



# Research Brief

The Commonwealth's Official Source for Population and Economic Statistics

October 31, 2005

## **U.S. Census Bureau Release Provides New Opportunity to Analyze Commuter Effects on Daytime Population in Pennsylvania**

MIDDLETOWN, Pa –The U.S. Census Bureau has released the first-ever estimates of daytime population in cities and counties based on Census 2000 data. The concept of daytime population refers to the number of people, including workers, who are present in an area during normal business hours, in contrast to the resident population during the evening and nighttime hours. The estimates give planners and officials the opportunity to analyze an issue that is of increasing importance to cities and counties across the country: the effects of a growing commuter workforce. In light of recent events like Hurricanes Katrina and Rita, the daytime population of cities could figure prominently in future disaster and transportation planning.

### **Leading Places on Percent Change in Daytime Population, by Size (Total Resident Population) – Pennsylvania and the Nation**

Once an issue that mainly concerned large cities, daytime population estimates highlight commuter problem areas throughout Pennsylvania and nationwide. Data from census 2000 shows that New York City led the nation with the largest estimated daytime population (8.5 million) and the largest numeric daytime population increase (+563,060). Washington, D.C. ranked second in numeric increase (+410,794) but the capital's daytime population was still below one million. Of places with a population of one million or more, Philadelphia ranked sixth nationally in daytime population percent increase (+5.9 percent) and had the fifth highest daytime population (1.6 million). During the workday, the city's population increased by 90,230 and 16 percent\* more workers worked in the city than lived there. Philadelphia's daytime population increase seems less significant, however, when compared with Houston, which led cities of one million or more with an estimated daytime increase of 403,313 (+20.6 percent).

Among medium-sized cities (places with a population between 250,000 and 499,999), Pittsburgh ranked third nationally in percent change in daytime population. Though considerably less populous than Philadelphia, Pittsburgh had a larger commuter workforce. More than 138,000 workers commuted to Pittsburgh to work during the day, about 47,000 more workers than in Philadelphia. Pittsburgh's daytime population increased by an estimated 41.3 percent, and 97 percent more workers worked in the city than lived there.

Sizeable commuter workforces are typically associated with larger cities but the data suggests that smaller communities have their own commuter issues. In general, the leading places with a total resident population of 50,000 or less experienced considerably higher proportional increases in daytime population in 2000. All of the leading places that fell into this category were found to have daytime population increases of greater than 60 percent, many exceeding 100 percent.



Harrisburg was among the leading cities with a population greater than 25,000 and less than 50,000 having a significant daytime population increase. Commuters enlarged Harrisburg's daytime population by an estimated 35,000 workers in 2000, a percentage increase (+72.7) on par with Washington, D.C. Harrisburg's employment-residence ratio shows that 174 percent more workers worked in the city than lived there.

Similarly, King of Prussia (Montgomery County) and Greensburg City (Westmoreland County) are among the nation's leading cities in daytime population increase with a resident population between 15,000 and 24,999. Both have over 200 percent more workers working than living in the cities. Commuter workers increased King of Prussia's daytime population by an additional 24,261 (+131.1), and Greensburg's by 15,181 (+95.5 percent). (Table 1)

### **Estimated Daytime Population and Employment-Residence Ratios -Selected Pennsylvania Places**

Mifflintown Borough (+375.6), Tinicum Township CDP (+337.4), and Fort Washington CDP (+248.2) had the largest percentage daytime population increases among selected Pennsylvania places with 2,500 workers either working or living in the place. These places are extreme examples of daytime population expansion due to commuting. The population in Tinicum, for instance, increased from 4,353 to over 19,000 during working hours. Twenty-three places in Pennsylvania had a daytime population that doubled in size. Eight of the twenty-three were located in counties immediately surrounding Philadelphia (notably five in Montgomery county), three in counties immediately surrounding Pittsburgh, and the remaining were scattered throughout the state. (Table 2)

Twenty places in the commonwealth experienced a daytime population decrease of 30 percent or greater. Geographically similar to selected places that experienced the greatest population expansion, eight places were located in counties immediately surrounding Philadelphia (five in Delaware), and five were located in Allegheny County. The largest percentages of outcommuters were in Schlusser CDP (-48.2), Economy Borough (-42.6), and Weigelstown CDP (-41.5). More commuters left Levittown (-19,285) during the day than any other place in Pennsylvania.

### **Estimated Daytime Population and Employment-Residence Ratios – Pennsylvania Counties**

About 4 million Pennsylvanians (72.4 percent) live and work in the same county. In Erie, Allegheny, and Centre counties, more than 90 percent of the workers lived and worked in those counties. In ten counties, less than 55 percent of the workers lived and worked there. Just 28.3 percent of workers lived and worked in Pike County.

The highest employment-residence ratios could be found in Montour, Dauphin, and Montgomery counties in 2000. These counties experienced daytime population increases of 3,616, 43,358, and 66,980, respectively. Allegheny (+100,357), Philadelphia (+90,289), and Montgomery (+66,980) counties reported the largest numeric daytime population increases, while a significant number of commuters left Bucks (-61,983), Delaware (-37,863), and Northampton (-27,629) counties during the day for work elsewhere. Montour (19.8) and Dauphin (17.2) led Pennsylvania counties in daytime population percent increase, while both Pike (-24.3) and Perry (-28.8) counties lost a significant proportion of their daytime population to outcommuting. (Table 3)

The complete tables from the Census Bureau release may be viewed at:  
<http://www.census.gov/population/www/socdemo/daytime/daytimepop.html>

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Notes: \* This refers to the employment-residence ratio. Employment-residence (E-R) ratio is a measure of the total number of workers working in a place relative to the total number of workers living in the place. It is often used as a rough indication of the jobs-workers balance in a place, although it does not take into account whether the resident workers possess the skills needed for the jobs that are available. E-R ratios greater than 1.00 occur when there are more workers working in the place than living there. These places can be considered as net importers of labor. For example, an E-R ratio of 1.19 means that there are 19 percent more workers working in the place than living in the place. Values less than 1.00 indicate places that send more workers to other areas than they receive, i.e., they are net exporters of labor.

CDP stands for Census Designated Place.

Source: U.S. Census Bureau, Census 2000.

Release Date: October 20, 2005

The Pennsylvania State Data Center is the commonwealth's official source for population and economic statistics. It is based at Penn State Harrisburg's Institute of State and Regional Affairs. The Pennsylvania State Data Center is part of the U.S. Census Bureau's National State Data Center Program.

Editors: For additional data, contact the Pennsylvania State Data Center's State Capital Office at 717.772.2710 or for faculty comment on this topic, contact Penn State Harrisburg's Public Information Office at 717.948.6029.

**Table 1: Leading Places on Percent Change in Daytime Population, by Size (Total Resident Population)  
–Selected Pennsylvania Places: 2000**

Place Name	Total resident population	Total workers working in the place	Total workers living in the place	Estimated daytime population	Daytime population change due to commuting		Workers who lived and worked in the same place		Employment residence ratio
					Number	Percent	Number	Percent	
Philadelphia city	1,517,550	659,991	569,761	1,607,780	90,230	5.9	429,608	75.4	1.16
Pittsburgh city	334,563	280,035	141,844	472,754	138,191	41.3	98,005	69.1	1.97
Harrisburg city	48,950	56,130	20,520	84,560	35,610	72.7	9,210	44.9	2.74
King of Prussia CDP	18,511	34,969	10,708	42,772	24,261	131.1	2,930	27.4	3.27
Greensburg city	15,889	22,187	7,006	31,070	15,181	95.5	2,819	40.2	3.17

**Table 2: Estimated Daytime Population of Selected Pennsylvania Places (Population More than Doubled in Size) by Percent Increase: 2000**

Place name	Total resident population	Total workers working in the place	Total workers living in the place	Estimated daytime population	Daytime population change due to commuting		Workers who lived and worked in the same place		Employment residence ratio
					Number	Percent	Number	Percent	
Mifflintown borough	861	3,630	396	4,095	3,234	375.6	207	52.3	9.17
Tinicum Township CDP	4,353	16,827	2,138	19,042	14,689	337.4	464	21.7	7.87
Fort Washington CDP	3,680	10,862	1,727	12,815	9,135	248.2	169	9.8	6.29
McConnellsburg borough	1,073	2,875	478	3,470	2,397	223.4	227	47.5	6.01
West Kittanning borough	1,199	2,832	529	3,502	2,303	192.1	135	25.5	5.35
Green Tree borough	4,719	11,241	2,424	13,536	8,817	186.8	487	20.1	4.64
Blue Bell CDP	6,395	13,464	3,069	16,790	10,395	162.5	535	17.4	4.39
Langhorne borough	1,981	3,768	741	5,008	3,027	152.8	63	8.5	5.09
New Stanton borough	1,906	3,555	1,004	4,457	2,551	133.8	166	16.5	3.54
King of Prussia CDP	18,511	34,969	10,708	42,772	24,261	131.1	2,930	27.4	3.27
West Conshohocken borough	1,446	2,710	823	3,333	1,887	130.5	75	9.1	3.29
Bryn Mawr CDP	4,382	7,677	2,201	9,858	5,476	125.0	841	38.2	3.49
Montrose borough	1,664	2,672	682	3,654	1,990	119.6	393	57.6	3.92
Hershey CDP	12,771	20,729	5,559	27,941	15,170	118.8	2,769	49.8	3.73
Stroudsburg borough	5,756	9,091	2,648	12,199	6,443	111.9	935	35.3	3.43
Plymouth Meeting CDP	5,593	9,012	2,773	11,832	6,239	111.6	351	12.7	3.25
Wyomissing borough	8,587	12,806	3,529	17,864	9,277	108.0	799	22.6	3.63
Wellsboro borough	3,328	4,954	1,378	6,904	3,576	107.5	1,010	73.3	3.60
Jenkintown borough	4,478	7,085	2,282	9,281	4,803	107.3	487	21.3	3.10
Mechanicsville CDP	3,099	4,401	1,138	6,362	3,263	105.3	443	38.9	3.87
Homer City borough	1,844	2,719	784	3,779	1,935	104.9	210	26.8	3.47
Wilkes-Barre Township CDP	3,235	4,766	1,427	6,574	3,339	103.2	206	14.4	3.34
Upland borough	2,977	4,093	1,115	5,955	2,978	100.0	158	14.2	3.67

**Table 3: Pennsylvania Counties that Experienced a Daytime Population Increase Due to Commuting: 2000**

County	Total resident population	Total workers working in the area	Total workers living in the area	Estimated daytime population	Daytime population change due to commuting		Workers who lived and worked in the same county		Employment residence ratio
					Number	Percent	Number	Percent	
Montour	18,236	11,667	8,051	21,852	3,616	19.8	4,716	58.6	1.45
Dauphin	251,798	164,560	121,202	295,156	43,358	17.2	93,958	77.5	1.36
Montgomery	750,097	446,812	379,832	817,077	66,980	8.9	245,619	64.7	1.18
Allegheny	1,281,666	682,719	582,362	1,382,023	100,357	7.8	536,655	92.2	1.17
Cumberland	213,674	119,965	105,860	227,779	14,105	6.6	73,081	69.0	1.13
Centre	135,758	71,564	63,097	144,225	8,467	6.2	57,815	91.6	1.13
Philadelphia	1,517,550	660,050	569,761	1,607,839	90,289	5.9	429,667	75.4	1.16
Union	41,624	18,453	16,002	44,075	2,451	5.9	10,512	65.7	1.15
Forest	4,946	2,097	1,809	5,234	288	5.8	1,038	57.4	1.16
Lehigh	312,090	164,296	147,930	328,456	16,366	5.2	110,302	74.6	1.11
Cameron	5,974	2,793	2,483	6,284	310	5.2	2,101	84.6	1.12
Blair	129,144	62,062	56,733	134,473	5,329	4.1	50,591	89.2	1.09
Lackawanna	213,295	98,914	94,532	217,677	4,382	2.1	79,507	84.1	1.05
Erie	280,843	131,701	126,797	285,747	4,904	1.7	122,021	96.2	1.04
Snyder	37,546	18,114	17,573	38,087	541	1.4	12,071	68.7	1.03
Lycoming	120,044	55,474	54,029	121,489	1,445	1.2	47,348	87.6	1.03
Elk	35,112	16,655	16,486	35,281	169	0.5	14,772	89.6	1.01
Luzerne	319,250	142,261	141,168	320,343	1,093	0.3	120,645	85.5	1.01