

Appendix D

Estimated Non-farm Employment (in thousands) by Metropolitan Statistical Area (MSA)

MSA (with counties listed)	Educational and Health Services			Educational and Health Services			Educational and Health Services		
	2008	2008	2008	2009	2009	2009	2009	2009	2009
Tennessee — All	356.1	2,782.3	2,655.1	365.8	2,655.1	2,655.1	9.7	9.7	-13.2
Chattanooga — (Hamilton, Marion, Sequatchie)	29.6	245.2	237.2	30.0	237.2	237.2	0.4	0.4	-8.0
Knoxville (Anderson, Blount, Knox, Loudon, Union)	43.6	335.7	322.5	43.8	322.5	322.5	0.2	0.2	-13.2
Memphis — (Shelby, Tipton, Fayette)	79.3	629.7	616.8	81.2	616.8	616.8	1.9	1.9	-12.9
Nashville — Davidson, Cannon, Cheatham, Dickson, Hickman, Macon, Robertson, Rutherford, Smith, Sumner, Trousdale, Williamson, Wilson)	111.2	758.1	725.3	112.1	725.3	725.3	0.9	0.9	-32.8
Clarksville —(Montgomery)	9.8	84.4	80.1	10.3	80.1	80.1	0.5	0.5	-4.3
Cleveland — (Bradley, Polk)	5.7	40.5	38.8	4.9	38.8	38.8	-0.8	-0.8	-1.7
Jackson — (Madison, Chester)	8.5	62.9	59.3	8.2	59.3	59.3	-0.3	-0.3	-3.6
Johnson City — (Carter, Unicoi, Washington)	12.8	79.2	77.3	13.0	77.3	77.3	0.2	0.2	-1.9
*Kingsport/Bristol — (Sullivan, Hawkins)	18.4	121.4	118.8	18.6	118.8	118.8	0.2	0.2	-2.6
Morristown — (Grainger, Hamblen, Jefferson)	5.4	49.5	47.2	5.8	47.2	47.2	0.4	0.4	-2.3

*MSA includes Scott Co., Virginia; Washington Co., Virginia; and Bristol City, Virginia

Source: Tennessee Department of Labor and Workforce Development, "The Labor Market Report," June 2008 and 2009.

Tennessee Hospital Association Membership Districts and Comprising Counties

	Total Positions	Vacant Positions	Vacancy Rate	Total Positions	Vacant Positions	Vacancy Rate
Memphis District — (Shelby)	574.2	93.4	16.3%	379.5	10.6	2.8%
West District — (Benton, Carroll, Chester, Crockett, Decatur, Dyer, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, Madison, McNairy, Obion, Tipton, Weakley)	181.6	12.7	7.0%	183.5	13.9	7.6%
Middle District — (Cheatham, Davidson, Dickson, Hickman, Houston, Humphreys, Macon, Montgomery, Perry, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, Wilson)	555.3	13.6	2.4%	558.4	22.2	4.0%
South Middle District — (Bedford, Cannon, Coffee, DeKalb, Franklin, Giles, Grundy, Lawrence, Lewis, Lincoln, Marshall, Maury, Moore, Smith, Warren, Wayne)	122.4	14	11.4%	121	15.5	12.8%
Mid-East District — (Bledsoe, Clay, Cumberland, Fentress, Jackson, Loudon, McMinn, Meigs, Monroe, Morgan, Overton, Pickett, Polk, Putnam, Rhea, Roane, Scott, White)	135.8	2	1.5%	119.7	0.5	0.4%
Chattanooga District — (Bradley, Hamilton, Marion, Sequatchie, Van Buren)	172.6	15.9	9.2%	152.9	2.7	1.8%
Knoxville District — (Anderson, Blount, Campbell, Clairborne, Cocke, Grainger, Hamblen, Jefferson, Knox, Sevier, Union)	303.2	10	3.3%	287.2	1.2	0.4%
Northeast District (Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington)	74	6.2	8.4%	74.6	5.3	7.1%

Sources: 2007 and 2008 Joint Annual Report of Hospitals, Tennessee Department of Health, Nashville, Tennessee.

Tennessee Hospital Association Membership Districts January 2010, www.tha.com/tha-membership-districts.htm, accessed January 2010.

Vacancy rates calculated by dividing number of budgeted vacancies by the number of positions; physical therapy and physical therapy assistants are combined; occupational therapy and occupational therapy assistants are combined.

Not all allied health occupations are included in this data set, however hospitals employ 60% of all allied health workers and these figures may be used as a barometer for similar measures in other occupations.

Data should be interpreted with caution, as the current economic climate is a variable which should be considered when looking at changes in vacancy rates between the years included in this chart.

RADIOLOGIC TECHNOLOGIST

Tennessee Hospital Association Membership Districts and Comprising Counties

	2007		2008	
	Total Positions	Vacant Positions	Total Positions	Vacant Positions
Memphis District — (Shelby)	534.6	10.2	457.3	7.6
West District — (Benton, Carroll, Chester, Crockett, Decatur, Dyer, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, Madison, McNairy, Obion, Tipton, Weakley)	281.9	20.6	296.1	13.2
Middle District — (Cheatham, Davidson, Dickson, Hickman, Houston, Humphreys, Macon, Montgomery, Perry, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, Wilson)	679	39.2	656.7	33.6
South Middle District — (Bedford, Cannon, Coffee, DeKalb, Franklin, Giles, Grundy, Lawrence, Lewis, Lincoln, Marshall, Maury, Moore, Smith, Warren, Wayne)	174.9	6	201.4	8
Mid-East District — (Bledsoe, Clay, Cumberland, Fentress, Jackson, Loudon, McMinn, Meigs, Monroe, Morgan, Overton, Pickett, Polk, Putnam, Rhea, Roane, Scott, White)	196.9	7.4	215.1	7
Chattanooga District — (Bradley, Hamilton, Marion, Sequatchie, Van Buren)	189.1	4.3	162.3	6.2
Knoxville District — (Anderson, Blount, Campbell, Clairborne, Cocke, Grainger, Hamblen, Jefferson, Knox, Sevier, Union)	489.2	2.5	483.8	0
Northeast District — (Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington)	243.9	2.3	194.6	0.2
Vacancy Rate	1.9%	1.9%	3.4%	3.8%
Rate	7.3%	2.3%	0.5%	0.9%
Rate	4.5%	0.1%	3.8%	0.1%

Sources: 2007 and 2008 Joint Annual Report of Hospitals, Tennessee Department of Health, Nashville, Tennessee.

Tennessee Hospital Association Membership Districts January 2010, www.tha.com/tha-membership-districts.htm, accessed January 2010.

Vacancy rates calculated by dividing number of budgeted vacancies by the number of positions; physical therapy and physical therapy assistants are combined; occupational therapy and occupational therapy assistants are combined.

Not all allied health occupations are included in this data set, however hospitals employ 60% of all allied health workers and these figures may be used as a barometer for similar measures in other occupations.

Data should be interpreted with caution, as the current economic climate is a variable which should be considered when looking at changes in vacancy rates between the years included in this chart.

SURGICAL TECHNOLOGIST

Tennessee Hospital Association Membership Districts
and Comprising Counties

	2007		2008	
	Total Positions	Vacant Positions	Total Positions	Vacant Positions
Memphis District — (Shelby)	372.8	4.6	336.4	3.9
West District — (Benton, Carroll, Chester, Crockett, Decatur, Dyer, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, Madison, McNairy, Obion, Tipton, Weakley)	110.1	8	112	10.2
Middle District — (Cheatham, Davidson, Dickson, Hickman, Houston, Humphreys, Macon, Montgomery, Perry, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, Wilson)	601.4	22.2	589.7	20.1
South Middle District — (Bedford, Cannon, Coffee, DeKalb, Franklin, Giles, Grundy, Lawrence, Lewis, Lincoln, Marshall, Maury, Moore, Smith, Warren, Wayne)	79.5	1	86.2	1
Mid-East District — (Bledsoe, Clay, Cumberland, Fentress, Jackson, Loudon, McMinn, Meigs, Monroe, Morgan, Overton, Pickett, Polk, Putnam, Rhea, Roane, Scott, White)	75.2	0	86.8	0.3
Chattanooga District — (Bradley, Hamilton, Marion, Sequatchie, Van Buren)	178.4	4.9	182.7	2.7
Knoxville District — (Anderson, Blount, Campbell, Clairborne, Cocke, Grainger, Hamblen, Jefferson, Knox, Sevier, Union)	344.8	11.9	348.8	6.5
Northeast District — (Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington)	143.6	0	154.9	0

Sources: 2007 and 2008 Joint Annual Report of Hospitals, Tennessee Department of Health, Nashville, Tennessee.

Tennessee Hospital Association Membership Districts January 2010, www.aha.com/aha-membership-districts.htm, accessed January 2010.

Vacancy rates calculated by dividing number of budgeted vacancies by the number of positions; physical therapy and physical therapy assistants are combined; occupational therapy and occupational therapy assistants are combined.

Not all allied health occupations are included in this data set, however hospitals employ 60% of all allied health workers and these figures may be used as a barometer for similar measures in other occupations.

Data should be interpreted with caution, as the current economic climate is a variable which should be considered when looking at changes in vacancy rates between the years included in this chart.

2007 **2008**

Total Positions **Vacant Positions** **Total Positions** **Vacant Positions**

Rate **Rate** **Rate** **Rate**

372.8 **4.6** **336.4** **3.9**

110.1 **8** **112** **10.2**

601.4 **22.2** **589.7** **20.1**

79.5 **1** **86.2** **1**

75.2 **0** **86.8** **0.3**

178.4 **4.9** **182.7** **2.7**

344.8 **11.9** **348.8** **6.5**

143.6 **0** **154.9** **0**

1.2% **1.2%** **3.4%** **1.2%**

7.3% **7.3%** **3.7%** **9.1%**

3.7% **3.7%** **3.4%** **3.4%**

1.3% **1.3%** **0.0%** **0.3%**

2.7% **2.7%** **1.5%** **1.5%**

3.5% **3.5%** **1.9%** **1.9%**

0.0% **0.0%** **0.0%** **0.0%**

OCCUPATIONAL THERAPIST

Tennessee Hospital Association Membership Districts and Comprising Counties

	2007		2008	
	Total Positions	Vacant Positions	Total Positions	Vacant Positions
Memphis District — (Shelby)	73.8	12.2	80	5.4
West District — (Benton, Carroll, Chester, Crockett, Decatur, Dyer, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, Madison, McNairy, Obion, Tipton, Weakley)	29.7	9.6	41.3	16.5
Middle District — (Cheatham, Davidson, Dickson, Hickman, Houston, Humphreys, Macon, Montgomery, Perry, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, Wilson)	84.4	4.6	80	2.1
South Middle District — (Bedford, Cannon, Coffee, DeKalb, Franklin, Giles, Grundy, Lawrence, Lewis, Lincoln, Marshall, Maury, Moore, Smith, Warren, Wayne)	13.3	0	16	1
Mid-East District — (Bledsoe, Clay, Cumberland, Fentress, Jackson, Loudon, McMinn, Meigs, Monroe, Morgan, Overton, Pickett, Polk, Putnam, Rhea, Roane, Scott, White)	14.2	1.5	12.2	0.5
Chattanooga District — (Bradley, Hamilton, Marion, Sequatchie, Van Buren)	33	1.3	33	5
Knoxville District — (Anderson, Blount, Campbell, Clairborne, Cocke, Grainger, Hamblen, Jefferson, Knox, Sevier, Union)	60.5	4	58	1
Northeast District — (Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington)	243.9	2.3	194.6	0.2

Sources: 2007 and 2008 Joint Annual Report of Hospitals, Tennessee Department of Health, Nashville, Tennessee.

Tennessee Hospital Association Membership Districts January 2010, www.aha.com/aha-membership-districts.htm, accessed January 2010.

Vacancy rates calculated by dividing number of budgeted vacancies by the number of positions; physical therapy and physical therapy assistants are combined; occupational therapy and occupational therapy assistants are combined.

Not all allied health occupations are included in this data set, however hospitals employ 60% of all allied health workers and these figures may be used as a barometer for similar measures in other occupations.

Data should be interpreted with caution, as the current economic climate is a variable which should be considered when looking at changes in vacancy rates between the years included in this chart.

PHYSICAL THERAPIST

Tennessee Hospital Association Membership Districts
and Comprising Counties

	2007		2008	
	Total Positions	Vacant Positions	Total Positions	Vacant Positions
Memphis District — (Shelby)	159	10	155.7	3
West District — (Benton, Carroll, Chester, Crockett, Decatur, Dyer, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, Madison, McNairy, Obion, Tipton, Weakley)	116.2	21.5	131.8	31.3
Middle District — (Cheatham, Davidson, Dickson, Hickman, Houston, Humphreys, Macon, Montgomery, Perry, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, Wilson)	203	10.9	213.5	17
South Middle District — (Bedford, Cannon, Coffee, DeKalb, Franklin, Giles, Grundy, Lawrence, Lewis, Lincoln, Marshall, Maury, Moore, Smith, Warren, Wayne)	57.7	2	74.4	5
Mid-East District — (Bledsoe, Clay, Cumberland, Fentress, Jackson, Loudon, McMinn, Meigs, Monroe, Morgan, Overton, Pickett, Polk, Putnam, Rhea, Roane, Scott, White)	42.5	0.5	37.3	1
Chattanooga District — (Bradley, Hamilton, Marion, Sequatchie, Van Buren)	67.3	6.5	62.1	6
Knoxville District — (Anderson, Blount, Campbell, Clairborne, Cocke, Grainger, Hamblen, Jefferson, Knox, Sevier, Union)	153.3	4.2	138.8	3.2
Northeast District — (Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington)	143.6	0	154.9	0
Vacancy Rate				
		6.3%	18.5%	5.4%
		1.9%	23.7%	8.0%
		3.5%	6.7%	2.7%
		9.7%	9.7%	9.7%
		2.7%	2.3%	2.3%
		0.0%	0.0%	0.0%

Sources: 2007 and 2008 Joint Annual Report of Hospitals, Tennessee Department of Health, Nashville, Tennessee.

Tennessee Hospital Association Membership Districts January 2010, www.tha.com/tha-membership-districts.htm, accessed January 2010.

Vacancy rates calculated by dividing number of budgeted vacancies by the number of positions; physical therapy and physical therapy assistants are combined; occupational therapy and occupational therapy assistants are combined.

Not all allied health occupations are included in this data set, however hospitals employ 60% of all allied health workers and these figures may be used as a barometer for similar measures in other occupations.

Data should be interpreted with caution, as the current economic climate is a variable which should be considered when looking at changes in vacancy rates between the years included in this chart.

RESPIRATORY THERAPIST

Tennessee Hospital Association Membership Districts and Comprising Counties

	2007		2008	
	Total Positions	Vacant Positions	Total Positions	Vacant Positions
Memphis District — (Shelby)	264.8	25.3	200.4	4
West District — (Benton, Carroll, Chester, Crockett, Decatur, Dyer, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, Madison, McNairy, Obion, Tipton, Weakley)	133.1	7.9	162.1	21.7
Middle District — (Cheatham, Davidson, Dickson, Hickman, Houston, Humphreys, Macon, Montgomery, Perry, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, Wilson)	501.7	22.6	489	13.1
South Middle District — (Bedford, Cannon, Coffee, DeKalb, Franklin, Giles, Grundy, Lawrence, Lewis, Lincoln, Marshall, Maury, Moore, Smith, Warren, Wayne)	99	9	108	9
Mid-East District — (Bledsoe, Clay, Cumberland, Fentress, Jackson, Loudon, McMinn, Meigs, Monroe, Morgan, Overton, Pickett, Polk, Putnam, Rhea, Roane, Scott, White)	109.8	4	134.8	3
Chattanooga District — (Bradley, Hamilton, Marion, Sequatchie, Van Buren)	200.7	18.3	179.1	9.7
Knoxville District — (Anderson, Blount, Campbell, Clairborne, Cocke, Grainger, Hamblen, Jefferson, Knox, Sevier, Union)	227.4	4.4	221	2
Northeast District — (Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington)	177.3	2	159.3	1
<i>Sources: 2007 and 2008 Joint Annual Report of Hospitals, Tennessee Department of Health, Nashville, Tennessee. Tennessee Hospital Association Membership Districts January 2010, www.aha.com/aha-membership-districts.htm, accessed January 2010. Vacancy rates calculated by dividing number of budgeted vacancies by the number of positions; physical therapy and physical therapy assistants are combined; occupational therapy and occupational therapy assistants are combined. Not all allied health occupations are included in this data set, however hospitals employ 60% of all allied health workers and these figures may be used as a barometer for similar measures in other occupations. Data should be interpreted with caution, as the current economic climate is a variable which should be considered when looking at changes in vacancy rates between the years included in this chart.</i>				

Joint Annual Report Data for Selected Occupations by Occupation and County Vacancy Rates – Calculations

	2007	2007	2007	2008	2008	2008
	Total Positions	Personnel budgeted vacancies	Vacancy rate	Total Positions	Personnel budgeted vacancies	Vacancy rate
Medical Technologist						
Anderson	24.1	2.0	8.3%	19.7	0.0	0.0%
Bedford	28.0	14.0	50.0%	27.0	14.0	51.9%
Benton	2.5	0.0	0.0%	3.3	0.4	12.1%
Bledsoe	2.5	0.5	20.0%	2.5	0.5	20.0%
Carter	4.1	1.0	24.4%	7.1	0.0	0.0%
Cumberland	22.5	1.5	6.7%	11.6	0.0	0.0%
Davidson	363.1	6.6	1.8%	371.2	17.5	4.7%
Franklin	13.0	0.0	0.0%	13.0	0.5	3.8%
Gibson	10.3	0.0	0.0%	14.9	3.9	26.2%
Hamblen	29.0	2.0	6.9%	24.4	0.2	0.8%
Hamilton	129.6	15.9	12.3%	119.8	2.7	2.3%
Hancock	2.0	0.0	0.0%	2.0	0.0	0.0%
Hardeman	4.7	0.0	0.0%	5.6	1.0	17.9%
Haywood	11.1	5.4	48.6%	3.0	0.0	0.0%
Henry	10.2	0.0	0.0%	12.2	1.0	8.2%
Johnson	4.6	2.0	43.5%	3.7	0.1	2.7%
Knox	174.5	6.0	3.4%	143.1	1.0	0.7%
Madison	64.6	5.5	8.5%	68.0	7.6	11.2%
Maury	22.0	0.0	0.0%	25.0	1.0	4.0%
Montgomery	29.4	1.0	3.4%	28.1	1.0	3.6%
Obion	12.8	1.8	14.1%	15.0	0.0	0.0%
Rutherford	40.5	4.0	9.9%	24.7	0.7	2.8%
Shelby	574.2	93.4	16.3%	379.5	10.6	2.8%
Sullivan	15.0	0.0	0.0%	13.2	2.9	22.0%
Sumner	29.3	2.0	6.8%	39.5	0.0	0.0%
Unicoi	4.0	2.0	50.0%	2.0	0.0	0.0%
Washington	23.5	1.2	5.1%	26.8	2.3	8.6%
Williamson	27.4	0.0	0.0%	24.6	1.0	4.1%
Wilson	13.0	0.0	0.0%	15.0	2.0	13.3%

**Joint Annual Report Data for Selected Occupations by Occupation
and County Vacancy Rates - Calculations (continued)**

	2007	2007	2007	2008	2008	2008
	Total Positions	Personnel budgeted vacancies	Vacancy rate	Total Positions	Personnel budgeted vacancies	Vacancy rate
Radiologic Technologist						
Bedford	10.0	5.0	50.0%	13.0	8.0	61.5%
Benton	5.2	0.0	0.0%	7.1	1.0	14.1%
Bledsoe	4.0	0.4	10.0%	4.0	1.0	25.0%
Carter	10.2	0.6	5.9%	11.2	0.0	0.0%
Clay	14.0	6.0	42.9%	14.0	6.0	42.9%
Cumberland	18.0	1.0	5.6%	16.4	0.0	0.0%
Davidson	396.0	25.7	6.5%	382.3	24.9	6.5%
Gibson	15.8	0.5	3.2%	17.6	0.3	1.7%
Hamilton	131.4	4.3	3.3%	118.7	6.2	5.2%
Haywood	16.3	8.3	50.9%	6.0	0.0	0.0%
Henry	21.3	0.0	0.0%	28.2	2.0	7.1%
Hickman	4.5	0.0	0.0%	5.0	2.0	40.0%
Jefferson	11.3	1.5	13.3%	14.7	0.0	0.0%
Johnson	4.5	1.7	37.8%	2.9	0.1	3.4%
Knox	255.0	1.0	0.4%	243.3	0.0	0.0%
Madison	110.5	11.8	10.7%	114.2	9.9	8.7%
Maury	35.0	1.0	2.9%	51.0	0.0	0.0%
Montgomery	29.9	0.0	0.0%	40.7	1.0	2.5%
Rutherford	42.3	1.0	2.4%	71.2	3.7	5.2%
Shelby	534.6	10.2	1.9%	457.3	7.6	1.7%
Sumner	51.3	8.0	15.6%	25.0	0.0	0.0%
Washington	29.9	0.0	0.0%	35.5	0.1	0.3%
Williamson	44.0	2.5	5.7%	48.0	1.0	2.1%
Wilson	38.0	2.0	5.3%	35.0	1.0	2.9%

**Joint Annual Report Data for Selected Occupations by Occupation
and County Vacancy Rates - Calculations (continued)**

	2007	2007	2007	2008	2008	2008
	Total Positions	Personnel budgeted vacancies	Vacancy rate	Total Positions	Personnel budgeted vacancies	Vacancy rate
Surgical Technologist						
Anderson	25.9	1.0	3.9%	23.6	0.0	0.0%
Clay	0.0	0.0	0.0%	0.6	0.3	50.0%
Davidson	469.2	21.2	4.5%	441.5	15.0	3.4%
Gibson	2.4	0.5	20.8%	2.4	0.4	16.7%
Hamblen	16.5	1.0	6.1%	23.0	1.5	6.5%
Hamilton	161.8	4.9	3.0%	167.8	2.7	1.6%
Haywood	2.7	1.5	55.6%	2.0	0.0	0.0%
Jefferson	6.1	0.8	13.1%	4.3	0.0	0.0%
Knox	262.5	8.0	3.0%	258.8	5.0	1.9%
Madison	74.7	6.0	8.0%	78.0	9.8	12.6%
Maury	29.0	1.0	3.4%	35.0	1.0	2.9%
Montgomery	19.8	0.0	0.0%	21.6	0.5	2.3%
Rutherford	18.9	1.0	5.3%	37.7	4.6	12.2%
Sevier	8.2	1.1	13.4%	9.0	0.0	0.0%
Shelby	372.8	4.6	1.2%	336.4	3.9	1.2%

**Joint Annual Report Data for Selected Occupations by
Occupation and County Vacancy Rates - Calculations (continued)**

	2007	2007	2007	2008	2008	2008
	Total Positions	Personnel budgeted vacancies	Vacancy rate	Total Positions	Personnel budgeted vacancies	Vacancy rate
Occupational Therapist						
Anderson	4.0	1.0	25.0%	4.0	0.0	0.0%
Cumberland	3.5	1.5	42.9%	4.0	0.5	12.5%
Davidson	58.5	2.6	4.4%	55.0	2.1	3.8%
Greene	8.9	0.0	0.0%	8.0	1.0	12.5%
Hamilton	32.0	1.3	4.1%	32.0	5.0	15.6%
Hardeman	0.2	0.1	50.0%	0.1	0.1	100.0%
Knox	36.8	3.0	8.2%	35.0	1.0	2.9%
Madison	20.7	3.5	16.9%	33.0	15.4	46.7%
Maury	3.0	0.0	0.0%	8.0	1.0	12.5%
Shelby	73.8	12.2	16.5%	80.0	5.4	6.8%
Sumner	8.5	2.0	23.5%	5.0	0.0	0.0%
Washington	14.6	0.9	6.2%	10.0	2.5	25.0%
Weakley	6.0	6.0	100.0%	6.0	1.0	16.7%

**Joint Annual Report Data for Selected Occupations by Occupation
and County Vacancy Rates - Calculations (continued)**

	2007	2007	2007	2008	2008	2008
	Total Positions	Personnel budgeted vacancies	Vacancy rate	Total Positions	Personnel budgeted vacancies	Vacancy rate
Physical Therapist						
Bedford	2.0	1.0	50.0%	2.0	1.0	50.0%
Bradley	7.0	1.0	14.3%	6.0	0.0	0.0%
Campbell	8.0	1.0	12.5%	2.7	0.0	0.0%
Cannon	1.0	0.0	0.0%	1.6	1.0	62.5%
Cumberland	9.0	1.0	11.1%	6.7	1.0	14.9%
Davidson	131.0	7.0	5.3%	135.9	6.7	4.9%
Franklin	6.0	0.0	0.0%	6.0	1.0	16.7%
Gibson	4.0	2.0	50.0%	8.1	0.5	6.2%
Greene	8.0	0.0	0.0%	7.4	1.0	13.5%
Hamblen	5.0	1.0	20.0%	4.4	0.2	4.5%
Hamilton	58.0	6.0	10.3%	55.1	6.0	10.9%
Hardeman	2.0	0.0	0.0%	3.0	1.0	33.3%
Haywood	4.0	3.0	75.0%	2.0	1.0	50.0%
Henry	10.0	2.0	20.0%	6.0	1.0	16.7%
Johnson	0.0	0.0	0.0%	2.0	0.5	25.0%
Knox	92.0	2.0	2.2%	88.8	3.0	3.4%
Madison	62.0	9.0	14.5%	74.7	26.3	35.2%
Maury	21.0	1.0	4.8%	36.0	2.0	5.6%
Montgomery	10.0	0.0	0.0%	10.4	3.0	28.8%
Obion	3.0	0.0	0.0%	4.0	1.0	25.0%
Rutherford	23.0	0.0	0.0%	19.4	4.3	22.2%
Shelby	159.0	10.0	6.3%	155.7	3.0	1.9%
Sullivan	56.0	1.0	1.8%	45.9	0.7	1.5%
Sumner	13.0	2.0	15.4%	16.0	0.0	0.0%
Washington	28.0	1.0	3.6%	27.0	1.3	4.8%
Weakley	9.0	6.0	66.7%	8.6	0.5	5.8%
Williamson	7.6	0.0	0.0%	8.0	2.0	25.0%
Wilson	9.0	2.0	22.2%	9.0	1.0	11.1%

Joint Annual Report Data for Selected Occupations by Occupation and County Vacancy Rates - Calculations (continued)

	2007	2007	2007	2008	2008	2008
	Total Positions	Personnel budgeted vacancies	Vacancy rate	Total Positions	Personnel budgeted vacancies	Vacancy rate
Respiratory Therapist						
Anderson	26.7	2.2	8.2%	27.5	0.0	0.0%
Bedford	14.0	7.0	50.0%	16.0	9.0	56.3%
Bradley	18.0	2.0	11.1%	18.0	0.0	0.0%
Carter	6.5	0.0	0.0%	8.8	0.9	10.2%
Clay	8.0	3.0	37.5%	8.0	3.0	37.5%
Cumberland	11.0	1.0	9.1%	19.4	0.0	0.0%
Davidson	339.7	5.9	1.7%	368.1	9.2	2.5%
Gibson	6.9	0.3	4.3%	6.6	0.2	3.0%
Hamblen	7.7	0.2	2.6%	9.7	0.0	0.0%
Hamilton	176.9	16.3	9.2%	157.6	9.7	6.2%
Hardeman	1.4	0.7	50.0%	1.0	0.7	70.0%
Haywood	4.4	2.9	65.9%	0.0	0.0	0.0%
Hickman	1.5	0.0	0.0%	2.5	0.5	20.0%
Jefferson	3.3	1.0	30.3%	2.5	0.0	0.0%
Knox	154.6	1.0	0.6%	144.7	2.0	1.4%
Lawrence	6.0	1.0	16.7%	6.0	0.0	0.0%
Madison	66.3	3.3	5.0%	100.0	20.8	20.8%
Marshall	7.0	1.0	14.3%	5.7	0.0	0.0%
Montgomery	25.5	2.7	10.6%	23.7	1.0	4.2%
Rutherford	47.2	10.0	21.2%	20.4	2.4	11.8%
Shelby	264.8	25.3	9.6%	200.4	4.0	2.0%
Sullivan	87.6	2.0	2.3%	72.3	0.0	0.0%
Sumner	23.9	4.0	16.7%	17.0	0.0	0.0%
Washington	64.3	0.0	0.0%	59.0	0.1	0.2%
Weakley	5.1	0.7	13.7%	5.7	0.0	0.0%

Sources: 2007 and 2008 Joint Annual Report of Hospitals, Tennessee Department of Health, Nashville, Tennessee.

U.S. Department of Commerce, U.S. Census Bureau, County and City Data Book: 2007 – A Statistical Abstract Supplement, www.census.gov. (accessed December 2009)

Vacancy rates calculated by dividing number of budgeted vacancies by the number of positions; physical therapy and physical therapy assistants are combined; occupational therapy and occupational therapy assistants are combined.

Not all allied health occupations are included in this data set; however, hospitals employ 60 percent of all allied health workers and these figures may be used as a barometer for similar measures in other occupations.

Data should be interpreted with caution, as the current economic climate is a variable which should be considered when looking at changes in vacancy rates between the years included in this chart.

Appendix E

Joint Annual Review Data for Selected Occupations by Occupation – Statewide Vacancy Rates

	2007	2008
	Vacancy rate– Percentage positions vacant	Vacancy rate– Percentage positions vacant
Medical Technologist	7.92%	3.80%
Radiologic Technologist	3.32%	2.80%
Surgical Technologist	2.76%	2.40%
Occupational Therapist	9.63%	9.70%
Physical Therapist	6.47%	7.80%
Respiratory Therapist	5.46%	3.80%

Sources:

2007 and 2008 Joint Annual Report of Hospitals, Tennessee Department of Health, Nashville, Tennessee.

Vacancy rates calculated by dividing number of budgeted vacancies by the number of positions; physical therapy and physical therapy assistants are combined; occupational therapy and occupational therapy assistants are combined.

Not all allied health occupations are included in this data set, however hospitals employ 60% of all allied health workers and these figures may be used as a barometer for similar measures in other occupations.

Data should be interpreted with caution, as the current economic climate is a variable which should be considered when looking at changes in vacancy rates between the years included in this chart.

Appendix F

Numbers and Population Ratios of Professionals in Selected Allied Health Professions*

	U.S.	Per 100,000	TN	Per 100,000
Physical Therapist	185,500	61.0	4,048	65.9
Physical Therapist Assistant	63,800	21.0	1,923	31.3
Occupational Therapist	104,500	34.4	1,643	26.7
Occupational Therapist Assistant	26,600	8.7	382	6.2
Athletic Trainer	16,300	5.4	314	5.1
Recreational Therapist	23,300	7.7	467	7.6
Speech-Language Pathologist	119,300	39.2	1,873	30.5
Audiologist	12,800	4.2	570	9.3
Respiratory Therapist	105,900	34.8	2,812	45.8
Respiratory Therapist Technician	16,500	5.4	563	9.2
Dietitian	60,300	19.8	1,157	18.8
Dietetic Technician	25,200	8.3	840	13.7
Surgical Technologist	91,500	30.1	3,281	53.4
Physician Assistant	74,800	24.6	947	15.4
Emergency Medical Technician (EMT)	210,700	69.3	6,837	111.3
Dental Hygienist	174,100	57.3	3,252	52.9
Dental Assistant	295,300	97.1	5,386	87.7
Diagnostic Radiologic Technologist	214,700	70.6	6,235	101.5
Radiation Therapist	15,200	5.0	408	6.6
Nuclear Medicine Technologist	21,800	7.2	558	9.1
Diagnostic Medical Sonographer	50,300	16.5	1,243	20.2
Medical Technologist	172,400	56.7	4,233	68.9
Medical Technician	155,600	51.2	5,077	82.6
Health Information Technician	172,500	56.7	3,781	61.5
Medical Transcriptionist	105,200	34.6	2,326	37.9
Epidemiologist	4,800	1.6	64	1.0
Medical Assistant	483,600	159.0	9,927	161.6
Nursing Assistant	1,469,800	483.4	34,043	554.0
POPULATION:	US: 304,059,724		TN: 6,144,738	

*U.S. and Tennessee Based on 2008 U.S. Census and Tennessee Department of Health population estimates.

Sources: U.S. Bureau of Labor Statistics, "Employment and job openings by occupation and occupational group, 2008 and projected 2018", *Monthly Labor Review*, November 2009; Tennessee Department of Labor and Workforce Development, "Short Term Occupational Employment Projections in Tennessee for a base year of 2008 and a projected year of 2010", "The Source," www.sourceten.org; *American Registry of Diagnostic Medical Sonographers.

Population ratios are calculated by taking the total number of providers in a given occupation and dividing by the total population for the state and the nation. These figures may be used to support community health planning with institutions of higher learning and employers as it relates to human resource needs. Although provider density ratios are useful indicators of changes in provider numbers relative to the population, inference from total numbers or ratios as to the adequacy of health care providers for a given occupation should not be made. Several factors influence whether the supply of health care providers is appropriate including distribution and location of providers within a region, level of service provided (full-time versus part-time, by an assistant or a higher level provider), age and gender of the provider, the population's access to hospitals, health care facilities, technology and other types of health care providers; population needs (demographic characteristics and health problems); and society's perceptions and expectations. In some regions, health facilities and personnel provide services to a larger community than the residents of the immediate region. In others, residents may seek care from providers outside the region where they live. The population ratios reflect the number of providers in a region and have not been adjusted to take these situations into account.

Appendix G

BLS 2008–2018 Employment Projections

Code	Health Profession	Employment Change		Percent Change	Total job openings due to growth and net replacements
		2008	2018	2008-18	2008-18
29-1031	Dietitian and Nutritionist	60.3	65.8	9.2	25.7
29-1071	Physician Assistant	74.8	103.9	39.0	42.8
29-1121	Audiologist	12.8	16.0	25.0	5.8
29-1122	Occupational Therapist	104.5	131.3	25.6	45.8
29-1123	Physical Therapist	185.5	241.7	30.3	78.6
29-1124	Radiation Therapist	15.2	19.4	27.1	6.9
29-1125	Recreational Therapist	23.3	26.7	14.6	11.6
29-1126	Respiratory Therapist	105.9	128.1	20.9	41.4
29-1127	Speech-Language Pathologist	119.3	141.4	18.5	43.8
29-2011	Medical and Clinical Laboratory Technologist	172.4	193.0	11.9	53.3
29-2012	Medical and Clinical Laboratory Technician	155.6	180.7	16.1	54.6
29-2021	Dental Hygienist	174.1	237.0	62.9	98.4
29-2032	Diagnostic Medical Sonographer	50.3	59.5	18.3	16.5
29-2033	Nuclear Medicine Technologist	21.8	25.4	16.3	6.7
29-2034	Radiologic Technologists and Technician	214.7	251.7	17.2	68.0
29-2051	Dietetic Technician	25.2	28.7	13.9	9.9
29-2054	Respiratory Therapy Technician	16.5	16.4	-1.1	4.2

Cont.

BLS 2008–2018 Employment Projections

Code	Health Profession	Employment		Percent	Total job
		Change	Change	Change	openings due to growth and net replacements
		2008	2018	2008-18	2008-18
	Surgical				
29-2055	Technologist	91.5	114.7	25.3	46.3
29-9091	Athletic Trainer	16.3	22.4	36.9	11.5
31-1011	Home Health Aide	921.7	1382.6	50.0	552.7
	Nursing Aide, Orderly, and Attendant				
31-1012		1469.8	1745.8	18.8	422.3
	Occupational				
31-2011	Therapist Assistant	26.6	34.6	29.8	11.8
	Physical Therapist				
31-2021	Assistant	63.8	85.0	33.3	30.5
31-9091	Dental Assistant	295.3	400.9	35.8	161.0
31-9092	Medical Assistant	483.6	647.5	33.9	217.8
	Medical				
31-9094	Transcriptionist	105.2	116.9	11.1	23.5

Source: Table prepared by Stephen N. Collier using data from “Occupational Employment Projections to 2018” by T. Alan Lacey and Benjamin Wright, Monthly Labor Review, November 2009, pages 107–109, Bureau of Labor Statistics, U.S. Department of Labor.

Data for Emergency Medical Services (EMS) occupations are not provided because individual figures for each level of EMS providers are not available.

BLS Projected Employment Change 2000–2018

Code	Health Profession	Projected Percent Change in Employment During 10-Year Period				
		2000-10	2002-12	2004-14	2006-16	2008-18
29-1031	Dietitian and Nutritionist	15.2	17.8	18.3	8.6	9.2
29-1071	Physician Assistant	53.5	48.9	49.6	27.0	39.0
29-1121	Audiologist	44.7	29.0	9.1	9.8	25.0
29-1122	Occupational Therapist	33.9	35.2	33.6	23.1	25.6
29-1123	Physical Therapist	33.3	35.3	36.7	27.1	30.3
29-1124	Radiation Therapist	22.8	31.6	26.3	24.8	27.1
29-1125	Recreational Therapist	8.6	9.1	5.7	3.7	14.6
29-1126	Respiratory Therapist	34.8	34.8	28.4	22.6	20.9
29-1127	Speech-Language Pathologist	39.2	27.2	14.6	10.6	18.5
29-2011	Medical and Clinical Laboratory Technologist	17.0	19.3	20.5	12.4	11.9
29-2012	Medical and Clinical Laboratory Technician	19.0	19.4	25.0	15.0	16.1
29-2021	Dental Hygienist	37.1	43.1	43.3	30.1	62.9
29-2032	Diagnostic Medical Sonographer	26.1	24.0	34.8	19.1	18.3
29-2033	Nuclear Medicine Technologist	22.4	23.6	21.5	14.8	16.3
29-2034	Radiologic Technologists and Technician	23.1	22.9	23.2	15.1	17.2

Cont.

BLS Projected Employment Change 2000–2018

Code	Health Profession	Projected Percent Change in Employment During 10-Year Period				
		2000-10	2002-12	2004-14	2006-16	2008-18
29-2051	Dietetic Technician	27.6	20.2	19.1	14.8	13.9
	Respiratory					
29-2054	Therapy Technician	34.6	34.2	3.3	0.9	-1.1
	Surgical					
29-2055	Technologist	34.7	27.9	29.5	24.4	25.3
29-9091	Athletic Trainer	18.5	29.9	29.3	24.3	36.9
31-1011	Home Health Aide	47.3	48.1	56.0	48.7	50.0
	Nursing Aide, Orderly, and					
31-1012	Attendant	23.5	24.9	22.3	18.2	18.8
	Occupational					
31-2011	Therapist Assistant	39.7	39.2	34.1	25.4	29.8
	Physical Therapist					
31-2021	Assistant	44.8	44.6	44.2	32.4	33.3
31-9091	Dental Assistant	37.2	42.5	42.7	29.2	35.8
31-9092	Medical Assistant	57.0	58.9	52.1	35.4	33.9
	Medical					
31-9094	Transcriptionist	29.8	22.6	23.3	13.5	11.1

Source: Table prepared by Stephen N. Collier using data from “Occupational Employment Projections to 2018” by T. Alan Lacey and Benjamin Wright, Monthly Labor Review, November 2009, and counterpart articles November 2007, November 2005, February 2004, and November 2001.

Data for Emergency Medical Services (EMS) occupations are not provided because individual figures for each level of EMS providers are not available.