		Montgomery	Pope	Miller
		Nevada	Van Buren	Pointsett
		Newton		
		Perry		
		Prairie		
		Searcy		
		Woodruff		
CA	Mariposa	Apine	Amador	

	Modoc		Napa	
	Sierra		San Benito	
	Trinity			
	Tuolumne			
CO	Baca	Archuleta		Clear Creek
	Conejos	Bent		Douglas
	Grand	Costilla		Gilpin
	Huerfano	Crowley		Summit
	Kiowa	Custer		Teller
	Lake	Dolores		
	Lincoln	Elbert		
	Otero	Hinsdale		
	Phillips	Jackson		
	Rio Blanco	Mineral		
	Routt	Ouray		
	Sedgwick	Park		
		Rio Grande		
		Saguache		
		San Juan		
		San Miguel		
		Washington		
CT			Middlesex	
			Windham	
FL		Glades	Baker	Dixie
		Lafayette	Bradford	Gilchrist
		Liberty	Charlotte	Hardee
			DeSoto	Jefferson
			Gadsden	Sumter
			Lee	Wakulla
			Okeechobee	
			Pasco	
			Putnam	
			Suwannee	
			Taylor	
			Union	
			Washington	
GA	Clinch	Baker	Appling	Atkinson
	Hancock	Clay	Bacon	Banks
	Randolph	Echols	Baldwin	Brantley
	Wheeler	Glascok	Berrien	Bryan
		Marion	Brooks	Chattahoochee
		Quitman	Cook	Chattooga
		Talbot	Coweta	Columbia
		Taliafero	Decatur	Crawford
		Webster	Dougherty	Dawson
		Wilcox	Effingham	Fayette
			Elbert	Harris
			Emanuel	Heard
			Evans	Johnson
			Franklin	Jones
			Gilmer	Lamar
			Grady	Lee
			Greene	Lincoln
			Habersham	Long

			Hart	McIntosh
			Irwin	Madison
			Jackson	Montgomery
			Jasper	Oconee
			Jefferson	Oglethorpe
			Jenkins	Pierce
			Lanier	Pike
			Laurens	Schley
			Liberty	Taylor
			Meriwether	Terrell
			Miller	Treutlen
			Mitchell	Turner
			Monroe	Twiggs
			Murray	Walker
			Pickens	Warren
			Screven	White
			Seminole	Wilkinson
			Sumter	
			Thomas	
			Towns	
			Troup	
			Union	
			Walton	
			Washington	
HI			Kauai	Kalawao
ID	Adams	Boise	Bingham	Jefferson
	Bear Lake	Camas	Franklin	Lewis
	Benewah	Clark	Jerome	Payette
	Blaine	Custer	Minidoka	
	Boundary	Fremont		
	Butte	Lincoln		
	Caribou	Owyhee		
	Elmore			
	Oneida			
	Power			
IL	Hamilton	Calhoun	Bond	Alexander
	Schuyler	Pope	Christian	Brown
			Crawford	Carroll
			Edgar	Cass
			Fayette	Clark
			Ford	Cumberland
			Franklin	Douglas
			Greene	Edwards
			Iroquois	Gallatin
			Jo Daviess	Henderson
			Lawrence	Jasper
			Logan	Johnson
			Madison	Kendall
			Perry	Marshall
			Piatt	Menard
			Randolph	Monroe
			Shelby	Moultrie
			Vermilion	Pulaski
			Warren	Putnam
			Washington	Scott

		Wayne	Stark
		White	Woodford
IN		Cass	Benton
		Gibson	Brown
		Hendricks	Carroll
		Jefferson	Crawford
		Johnson	Fountain
		La Porte	Franklin
		Madison	Martin
		Miami	Newton
		Monroe	Ohio
		Putnam	Owen
		Ripley	Parke
		Rush	Pike
		Scott	Posey
		Steuben	Spencer
		Tipton	Switzerland
		Whitley	Union
IA		Adams	Butler
		Appanoose	Cedar
		Benton	Louisa
		Boone	Tama
		Buchanan	Taylor
		Calhoun	Warren
		Carroll	Winnebago
		Chickasaw	Worth
		Clarke	
		Clinton	
		Crawford	
		Dallas	
		Davis	
		Decatur	
		Des Moines	
		Fayette	
		Franklin	
		Fremont	
		Greene	
		Grundy	
		Guthrie	
		Hamilton	
		Henry	
		Humboldt	
		Ida	
		Iowa	
		Jefferson	
		Keokuk	
		Marion	
		Mills	
		Mitchell	
		Monona	
		Monroe	
		Montgomery	
		O'Brien	
		Plymouth	
		Pocahontas	
		Ringgold	

			Sac	
			Shelby	
			Sioux	
			Union	
			Van Buren	
			Washington	
			Wright	
KS	Barber	Chase	Anderson	Linn
	Chautauqua	Doniphan	Barton	Osage
	Clark	Elk	Butler	
	Decatur	Gray	Cherokee	
	Edwards	Wabunsee	Coffey	
	Ellsworth	Wallace	Dickinson	
	Gove	Woodson	Jackson	
	Graham		Jefferson	
	Greeley		Labette	
	Greenwood		Marion	
	Harper		Miami	
	Haskell		Norton	
	Hodgeman		Pottawatomie	
	Jewell		Pratt	
	Kearny		Rice	
	Kiowa		Shawnee	
	Lane			
	Lincoln			
	Logan			
	Marshall			
	Mitchell			
	Morris			
	Morton			
	Ness			
	Osborne			
	Ottawa			
	Pawnee			
	Phillips			
	Republic			
	Rooks			
	Rush			
	Russell			
	Scott			
	Sheridan			
	Sherman			
	Smith			
	Stanton			
	Stevens			
	Thomas			
	Trego			
	Washington			
	Wichita			
KY		Hickman	Bell	Allen
		Robertson	Bourbon	Anderson
			Boyle	Ballard
			Breathitt	Bath
			Breckinridge	Bracken
			Calloway	Bullitt
			Clay	Butler

		Clinton	Carlisle
		Crittenden	Carter
		Cumberland	Casey
		Estill	Edmonson
		Floyd	Elliott
		Garrard	Gallatin
		Graves	Hancock
		Green	Henry
		Harrison	Jackson
		Letcher	Jessamine
		Marshall	Knott
		Mercer	Larue
		Monroe	Lee
		Morgan	Lewis
		Muhlenberg	Lyon
		Nicholas	McCreary
		Owen	McLean
		Pike	Magoffin
		Simpson	Martin
		Trigg	Meade
		Union	Menifee
		Wayne	Metcalfe
			Owsley
			Pendleton
			Powell
			Spencer
			Todd
			Trimble
			Washington
			Webster
			Wolfe
			Woodford
LA	Cameron	Allen	Assumption
		De Soto	Bienville
		East Feliciana	Catahoula
		Evangeline	Grant
		Jackson	Livingston
		La Salle	Plaquemines
		Madison	Tensas
		Natchitoches	West Baton Rouge
		Red River	
		St. Helena	
		Union	
		West Carroll	
ME	Piscataquis	Kennebec	
MD		Talbot	Carolina
			Queen Anne's
MA		Barnstable	
		Bristol	
		Franklin	
		Hampden	
		Middlesex	
		Plymouth	

MI	Luce	Keweenaw	Arenac	Alcona
	Ontonagon		Baraga	Antrim
			Benzie	Lake
			Cheboygan	Menominee
			Chippewa	Missaukee
			Crawford	Montmorency
			Houghton	Oscoda
			Huron	Roscommon
			Iron	
			Jackson	
			Kalkaska	
			Lapeer	
			Leelanau	
			Mackinac	
			Macomb	
			Marquette	
			Mason	
			Montcalm	
			Newaygo	
			Osceola	
			Otsego	
			Van Buren	
MN	Aitkin	Red Lake	Becker	Benton
	Big Stone		Carlton	Clay
	Clearwater		Crow Wing	Dodge
	Cook		Dakota	Fillmore
	Itasca		Douglas	Mower
	Jackson		Goodhue	Sherburne
	Kittson		Houston	
	Lac qui Parle		Isanti	
	Lake		Le Sueur	
	Lake of the Woods		Lyon	
	Lincoln		McLeod	
	Mahnomen		Martin	
	Pine		Mille Lacs	
	Polk		Morrison	
	Roseau		Otter Tail	
	Stevens		Pennington	
	Swift		Pipestone	
	Traverse		Rice	
	Wilkin		Stearns	
	Yellow Medicine		Todd	
			Wabasha	
			Waseca	
			Winona	
			Wright	
MS	Greene	Amite	Attala	Itawamba
	Jefferson	Benton	Bolivar	Lamar
	Noxubee	Carroll	Chickasaw	Smith
	Perry	Issaquena	Choctaw	Stone
	Sharkey	Kemper	Claiborne	
		Tunica	Clarke	
			Coahoma	
			Copiah	
			Covington	
			DeSoto	

			Grenada	
			Holmes	
			Humphreys	
			Jasper	
			Jefferson Davis	
			Lawrence	
			Leake	
			Leflore	
			Madison	
			Montgomery	
			Neshoba	
			Panola	
			Pearl River	
			Pontotoc	
			Quitman	
			Rankin	
			Scott	
			Simpson	
			Sunflower	
			Tallahatchie	
			Tippah	
			Tishomingo	
			Warren	
			Webster	
			Winston	
			Yalobusha	
			Yazoo	
MO		Carter	Atchison	Benton
		Chariton	Audrain	Bollinger
		Holt	Bates	Buchanan
		Knox	Butler	Caldwell
		Mercer	Callaway	Christian
		Shannon	Carroll	Clark
		Worth	Clinton	Crawford
			Cooper	Dade
			Dent	Dallas
			Gasconade	Daviess
			Harrison	DeKalb
			Jefferson	Douglas
			Madison	Hickory
			Newton	Howard
			Pemiscot	Iron
			Perry	Lewis
			Ripley	McDonald
			Ste. Genevieve	Maries
			Sullivan	Miller
				Mississippi
				Moniteau
				Monroe
				Montgomery
				Morgan
				New Madrid
				Oregon
				Osage
				Ozark
				Ralls
				Schuyler

				Shelby
				Stone
				Warren
				Wayne
				Webster
				Wright
MT	Broadwater	Garfield	Gallatin	Powder River
	Carbon	Golden Valley	Pondera	
	Carter	Jefferson		
	Chouteau	Judith Basin		
	Custer	Petroleum		
	Daniels	Treasure		
	Dawson	Wibaux		
	Deer Lodge			
	Fallon			
	Fergus			
	Flathead			
	Glacier			
	Granite			
	Hill			
	Lake			
	Liberty			
	McCone			
	Meagher			
	Mineral			
	Musselshell			
	Powell			
	Prairie			
	Richland			
	Roosevelt			
	Rosebud			
	Sanders			
	Sheridan			
	Stillwater			
	Sweet Grass			
	Teton			
	Toole			
	Wheatland			
	Yellowstone			
NE	Brown	Arthur	Adams	Cass
	Chase	Banner	Colfax	Cedar
	Cheyenne	Blaine	Cuming	Dakota
	Custer	Clay	Dawson	Dixon
	Filmore	Deuel	Dodge	Stanton
	Furnass	Frontier	Gage	
	Garden	Garfield	Jefferson	
	Hamilton	Gosper	Kearney	
	Harlan	Grant	Pierce	
	Howard	Greeley	Richardson	
	Johnson	Hayes	Saline	
	Knox	Hitchcock	Saunders	
	Merrill	Hooker	Seward	
	Morrill	Keya Paha	Wayne	
	Nance	Logan	York	
	Nemaha	Loup		
	Perkins	McPherson		

	Rock	Sherman		
	Sheridan	Sioux		
	Thayer	Thomas		
	Valley	Wheeler		
	Webster			
NV	Humboldt	Esmeralda		Douglas
	Lander	Eureka		
	Lincoln	Storey		
	Lyon			
	Nye			
	Pershing			
	White Pine			
NH			Carroll	
NJ			Somerset	
			Sussex	
			Union	
NM	San Miguel	Catron		Sandoval
		Harding		Valencia
		Hidalgo		
		Mora		
		Roosevelt		
		Torrance		
NY	Essex	Hamilton	Broome	Greene
			Cattaraugus	Lewis
			Chautauqua	Seneca
			Chemung	Tioga
			Chenango	
			Clinton	
			Columbia	
			Cortland	
			Dutchess	
			Franklin	
			Fulton	
			Herkimer	
			Jefferson	
			Madison	
			Montgomery	
			Niagara	
			Oneida	
			Ontario	
			Orange	
			Orleans	
			Oswego	
			Otsego	
			Putnam	
			Rensselaer	
			Richmond	
			Rockland	
			St. Lawrence	
			Saratoga	
			Schoharie	
			Schuyler	
			Steuben	

			Sullivan	
			Tompkins	
			Washington	
			Wayne	
			Westchester	
			Wyoming	
			Yates	
NC		Hyde	Alamance	Camden
		Jones	Alleghany	Caswell
		Tyrrell	Anson	Clay
			Ashe	Currituck
			Burke	Dare
			Carteret	Gates
			Cherokee	Graham
			Chowan	Greene
			Cleveland	Madison
			Granville	Northampton
			Halifax	Pamlico
			Hoke	Perquimans
			Lenoir	Warren
			Macon	Yancey
			Montgomery	
			Nash	
			Pender	
			Person	
			Polk	
			Richmond	
			Rockingham	
			Rutherford	
			Stokes	
ND	Adams	Benson	Grand Forks	
	Barnes	Billings	Ward	
	Bottineau	Burke		
	Bowman	Dunn		
	Dickey	Eddy		
	Divide	Golden Valley		
	Emmons	Hettinger		
	Foster	Kidder		
	Grant	LaMoure		
	Griggs	Logan		
	McIntosh	McHenry		
	McKenzie	Morton		
	McLean	Oliver		
	Mountrail	Renville		
	Nelson	Richland		
	Pembina	Sargent		
	Pierce	Sheridan		
	Ransom	Slope		
	Stutsman	Steele		
	Towner			
	Traill			
	Walsh			
	Wells			
	Williams			
OH			Clermont	Carroll

			Clinton	Fayette
			Erie	Monroe
			Fulton	Morgan
			Geauga	Noble
			Harrison	Perry
			Hocking	Preble
			Jackson	Putnam
			Meigs	Vinton
			Morrow	Warren
			Sandusky	
			Tuscarawas	
			Union	
OK	Atoka	Alfalfa	Beckham	Adair
	Blaine	Cotton	Creek	
	Cimarron	Grant	Garfield	
	Coal		Logan	
	Harmon		McClain	
	Haskell		Murray	
	Hughes		Okmulgee	
	Jefferson		Wagoner	
	Kiowa		Washington	
	Love			
	Noble			
	Osage			
	Pushmataha			
	Tillman			
	Woods			
OR	Baker	Gilliam	Jefferson	Columbia
	Grant	Sherman	Josephine	
	Lake	Wheeler	Klamath	
	Morrow			
PA	Potter	Cameron	Beaver	Juniata
		Forest	Carbon	Perry
		Sullivan	Clinton	Pike
			Crawford	Snyder
			Delaware	
			Elk	
			Franklin	
			Fulton	
			Huntingdon	
			Lebanon	
			McKean	
			Mifflin	
			Northumberland	
			Schuylkill	
			Susquehanna	
			Tioga	
			Venango	
			Wayne	
RI			Newport	Bristol
			Washington	
SC			Allendale	Berkeley
			Bamberg	Calhoun

			Chester	Lee
			Clarendon	McCormick
			Colleton	Saluda
			Hampton	
			Jasper	
			Kershaw	
			Lancaster	
			Union	
SD	Bennett	Aurora	Brookings	Union
	Bon Homme	Buffalo	Brown	
	Charles Mix	Butte	Clay	
	Edmunds	Campbell	Davison	
	Faulk	Clark	Hughes	
	Grant	Corson	Yankton	
	Gregory	Fall River		
	Haakon	Hamlin		
	Hand	Hanson		
	Hutchinson	Harding		
	Jerauld	Hyde		
	Kingsbury	Jackson		
	Lake	Jones		
	Moody	Lyman		
	Perkins	McCook		
	Potter	Mellette		
	Tripp	Miner		
	Turner	Sanborn		
	Walworth	Stanley		
		Sully		
		Ziebach		
TN			Bedford	Chester
			Campbell	Crockett
			Cannon	Grainger
			Cheatham	Grundy
			Claiborne	Hancock
			Cocke	Jackson
			Coffee	Johnson
			Decatur	Lake
			Dickson	Lewis
			Fayette	Meigs
			Franklin	Moore
			Gibson	Morgan
			Greene	Pickett
			Hardeman	Sequatchee
			Hardin	Stewart
			Hawkins	Trousdale
			Haywood	Union
			Henry	Van Buren
			Hickman	
			Houston	
			Humphreys	
			Lawrence	
			McMinn	
			Macon	
			Rhea	
			Scott	
			Sevier	

			Unicoi	
			White	
TX	Bailey	Archer	Austin	Aransas
	Bosque	Armstrong	Bee	Bandera
	Clay	Blanco	Burleson	Hardin
	Crosby	Borden	Burnet	Kendall
	Dallam	Briscoe	Caldwell	Lampasas
	Fisher	Brooks	Cass	Lee
	Frio	Callahan	Falls	Marion
	Hansford	Carson	Fannin	Morris
	Hardeman	Coke	Fayette	Rains
	Houston	Cottle	Grimes	Rockwall
	Llano	Crockett	Hale	San Jacinto
	Lynn	Delta	Jasper	Upshur
	Montague	Dickens	Kleberg	Waller
	San Augustine	Donley	Panola	Willacy
	Swisher	Duval	Somervell	
	Trinity	Edwards		
	Upton	Foard		
	Wheeler	Garza		
	Wilbarger	Glasscock		
		Goliad		
		Hartley		
		Hudspeth		
		Irion		
		Jeff Davis		
		Jim Hogg		
		Kenedy		
		Kent		
		King		
		Kinney		
		La Salle		
		Leon		
		Lipscomb		
		Live Oak		
		Loving		
		McMullen		
		Mason		
		Menard		
		Mills		
		Motley		
		Newton		
		Oldham		
		Presidio		
		Real		
		Roberts		
		Robertson		
		San Saba		
		Shackelford		
		Sherman		
		Sterling		
		Terrell		
		Zapata		
		Zavala		
UT	Beaver	Daggett		
	Grand	Emery		

	Kane	Morgan		
	Millard	Piute		
	San Juan	Rich		
	Sanpete	Summitt		
	Tooele	Wayne		
VT		Essex	Addison	Grand Isle
			Lamoille	
			Orange	
			Washington	
			Windham	
VA		Bland	Alleghany	Accomack
		Craig	Amherst	Amelia
		Highland	Lee	Appomattox
		Douglas	Mecklenburg	Botetourt
		Skamania	New Kent	Brunswick
		Wahkiakum	Northampton	Buckingham
			Nottoway	Caroline
			Patrick	Carroll
			Shenandoah	Charles City
			Smyth	Charlotte
			Warren	Chesterfield
			Bedford	Clarke
			Emporia	Cumberland
			Franklin	Dinwiddie
			Hopewell	Floyd
			Lexington	Fluvanna
			Portsmouth	Goochland
			Suffolk	Grayson
				Greene
				Greensville
				Henry
				Isle of Wight
				James City
				King and Queen
				King George
				King William
				Louisa
				Lunenburg
				Madison
				Mathews
				Middlesex
				Nelson
				Northumberland
				Orange
				Pittsylvania
				Powhatan
				Prince George
				Rappahannock
				Richmond
				Rockingham
				Scott
				Southampton
				Stafford
				Surry
				Sussex
				Westmoreland

				York
				Bristol
				Buena Vista
				Clifton Forge
				Colonia Heights
				Covington
				Fairfax
				Falls Church
				Fredericksburg
				Lynchburg
				Manassas Park
				Poquoson
				Roanoke
				Waynesboro
				Winchester
WA	Ferry		Clallam	San Juan
	Garfield		Grays Harbor	
	Grant		Lewis	
	Lincoln			
	Pend Oreille			
	Stevens			
WV	Pocahontas	Pendleton	Barbour	Clay
		Tucker	Berkeley	Doddridge
			Boone	Gilmer
			Calhoun	Hancock
			Grant	Hardy
			Hampshire	Lincoln
			Lewis	Monroe
			Mason	Pleasants
			Morgan	Ritchie
			Nicholas	Wayne
			Preston	Wirt
			Putnam	Wyoming
			Summers	
			Taylor	
			Tyler	
			Wetzel	
			Wood	
WI	Burnett	Bayfield	Adams	Marquette
	Rusk	Buffalo	Barron	
	Sawyer	Florence	Calumet	
	Taylor	Forest	Chippewa	
	Washburn	Iron	Clark	
		Menominee	Columbia	
			Dodge	
			Fond du Lac	
			Grant	
			Green Lake	
			Iowa	
			Juneau	
			Langlade	
			Lincoln	
			Manitowoc	
			Marathon	
			Pepin	

			Polk	
			Sheboygan	
			Trempealeau	
			Vernon	
			Waushara	
WY	Big Horn	Niobrara		
	Crook	Sublette		
	Johnson			
	Lincoln			
	Park			
	Platte			
	Teton			
	Weston			

**Data Sources:**

- (1) List of Frontier Counties from the 2000 Census, Frontier Education Center (Frontier Education Center 2000b);
- (2) Nurse Shortage Counties, Bureau of Health Professions, Health Resources and Services Administration, U.S. Department of Health and Human Services (Bureau of Health Professions, no date);
- (3) Counties without hospitals based on 1999 American Hospital Association Annual Survey (Cecil B. Sheps Center for Health Services Research 2004).