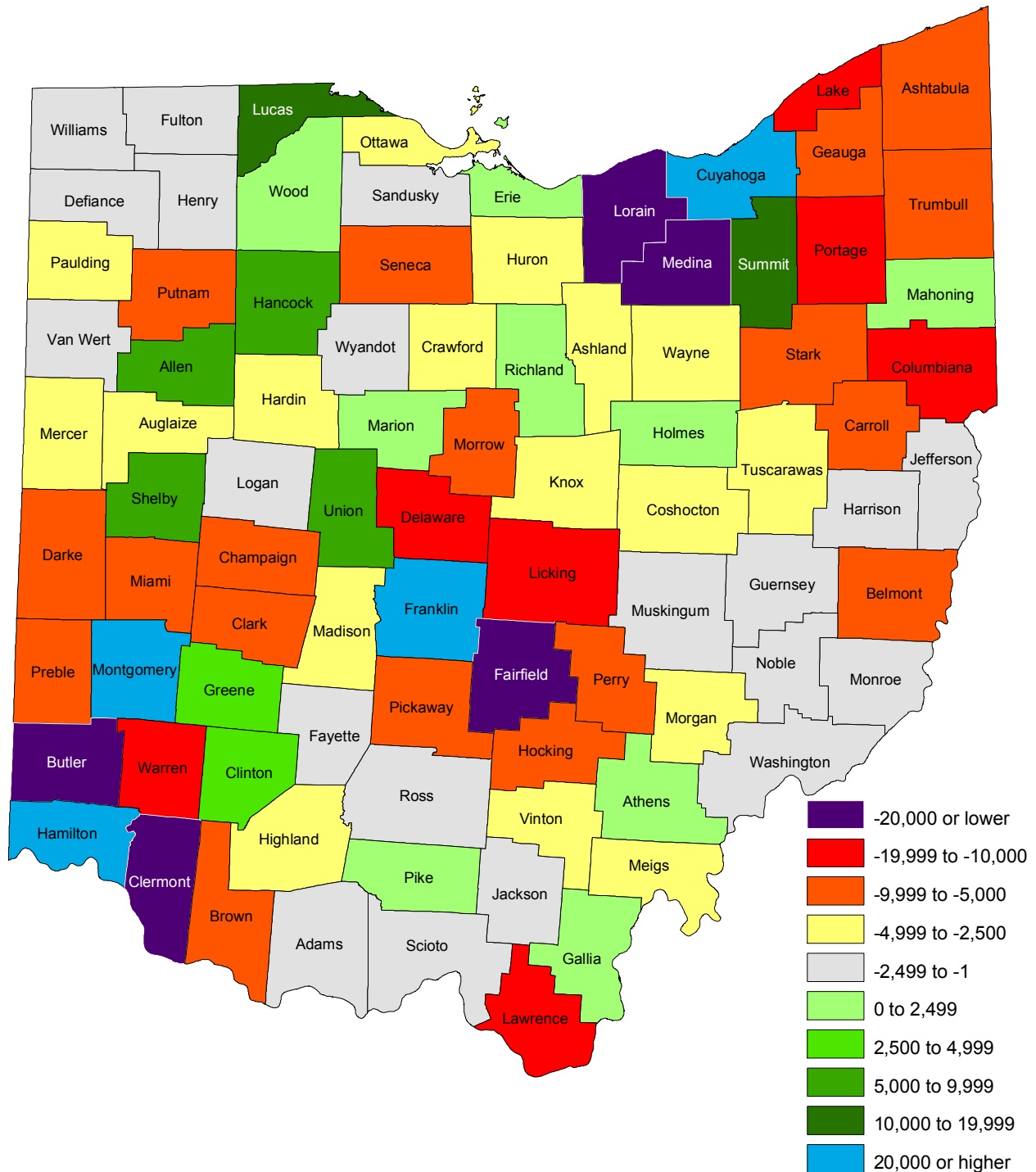


# Net Flow of Commuters by Ohio County

American Community Survey 2006 - 2010



Ohio Department of Job and Family Services

John R. Kasich, **Governor**

Michael B. Colbert, **Director**

**Workforce Commuting Patterns by Ohio County**  
Based on the American Community Survey 2006 - 2010

| County           | Workers           |                 |            | Residents          |                  |            | Summary  |                      |                    |
|------------------|-------------------|-----------------|------------|--------------------|------------------|------------|----------|----------------------|--------------------|
|                  | Number of Workers | Commuter Inflow | Percentage | Employed Residents | Commuter Outflow | Percentage | Net Flow | Percent of Commuters | Percent of Workers |
|                  | (a)               | (b)             | (c)        | (d)                | (e)              | (f)        | (g)      | (h)                  | (i)                |
| Adams .....      | 8,020             | 1,547           | 19.3       | 10,322             | 3,849            | 37.3       | (2,302)  | -42.7                | 28.7               |
| Allen .....      | 54,009            | 15,397          | 28.5       | 46,651             | 8,039            | 17.2       | 7,358    | 31.4                 | 13.6               |
| Ashland .....    | 20,358            | 5,418           | 26.6       | 23,470             | 8,530            | 36.3       | (3,112)  | -22.3                | 15.3               |
| Ashtabula .....  | 34,458            | 4,877           | 14.2       | 42,523             | 12,942           | 30.4       | (8,065)  | -45.3                | 23.4               |
| Athens .....     | 25,986            | 4,808           | 18.5       | 25,478             | 4,300            | 16.9       | 508      | 5.6                  | 2.0                |
| Auglaize .....   | 19,280            | 6,556           | 34.0       | 22,271             | 9,547            | 42.9       | (2,991)  | -18.6                | 15.5               |
| Belmont .....    | 23,434            | 6,267           | 26.7       | 29,374             | 12,207           | 41.6       | (5,940)  | -32.2                | 25.3               |
| Brown .....      | 9,235             | 2,553           | 27.6       | 18,405             | 11,723           | 63.7       | (9,170)  | -64.2                | 99.3               |
| Butler .....     | 147,004           | 50,027          | 34.0       | 168,999            | 72,022           | 42.6       | (21,995) | -18.0                | 15.0               |
| Carroll .....    | 7,088             | 2,158           | 30.4       | 12,852             | 7,922            | 61.6       | (5,764)  | -57.2                | 81.3               |
| Champaign .....  | 12,852            | 4,172           | 32.5       | 18,193             | 9,513            | 52.3       | (5,341)  | -39.0                | 41.6               |
| Clark .....      | 50,810            | 11,199          | 22.0       | 60,448             | 20,837           | 34.5       | (9,638)  | -30.1                | 19.0               |
| Clermont .....   | 59,360            | 21,593          | 36.4       | 92,836             | 55,069           | 59.3       | (33,476) | -43.7                | 56.4               |
| Clinton .....    | 23,393            | 10,785          | 46.1       | 19,141             | 6,533            | 34.1       | 4,252    | 24.6                 | 18.2               |
| Columbiana ..... | 32,645            | 7,450           | 22.8       | 45,826             | 20,631           | 45.0       | (13,181) | -46.9                | 40.4               |
| Coshocton .....  | 12,844            | 1,970           | 15.3       | 15,365             | 4,491            | 29.2       | (2,521)  | -39.0                | 19.6               |
| Crawford .....   | 15,934            | 4,037           | 25.3       | 19,119             | 7,222            | 37.8       | (3,185)  | -28.3                | 20.0               |
| Cuyahoga .....   | 715,297           | 195,129         | 27.3       | 579,485            | 59,317           | 10.2       | 135,812  | 53.4                 | 19.0               |
| Darke .....      | 19,063            | 4,161           | 21.8       | 24,233             | 9,331            | 38.5       | (5,170)  | -38.3                | 27.1               |
| Defiance .....   | 16,307            | 5,232           | 32.1       | 17,173             | 6,098            | 35.5       | (866)    | -7.6                 | 5.3                |
| Delaware .....   | 69,080            | 35,612          | 51.6       | 84,335             | 50,867           | 60.3       | (15,255) | -17.6                | 22.1               |
| Erie .....       | 36,694            | 11,304          | 30.8       | 35,553             | 10,163           | 28.6       | 1,141    | 5.3                  | 3.1                |
| Fairfield .....  | 42,643            | 13,171          | 30.9       | 67,373             | 37,901           | 56.3       | (24,730) | -48.4                | 58.0               |
| Fayette .....    | 12,284            | 4,288           | 34.9       | 13,112             | 5,116            | 39.0       | (828)    | -8.8                 | 6.7                |
| Franklin .....   | 676,409           | 170,507         | 25.2       | 561,794            | 55,892           | 9.9        | 114,615  | 50.6                 | 16.9               |
| Fulton .....     | 18,668            | 7,636           | 40.9       | 19,894             | 8,862            | 44.5       | (1,226)  | -7.4                 | 6.6                |
| Gallia .....     | 13,155            | 3,754           | 28.5       | 12,184             | 2,783            | 22.8       | 971      | 14.9                 | 7.4                |
| Geauga .....     | 35,262            | 16,047          | 45.5       | 44,025             | 24,810           | 56.4       | (8,763)  | -21.4                | 24.9               |
| Greene .....     | 79,916            | 35,663          | 44.6       | 77,386             | 33,133           | 42.8       | 2,530    | 3.7                  | 3.2                |
| Guernsey .....   | 15,657            | 3,807           | 24.3       | 16,635             | 4,785            | 28.8       | (978)    | -11.4                | 6.2                |
| Hamilton .....   | 498,483           | 188,113         | 37.7       | 377,364            | 66,994           | 17.8       | 121,119  | 47.5                 | 24.3               |
| Hancock .....    | 43,344            | 13,589          | 31.4       | 36,398             | 6,643            | 18.3       | 6,946    | 34.3                 | 16.0               |
| Hardin .....     | 9,724             | 2,247           | 23.1       | 13,564             | 6,087            | 44.9       | (3,840)  | -46.1                | 39.5               |
| Harrison .....   | 4,269             | 1,361           | 31.9       | 6,593              | 3,685            | 55.9       | (2,324)  | -46.1                | 54.4               |
| Henry .....      | 10,604            | 3,258           | 30.7       | 13,034             | 5,688            | 43.6       | (2,430)  | -27.2                | 22.9               |
| Highland .....   | 13,268            | 3,357           | 25.3       | 17,458             | 7,547            | 43.2       | (4,190)  | -38.4                | 31.6               |
| Hocking .....    | 7,138             | 2,177           | 30.5       | 12,178             | 7,217            | 59.3       | (5,040)  | -53.7                | 70.6               |
| Holmes .....     | 18,910            | 5,550           | 29.3       | 17,363             | 4,003            | 23.1       | 1,547    | 16.2                 | 8.2                |
| Huron .....      | 23,426            | 7,349           | 31.4       | 26,343             | 10,266           | 39.0       | (2,917)  | -16.6                | 12.5               |
| Jackson .....    | 11,731            | 3,394           | 28.9       | 12,415             | 4,078            | 32.8       | (684)    | -9.2                 | 5.8                |
| Jefferson .....  | 26,692            | 7,302           | 27.4       | 28,489             | 9,099            | 31.9       | (1,797)  | -11.0                | 6.7                |
| Knox .....       | 22,314            | 3,973           | 17.8       | 27,230             | 8,889            | 32.6       | (4,916)  | -38.2                | 22.0               |
| Lake .....       | 96,984            | 27,237          | 28.1       | 115,563            | 45,816           | 39.6       | (18,579) | -25.4                | 19.2               |
| Lawrence .....   | 13,673            | 3,864           | 28.3       | 23,857             | 14,048           | 58.9       | (10,184) | -56.9                | 74.5               |
| Licking .....    | 59,885            | 16,818          | 28.1       | 76,901             | 33,834           | 44.0       | (17,016) | -33.6                | 28.4               |

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|                | Number of Workers | Commuter Inflow | Percentage | Employed Residents | Commuter Outflow | Percentage | Net Flow | Percent of Commuters | Percent of Workers |
|                | (a)               | (b)             | (c)        | (d)                | (e)              | (f)        | (g)      | (h)                  | (i)                |
| Logan .....    | 20,106            | 5,706           | 28.4       | 20,947             | 6,547            | 31.3       | (841)    | -6.9                 | 4.2                |
| Lorain .....   | 104,090           | 20,824          | 20.0       | 134,528            | 51,262           | 38.1       | (30,438) | -42.2                | 29.2               |
| Lucas .....    | 214,203           | 50,398          | 23.5       | 195,731            | 31,926           | 16.3       | 18,472   | 22.4                 | 8.6                |
| Madison .....  | 15,492            | 7,584           | 49.0       | 18,412             | 10,504           | 57.0       | (2,920)  | -16.1                | 18.8               |
| Mahoning ..... | 102,005           | 27,039          | 26.5       | 101,852            | 26,886           | 26.4       | 153      | 0.3                  | 0.1                |
| Marion .....   | 29,351            | 7,645           | 26.0       | 28,036             | 6,330            | 22.6       | 1,315    | 9.4                  | 4.5                |
| Medina .....   | 59,829            | 21,370          | 35.7       | 84,729             | 46,270           | 54.6       | (24,900) | -36.8                | 41.6               |
| Meigs .....    | 4,216             | 618             | 14.7       | 8,752              | 5,154            | 58.9       | (4,536)  | -78.6                | 107.6              |
| Mercer .....   | 17,347            | 3,383           | 19.5       | 19,909             | 5,945            | 29.9       | (2,562)  | -27.5                | 14.8               |
| Miami .....    | 42,905            | 13,057          | 30.4       | 48,727             | 18,879           | 38.7       | (5,822)  | -18.2                | 13.6               |
| Monroe .....   | 4,849             | 1,610           | 33.2       | 5,531              | 2,292            | 41.4       | (682)    | -17.5                | 14.1               |
| Montgomery ..  | 263,040           | 74,583          | 28.4       | 238,542            | 50,085           | 21.0       | 24,498   | 19.7                 | 9.3                |
| Morgan .....   | 3,281             | 493             | 15.0       | 5,790              | 3,002            | 51.8       | (2,509)  | -71.8                | 76.5               |
| Morrow .....   | 7,915             | 2,705           | 34.2       | 16,403             | 11,193           | 68.2       | (8,488)  | -61.1                | 107.2              |
| Muskingum ...  | 35,627            | 7,461           | 20.9       | 36,664             | 8,498            | 23.2       | (1,037)  | -6.5                 | 2.9                |
| Noble .....    | 3,899             | 1,295           | 33.2       | 4,697              | 2,093            | 44.6       | (798)    | -23.6                | 20.5               |
| Ottawa .....   | 14,704            | 4,385           | 29.8       | 19,539             | 9,220            | 47.2       | (4,835)  | -35.5                | 32.9               |
| Paulding ..... | 5,626             | 1,305           | 23.2       | 8,803              | 4,482            | 50.9       | (3,177)  | -54.9                | 56.5               |
| Perry .....    | 6,877             | 1,839           | 26.7       | 14,788             | 9,750            | 65.9       | (7,911)  | -68.3                | 115.0              |
| Pickaway ..... | 14,881            | 6,585           | 44.3       | 21,921             | 13,625           | 62.2       | (7,040)  | -34.8                | 47.3               |
| Pike .....     | 10,618            | 4,689           | 44.2       | 9,750              | 3,821            | 39.2       | 868      | 10.2                 | 8.2                |
| Portage .....  | 60,524            | 21,834          | 36.1       | 78,566             | 39,876           | 50.8       | (18,042) | -29.2                | 29.8               |
| Preble .....   | 12,389            | 2,918           | 23.6       | 19,892             | 10,421           | 52.4       | (7,503)  | -56.2                | 60.6               |
| Putnam .....   | 11,881            | 2,630           | 22.1       | 17,433             | 8,182            | 46.9       | (5,552)  | -51.4                | 46.7               |
| Richland ..... | 54,538            | 11,551          | 21.2       | 53,419             | 10,432           | 19.5       | 1,119    | 5.1                  | 2.1                |
| Ross .....     | 27,893            | 6,985           | 25.0       | 30,029             | 9,121            | 30.4       | (2,136)  | -13.3                | 7.7                |
| Sandusky ..... | 27,659            | 8,340           | 30.2       | 28,890             | 9,571            | 33.1       | (1,231)  | -6.9                 | 4.5                |
| Scioto .....   | 25,549            | 4,624           | 18.1       | 27,761             | 6,836            | 24.6       | (2,212)  | -19.3                | 8.7                |
| Seneca .....   | 21,406            | 5,191           | 24.3       | 26,448             | 10,233           | 38.7       | (5,042)  | -32.7                | 23.6               |
| Shelby .....   | 28,711            | 11,944          | 41.6       | 22,956             | 6,189            | 27.0       | 5,755    | 31.7                 | 20.0               |
| Stark .....    | 165,038           | 33,470          | 20.3       | 171,273            | 39,705           | 23.2       | (6,235)  | -8.5                 | 3.8                |
| Summit .....   | 270,631           | 84,218          | 31.1       | 256,479            | 70,066           | 27.3       | 14,152   | 9.2                  | 5.2                |
| Trumbull ..... | 78,838            | 20,240          | 25.7       | 88,253             | 29,655           | 33.6       | (9,415)  | -18.9                | 11.9               |
| Tuscarawas ..  | 37,257            | 7,280           | 19.5       | 41,165             | 11,188           | 27.2       | (3,908)  | -21.2                | 10.5               |
| Union .....    | 28,547            | 16,702          | 58.5       | 23,275             | 11,430           | 49.1       | 5,272    | 18.7                 | 18.5               |
| Van Wert ..... | 11,943            | 3,378           | 28.3       | 13,744             | 5,179            | 37.7       | (1,801)  | -21.0                | 15.1               |
| Vinton .....   | 2,346             | 578             | 24.6       | 4,888              | 3,120            | 63.8       | (2,542)  | -68.7                | 108.4              |
| Warren .....   | 83,134            | 42,162          | 50.7       | 98,849             | 57,877           | 58.6       | (15,715) | -15.7                | 18.9               |
| Washington ..  | 24,654            | 6,951           | 28.2       | 26,355             | 8,652            | 32.8       | (1,701)  | -10.9                | 6.9                |
| Wayne .....    | 50,258            | 11,752          | 23.4       | 53,999             | 15,493           | 28.7       | (3,741)  | -13.7                | 7.4                |
| Williams ..... | 17,240            | 4,381           | 25.4       | 17,267             | 4,408            | 25.5       | (27)     | -0.3                 | 0.2                |
| Wood .....     | 62,839            | 27,904          | 44.4       | 61,130             | 26,195           | 42.9       | 1,709    | 3.2                  | 2.7                |
| Wyandot .....  | 9,023             | 2,484           | 27.5       | 11,096             | 4,557            | 41.1       | (2,073)  | -29.4                | 23.0               |

NOTES: (a) Number of people who work in the county. (b) Number of people who live in another county (or state) but work in the county. (c) Commuter inflow as a percent number of workers. (d) Number of people who live in the county and work (resident labor force). (e) Number of people who live in the county but work outside the county. (g) Commuter inflow less commuter outflow. (h) Net flow as a percent of total commuters. (i) Net flow as a percent of number of workers.

## Technical Notes: Workforce Commuting Patterns

The workforce commuting patterns report presents statistics about where Ohioans live and work. In the notes below, Adams County data are used as an example to explain the definitions.

### Workers (columns a, b, and c)

Column (a) is the number of people (8,020) who reported **working** in Adams County, regardless of their place of residence. Column (b) is the number of people (1,547) who **work** in Adams County but **live** elsewhere, either in another county or in another state. Column (c) is the percent of **workers** in the county who **live** elsewhere; the commuter inflow of people working in Adams County is 19.3 percent (1,547 divided by 8,020).

$$\text{Column (c)} = \frac{\text{Column (b)}}{\text{Column (a)}} \times 100$$

### Residents (columns d, e, and f)

Column (d) is the number of employed people (10,322) **living** in the county regardless of the location of their work. Column (e) is the number of people (3,849) who **live** in Adams County but **work** elsewhere, either in another county or in another state. Column (f) is the percent of employed **residents** in Adams County who **work** elsewhere; the commuter outflow of people who live in Adams County is 37.3 percent (3,849 divided by 10,322).

$$\text{Column (f)} = \frac{\text{Column (e)}}{\text{Column (d)}} \times 100$$

### Summary (columns g, h, and i)

Column (g) is the **net flow**, the commuter inflow minus the commuter outflow. A positive number means that more people commute into the county for work than leave it, while a negative number indicates that more people leave the county than enter it for work. Adams County has a net loss of 2,302 workers who commute for work (1,547 minus 3,849).

$$\text{Column (g)} = \text{Column (b)} - \text{Column (e)}$$

Column (h) measures the degree of dependency of each county for either labor from other counties (positive percent) or employment in other counties (negative percent). Theoretically, if **commuter inflow and outflow** were equal in the county, the result would be zero which would indicate a balance between commuter inflow and outflow and as a result no dependency on other counties for either labor or employment. If the **commuter outflow** was zero the percent of commuters would be +100 percent or total dependency for labor. If the **commuter inflow** was zero the percent of commuters would be -100 percent or total dependency for employment supply for the county's residents. Adams County, at -42.7 percent, depends on other counties to supply employment for its residents.

$$\text{Column (h)} = \frac{\text{Column (g)}}{\text{Column (b)} + \text{Column (e)}} \times 100 = \frac{\text{Column (b)} - \text{Column (e)}}{\text{Column (b)} + \text{Column (e)}} \times 100$$

Column (i) is the absolute value of the net flow as a percent of the number of workers in the county, which represents the significance of the net flow to the overall size of the labor force working in the county. In Adams County, 28.7 percent (2,302 divided by 8,020) of the labor force commutes for work. Sixty of the 88 counties in Ohio have 10.0 percent or higher net flow as a percent of workers, indicating that commuting is a significant factor in the labor force.

$$\text{Column (i)} = \left| \frac{\text{Column (g)}}{\text{Column (a)}} \right| \times 100$$

## **Conclusion**

Workforce commuting patterns are a measure of labor market fluidity and demonstrate how counties depend on the economic activity of their regions. The labor and economic dynamics of local jurisdictions are best understood in the context of larger regional markets.

Source: U.S. Census Bureau, 2006-2010 American Community Survey  
For detailed information about Residence County to Workplace County Flows, see  
<http://www.census.gov/population/metro/data/other.html>