

Industry shifts over the decade put Philadelphia on a new road to job growth

Expansion of the education and health services and professional and business services supersectors from 1998 to 2008 allowed Philadelphia and its environs to reduce the area's dependence on perennial jobs leader trade, transportation, and utilities

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During the 10-year period from 1998 to 2008, the industrial composition of the Philadelphia metropolitan area¹ job market evolved considerably. Once a traditional metropolitan area with the largest percentage of jobs concentrated in the trade, transportation, and utilities supersector, Philadelphia has transformed itself into a leader in the education and health services industry. Moreover, professional and business services also increased its employment presence in the area over the decade, while fewer jobs became available in manufacturing.

This article looks at how the employment expansion in two supersectors in Philadelphia—education and health services, and professional and business services—helped reshape the metropolitan area's job market from the first quarter of 1998 to the first quarter of 2008. Using employment and wage data from the Quarterly Census of Employment and Wages (QCEW) program,² this study examines shifts in both employment and wage growth for the two industry supersectors in the 11 counties composing the greater Philadelphia area. The availability of detailed industry data at the county level allowed each jurisdiction's³ growth to be analyzed independently, whereupon distinct patterns became readily apparent. No-

tably, employment in education and health services remained concentrated in Philadelphia County⁴ despite the large number of jobs added across the metropolitan area, with the City accounting for 37 percent of those employed in this industry in 2008, the same as 10 years earlier. In contrast, the distribution of jobs in professional and business services was appreciably affected by the increased growth in that supersector over the decade, with the result that Montgomery County had overtaken the City as the industry's largest employer by 2008 with 25 percent of the workforce. Lastly, when appropriate, Philadelphia, 1 of the 12 largest metropolitan areas in the United States, was compared with its counterparts.

Overview

In the first quarter of 1998, trade, transportation, and utilities accounted for the largest percentage of the employed in the metropolitan area, at 19.4 percent, followed by education and health services, with an employment share of 16.7 percent. By the first quarter of 2008, the percentage of jobs in trade, transportation, and utilities had shrunk to 18.8 percent of the Philadelphia workforce while the share employed in education and health services had grown to 18.8

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Regional Trends

percent, enabling the industry to join trade, transportation, and utilities as the area's top employer, with both supersectors employing more than a half-million workers. (See chart 1 and table 1.)

Professional and business services, the highest paying supersector in the area, remained in third place over the course of the decade, though it did strengthen its share of the workforce, which rose from 13.9 percent to 15.2 percent. The industry also distanced itself from the fourth-ranked employer, government, whose employment share of 13.0 percent in 2008 was virtually unchanged from 10 years earlier.

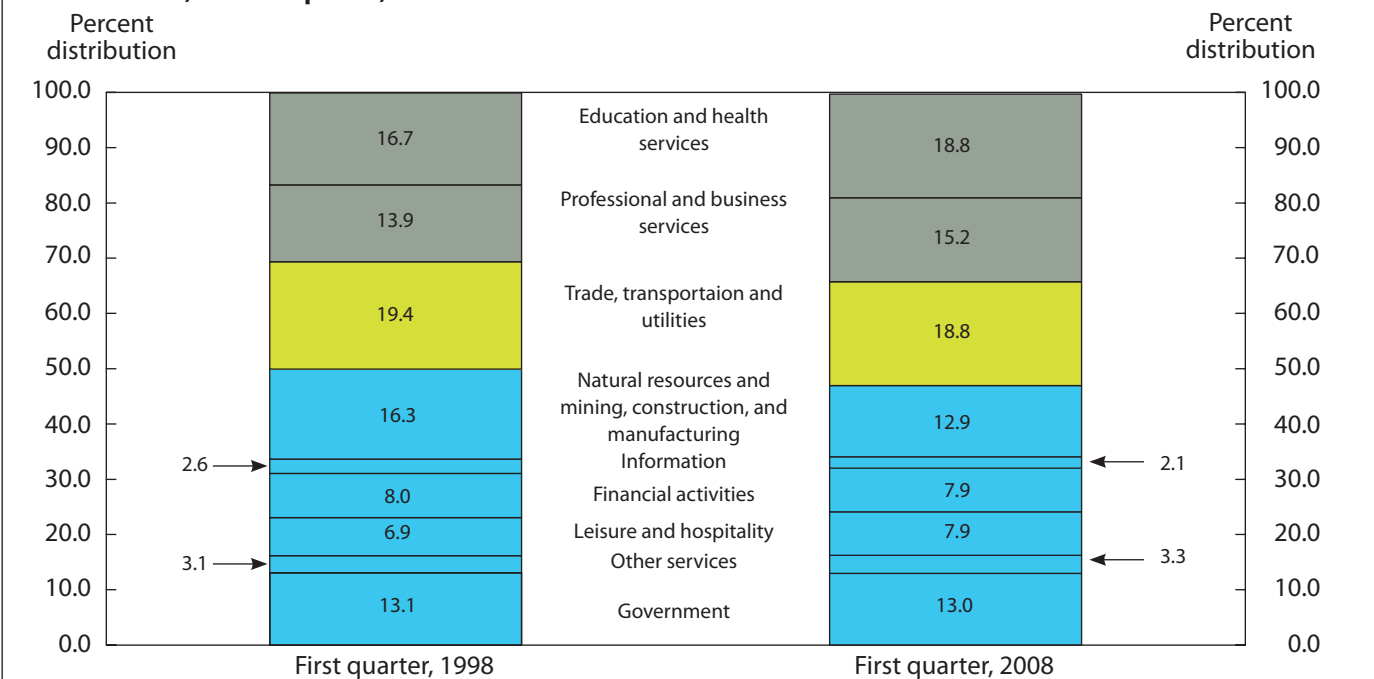
Although changes in the industrial composition of a metropolitan area are to be expected over time, it should be noted how remarkable Philadelphia's situation was in the first quarter of 2008, with education and health services rivaling trade, transportation, and utilities as the top employer in the area. Historically, trade, transportation, and utilities has dominated the job markets of most of the larger metropolitan areas in the United States, including Philadelphia, but its predominance has been challenged in recent years.

In 2008, trade, transportation, and utilities had the highest employment share among all supersectors in 9 of the

12 largest metropolitan areas nationwide. The notable exceptions were Washington and San Francisco, where professional and business services dominated the landscape, and Boston, where education and health services was the new frontrunner. Philadelphia had a foothold in both the old and new worlds in 2008, with the percentage of jobs in education and health services equaling that in trade, transportation, and utilities for the first time. Moreover, the two industries that Philadelphia gravitated to over the decade, but particularly professional and business services, are expected to provide a solid base for better paying jobs throughout the area, because a number of these positions require an advanced education or technical training.

Trade, transportation, and utilities grew slowly over the decade at a rate of 3.9 percent, well below the metropolitan area average of 6.9 percent. The 18,877 jobs added in this industry supersector were appreciably less than the additions of 84,385 jobs in education and health services and 59,735 in professional and business services from 1998 to 2008. Of note, jobs in trade, transportation, and utilities, unlike those in education and health services, were well distributed throughout the Delaware Valley in 2008, with 18.4 percent in Montgomery County, 16.7 percent in Philadelphia City, and 12.0 percent in Bucks

Chart 1. Percent distribution of total nonfarm employment, by industry, Philadelphia metropolitan area, first quarter, 1998, and first quarter, 2008



NOTE: The natural resources and mining, construction, and manufacturing industries were combined for this chart due to confidentiality requirements.

Table 1. Philadelphia metropolitan area industry employment as a percentage of total covered employment, first quarter, 1998, and first quarter, 2008

Industry	First quarter, 1998	Percent of total covered	First quarter, 2008	Percent of total covered	First quarter, 1998, to first quarter, 2008	
					Net change	Percent change
Total covered.....	2,494,614	100.0	2,667,177	100.0	172,563	6.9
Private industry.....	2,167,965	86.9	2,319,541	87.0	151,577	7.0
Natural resources and mining.....	9,065	.4	(¹)	(¹)	(¹)	(¹)
Construction.....	96,661	3.9	(¹)	(¹)	(1)	(¹)
Manufacturing.....	299,722	12.0	(¹)	(¹)	(¹)	(¹)
Trade, transportation, and utilities.....	483,634	19.4	502,511	18.8	18,877	3.9
Information.....	64,250	2.6	56,329	2.1	-7,921	-12.3
Financial activities.....	198,539	8.0	212,006	7.9	13,467	6.8
Professional and business services.....	346,669	13.9	406,404	15.2	59,735	17.2
Education and health services.....	416,958	16.7	501,343	18.8	84,385	20.2
Leisure and hospitality.....	172,656	6.9	210,626	7.9	37,970	22.0
Other services.....	78,299	3.1	87,380	3.3	9,081	11.6
Government.....	326,649	13.1	347,636	13.0	20,987	6.4

¹ Data do not meet BLS or State agency disclosure standards.

County. Five other counties accounted for more than 8.0 percent, but less than 10.0 percent, of those employed in the industry.

Some supersectors exhibited employment declines from 1998 to 2008. There were fewer jobs in manufacturing and information, and this drop corresponded to a decline in those industries' employment shares over the decade. While confidentiality requirements precluded a detailed analysis of metropolitan area job losses in manufacturing, when the industry was grouped with natural resources and mining, and construction, the combined percentage of the workforce decreased 3.4 percentage points over the 10-year period to 12.9 percent in the first quarter of 2008.

In short, both education and health services and professional and business services grew rapidly over the decade, adding jobs at a rate more than double the metropolitan area average. By the first quarter of 2008, these industries accounted for 34 percent of the employed in the greater Philadelphia area; 10 years earlier, they had made up approximately 30 percent. That said, trade, transportation, and utilities still maintained a large presence in the area in the first quarter of 2008, but, having the slowest growth rate of any industry for which data were published over the decade, it no longer could be expected to be the strong source of jobs that it had been in the past.

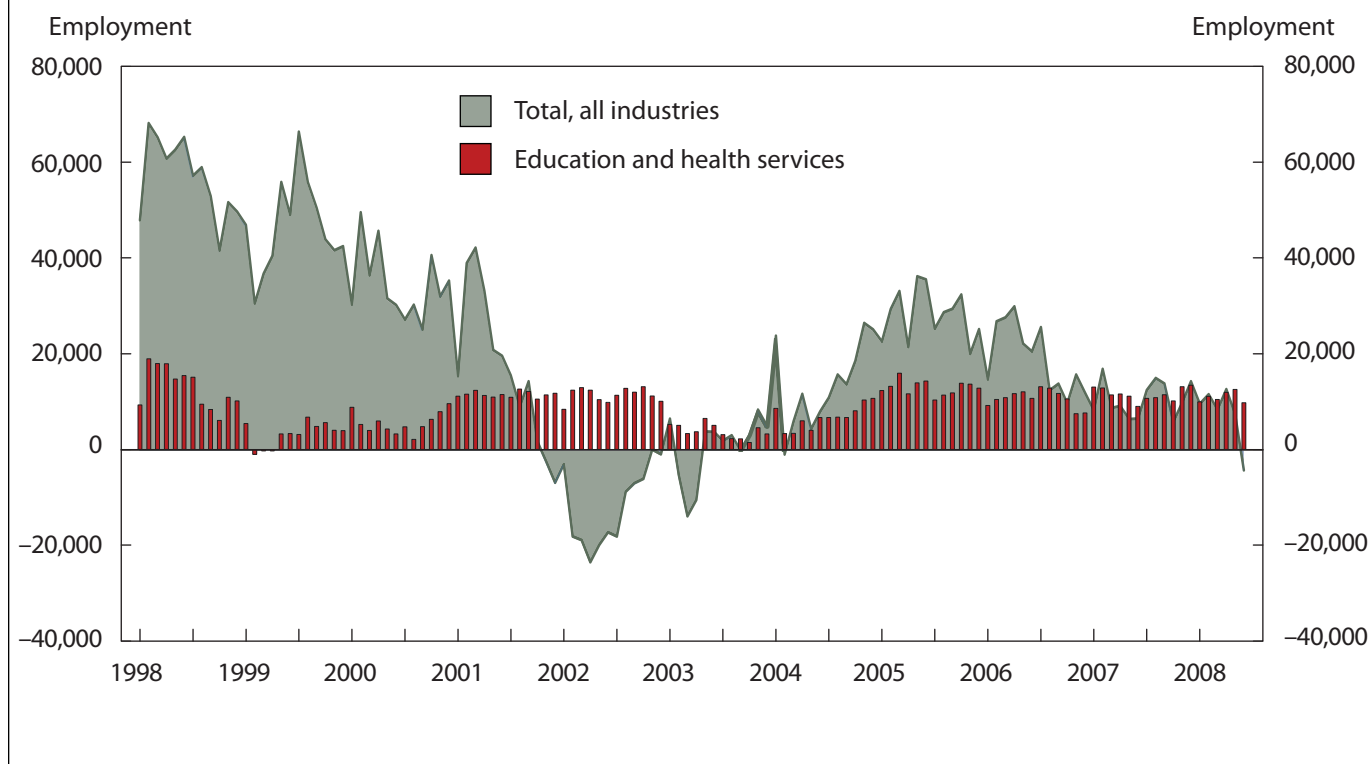
Education and health services

The ascendancy of education and health services in the local job market was not totally unexpected, given that Philadelphia has long had a tradition in this field. Growth

in “eds and meds”⁵ has brought the total number of institutions in the metropolitan area to nearly 100 hospitals⁶ and close to 90 institutions of higher learning⁷ in the latter part of the decade under study. Of the approximately 2.7 million workers in the greater Philadelphia area in the first quarter of 2008, education and health services accounted for over a half million, or almost one-fifth, of the workforce. More than 84,000 jobs had been added over the 10-year period, with job growth surpassing 20 percent.

The strong growth exhibited by education and health services throughout the 1998–2008 period helped stabilize the metropolitan area during times of economic duress. The 10-year span was characterized by cyclical swings that included two national recessions; one encompassed almost the entire year of 2001, and the other began in December 2007 and continued through 2008.⁸ Although overall employment was depressed during the downturns and well after, the education and health services supersector remained strong and continued to add jobs throughout the two periods. (See chart 2.)

Of particular importance is the fact that, during Philadelphia's two expansionary periods, the most recent upturn added far fewer jobs overall, and a large portion of the jobs it did add was in education and health services. For example, during the first expansion, education and health services grew by about 17,000 over the 3-year span ending in March 2001, accounting for 14 percent of total job growth. However, in the expansionary period from March 2004 to March 2007, education and health services added about 35,000 jobs, but made up a much larger proportion, 58 percent, of the total growth.

Chart 2. Total covered employment and education and health services employment, over-the-year net change in the Philadelphia metropolitan area, January 1998–March 2008

To better understand just how highly concentrated education and health services jobs had become in Philadelphia by 2008, location quotient analysis⁹ was used to compare industrial activity levels both within the 11-county Philadelphia area and for the 12 largest metropolitan areas across the country. The use of location quotients can determine the local employment concentration of an industry sector compared with the average for the Nation, which by definition has a location quotient of 1.00.

In the greater Philadelphia area, the education and health services supersector stood out as having the highest location quotient, 1.42, among the 12 largest metropolitan areas¹⁰ in the country in the first quarter of 2008. (See table 2.) This means that Philadelphia's employment share for education and health service jobs was 42 percent greater than the national average. Even so, location quotients varied considerably across the 11 counties in the metropolitan area, with Philadelphia City having an area high of 2.25. Delaware County's location quotient of 1.76 also was well above average. Both Philadelphia City's and Delaware County's location quotients increased over the 10-year span, 2 of only 3 counties in the metropolitan area to do so. New Castle, the third county with an increase, enjoyed the largest gain—from 0.95 to 1.05. Among the

eight counties experiencing a decline in industrial concentration in education and health services were Montgomery (from 1.33 to 1.15) and Cecil (from 0.95 to 0.80). As important as the education and health services supersector was to the greater Philadelphia area, it was clear that the majority of counties did not increase their employment concentration in this industry over the decade. Instead, Philadelphia City, the county with the highest concentration of education and health services jobs in the first quarter of 1998, not only maintained the top position 10 years later, but further distanced itself from almost all of the surrounding counties.

When Philadelphia was compared with the other 11 largest areas in the country, only Boston, with a location quotient of 1.39, came close to matching Philadelphia's concentration of jobs in the education and health services industry. Three other areas—New York (1.28), Detroit (1.12), and Chicago (1.03)—also posted location quotients above the national average.

To further illustrate the Philadelphia metropolitan area's status as a job leader in education and health services, the employment share for this supersector was also compared with those of the other largest metropolitan areas in the country. The Philadelphia area had the highest percent-

Table 2. Location quotients for education and health services employment, United States and 12 largest metropolitan areas, first quarter, 1998, and first quarter, 2008

Area	First quarter, 1998	First quarter, 2008
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD, MSA.....	1.49	1.42
Philadelphia, PA, Metropolitan Division	1.67	1.59
Philadelphia, PA.....	2.21	2.25
Delaware, PA.....	1.74	1.76
Bucks, PA.....	1.26	1.20
Montgomery, PA.....	1.33	1.15
Chester, PA.....	1.03	1.00
Camden, NJ, Metropolitan Division.....	1.15	1.09
Camden, NJ.....	1.40	1.35
Burlington, NJ.....	.99	.94
Gloucester, NJ.....	.88	.85
Wilmington, DE-MD-NJ, Metropolitan Division .....	.96	1.02
New Castle, DE.....	.95	1.05
Salem, NJ.....	1.07	1.04
Cecil, MD.....	.95	.80
Boston-Cambridge-Quincy, MA-NH.....	1.43	1.39
New York-Northern New Jersey-Long Island, NY-NJ-PA.....	1.29	1.28
Detroit-Warren-Livonia, MI.....	1.01	1.12
Chicago-Naperville-Joliet, IL-IN-WI.....	.99	1.03
Miami-Fort Lauderdale-Pompano Beach, FL.....	1.04	1.00
San Francisco-Oakland-Fremont, CA.....	.87	.84
Los Angeles-Long Beach-Santa Ana, CA.....	.82	.84
Washington-Arlington-Alexandria, DC-VA-MD-WV.....	(¹)	.82
Houston-Sugar Land-Baytown, TX.....	.78	.77
Dallas-Fort Worth-Arlington, TX.....	.75	.77
Atlanta-Sandy Springs-Marietta, GA.....	(¹)	(¹)

¹ Data do not meet BLS or State agency disclosure standards.

NOTE: By definition, U.S. location quotient equals 1.00.

age of education and health service workers, 18.8 percent, followed by the Boston area, 18.4 percent. (See chart 3.)

Three other areas had employment shares greater than that for the Nation: New York (16.9 percent), Detroit (14.9 percent), and Chicago (13.6 percent). However, percent distributions notwithstanding, all of the metropolitan areas for which data were available increased their shares of education and health services jobs over the 10-year period as the national percentage went from 11.3 percent to 13.2 percent.

County specifics. Employment in education and health services grew by 84,385 in the Philadelphia metropolitan area during the 10-year span, with all 11 counties in the area adding jobs. (See chart 4.) Still, its overall rate of job growth at 20.2 percent, while high for industries in Philadelphia, was below the nationwide industry average of 30.2 percent. In particular, the rate of job growth in Philadelphia City, where the largest percentage of jobs

was located, had slowed to 16.6 percent. (See table 3.)

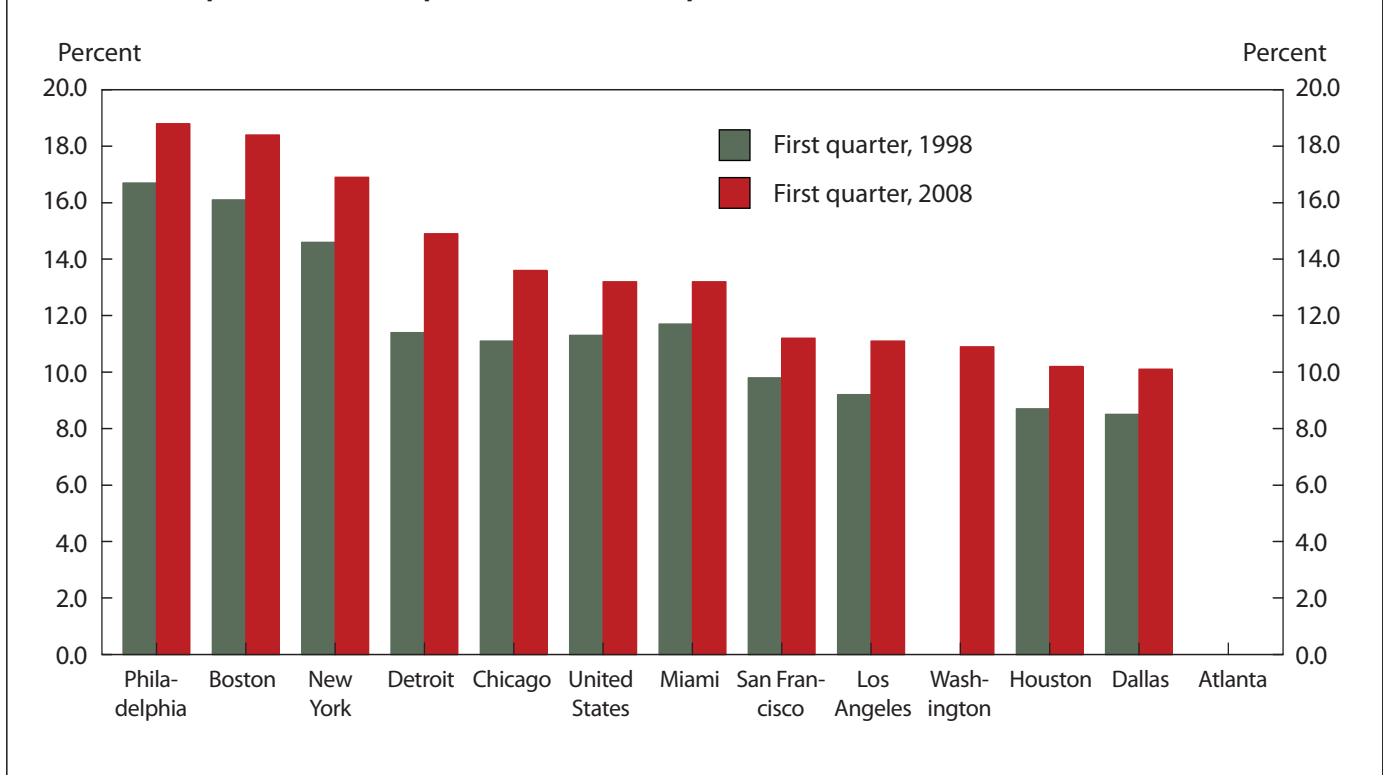
Approximately one-third of the employment gain in education and health services in the Philadelphia metropolitan area occurred in Philadelphia City, which added 26,736 jobs through the first quarter of 2008. New Castle County recorded the second-largest increase in jobs in this industry, 10,059, and was followed closely by Chester and Bucks Counties, up 9,159 and 9,022, respectively. These three counties accounted for another third of the area's increase in "eds and meds" employment during the 10-year period.

Although gains were widespread throughout the education and health services supersector, the majority of the expansion occurred in 3 of its 5 subsectors—educational services, ambulatory health services, and social assistance. (See table 4.) These 3 sectors added over 20,000 jobs each and accounted for 83 percent of the growth in education and health services in the Philadelphia metropolitan area.

It is important to note that a large portion of the metropolitan area's job growth in the educational services subsector occurred in Philadelphia City, in particular, elementary and secondary schools and colleges and universities. Philadelphia City added 5,101 elementary and secondary school jobs—over 3 times the number added in Chester County (1,429), the jurisdiction with the second-largest contribution of such jobs in the area. Montgomery County was the only other jurisdiction in the metropolitan area to add more than 1,000 elementary and secondary school positions over the 10-year span. Likewise, Philadelphia City's addition of 3,418 college and university positions was over twice the expansion occurring in Delaware (1,498) and Montgomery (1,320), the counties with the next-highest employment growth over the decade.

Growth in the ambulatory health care services subsector was concentrated in the City as well. Over half of the expansion in Philadelphia City occurred in the offices of physicians (2,425). Other jurisdictions with notable gains in the offices of physicians included New Castle, Bucks, Montgomery, and Burlington, all with increases of 1,000 or more. Of note, the Philadelphia area had one of the highest ratios of primary care physicians in the country per 100,000 residents in 2006, 86.1. The national average was 71.9 primary care physicians per 100,000 residents that same year.¹¹

Like the educational services and ambulatory health care services subsectors, the social assistance subsector was dominated by expanding payrolls in the City of Philadelphia. The vast majority of the City's employment growth in social assistance occurred in the individual and family

Chart 3. Education and health services employment as a percentage of a total covered employment, 12 largest metropolitan areas, first quarter, 1998, and first quarter, 2008

services industry, which added 5,600 jobs from the first quarter of 1998 to the first quarter of 2008. Four other counties had job gains ranging from 1,000 to 2,000 in the individual and family services industry: Bucks, Delaware, Montgomery, and Chester. Philadelphia City also added 2,231 jobs in child daycare services and 1,015 in emergency and other relief services, further boosting its presence in the social assistance subsector.

The metropolitan area wage in education and health services averaged \$841, \$74 above the nationwide industry average of \$767, in the first quarter of 2008. Among the 11 counties, wages in this industry were not as disparate as in some other industry supersectors, with 7 of the counties averaging less than \$830, but more than \$715, a week. In the remaining 4 counties, 2, Philadelphia and New Castle, had average wages exceeding \$900, and 2 others, Salem and Cecil, had wages under \$700.

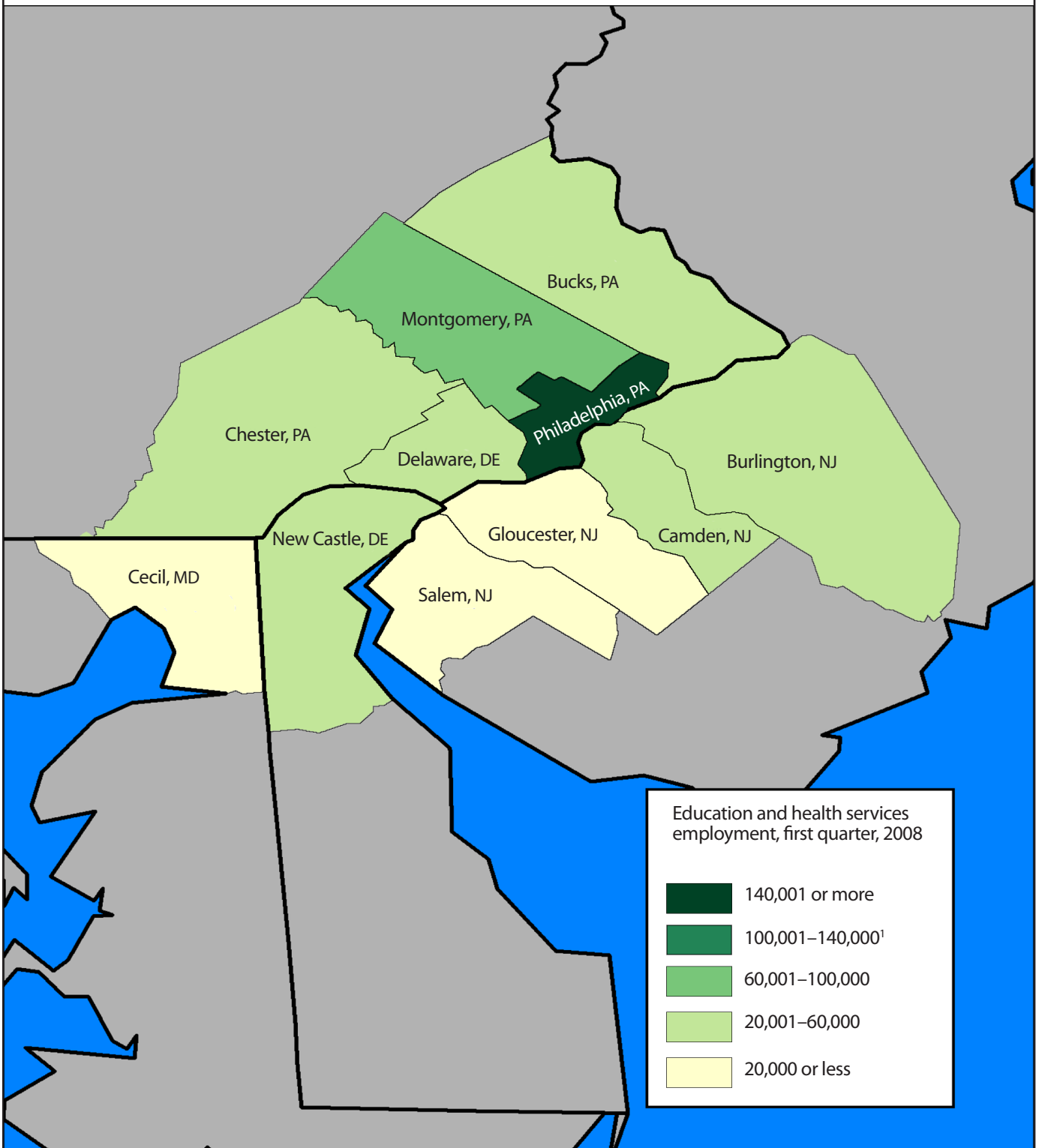
Weekly wages in the local “eds and meds” industry grew strongly over the decade, increasing by \$253, or 43.0 percent, little different from the national rate of increase of 45.0 percent. Of the 11 counties that make up the Philadelphia metropolitan area, 4 had wage growth exceeding the U.S. average in the first quarter of 2008, led by Bucks County with a 55.0-percent gain. (See table 5.)

Professional and business services

Like education and health services, professional and business services grew strongly over the decade. With a growth rate of 17.2 percent, the industry has added 59,735 jobs since 1998, bringing the total employed to more than 400,000 in the metropolitan area. (See table 1.) The largest beneficiary of the job growth was Montgomery County, which employed more than 100,000 workers by the first quarter of 2008, up from about 70,000 10 years earlier. Altogether, 7 of the 11 jurisdictions experienced employment growth greater than 20 percent in professional and business services during the period. This did not include Philadelphia City, however, which added fewer than 2,500 professional and business services positions, growing at a 3.1-percent pace.

Job growth in several high-wage industries in the professional and business services supersector, particularly management of companies and enterprises, computer systems design and related services, and scientific research and development services, has made the Philadelphia area more appealing to jobseekers. As a result, the Delaware Valley has become a more attractive location for corporate headquarters and the jobs that it supports. A recent study

Chart 4. Employment in the Philadelphia-Camden-Wilmington, PA-NJ-DE-MD, Metropolitan Statistical Area, education and health services, first quarter, 2008



¹ No education and health services employment in this category.

Table 3. Employment in education and health services, by county, Philadelphia metropolitan area, first quarter, 1998, and first quarter, 2008

Area	First quarter, 1998	First quarter, 2008	Net change, 1998–2008	Percent change, 1998–2008	Rank by net change	Rank by percent change
United States.....	13,636,345	17,751,400	4,115,054	30.2	...	...
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD, MSA.....	416,958	501,343	84,385	20.2	...	...
Philadelphia, PA, Metropolitan Division.....	325,032	382,891	57,859	17.8	...	...
Bucks, PA.....	32,252	41,274	9,022	28.0	4	6
Chester, PA.....	22,883	32,042	9,159	40.0	3	3
Delaware, PA.....	41,698	48,596	6,898	16.5	5	10
Montgomery, PA.....	67,556	73,600	6,044	8.9	7	11
Philadelphia, PA.....	160,643	187,379	26,736	16.6	1	9
Camden, NJ, Metropolitan Division.....	58,638	73,563	14,925	25.5	...	...
Burlington, NJ.....	18,976	25,114	6,138	32.3	6	5
Camden, NJ.....	31,563	36,976	5,413	17.1	8	8
Gloucester, NJ.....	8,099	11,473	3,374	41.7	9	2
Wilmington, DE-MD-NJ, Metropolitan Division.....	33,287	44,888	11,601	34.9	...	...
Cecil, MD.....	2,213	3,227	1,014	45.8	10	1
New Castle, DE.....	28,591	38,650	10,059	35.2	2	4
Salem, NJ.....	2,484	3,012	528	21.3	11	7

found that the number of employees working at headquarters in the Philadelphia metropolitan area increased by 50 percent from the end of the 2001 recession through mid-2006.¹² Overall, the influx of professional and business services jobs has had a considerable impact on the composition of the area's industry mix.

Although the Philadelphia area had an above-average concentration of professional and business services jobs, it ranked in the middle of the pack when its location quotient of 1.16 was compared with those of the other largest metropolitan areas nationwide. In fact, in two of the largest counties, Philadelphia and Bucks, the concentrations of professional and business services jobs, at 1.00 and 1.02, respectively, were on a par with the national average. (See table 6.)

Several counties in the Philadelphia area, however, did set themselves apart from the others. Montgomery County, with a location quotient of 1.58 in professional and business services, had the highest in the area; Chester and New Castle followed with quotients above 1.30. Not coincidentally, these three were among the best paid counties in the Philadelphia area in professional and business services with average weekly wages surpassing \$1,400 in the first quarter of 2008.

When Philadelphia was compared with the other 11 largest metropolitan areas, all had location quotients exceeding that for the Nation, but none came close to matching Washington's concentration (1.72) of jobs in professional and business services. The next highest in rank were San Francisco (1.39), Detroit (1.36), Boston

(1.29), Atlanta (1.27), and Chicago (1.22). The remaining 6 areas, including Philadelphia, recorded location quotients that fell into a very narrow band ranging from 1.17 in Dallas to 1.10 in Miami.

Professional and business services was the third-largest industry in the greater Philadelphia area in the first quarter of 1998, behind trade, transportation, and utilities and education and health services. Ten years later, its ranking had not changed but its presence in the area had increased nonetheless. In the first quarter of 1998, professional and business services accounted for 13.9 percent of the metropolitan area's jobs; by the end of the decade, the percentage had grown to 15.2 percent.

To more clearly understand the role of professional and business services in the Philadelphia metropolitan area's economy, the employment share for that supersector was compared with those of the other largest metropolitan areas in the country. Within this grouping, the Philadelphia area had one of the lower employment shares for professional and business service workers in 2008; still, its percentage was well above the 13.1 percent for the Nation. This relationship was common among the country's 12 largest metropolitan areas, with the employment distributions for professional and business services jobs all exceeding the U.S. average. (See chart 5.)

Four other areas had employment shares in professional and business services close to that for Philadelphia—Dallas, Los Angeles, New York, and Houston. The Miami area had the lowest percentage of professional and busi-

Table 4. Net change in education and health services, by selected four-digit industries, for the 11 counties in the Philadelphia metropolitan area, first quarter, 1998, to first quarter, 2008

NAICS code	Industry	Philadelphia, PA, Metropolitan Division					
		Bucks County	Chester County	Delaware County	Montgomery County	Philadelphia County	
Educational services							
6111	Elementary and secondary schools.....	364	1,429	444	1,228	5,101	
6112	Junior colleges.....	(¹)	(¹)	(¹)	(¹)	(¹)	
6113	Colleges and universities.....	(¹)	(¹)	1,498	1,320	3,418	
6114	Business, computer, and management training.....	58	(¹)	-87	-20	-257	
6115	Technical and trade schools.....	30	(¹)	-214	-33	135	
6116	Other schools and instruction.....	-17	309	423	527	849	
6117	Educational support services.....	(¹)	(¹)	(¹)	(¹)	(¹)	
Ambulatory health care services							
6211	Offices of physicians.....	1,355	790	332	1,328	2,425	
6212	Offices of dentists.....	698	397	106	332	-206	
6213	Offices of other health practitioners.....	597	243	591	-2,344	518	
6214	Outpatient care centers.....	273	363	330	75	831	
6215	Medical and diagnostic laboratories.....	-266	29	-6	-485	383	
6216	Home health care services.....	517	-240	955	-77	426	
6219	Other ambulatory health care services.....	234	374	111	618	393	
Hospitals							
6221	General medical and surgical hospitals.....	1,482	449	(¹)	383	-895	
6222	Psychiatric and substance abuse hospitals.....	(¹)	(¹)	(¹)	(¹)	-456	
6223	Specialty hospitals.....	(¹)	(¹)	(¹)	(¹)	2,085	
Nursing and residential care facilities							
6231	Nursing care facilities.....	-2,014	-531	-277	20	-1,863	
6232	Residential mental health facilities.....	44	-255	636	-248	2,534	
6233	Community care facilities for the elderly.....	(¹)	2,251	566	960	1,031	
6239	Other residential care facilities.....	(¹)	-51	109	-58	-207	
Social assistance							
6241	Individual and family services.....	1,666	1,410	1,637	1,531	5,600	
6242	Emergency and other relief services.....	161	46	(¹)	134	1,015	
6243	Vocational rehabilitation services.....	-6	-26	(¹)	-87	169	
6244	Child daycare services.....	548	819	529	865	2,231	
NAICS code	Industry	Camden, NJ, Metropolitan Division			Wilmington, DE-MD-NJ, Metropolitan Division		
		Burlington County	Camden County	Gloucester County	Cecil County	New Castle County	Salem County
Educational services							
6111	Elementary and secondary schools.....	215	851	(¹)	(¹)	(¹)	(¹)
6112	Junior colleges.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
6113	Colleges and universities.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
6114	Business, computer, and management training.....	-51	62	(¹)	(¹)	-9	(¹)
6115	Technical and trade schools.....	(¹)	76	(¹)	(¹)	245	(¹)
6116	Other schools and instruction.....	-99	186	196	128	111	(¹)
6117	Educational support services.....	16	(¹)	(¹)	(¹)	344	(¹)
Ambulatory health care services							
6211	Offices of physicians.....	1,218	450	540	19	1,528	27
6212	Offices of dentists.....	288	302	177	36	384	13
6213	Offices of other health practitioners.....	645	296	113	145	655	21
6214	Outpatient care centers.....	182	852	251	109	270	(¹)
6215	Medical and diagnostic laboratories.....	188	156	(¹)	(¹)	-148	(¹)
6216	Home health care services.....	452	-162	(¹)	(¹)	-147	(¹)
6219	Other ambulatory health care services.....	(¹)	(¹)	(¹)	(¹)	215	(¹)

See footnote at end of table.

Table 4. Continued—Net change in education and health services, by selected four-digit industries, for the 11 counties in the Philadelphia metropolitan area, first quarter, 1998, to first quarter, 2008

NAICS code	Industry	Camden, NJ, Metropolitan Division			Wilmington, DE-MD-NJ, Metropolitan Division		
		Burlington County	Camden County	Gloucester County	Cecil County	New Castle County	Salem County
Hospitals							
6221	General medical and surgical hospitals.....	(¹)	-186	(¹)	(¹)	(¹)	(¹)
6222	Psychiatric and substance abuse hospitals.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
6223	Specialty hospitals.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Nursing and residential care facilities							
6231	Nursing care facilities.....	332	-247	-202	(¹)	867	(¹)
6232	Residential mental health facilities.....	(¹)	-25	(¹)	(¹)	(¹)	(¹)
6233	Community care facilities for the elderly.....	579	791	7	(¹)	425	(¹)
6239	Other residential care facilities.....	(¹)	97	(¹)	(¹)	(¹)	(¹)
Social assistance							
6241	Individual and family services.....	584	816	389	(¹)	137	-12
6242	Emergency and other relief services.....	11	146	(¹)	(¹)	(¹)	(¹)
6243	Vocational rehabilitation services.....	134	138	-13	(¹)	(¹)	(¹)
6244	Child daycare services.....	535	502	549	44	774	15

¹ Data do not meet BLS or State agency disclosure standards.

Table 5. Average weekly wages in education and health services, by county, Philadelphia metropolitan area, first quarter, 1998, and first quarter, 2008

Area	First quarter, 1998	First quarter, 2008	Net change, 1998–2008	Percent change, 1998–2008	Rank by net change	Rank by percent change
United States.....	\$529	\$767	\$238	45.0	...	...
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD, MSA.....	588	841	253	43.0	...	...
Philadelphia, PA, Metropolitan Division.....	592	843	251	42.4	...	...
Bucks, PA.....	482	747	265	55.0	4	1
Chester, PA.....	534	740	206	38.6	10	10
Delaware, PA.....	542	770	228	42.1	7	7
Montgomery, PA.....	562	795	233	41.5	6	9
Philadelphia, PA.....	649	920	271	41.8	3	8
Camden, NJ, Metropolitan Division.....	560	810	250	44.6	...	...
Burlington, NJ.....	550	823	273	49.6	2	2
Camden, NJ.....	580	829	249	42.9	5	6
Gloucester, NJ.....	502	719	217	43.2	9	5
Wilmington, DE-MD-NJ, Metropolitan Division.....	598	878	280	46.8	...	...
Cecil, MD.....	456	678	222	48.7	8	3
New Castle, DE.....	617	909	292	47.3	1	4
Salem, NJ.....	513	695	182	35.5	11	11

ness services jobs, 14.5 percent, while the Washington metropolitan area had the highest share, 22.5 percent, in the first quarter of 2008.

County specifics. Employment in professional and business services, the highest paying industry in Philadelphia, grew by nearly 60,000 from the first quarter of 1998 to the first quarter of 2008. Nine of the 11 counties that compose the metropolitan area added jobs in this industry over the 10-year span, the exceptions being New Castle (-8,248) and

Delaware (-4,311). Although the City added about 2,500 professional and business services jobs, its rate of growth, 3.1 percent, was one of the slowest in the Delaware Valley; in comparison, the neighboring county of Montgomery added approximately 31,000 jobs, growing at a 44.3-percent pace. (See table 7.)

Professional and business services jobs were more widely dispersed than those in education and health services, which were concentrated in the City. (See chart 6.) Of the nine counties that added professional and business serv-

Table 6. Location quotients for professional and business services, United States and 12 largest metropolitan areas, first quarter, 1998, and first quarter, 2008

Area	First quarter, 1998	First quarter, 2008
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD, MSA	1.16	1.16
Philadelphia, PA, Metropolitan Division	1.12	1.19
Montgomery, PA.....	1.29	1.58
Chester, PA.....	1.23	1.38
Bucks, PA.....	.91	1.02
Philadelphia, PA.....	1.05	1.00
Delaware, PA.....	1.10	.86
Camden, NJ, Metropolitan Division	1.03	1.02
Camden, NJ.....	1.11	1.10
Burlington, NJ.....	1.05	1.07
Gloucester, NJ.....	.81	.74
Wilmington, DE-MD-NJ, Metropolitan Division	1.60	1.20
New Castle, DE.....	1.79	1.33
Salem, NJ.....	.45	.63
Cecil, MD.....	.39	.41
Washington-Arlington-Alexandria, DC-VA-MD-WV.....	1.67	1.72
San Francisco-Oakland-Fremont, CA.....	1.51	1.39
Detroit-Warren-Livonia, MI.....	1.40	1.36
Boston-Cambridge-Quincy, MA-NH.....	1.29	1.29
Atlanta-Sandy Springs-Marietta, GA.....	1.40	1.27
Chicago-Naperville-Joliet, IL-IN-WI.....	1.25	1.22
Dallas-Fort Worth-Arlington, TX.....	(¹)	1.17
Los Angeles-Long Beach-Santa Ana, CA.....	1.25	1.16
New York-Northern New Jersey-Long Island, NY-NJ-PA.....	1.22	1.15
Houston-Sugar Land-Baytown, TX	1.18	1.14
Miami-Fort Lauderdale-Pompano Beach, FL	1.14	1.10

¹ Data do not meet BLS or State agency disclosure standards.
NOTE: By definition, U.S. location quotient = 1.00.

ices jobs over the decade, three gained more than 10,000, with Montgomery in the lead. Chester County recorded the second-highest increase, 14,823, followed by Bucks County, which added 10,391. Growth in the remaining six counties ranged from 7,035 professional and business services jobs in Burlington County to 661 in Cecil County.

Although gains were widespread throughout the professional and business services supersector, the majority of the expansion occurred in just one of its four sectors: management of companies and enterprises. (See table 8.) This industry group is among the highest paid locally, drawing on highly educated and experienced workers to fill its ranks.

Interestingly, a large portion of the employment gains in management of companies and enterprises from the first quarter of 1998 to the first quarter of 2008 occurred in Philadelphia City, which added 8,507 jobs. However, the City added few professional and business services po-

sitions in other subsectors and, in some cases, lost jobs, largely offsetting the gain in management of companies and enterprises. Philadelphia City experienced its biggest loss in administrative and support services, which includes employment services, business support services, and travel arrangement and reservation services, among others.

Montgomery County recorded the second-highest increase in jobs in management of companies and enterprises over the decade, 5,102, followed by Chester County, up 4,235. Four other counties—Burlington, Bucks, Camden, and Delaware—all had employment increases of greater than 1,000, but less than 2,500. Of the area's 11 jurisdictions, only 1, New Castle County, lost jobs in the management of companies and enterprises during the 10-year time span, down 5,824.

Montgomery County also added over 2,500 jobs in five other industry groups from 1998 to 2008: scientific research and development services (9,780), computer systems design and related services (5,818), management and technical consulting services (3,111), services to buildings and dwellings (2,850), and investigation and security services (2,729). Not unexpectedly, employment gains in Montgomery County were again among the largest in these industries in the Philadelphia area.

Other jurisdictions with notable gains were Chester County (5,346 in computer systems design and related services and 2,469 in scientific research and development services), Bucks County (3,208 in services to buildings and dwellings), and Camden County (2,845 in employment services).

Wages in professional and business services were among the highest in the Philadelphia metropolitan area, averaging \$1,383 a week in the first quarter of 2008, an increase of \$550 over the 10-year period beginning in the first quarter of 1998. In fact, this was the only supersector in the metropolitan area in which more than half of the counties (6) had an average wage exceeding \$1,000 a week, and five of these—Chester, Philadelphia, Montgomery, New Castle, and Delaware—had wages above the \$1,131 national average. Moreover, with the exception of Cecil County, wages in every jurisdiction surpassed \$900 in professional and business services during the first quarter of 2008, so these high-paying jobs were not relegated to a handful of counties. (See table 9.)

Wage growth in professional and business services was strong over the decade, increasing 66.0 percent in the Philadelphia area. Among the 11 counties, the average wage more than doubled in Chester County, reaching a metropolitan area high of \$1,703 in the first quarter of 2008. Growth of 75.0 percent or higher was achieved

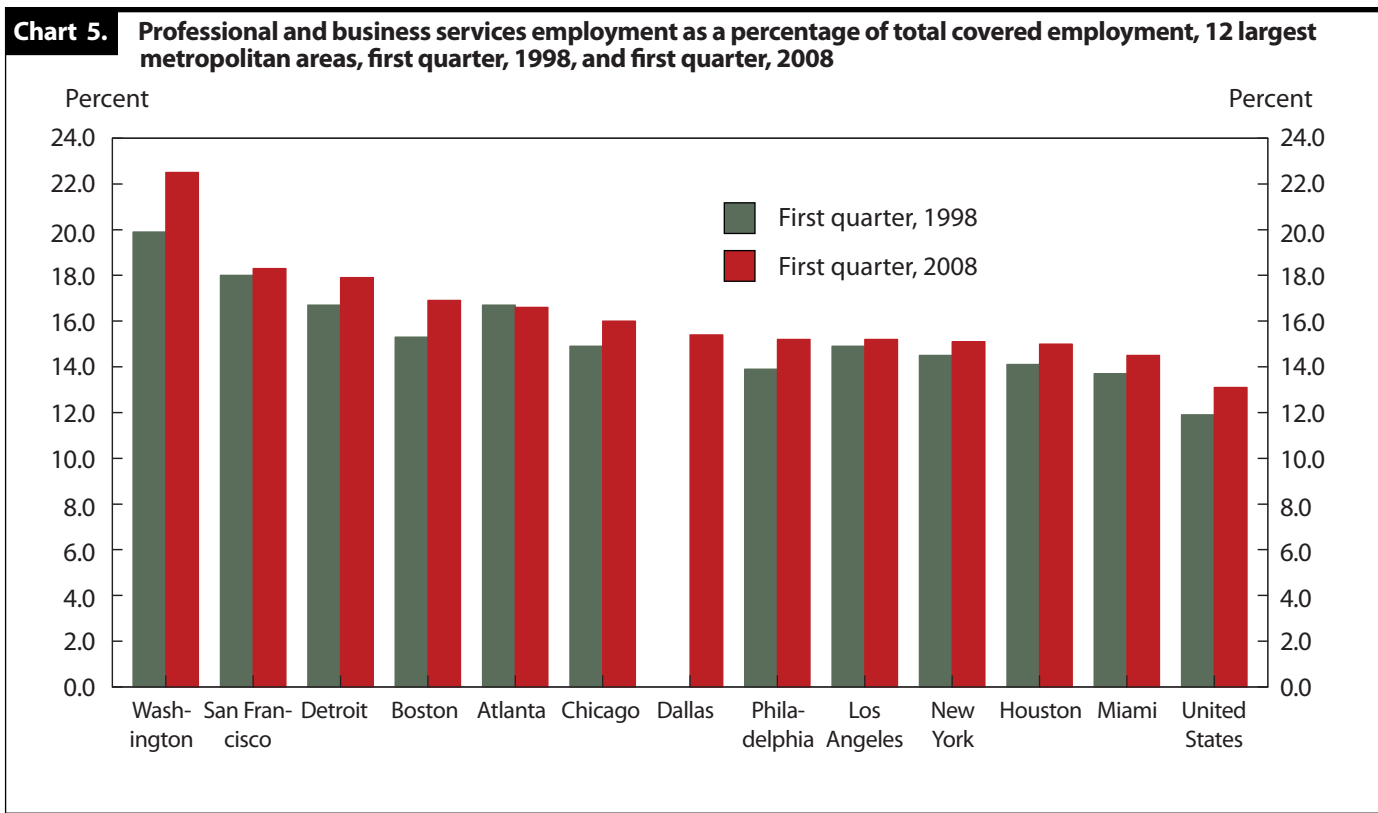


Table 7. Employment in professional and business services, by county, Philadelphia metropolitan area, first quarter, 1998, and first quarter, 2008

Area	First quarter, 1998	First quarter, 2008	Net change, 1998–2008	Percent change, 1998–2008	Rank by net change	Rank by percent change
United States.....	14,471,848	17,620,163	3,148,315	21.8	...	...
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD, MSA.....	346,669	406,404	59,735	17.2	...	...
Philadelphia, PA, Metropolitan Division.....	231,648	285,924	54,276	23.4	...	...
Bucks, PA.....	24,670	35,061	10,391	42.1	3	5
Chester, PA.....	28,873	43,696	14,823	51.3	2	3
Delaware, PA.....	27,889	23,578	-4,311	-15.5	10	11
Montgomery, PA.....	69,742	100,626	30,884	44.3	1	4
Philadelphia, PA.....	80,474	82,963	2,489	3.1	6	9
Camden, NJ, Metropolitan Division.....	55,944	68,284	12,340	22.1	...	...
Burlington, NJ.....	21,363	28,397	7,035	32.9	4	6
Camden, NJ.....	26,639	29,934	3,295	12.4	5	8
Gloucester, NJ.....	7,942	9,952	2,010	25.3	7	7
Wilmington, DE-MD-NJ, Metropolitan Division.....	59,078	52,196	-6,882	-11.6	...	...
Cecil, MD.....	970	1,631	661	68.2	9	1
New Castle, DE.....	56,993	48,745	-8,248	-14.5	11	10
Salem, NJ.....	1,115	1,821	705	63.2	8	2

in three other counties—Gloucester, Montgomery, and Philadelphia City. One other county in the area, Delaware, had wage growth surpassing the nationwide industry average of 60.4 percent.

THE MIXTURE OF EXPANDING AND CONTRACTING employment levels within the various industry supersectors in the Philadelphia metropolitan area from 1998 to 2008 has resulted in a noticeable shift in the industrial

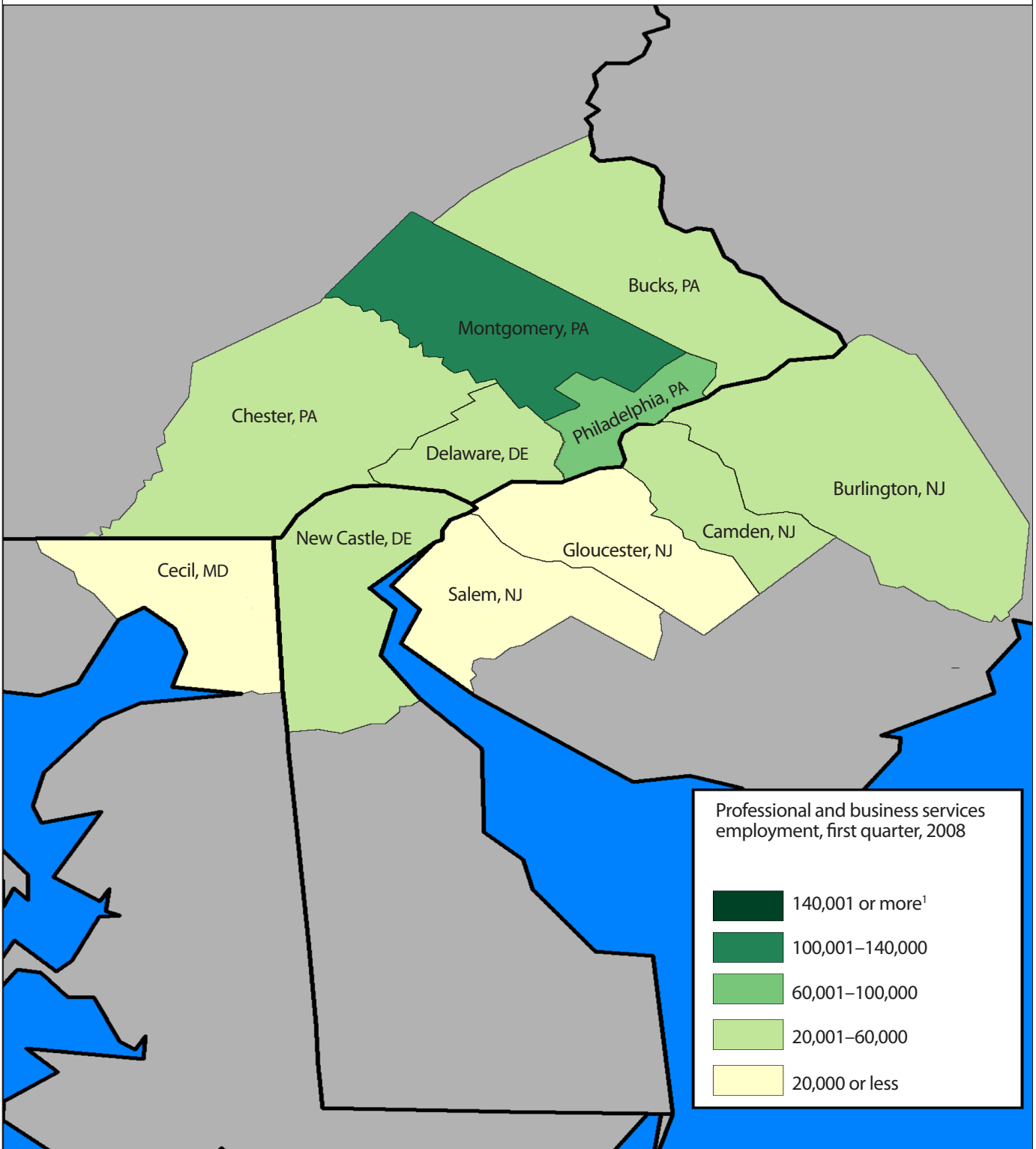
configuration of the local economy. Foremost, education and health services increased its presence in the area to rival trade, transportation, and utilities as the region’s job leader. To put this growth into perspective, the more than 84,000 education and health services jobs added in the Philadelphia area over the 10-year time span accounted for about one-half of the metropolitan area’s total employment gain. These increases, however, were largely City based—urban-oriented growth that figured

Table 8. Net change in professional and business services, by selected four-digit industries for the 11 counties in the Philadelphia metropolitan area, first quarter, 1998, to first quarter, 2008

NAICS code	Industry	Philadelphia, PA, Metropolitan Division					
		Bucks County	Chester County	Delaware County	Montgomery County	Philadelphia County	
Professional, scientific, and technical services							
5411	Legal services.....	268	514	127	1,060	1,307	
5412	Accounting and bookkeeping services.....	303	627	198	1,054	718	
5413	Architectural and engineering services.....	610	423	-224	758	-739	
5414	Specialized design services.....	281	-325	43	-14	-122	
5415	Computer systems design and related services.....	1,091	5,346	-296	5,818	-582	
5416	Management and technical consulting services.....	726	906	617	3,111	749	
5417	Scientific research and development services.....	696	2,469	-2,335	9,780	-418	
5418	Advertising, public relations, and related services.....	316	-317	-87	-938	-504	
5419	Other professional and technical services.....	833	899	-444	-38	371	
Management of companies and enterprises							
5511	Management of companies and enterprises.....	1,994	4,235	1,144	5,102	8,507	
Administrative and support services							
5611	Office administrative services.....	-45	(¹)	192	249	19	
5612	Facilities support services.....	(¹)	(¹)	(¹)	(¹)	(¹)	
5613	Employment services.....	-2	-469	-2,549	-7	-2,072	
5614	Business support services.....	-143	-335	-1,304	-1,190	-1,115	
5615	Travel arrangement and reservation services.....	(¹)	-193	-463	(¹)	-1,092	
5616	Investigation and security services.....	101	391	665	2,729	-768	
5617	Services to buildings and dwellings.....	3,208	921	178	2,850	1,465	
5619	Other support services.....	162	(¹)	(¹)	307	-3,387	
Waste management and remediation services							
5621	Waste collection.....	(¹)	(¹)	356	301	(¹)	
5622	Waste treatment and disposal.....	(¹)	(¹)	(¹)	-187	-117	
5629	Remediation and other waste services.....	58	(¹)	(¹)	-66	(¹)	
NAICS code	Industry	Camden, NJ, Metropolitan Division			Wilmington, DE-MD-NJ Metropolitan Division		
		Burlington County	Camden County	Gloucester County	Cecil County	New Castle County	Salem County
Professional, scientific, and technical services							
5411	Legal services.....	668	162	-20	6	1,515	-24
5412	Accounting and bookkeeping services.....	729	396	-29	110	768	-6
5413	Architectural and engineering services.....	257	362	609	18	449	48
5414	Specialized design services.....	98	243	(¹)	(¹)	-103	(¹)
5415	Computer systems design and related services.....	-1,012	-1,305	-202	-57	-31	(¹)
5416	Management and technical consulting services.....	862	-419	307	40	1,501	(¹)
5417	Scientific research and development services.....	-74	125	(¹)	(¹)	-3,541	(¹)
5418	Advertising, public relation, and related services.....	-256	-81	(¹)	(1)	90	(¹)
5419	Other professional and technical services.....	732	273	35	53	341	21
Management of companies and enterprises							
5511	Management of companies and enterprises.....	2,064	1,381	(¹)	(¹)	-5,824	(¹)
Administrative and support services							
5611	Office administrative services.....	328	368	(¹)	(¹)	(¹)	(¹)
5612	Facilities support services.....	60	(¹)	(¹)	(¹)	(¹)	(¹)
5613	Employment services.....	895	2,845	(¹)	(¹)	-3,552	(¹)
5614	Business support services.....	470	-1,774	-154	(¹)	-711	(¹)
5615	Travel arrangement and reservation services.....	-319	-231	-43	(¹)	364	(¹)
5616	Investigation and security services.....	403	408	156	(¹)	-83	(¹)
5617	Services to buildings and dwellings.....	342	428	186	100	149	-26
5619	Other support services.....	740	(¹)	134	(¹)	-161	(¹)
Waste management and remediation services							
5621	Waste collection.....	(¹)	121	9	(¹)	-85	(¹)
5622	Waste treatment and disposal.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
5629	Remediation and other waste services.....	56	(¹)	(¹)	(¹)	(¹)	(¹)

¹ Data do not meet BLS or State agency disclosure standards.

Chart 6. Employment in the Philadelphia-Camden-Wilmington, PA-NJ-DE-MD, Metropolitan Statistical Area, professional and business services, first quarter, 2008



¹ No professional and business services employment in this category.

Table 9. Average weekly wages in professional and business services, by county, Philadelphia metropolitan area, first quarter, 1998, and first quarter, 2008

Area	First quarter, 1998	First quarter, 2008	Net change, 1998–2008	Percent change, 1998–2008	Rank by net change	Rank by percent change
United States.....	\$705	\$1,131	\$426	60.4	...	...
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD, MSA.....	833	1,383	550	66.0	...	...
Philadelphia, PA, Metropolitan Division.....	819	1,472	653	79.7	...	...
Bucks, PA.....	618	965	347	56.1	7	6
Chester, PA.....	837	1,703	866	103.5	1	1
Delaware, PA.....	677	1,143	466	68.8	4	5
Montgomery, PA.....	852	1,534	682	80.0	3	3
Philadelphia, PA.....	896	1,583	687	76.7	2	4
Camden, NJ, Metropolitan Division.....	656	962	306	46.6	...	...
Burlington, NJ.....	724	983	259	35.8	10	9
Camden, NJ.....	650	962	312	48.0	8	7
Gloucester, NJ.....	494	905	411	83.2	6	2
Wilmington, DE-MD-NJ, Metropolitan Division.....	1,054	1,443	389	36.9	...	...
Cecil, MD.....	602	782	180	29.9	11	11
New Castle, DE.....	1,067	1,481	414	38.8	5	8
Salem, NJ.....	756	1,018	262	34.7	9	10

less prominently in the suburban counties—whereas the slowed growth in trade, transportation, and utilities was felt throughout the Delaware Valley. Perhaps, most importantly, employment growth in “eds and meds” showed no signs of slowing down, and its ongoing expansion will continue to be a magnet for the often high-skilled, well-paid jobs that universities, hospitals, and the like attract.¹³

Although the job growth in education and health services, particularly in the City, was not altogether unexpected given the industry’s long-term presence in the Philadelphia area, the increase of almost 60,000 professional and business services jobs from 1998 to 2008, a large portion of which was centered in suburban Montgomery County, was especially strong and of considerable importance in view of the fact that the industry had the highest average wage in the Philadelphia area. Most importantly, the first quarter of 2008 saw Montgomery County overtake Philadelphia City as the largest employer of professional and business services workers in the area. Overall, the combined job growth in education and health services and professional and business services helped offset the heavy losses in the hard-hit manufacturing industry and made up for the diminished growth in trade, transportation, and utilities.

On the surface, Philadelphia appears no different from a lot of other metropolitan areas that saw their local economy shift away from the goods-producing sector to take on a more service-provider orientation. However, what set Philadelphia apart from its counterparts over the decade was the strong growth exhibited by education and health services, which allowed the industry to catch up to the perennial jobs leader, trade, transportation, and utilities, in 2008.

Postscript. This article has covered employment and wage changes over the decade ending in the first quarter of 2008, an appropriate place to end given that in December 2007 the Nation entered its severest recession since the Great Depression. Data for the first quarter of 2009 have since become available and the trend confirmed: the employment share for education and health services in the Philadelphia metropolitan area rose to 19.9 percent over the year, surpassing the share for trade, transportation, and utilities, which slipped to 18.5 percent. Education and health services now stands alone in first place as the largest industry employer in greater Philadelphia, solidifying the area’s special status as one of the few major metropolitan areas not to be dominated by trade, transportation, and utilities. □

Notes

ACKNOWLEDGMENTS: The authors thank Cassidy Canzani for her contributions in the preparation of this article and Michael Dickie, Thomas McGettigan, and Erin Delaney for gathering data and fact-checking the article.

¹The substate area data presented in this article reflect the standards and definitions established by the U.S. Office of Management and Budget as of March 2004. A detailed list of the geographic definitions is available on the Internet at

Regional Trends

www.whitehouse.gov/omb/bulletins/fy2008/b08-01.pdf (visited October 19, 2008). The Philadelphia-Camden-Wilmington, PA-NJ-DE-MD, Metropolitan Statistical Area (MSA) is composed of Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties in Pennsylvania; Burlington, Camden, Gloucester, and Salem Counties in New Jersey; New Castle County in Delaware; and Cecil County in Maryland.

The Camden, NJ, Metropolitan Division is composed of Burlington, Camden, and Gloucester Counties in New Jersey. The Philadelphia, PA, Metropolitan Division is composed of Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties in Pennsylvania. The Wilmington, DE-MD-NJ, Metropolitan Division is composed of New Castle County in Delaware, Cecil County in Maryland, and Salem County in New Jersey.

The Philadelphia-Camden-Wilmington, PA-NJ-DE-MD, MSA is commonly referred to as the Delaware Valley; this designation is used as a substitute for the Philadelphia metropolitan area throughout the article.

² The Quarterly Census of Employment and Wages (QCEW), a cooperative program involving the Bureau of Labor Statistics (BLS) and the various State Workforce Agencies (SWAs), provides employment and wage data for workers covered by State Unemployment Insurance (UI) laws that are compiled from quarterly contribution reports submitted to the SWAs by employers. For Federal civilian workers covered by the Unemployment Compensation for Federal Employees (UCFE) program, employment and wage data are compiled from quarterly reports that are sent to the appropriate SWA by the specific Federal Agency. The employment and wage data used in this article are derived from microdata summaries of more than 8 million employer reports of employment and wages submitted by States to the BLS. These reports are based on place of employment rather than place of residence.

Employment data under the QCEW program represent the number of covered workers who worked during, or received pay for, the pay period including the 12th of the month. Excluded are members of the Armed Forces, the self-employed, proprietors, domestic workers, unpaid family workers, and railroad workers covered by the railroad unemployment insurance system. Wages represent total compensation paid during the calendar quarter, regardless of when services were performed. Included in wages are pay for vacation and other paid leave, bonuses, stock options, tips, the cash value of meals and lodging, and in some States, contributions to deferred compensation plans (such as 401(k) plans). The QCEW program does provide partial information on agricultural industries and employees in private households.

³ “Jurisdiction” will be used as a substitute for “county” throughout the article.

⁴ “Philadelphia City” will be often used as a substitute for “Philadelphia County” throughout the article, given that both terms refer to the same geographical area.

⁵ “Eds and meds” is a catchphrase for the education and health services supersector. The term will be used interchangeably with “the education and health services supersector” in this article.

⁶ See “Philadelphia: The Official Convention and Visitors Site for Philadelphia,” on the Internet at www.philadelphiausa.travel/philadelphia-page.php?itemid=8&pageid=233 (visited September 10, 2008).

⁷ See *Impact of Higher Education in Greater Philadelphia* (Philadelphia, Select Greater Philadelphia, October 2007), p. i, on the Internet at www.selectgreaterphiladelphia.com/pdfs/Higher_Education_Study.pdf (visited September 7, 2008).

⁸ Recessionary periods are identified by the National Bureau of Economic Research (NBER). The NBER defines a recession as a significant decline in economic activity spread across the economy, lasting more than a few months, and normally visible in a drop in real GDP, real income, employment, industrial production, and both wholesale and retail sales.

⁹ Location quotients are the ratio of industry employment in the area being analyzed to industry employment in the base area, divided by the ratio of industry employment in the analysis area to industry employment in the base area. For additional details, see “Help and Tutorials: Location Quotient Calculator” (Bureau of Labor Statistics, March 22, 2005), on the Internet at www.bls.gov/help/def/lq.htm (visited October 19, 2008).

¹⁰ A detailed list of the geographic definitions of these 12 MSAs is available at www.whitehouse.gov/omb/bulletins/fy2008/b08-01.pdf (visited November 10, 2008).

¹¹ *Selected Hospital Capacity and Physician Workforce Measures* (Hanover, NH, Dartmouth Medical School, Center for the Evaluative Clinical Sciences, revised Sept. 8, 2009), pp. 39–52; on the Internet at www.dartmouthatlas.org/data/download/2006_hosp_phys_hrr.xls (visited November 10, 2008).

¹² See Bob Fernandez, “Hot Spots for HQ Jobs,” *Philadelphia Inquirer*, front page, Sept. 9, 2007.

¹³ Timothy J. Bartik and George Erickcek, “The Local Economic Impact of ‘Eds & Meds’: How Policies to Expand Universities and Hospitals Affect Metropolitan Economies,” Metropolitan Economy Initiative, no. 6 (Washington, DC, The Brookings Institution, Dec. 10, 2008).