**Leeds CO2 and transport data sources (1/10/19)**

1. This note provides links to the nationally available data sources used to create the graphs below. In some cases more recent data is now available. Where the source data is not available online it has been included in the note.

**Figure 1 : Total Annual CO2 Emissions 2016**



Source: UK local authority and regional carbon dioxide emissions national statistics: 2005-2016

<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2016>

Note: 2017 data now available.

**Figure 2 : Leeds Annual Roads CO2 Emissions 2016**



Source: UK local authority and regional carbon dioxide emissions national statistics: 2005-2016

<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2016>

Note: 2017 data now available.

**Figure 3 : Leeds Annual Roads CO2 Emissions 2016 by Vehicle Type (%)**



Source: LCC estimates based on application of webtag calculation to traffic data

1. This analysis utilises multiple data sources providing information on traffic composition and vehicle speeds. The resulting estimates of CO2 emissions are shown below.

**Table 1 : Leeds Estimated annual emissions CO2e K tonnes (2016)**

|  |  |
| --- | --- |
|  |  |
|   | **Mway** | **A roads** | **Minor Roads** | **Total** | **%age** |
| Cars | 260.0 | 314.3 | 348.6 | **922.9** | 58% |
| LGV | 100.9 | 69.7 | 75.5 | **246.2** | 15% |
| OGV1 | 47.5 | 25.0 | 11.1 | **83.6** | 5% |
| OGV2 | 217.6 | 34.0 | 15.0 | **266.6** | 17% |
| PSV | 4.5 | 34.1 | 34.0 | **72.6** | 5% |
| **Total** | **630.5** | **477.1** | **484.2** | **1591.8** | **100%** |

1. The TAG methodology is that contained in the TAG databook (December 2018 v 1.11.1). See worksheets:

A 1.3.9 Proportion of cars, LGV & other vehicle kilometres using petrol, diesel or electricity

A 1.3.11 Forecast fuel consumption parameters

A 3.3 Carbon dioxide emissions per litre of fuel burnt / kWh used

<https://www.gov.uk/government/publications/tag-data-book>

**Figure 4 : Leeds Annual Roads CO2 Emissions 2005-2016 by Road Type (ktonnes)**



Source: UK local authority and regional carbon dioxide emissions national statistics: 2005-2016

<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2016>

Note: 2017 data now available.

1. The following figures on traffic growth (Figs 5 to 9) were derived from the DfT published Traffic Census data: <https://roadtraffic.dft.gov.uk/local-authorities/63>
2. Motorways comprise in this analysis the M1, A1M, M62 and M621. The motorway sections of Leeds Inner Ring Road (A64M and A58M) are included with the A roads.

**Figure 5 : Leeds Index of Traffic Growth (veh-miles) 2000-18**



Source: LCC analysis of DfT AADF estimates on LA major roads

<https://roadtraffic.dft.gov.uk/local-authorities/63>

**Figure 6 : Leeds Index of LGV Traffic Growth (veh-miles) 2000-18**



Source: LCC analysis of DfT AADF estimates on LA major roads

<https://roadtraffic.dft.gov.uk/local-authorities/63>

**Figure 7 : Leeds Index of HGV Traffic Growth (veh-miles) 2000-18**



Source: LCC analysis of DfT AADF estimates on LA major roads

<https://roadtraffic.dft.gov.uk/local-authorities/63>

**Figure 8 : Leeds Index of PSV Traffic Growth (veh-miles) 2000-18**



Source: LCC analysis of DfT AADF estimates on LA major roads

<https://roadtraffic.dft.gov.uk/local-authorities/63>

**Figure 9 : Leeds Index of Car Traffic Growth (veh-miles) 2000-18**



Source: LCC analysis of DfT AADF estimates on LA major roads

<https://roadtraffic.dft.gov.uk/local-authorities/63>

**Figure 10 : NTS Car/van driver annual distance travelled 2017**



Source: LCC analysis of NTS0308/NTS0303 data for England.

<https://www.gov.uk/government/statistical-data-sets/nts03-modal-comparisons>

**Figure 11 : NTS Mode share by distance band 2017**



Source: LCC analysis of NTS0308 data for England.

<https://www.gov.uk/government/statistical-data-sets/nts03-modal-comparisons>

1. Figures 12 and 13 are based on bespoke West Yorkshire data provided by DfT from the National Travel Survey. To obtain a meaningful sample size three years of survey data are combined to creating a rolling 3 year sample – see Appendix A.

**Figure 12 : West Yorkshire Mode share by trip**



Source: National Travel Survey West Yorkshire bespoke subset NTS0303

**Figure 13 : West Yorkshire Mode share by distance**



Source: National Travel Survey West Yorkshire bespoke subset NTS0305

1. Figures 14 and 15 are based on the annual mode split cordon survey undertaken by Leeds City Council – see Table 2.

**Figure 14 : Leeds Cordon Modal Change 2004-18**



Source: Leeds CC annual survey on radial routes approaching Leeds city centre

**Figure 15 : Leeds Cordon Mode Share 2004-18**



Source: Leeds CC annual survey on radial routes approaching Leeds city centre

**Table 2 : Am peak (0730-0930) inbound Leeds cordon flows 2004-18 (People)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Year | Car | Bus | Rail | Walk | Cycle | M/ cycle | **Total** |
| 2004 | 69,513 | 33,459 | 12,435 | 3,780 | 571 | 642 | **120,400** |
| 2005 | 69,378 | 31,526 | 14,806 | 4,205 | 627 | 641 | **121,183** |
| 2006 | 69,113 | 31,711 | 14,095 | 4,045 | 681 | 613 | **120,258** |
| 2007 | 64,771 | 27,926 | 14,939 | 3,158 | 728 | 560 | **112,082** |
| 2008 | 62,835 | 26,966 | 16,433 | 3,322 | 967 | 590 | **111,113** |
| 2009 | 64,456 | 26,286 | 17,024 | 3,655 | 1,064 | 605 | **113,089** |
| 2010 | 65,252 | 25,771 | 16,208 | 4,859 | 1,242 | 561 | **113,893** |
| 2011 | 62,967 | 25,297 | 16,394 | 4,430 | 1,237 | 559 | **110,884** |
| 2012 | 63,900 | 23,169 | 15,939 | 4,507 | 1,384 | 510 | **109,409** |
| 2013 | 66,586 | 28,183 | 16,822 | 5,163 | 1,471 | 461 | **118,686** |
| 2014 | 66,468 | 30,502 | 17,966 | 6,293 | 1,764 | 503 | **123,496** |
| 2015 | 67,342 | 33,417 | 18,276 | 6,000 | 1,870 | 529 | **127,434** |
| 2016 | 64,128 | 27,460 | 19,327 | 6,518 | 1,710 | 476 | **119,617** |
| 2017 | 62,556 | 27,004 | 18,717 | 5,089 | 1,624 | 423 | **115,413** |
| 2018 | 62,319 | 26,876 | 19,543 | 7,874 | 1,806 | 435 | **118,853** |

1. Figure 16 is based on analysis of census journey to work data.

2001 = Table UV37 MSOA Leeds 063, 082 and LSOA 084A

2011 = Table WP703 MSOA Leeds 063, 082, 111, LSOA 112D and 112E

**Figure 16 : Leeds City Centre Commuting Mode Share 2001-11**



Source: Census

1. Figure 17 is taken from NTS data published by DfT for the six Metropolitan Counties. This no longer appears to be available online. The relevant table is included in Appendix B.

**Figure 17 : West Yorkshire Residents’ Distance by Journey Purpose**



Source: National Travel Survey 9907 Mets

**Figure 18 : Car Mode Share by Trip Purpose 2018 (England)**



Source: National Travel Survey NTS0409

<https://www.gov.uk/government/statistical-data-sets/nts04-purpose-of-trips>

**Figure 19 : Walking and Cycling Mode Share by Trip Purpose 2018 (England)**



Source: National Travel Survey NTS0409

<https://www.gov.uk/government/statistical-data-sets/nts04-purpose-of-trips>

**Appendix A – NTS West Yorkshire Bespoke dataset**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Department for Transport statistics**  |   |   |   |   |   |   |   |   |   |   |   |   |
| [**National Travel Survey**](https://www.gov.uk/government/organisations/department-for-transport/series/national-travel-survey-statistics) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Table NTS0303 (edit)** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Average number of trips (trip rates) by main mode: West Yorkshire county, 2002/04 to 2015/17** |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  | **Trips per person per year** |
| **Main mode** | **2002/04** | **2003/05** | **2004/06** | **2005/07** | **2006/08** | **2007/09** | **2008/10** | **2009/11** | **2010/12** | **2011/13** | **2012/14** | **2013/15** | **2014/16** | **2015/17** |
| **Walk**  | 261 | 251 | 275 | 252 | 266 | 244 | 262 | 234 | 216 | 220 | 231 | 231 | 217 | 231 |
| **Bicycle** | 4 | 5 | 7 | 7 | 6 | 6 | 6 | 8 | 8 | 10 | 9 | 10 | 8 | 6 |
| **Car/van driver** | 409 | 392 | 387 | 388 | 400 | 404 | 407 | 414 | 420 | 414 | 401 | 404 | 436 | 434 |
| **Car/van passenger** | 232 | 224 | 225 | 230 | 227 | 235 | 244 | 248 | 238 | 228 | 225 | 219 | 230 | 233 |
| **Motorcycle** | 3 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 |
| **Local and non-local buses** | 78 | 78 | 80 | 80 | 79 | 72 | 72 | 69 | 70 | 70 | 71 | 73 | 65 | 62 |
| **Surface Rail** | 8 | 11 | 13 | 13 | 13 | 13 | 16 | 15 | 16 | 16 | 17 | 17 | 14 | 15 |
| **Taxi** | 16 | 18 | 20 | 21 | 20 | 18 | 20 | 17 | 19 | 16 | 19 | 17 | 18 | 18 |
| **Other** | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 8 | 8 | 8 | 9 | 10 | 10 |
| **All modes** | 1,018 | 991 | 1,019 | 1,000 | 1,021 | 1,002 | 1,036 | 1,016 | 997 | 983 | 984 | 982 | 999 | 1,011 |
| **Unweighted sample size:** |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  **individuals** | 1,970 | 2,031 | 1,961 | 1,914 | 1,880 | 1,975 | 2,027 | 1,921 | 1,824 | 1,819 | 1,989 | 1,908 | 1,770 | 1,612 |
|  **trips (000's)** | 36 | 36 | 35 | 34 | 34 | 35 | 37 | 35 | 33 | 32 | 35 | 33 | 32 | 29 |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| There is an apparent under-recording of short walks in 2002 and 2003 and short trips in 2007 and 2008 compared to other years. |   |   |   |   |
| Data for 2002-2015 have been revised, see publication for details. |   |   |   |   |   |   |   |   |   |   |
| The figures in this table are National Statistics |   |   |   |   |   |   |   |   |   |   |   |   |
| The results presented in this table are weighted. The base (unweighted sample size) is shown in the table for information.  |   |   |   |  |
| Weights are applied to adjust for non-response to ensure the characteristics of the achieved sample match the population of Great Britain (1995-2012) or England (2013 onwards) and for the drop off in trip recording in diary data.  |
| The survey results are subject to sampling error. |   |   |   |   |   |   |   |   |   |   |  |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   | Source: National Travel Survey |
| Email: national.travelsurvey@dft.gov.uk |   |   |   |   |   |   |   |   |   |   |   | Last updated: 26 July 2018 |
| [**Notes & definitions**](https://www.gov.uk/government/statistics/national-travel-survey-2017) |   |   |   |   |   |   |   |   |   |   |   |   |   | Next update: Summer 2019 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Department for Transport statistics**  |   |   |   |   |   |   |   |   |   |   |   |   |
| [**National Travel Survey**](https://www.gov.uk/government/organisations/department-for-transport/series/national-travel-survey-statistics) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Table NTS0305 (edit)** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Average distance by mode: West Yorkshire county, 2002/04 to 2015/17** |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  | **Miles per person per year** |
| **Mode** | **2002/04** | **2003/05** | **2004/06** | **2005/07** | **2006/08** | **2007/09** | **2008/10** | **2009/11** | **2010/12** | **2011/13** | **2012/14** | **2013/15** | **2014/16** | **2015/17** |
| **Walk**  | 197 | 193 | 206 | 201 | 205 | 196 | 201 | 189 | 178 | 190 | 191 | 202 | 182 | 196 |
| **Bicycle** | 26 | 27 | 29 | 25 | 22 | 24 | 24 | 41 | 36 | 40 | 35 | 41 | 46 | 46 |
| **Car/van driver** | 3,285 | 3,265 | 3,090 | 3,106 | 3,062 | 3,030 | 2,920 | 3,017 | 3,135 | 3,008 | 2,882 | 2,872 | 3,127 | 3,244 |
| **Car/van passenger** | 1,934 | 1,886 | 1,913 | 1,934 | 1,858 | 1,951 | 1,904 | 1,996 | 1,728 | 1,585 | 1,565 | 1,680 | 1,833 | 1,837 |
| **Motorcycle** | 31 | 30 | 29 | 18 | 19 | 16 | 29 | 26 | 23 | 18 | 21 | 21 | 21 | 36 |
| **Local and non-local buses** | 443 | 455 | 421 | 400 | 383 | 367 | 379 | 368 | 422 | 440 | 439 | 428 | 408 | 410 |
| **Surface Rail** | 252 | 320 | 326 | 359 | 368 | 417 | 408 | 417 | 484 | 645 | 620 | 576 | 444 | 527 |
| **Taxi** | 61 | 70 | 81 | 83 | 77 | 72 | 76 | 69 | 67 | 62 | 75 | 72 | 72 | 68 |
| **Other** | 151 | 173 | 166 | 172 | 129 | 148 | 120 | 144 | 116 | 107 | 102 | 110 | 123 | 92 |
| **All modes** | 6,378 | 6,419 | 6,262 | 6,298 | 6,125 | 6,220 | 6,063 | 6,266 | 6,189 | 6,097 | 5,932 | 6,002 | 6,255 | 6,456 |
| **Unweighted sample size:** |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  **individuals** | 1,970 | 2,031 | 1,961 | 1,914 | 1,880 | 1,975 | 2,027 | 1,921 | 1,824 | 1,819 | 1,989 | 1,908 | 1,770 | 1,612 |
|  **stages (000's)** | 37 | 37 | 37 | 36 | 36 | 37 | 40 | 37 | 35 | 34 | 38 | 36 | 35 | 32 |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| There is an apparent under-recording of short walks in 2002 and 2003 and short trips in 2007 and 2008 compared to other years. |   |   |   |   |
| Data for 2002-2015 have been revised, see publication for details. |   |   |   |   |   |   |   |   |   |   |
| The figures in this table are National Statistics |   |   |   |   |   |   |   |   |   |   |   |   |
| The results presented in this table are weighted. The base (unweighted sample size) is shown in the table for information.  |   |   |   |  |
| Weights are applied to adjust for non-response to ensure the characteristics of the achieved sample match the population of Great Britain (1995-2012) or England (2013 onwards) and for the drop off in trip recording in diary data.  |
| The survey results are subject to sampling error. |   |   |   |   |   |   |   |   |   |   |  |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   | Source: National Travel Survey |
| Email: national.travelsurvey@dft.gov.uk |   |   |   |   |   |   |   |   |   |   |   | Last updated: 26 July 2018 |
| [**Notes & definitions**](https://www.gov.uk/government/statistics/national-travel-survey-2017) |   |   |   |   |   |   |   |   |   |   |   |   |   | Next update: Summer 2019 |

**Appendix B – NTS Tables for Metropolitan Counties 2010-12**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Department for Transport statistics** |   |   |   |   |   |   |   |   |   |   |   |   |   |
| [National Travel Survey](https://www.gov.uk/government/organisations/department-for-transport/series/national-travel-survey-statistics) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Table NTS9907(edit)** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Average distance travelled by purpose and Metropolitan County: 2010-2012 combined years1** |   |   |   |   |   |   |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   | Trips/number |
|  | **Miles per person per year** |  |
|  | **Commuting** | **Business** | **Education** | **Escort education** | **Shopping** | **Other escort** | **Personal business** | **Visit friends at private home** | **Visit friends elsewhere** | **Sport / entertainment** | **Holiday / day trip** | **Other including just walk** | **All purposes** | **Unweighted sample size (individuals)** |
| **Metropolitan County of residence:** |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Greater Manchester** | 1,017 | 360 | 199 | 105 | 645 | 367 | 347 | 782 | 181 | 283 | 739 | 31 | 5,056 | 2,484 |
| **Merseyside** | 985 | 252 | 167 | 94 | 721 | 408 | 360 | 790 | 210 | 279 | 786 | 39 | 5,090 | 1,158 |
| **South Yorkshire** | 864 | 466 | 139 | 65 | 897 | 347 | 457 | 1,081 | 301 | 451 | 1,040 | 41 | 6,149 | 1,096 |
| **Tyne and Wear** | 1,012 | 490 | 210 | 74 | 693 | 445 | 441 | 768 | 216 | 337 | 637 | 48 | 5,372 | 982 |
| **West Midlands** | 953 | 386 | 237 | 104 | 653 | 340 | 377 | 851 | 178 | 294 | 626 | 27 | 5,025 | 2,472 |
| **West Yorkshire** | 1,038 | 542 | 170 | 115 | 812 | 507 | 388 | 930 | 325 | 456 | 861 | 37 | 6,182 | 1,824 |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **All 6 counties combined** | 983 | 414 | 193 | 98 | 721 | 396 | 385 | 862 | 228 | 343 | 766 | 35 | 5,427 | 10,016 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 Three survey years combined, e.g. 2010 to 2012. A survey year runs from mid-January to mid-January. |  |  |  |  |  |  |  |  |  |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| *Telephone: 020 7944 3097* |   |   |   |   |   |   |   |   |   |   |   |   |   | *Source: National Travel Survey* |
| *Email: national.travelsurvey@dft.gsi.gov.uk* |   |   |   |   |   |   |   |   |   |   |   |   |  |
| [Notes & definitions](https://www.gov.uk/government/publications/national-travel-survey-2012) |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| The figures in this table are National Statistics |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Note: The results presented in this table are weighted. The base (unweighted sample size) is shown in the table for information. Weights are applied to adjust for non-response to ensure the characteristics of the achieved sample match the population of Great Britain and for the drop off in trip recording. The survey results are subject to sampling error. |