How far do people walk?

Gareth Wakenshaw BSc (Hons), PGDip, MCIHT WYG Group

Dr Nick Bunn BSc (Hons), MSc, PhD, MCIHT, CMILT WYG Group

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Address: 2 St James Gate, Newcastle upon Tyne, NE1 4AD
Tel: +44 (0)191 255 7300
Website: www.wyg.com

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Abstract

Walking and, to a lesser extent, cycling are important factors in assessing land allocations in Local Plans and in determining planning applications. Accessibility to public transport, defined in part, as the walking distance to bus stops can have significant financial implications for new developments if bus services need to be provided or diverted to serve the site. The information on walking distances is limited. Planning Policy Guidance 13 Transport, which gave some useful guidance on walking and cycling distances, was withdrawn in 2012. The IHT's Providing for Journeys on Foot and Planning for Public Transport in New Development were both published 15 years ago. In all three documents there is limited evidence to support the advice given. However, there is a clear need that policy and decision taking should be based on the best evidence available.

The National Travel Survey is a large-scale travel diary survey which provides data on a wide range of transport matters, including walking and cycling distances. It has limitations because it relies on self-completion and the distances are those estimated by respondents. However, the data has been consistently collected across the UK since 1988.

We have used the NTS to obtain average and 85th percentile distances for journeys where walking is the main mode of travel, and also where walking is the first stage of a public transport trip, i.e., walking distance to a bus stop or railway station. When assessing the accessibility of a new development on foot we suggest that the 85th percentile distance should be used to estimate the distance upto which people are prepared to walk. For new bus stops and railway stations, we suggest that the average walking distance is used for planning purposes. The contribution which the walking distance to a bus stop, or railway station, plays in the perceived convenience of public transport is not well understood and is an area for further study. Until further information is available, the use of average walking distance from the NTS is at least based on the distance that people actually walk.

We have looked at the influence of region, whether the area is urban or rural, journey purpose and gender on walking as the main mode and on walking to a bus stop or railway station.

We conclude that the following distances should be used for planning purposes:

	Mean (m)	85th Percentile (m)
Walk – As main mode of travel		
UK (Excluding London)	1,150	1,950
London	1,000	1,600
Walk to a Bus Stop		
UK (Excluding London)	580	800
London	490	800
Walk to a Railway Station		
UK (Excluding London)	1,010	1,610
London	740	1,290

1.0 Review of Advice & Guidance

Walking

1.1 The Government introduced advice on walking distances in the 2001 revision to Planning Policy Guidance 13: Transport (PPG13) (DETR, 2001, para 75) which advised that, *"Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly those under two kilometres"*. This advice was retained in the 2011 revision of PPG13 (DCLG, 2011). The 2km distance has been used for many years to define the areas within which facilities are considered accessible on foot. However, PPG13 did not provide any rationale or evidence to support the selection of 2km as an appropriate distance.

1.2 In 2012 PPG13 was withdrawn and replaced with the National Planning Policy Framework (NPPF) (DCLG, 2012). NPPF does not provide any specific guidance on walking distances, although walking is considered to be an important contributor to sustainability.

1.3 Planning Policy Guidance for Transport Assessments and Statements (DCLG, 2014, para 015) does not give any specific guidance advice on walking distances but advises that Transport Assessments and Transport Statements should include *"a qualitative and quantitative description of the travel characteristics of the proposed development, including movements across all modes of transport"*.

1.4 The Guidelines for Providing for Journeys on Foot (IHT, 2000, para 3.30) includes some evidence on walking distances taken from the NTS's summary *findings "Approximately 80% of walk journeys and walk stages in urban areas are less than one mile. The average length of a walk journey is one kilometre (0.6 miles). This differs little by age or sex and has remained constant since 1975/76. However, this varies according to location. Average walking distances are longest in Inner London"*.

1.5 The same guidelines produced a table of suggested acceptable walking distances, which is reproduced below at Table 1.1. These distances are for people without mobility impairment and it is suggested in the guidelines that these may be used for planning and evaluation purposes.

	Town centres (m)	Commuting/school Sight-seeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred maximum	800	2,000	1,200

Table 1.1 – Suggested Acceptable Walking Distance (IHT, 2000, Table 3.2)

1.6 It is notable that these distances are only "suggested" and no evidence is provided to support them. From the NTS data quoted in IHT (2000), the average walking distance is 1km, which means that around half of walking trips are longer than the "suggested acceptable" walking distance for commuting and school purposes. The preferred maximum distance is the same as that in PPG13, but it is not clear why walking "elsewhere" should be associated with shorter distances, or why the distances in town centres are so much shorter. There are clearly problems inherent in this table.

1.7 The Manual for Streets (DfT, 2007) promoted the concept of walkable neighbourhoods and these are typically characterised by having a range of facilities within 10 minutes' walking distance (about 800m) of residential areas. The Manual also advised that 800m is not *"an upper limit"* (DfT, 2007, para 4.4.1) and referred back to the 2km advice in PPG13.

1.8 Planning for Walking (CIHT, 2015) is an update to IHT (2000) and provides the following guidance on walking distances *"Most people will only walk if their destination is less than a mile away. Land use patterns most conducive to walking are thus mixed in use and resemble patchworks of "walkable neighbourhoods", with a typical catchment of around 800m, or a 10 minute walk"* (CIHT, 2015, p.29).

1.9 It also recognises the lack of supporting evidence and that more work is needed, "These guidelines are designed to address the limited amount of guidance available to professionals about planning for walking. Some of the research quoted is quite old but is still valid and does in itself indicate that more work is needed in this area", and, "CIHT would welcome examples that build on the content of this guidance for inclusion in further guidance on the subject" (CIHT, 2015, p.5).

1.10 Transport Statistics GB (DfT, 2014a) reports that walking accounted for 22% of all trips, and that 78% of all trips of less than one mile were walking trips. The DfT also produces Personal Travel Factsheets which provide summary detail on various sections of the NTS results (DfT, 2013a). The most recent document (released in 2011) showed that in Great Britain in 2009 11% of all commuting trips were on foot, whilst walking accounted for 47% of trips under 2 miles (DfT, 2011a). Although these documents provide some useful information they do not give details of the range of distances walked and the parameters used are often inconsistent.

1.11 In summary, there is no current national guidance on acceptable walking distances and the published guidance makes some suggestions, but with little supporting evidence. The CIHT acknowledges the current guidance is old and more research is needed.

Walking to Public Transport

1.12 PPG13 did not advise on walking distances to bus stops or railway stations and neither does the NPPF. Planning Policy Guidance on Transport Assessment (DCLG, 2014) also gives no guidance on acceptable distances, leaving Local Authorities and practitioners to devise their own estimates.

1.13 Planning for Public Transport in New Development (IHT, 1999, para 5.21) advises that, *"New developments should be located so that public transport trips involving a walking distance of less than 400m from the nearest bus stop or 800m from the nearest railway station";* advice which has been widely adopted by Local Authorities. It also advises that *"These standards should be treated as guidance, to be achieved where possible by services that operate at regular frequencies and along direct routes. It is more important to provide services that are easy for passengers to understand and attractive to use than to achieve slavish adherence to some arbitrary criteria for walking distance"* (IHT, 1999, para 5.17).

1.14 IHT (1999) bases its recommended walking distance to a bus stop on DoE Circular 82/73. This circular advised that *"Estates should be designed so that the walking distance along the footpath system to the bus stops should not be more than 400m from the furthest houses and work places that they serve"* (DoE, 1973, para 4.3). The Circular provided no evidence to support its advice or to give any guidance on the walking distance to railway stations.

1.15 Planning for Walking (CIHT 2015, p.30) advises that, *"The power of a destination determines how far people will walk to get to it. For bus stops in residential areas, 400m has traditionally been regarded as a cut-off point, in town centres, 200m. People will walk up to 800m to get to a railway station, which reflects the greater perceived quality or importance of rail services".* Again, no evidence is provided to support the advice it gives and, by describing 400m as a cut-off point, is more rigid in its recommendation than IHT (1999).

1.16 The Masterplanning Check List (TfQL, 2008) reports a 2003 study by Kuzmyak et al. (2003a) which found that walking was the dominant mode of station access for home to station distances up to 0.5 miles, 0.625 miles and 0.75 miles, for three different railways in San Francisco. The authors of the Check List interpreted this as supporting the assumption of an 800m (0.5 mile) catchment for railway stations, although Kuzmyak et al. 2003a study (cited in TfQL, 2008) reported the range of distance was between 800m and 1,200m.

1.17 Transport Statistics GB (DfT, 2013b) includes an assessment of the time taken to walk to the nearest bus stop broken down by area type (metropolitan, small urban, etc). This reports that in 2012 for all areas, 85% of people live within a 7 minute walk of a bus stop, 11% live between 7 minutes and 14 minutes, and 4% live over 14 minutes' walk. Assuming a walking speed of 1.4m/s (IHT, 2000), these equate to 85% of people living within 588m of a bus stop, 11% living between 588m and 1,176m, and 4% living over 1,176m. This data does not report how far people walk to bus stops.

1.18 In summary, a 400m walking distance to a bus stop and an 800m walking distance to a railway station has been widely adopted. However, the reason why these distances have been selected is not clear. The most recent publication from CIHT acknowledges that the research is old and more work is required.

2.0 National Travel Survey

2.1 The NTS is a household survey of some 15,000 households across the UK, of which normally around 55% fully co-operate; for the 2010 to 2012 survey years this was between 7,700 to 8,200 households and over 18,000 individuals (DfT, 2010, 2011b, 2012a and 2013b). A travel diary is used to record journeys by mode of travel, distance and the purpose of the journey as well as a range of other factors.

2.2 The NTS has some limitations because it relies on self completion of the diary and on individuals accurately estimating the distances travelled, as a result there may be inaccuracies in the data.

2.3 The NTS has been used to assess how far people walk to local facilities, bus stops and railway stations. Its use is recommended in Traffic Advisory Leaflet 6/00 Monitoring Walking (DfT, 2000). The NTS 2002 to 2012 dataset was available and the most recent three years' data (2010, 2011 and 2012) were selected for our analysis.

2.4 Walks of 1 mile or over are recorded on every day, whilst those less than 1 mile (termed "short walks"), which may form part of a multi-stage journey, are collected only on day 7 (DfT, 2012b). The day on which respondents begin completion of their travel diary is randomised, so that the day on which short walks are noted is randomly distributed over all weekdays. As a result, Day 7 includes both long and short walks and has been used for the walking assessment in this Paper. Appropriate weightings were applied to the data to adjust for non-response and drop-off in the number of trips recorded in accordance with DfT (2012b).

2.5 It is recommended by DfT (2013c) that for stage estimates, samples of less than 300 should not be used and that samples of less than 1,000 may not be statistically reliable. Where sample sizes are less than 300 the data has not been reported.

2.6 The longest 1% of walk distances from each dataset was removed from the sample to eliminate unusually long walks. As a result, our analysis was based on 99% of the surveyed distance distribution.

2.7 Actual walking distances are generally recorded in NTS to the tenth of a mile, but some are recorded to the hundredth of a mile, for example 0.5 miles and 0.75 miles. The reported distances have been converted to metres and then rounded to the nearest 50m, or to the nearest 10m for the walking distances to public transport.

2.8 The datasets were analysed for walking distances in relation to several variables and the mean and 85th percentile distances were determined. The mean is a useful measure of the distance that the average person walks, whereas the 85th percentile is a measure of the distance upto which people are prepared to walk, and so could be used to establish catchment areas for walking.

3.0 Results

Walking

3.1 These are for journeys where walking is the main mode of travel.

a. Regional Variations

3.2 The walking distances by region are shown below at Table 3.1.

Region	Weighted Sample Size	Mean (m)	85th Percentile (m)
North East	1539	1200	1950
North West	4251	1150	1950
Yorkshire & Humber	3067	1150	1600
East Midlands	2535	1150	2000
West Midlands	3029	1100	1600
East of England	3072	1150	1800
London	4608	1000	1600
South East	4765	1150	1950
South West	3159	1200	2250
Wales	1743	1100	1950
Scotland	3222	1100	1950
All Regions (Excl. London)	30382	1150	1950
All Regions (Incl. London)	34990	1150	1600

Table 3.1 – Walking Distances by Region

3.3 The results show that there is little variation in the average walking distance, which is between 1,000m and 1,200m. Excluding London the variation would be only 100m. There is greater variation (650m) in the 85th percentile distances, which are between 1600m and 2250m. London has the shortest average walking distance and has the one of the shortest 85th percentile walking distances at 1,600m.

3.4 The shorter walking distances in London given by the NTS does not fit with the information in IHT (1999) which found that walking distances are longest in Inner London. The NTS data is for both Inner and Outer London, but unless the walking distances in Outer London are abnormally low then it is difficult to reconcile the difference. Further study is needed and for this reason the remainder of our analysis excludes London.

3.5 The walking distances for All Regions excluding London should be used.

b. Urban and Rural Distribution

3.6 The walking distances by 2011 Census Rural/Urban Classification are shown below at Chart 3.1.

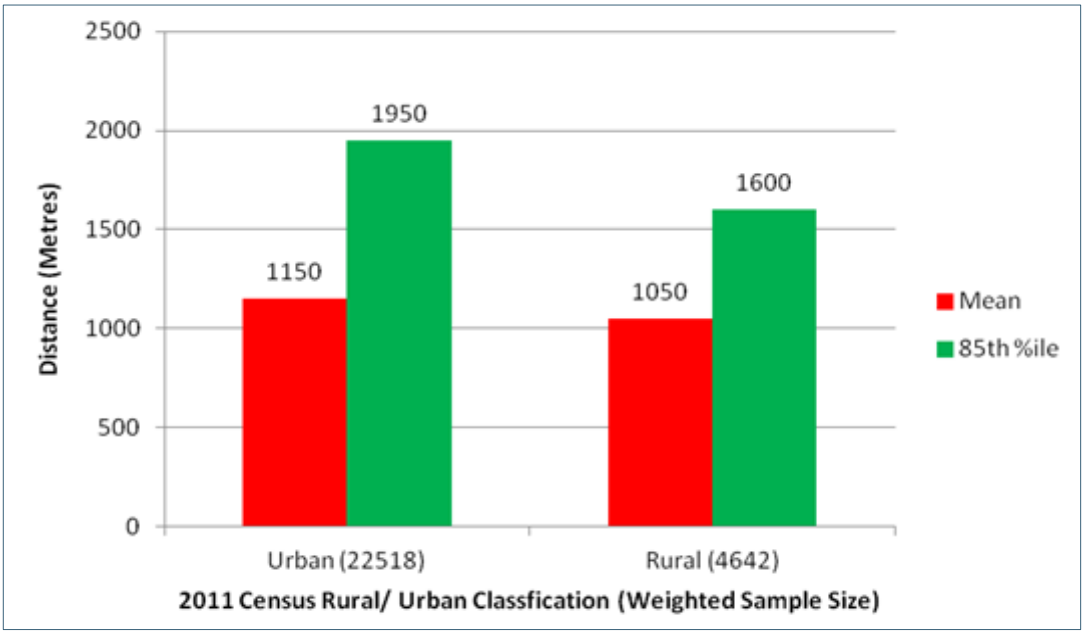

Chart 3.1 – Walking Distances by 2011 Census Rural/ Urban Classification (Excluding London)

3.7 People living in urban areas walk further than those in rural areas, with 85th percentile distances of 1,950m and 1,600m respectively. The result for rural areas corresponds with that for London, although the availability of facilities in London and in rural areas is likely to be quite different. Clearly further study is needed.

c. Effect of Gender

3.8 The walking distances by gender are shown below at Chart 3.2.

Chart 3.2 – Walking Distances by Gender (Excluding London)

3.9 There are slightly more women (54%) than men (46%) in the sample and they have a similar average walking distance, but men walk some 400m further than women at the 85th percentile level.

d. Effect of Journey Purpose

3.10 The walking distances by gender are shown below at Table 3.2.

Journey Purpose	Weighted Sample Size	Proportion	Mean (m)	85th Percentile (m)
Commuting	2166	7.1%	1250	2100
Business	290	1.0%		
Education/ Escort	5609	18.5%	1,000	1600
Shopping	5958	19.6%	1,000	1600
Other Escort	1392	4.6%	1100	1600
Personal Business	2730	9.0%	1,000	1600
Leisure	5539	18.2%	1150	1950
Other (including just walk)	6698	22.0%	1450	2400
All	30382	100%	1150	1950

Table 3.2 – Walking Distances by Journey Purpose (Excluding London)

3.11 The results show that walking is mainly used for leisure and other purposes, which together account for 40% of all walking journeys.

3.12 Education and shopping each account for around 20% of walking trips and they have the same average walking distance of 1,000m and the same 85th percentile walking distance of 1,600m. The walking distance for commuting is longer, with an average of 1,250m and an 85th percentile of 2,100m, but only 7% of walking journeys are for commuting.

3.13 It is difficult to compare the values in Table 3.2 with those from IHT (2000), reported at Table 1.1, even if it is assumed that their Preferred Maximum accords with our 85th percentile values, because “town centres” and “shopping” may not be looking at the same activity and the IHT table groups together a number of different purposes.

e. Summary

3.14 The analysis has shown that there is some variation in walking distance across the country, with London having the shortest walking distances. Walking is mainly used for leisure and other purposes, which together account for 40% of all walking trips, followed by shopping and education each accounting for 20%. There is a slight gender bias with women walking more, but men walking for longer distances. People in rural areas, on average, walk a similar distance to those in urban. People in rural areas walk shorter distances than people living in urban areas.

Walking to a Bus Stop

3.15 Walking distances have been analysed for those trips where walking was the 1st stage/ mode of travel and bus was the 2nd stage/ mode of travel. This is the walking distance from, for example, home to the bus stop or work to the bus stop. However, in considering only the most recent three years of data, the sample sizes are too low for reliable results. In order to increase the sample size, the whole 2002 to 2012 dataset has been used.

a. Regional Variations

3.16 The walking distances to bus stops by region are shown below at Table 3.3.

Region	Weighted Sample Size	Mean (m)	85th Percentile (m)
North East	293		
North West	775	600	800
Yorkshire & Humber	527	620	800
East Midlands	347	650	1210
West Midlands	580	550	800
East of England	472	630	800
London	2916	490	800
South East	717	580	800
South West	359	640	1290
Wales	133		
Scotland	871	510	800
All Regions (Excl. London)	5075	580	800
All Regions (Incl. London)	7990	550	800

Table 3.3 – Walking Distances to Bus Stops by Region
Note samples below 1,000 may not be statistically reliable

3.17 The sample size for two of the regions is below 300 so the data has not been shown.

3.18 Even with the larger dataset, many of the regions have sample sizes which are too low to report, or below 1,000, and so possibly unreliable. Reliable data is only available from London and for All Regions.

3.19 Within the limitations of the data, the results identify some regional variations. Notably, London has the lowest mean distance of 490m and the joint lowest 85th percentile of 800m, whereas the South West has the highest mean distance of 640m and the highest 85th percentile of 1,290m. The inclusion of London within the All Regions sample has a marginal effect on the average walking distance; 550m opposed to 580m, but has no effect at the 85th percentile level. The average walking distance to a bus stop is notably longer than the 400m recommended in IHT (1999) and CIHT (2015).

3.20 For consistency with previous practice, London has been excluded from the remainder of the analysis.

b. Urban and Rural Distribution

3.21 The walking distances to bus stops by 2011 Census Rural/ Urban Classification are shown below at Chart 3.3.

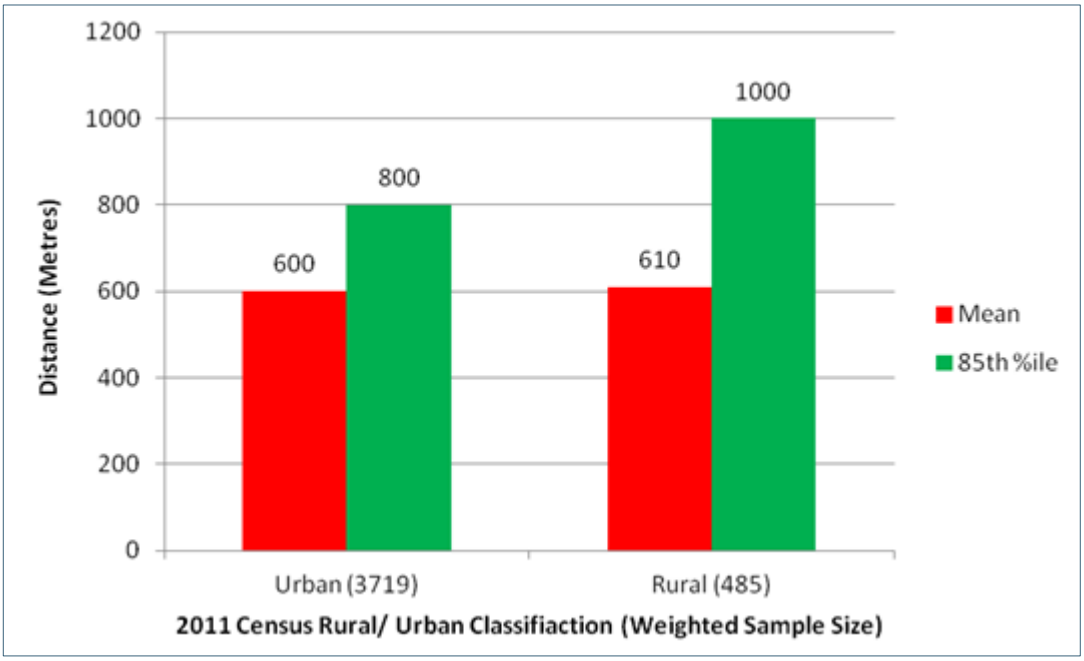

Chart 3.3 – Walking Distances to Bus Stops by 2011 Census Rural/ Urban Classification (Excluding London)

3.22 The sample size in rural areas is less than 1,000 so might be statistically unreliable.

3.23 The graph shows that the use of buses by people living in rural areas is quite small, accounting for only 12% of the distribution, and on average these people walk no further than those in urban areas although, at the 85th percentile level, rural people walk 200m further than those in urban areas.

c. Effect of Gender

3.24 The walking distances to bus stops by gender are shown below at Chart 3.4.

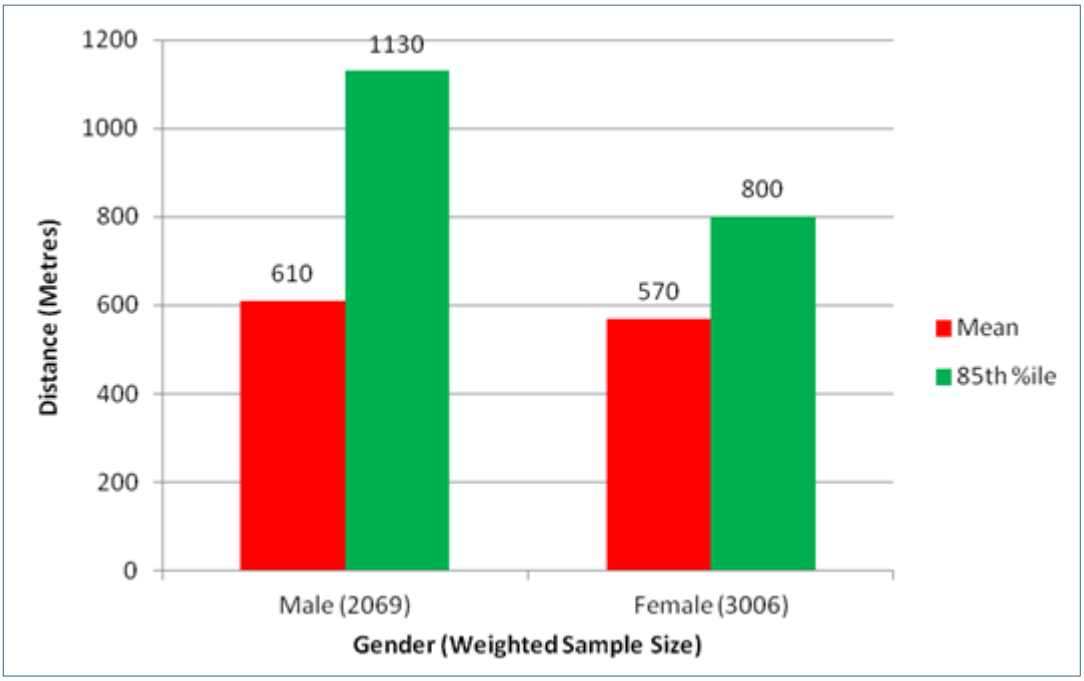

Chart 3.4 – Walking Distances to Bus Stops by Gender (Excluding London)

3.25 The results show that women account for 59% of the sample but walk on average slightly less to a bus stop than men; 570m opposed to 610m, whilst at the 85th percentile men walk considerably further; 1,130m opposed to 800m.

d. Effect of Journey Purpose

3.26 The walking distances to bus stops by journey purpose are shown below at Table 3.4.

Journey Purpose	Weighted Sample Size	Proportion	Mean (m)	85th Percentile (m)
Commuting	1352	26.6%	610	840
Business	97	1.9%		
Education/ Escort	845	16.7%	610	800
Shopping	1097	21.6%	500	800
Other Escort	109	2.1%		
Personal Business	479	9.4%	550	800
Leisure	1088	21.4%	640	1290
Other (including just walk)	7	0.1%		
All Purposes	5074	100.0%	580	800

Table 3.4 – Walking Distances to Bus Stops by Journey Purpose (Excluding London)
Note samples below 1,000 may not be statistically reliable

3.27 The sample size for three of the journey purposes is below 300 so the data has not been shown.

3.28 The results show that buses are mainly used for the purpose of commuting, followed by leisure and shopping purposes, these together accounting for over two-thirds of the distribution, followed by education/ escort.

3.29 The average walking distances to a bus stop for commuting, education and leisure are similar at just over 600m. However, people do not walk as far if on a shopping journey (500m). The 85th percentile for each journey purpose is similar, at 800m, apart from leisure at 1,290m.

e. Summary

3.30 This analysis has clearly demonstrated that average walking distances to a bus stop exceed the 400m which has been the distance recommended for use in IHT (1999) for some time. The analysis has also shown that the walking distances to bus stops in London are less than elsewhere in the UK. Walking to bus stops is mainly used for commuting, leisure and shopping purposes, and there is a small gender bias with women walking more, but men walking for longer distances. People in rural areas, on average, walk a similar distance to those in urban areas.

Walking to a Railway Station

3.31 Using the 2002 to 2012 dataset, walking distances have been analysed for those trips where walking was the 1st stage/ mode of travel and rail was the 2nd stage/ mode of travel. This is the walking distance from, for example, home to the railway station or work to the railway station.

a. Regional Variations

3.32 The walking distances to rail stations by region are shown below at Table 3.5.

Region	Weighted Sample Size	Mean (m)	85th Percentile (m)
North East	20		
North West	293		
Yorkshire & Humber	191		
East Midlands	67		
West Midlands	191		
East of England	505	1030	1610
London	3212	740	1290
South East	878	1020	1610
South West	89		
Wales	77		
Scotland	365	980	1610
All Regions (Excl. London)	2676	1010	1610
All Regions (Incl. London)	5888	870	1610

Table 3.5 – Walking Distances to Rail Stations by Region
Note samples below 1,000 may not be statistically reliable

3.33 The sample size in seven regions is below 300, so the data has not been shown, and in three regions the sample size is below 1,000 and so might be statistically unreliable. Reliable data is only available from London and for All Regions.

3.34 The results show that London has the lowest average walking distance of 740m and the lowest 85th percentile walking distance of 1,290m. The East of England and South East England have the highest average walking distance of 1,030m and 85th percentile walking distance of 1,610m.

3.35 By comparing data for both All Regions samples it can be seen that the inclusion of London results in a shorter average walking distance, 870m as opposed to 1010m, but has no effect at the 85th percentile level.

3.36 The average walking distance to a railway station outside London is notably longer than the 800m recommended in IHT (1999) and CIHT (2015), but is similar to that noted by Kuzmyak et al. 2003a (cited in TfQL, 2008).

3.37 IHT (1999) and CIHT (2015) both advise that people should not have to walk more than 800m to a rail station. The results show that people outside London walk on average 1,010m and 15% walk more than 1,610m.

b. Urban and Rural Distribution

3.38 The walking distances to rail stations by 2011 Census Rural/ Urban Classification are shown below at Chart 3.5.

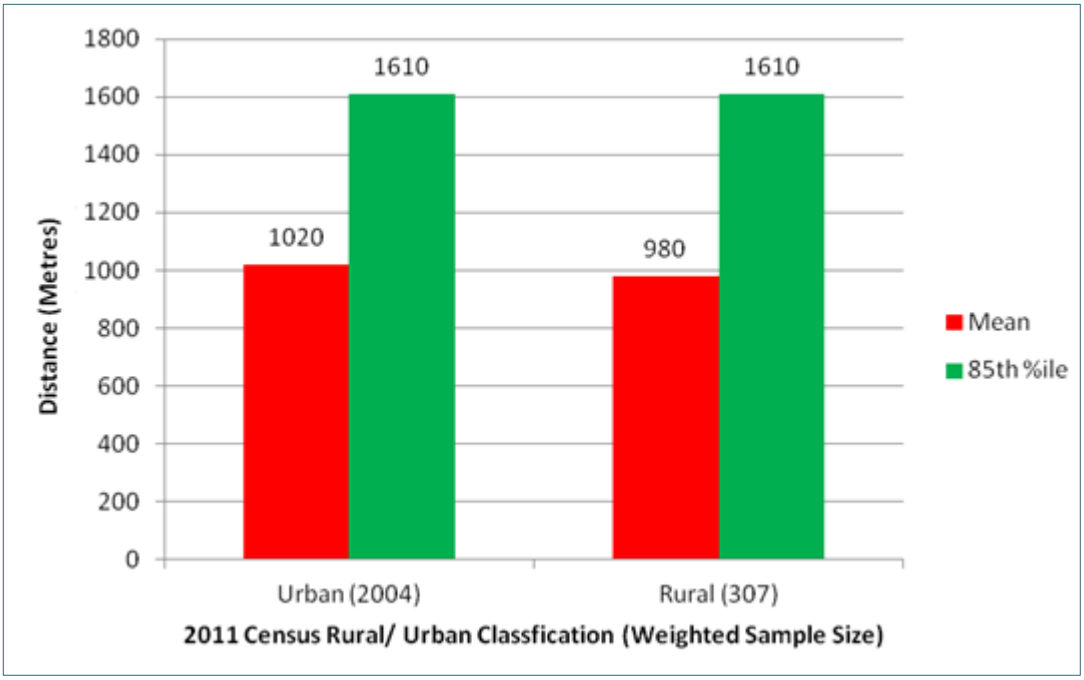

Chart 3.5 – Walking Distances to Rail Stations by 2011 Census Rural/ Urban Classification (Excluding London)

3.39 The sample size in rural areas is less than 1,000, and only just above 300, so is likely to be statistically unreliable; nevertheless the walking distances are similar.

c. Effect of Gender

3.40 The walking distances to rail stations by gender are shown below at Chart 3.6.

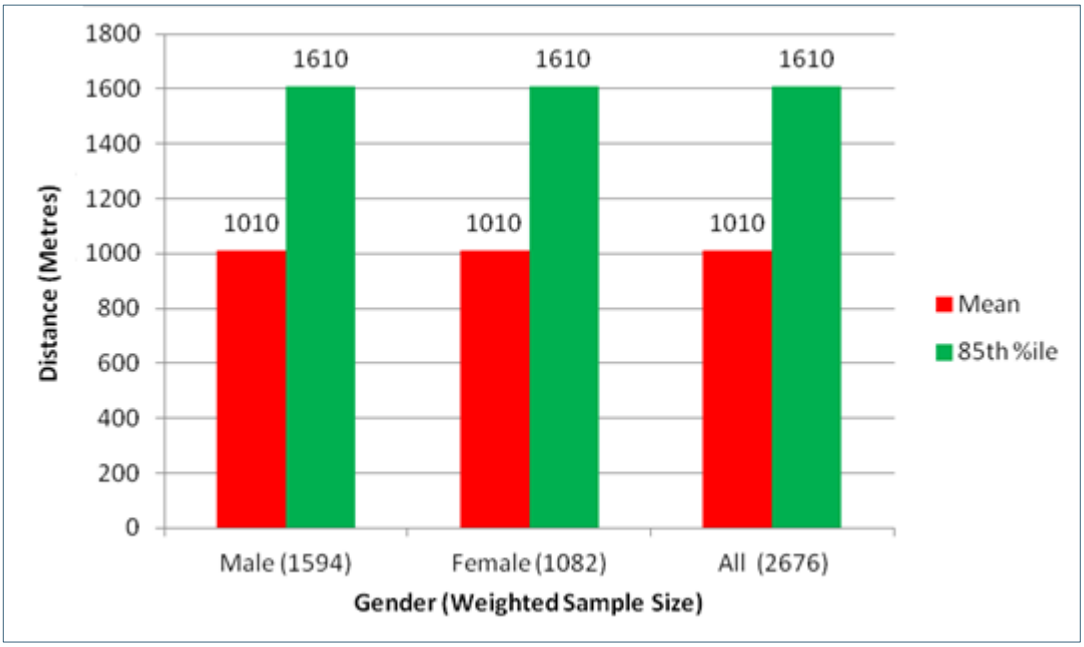

Chart 3.6 – Walking Distances to Rail Stations by Gender (Excluding London)

3.41 The results demonstrate that the average and 85th percentile walk distances to a rail station are unaffected by gender.

d. Effect of Journey Purpose

3.42 The walking distances to rail stations by journey purpose are shown below at Table 3.6.

Journey Purpose	Weighted Sample Size	Proportion	Mean (m)	85th Percentile (m)
Commuting	1307	48.8%	1030	1610
Business	165	6.2%		
Education/ Escort	217	8.1%		
Shopping	220	8.2%		
Other Escort	50	1.9%		
Personal Business	119	4.4%		
Leisure	598	22.3%	1010	1610
Other (including just walk)	2676	100.0%	1010	1610
All	1307	48.8%	1030	1610

Table 3.6 – Walking Distances to Rail Stations by Journey Purpose (Excluding London)
Note samples below 1,000 may not be statistically reliable

3.43 The sample size for five journey purposes is below 300 so the data has not been shown and one is below 1,000 so might be statistically unreliable.

3.44 The results show that walking to a railway station is undertaken predominantly for commuting (50%) and leisure (22.3%), these together accounting for over two-thirds of the sample.

3.45 The average walking distances to a rail station for commuting and for leisure are very similar at just over 1,000m, whilst the 85th percentile level is 1,610m.

e. Summary

3.46 The analysis has shown that average walking distances to a rail station exceed the 800m maximum distance recommended in IHT (1999). The analysis has also shown that walking distances to rail stations in London are less than elsewhere in the UK. Walking to rail stations is mainly used for commuting and leisure purposes, and there is no difference in the distances walked. There is very little difference in the distances walked to a rail station in rural and in urban areas.

4.0 Discussion

4.1 In relation to walking as the main mode of travel the main interest from a planning perspective is to assess whether there is a range of facilities within a reasonable walking distance of a site. This is normally done as a walkable catchment which shows the furthest extent that could reasonably be walked. In the past the 2km value from PPG13 was used, but since its withdrawal there is no basis for continuing to rely on this value.

4.2 From the simple analysis of the NTS data we have shown that the average walking distance for All Regions excluding London is 1,150m and the 85th percentile distance is 1,950m, which corresponds to the PPG13 2km value. We suggest that for planning purposes the 85th percentile distance should be used to establish the walking catchment for sites outside London.

4.3 In London we found that walking distances were less; the average is 1,000m and the 85th percentile is 1600m. It is not clear why the distances are less than elsewhere in the UK, but it is notable that the walking distances to a bus stop or a railway station are also lower in London. It may be that people don't have to walk far to reach the facilities they need, but the London walking distance are similar to those in rural areas where the opposite argument would apply. Further study is needed.

4.4 Outside London, walking is mainly a leisure activity accounting for 40% of journeys, with education and shopping each accounting for 20%. Commuting on foot was little used, accounting for only 7% of trips. People walked the furthest for commuting and other journey purposes, both at the average and 85th percentile levels (2,100m and 2,400m respectively). People did not walk as far for shopping or education purposes both at the average and 85th percentile levels (1,600m for both). With this data it is possible to consider the walking catchment of workplaces, schools and shops. The distances set out here should replace those in IHT (2000).

4.5 It has been found that males walk further than women especially at the 85th percentile level. Further study of gender differences in relation to journey purpose would be worthwhile.

4.6 At present the walking distance recommendations of 400m and 800m by IHT (1999) have been widely adopted. From our assessment the distances people actually walk to catch a bus or train are notably longer. The average walk to a bus stop is 490m in London and 580m elsewhere in the UK and the average walk to a railway station is 740m in London and 1,010m elsewhere. So, outside London, the average person walks further to a bus stop or railway station, with 15% walking further than 800m to a bus stop and further than 1,290m to a railway station in London, and further than 1,610m to a railway station elsewhere.

4.7 So what is a reasonable walking distance to a bus stop or railway station for planning purposes? There is no simple answer. To compete with car travel, bus services need to be convenient for passengers. Convenience is a poorly defined term (OECD/ ITF, 2014) comprising several aspects, only one of which is the access distance to the bus stop. From Transport Statistics GB (DfT, 2014), 86% of homes are shown to be within 588m of a bus stop and yet bus patronage is 7% nationally. From Kuzmyak et al. 2003a study (cited in TfQL, 2008) for home to station distances of 800m to 1,200m, walking was the predominant mode of access.

4.8 The contribution that the access distance to public transport has on the uptake of the mode is not clear and further research is needed. What is clear from our assessment is that the average walking distance to a bus stop is well above 400m and the average walking distance to a railway station, outside London, is well above 800m. Therefore, average walking distances to bus stops and railway stations based on revealed behaviour recorded in the NTS should be used for planning purposes in preference to the 400m and 800m distances recommended in IHT (1999). When considering the potential walking catchment of a new development, to bus stop or railway station, the 85th percentile distance should be used.

5.0 Conclusions

5.1 There has been little or no information about how far people walk to underpin the policy and guidance which has been used for many years.

5.2 Policy making and decision taking should be based on the best evidence available and the following distances are recommended for planning purposes.

	Mean (m)	85th Percentile (m)
Walk – As main mode of travel		
UK (Excluding London)	1,150	1,950
London	1,000	1,600
Walk to a Bus Stop		
UK (Excluding London)	580	800
London	490	800
Walk to a Railway Station		
UK (Excluding London)	1,010	1,610
London	740	1,290

Table 5.1 Recommended Walking Distances

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