



Leeds & Bradford Parks Accessibility Index

Technical Report

**By Jennie Gray, Vikki Houlden, and
Anna Barker, University of Leeds.**



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Foreword: Bradford Metropolitan District Council



Bradford District welcomes the opportunity to continue to build upon the legacy we have enjoyed with our partners at Leeds University, in identifying and delivering initiatives and innovative improvements designed to make our parks and greenspaces better and safer places to visit and enjoy.

We would like to thank all the people across our District who shared their insights when they completed the survey last year. These lived experiences inform how we and our partners can improve our parks and greenspaces for the benefit of everyone.

Cllr Ian Walker

*Executive Member for Neighbourhoods and Communities
Bradford Metropolitan District Council*



Foreword: Leeds City Council



I would like to thank the University of Leeds for undertaking this important research on the use and accessibility of our local parks, and to thank all the residents who took the time to share their experiences through the survey

The insights gathered through this research will help shape our ongoing work to improve and protect Leeds' green spaces, ensuring they remain accessible, inclusive and valued by residents now and in the future.

Cllr Gibson

*Executive member for environment
Leeds City Council*



1. What is the Parks Accessibility Index?

The [Leeds and Bradford Parks Accessibility Index \(PAI\)](#), developed through the GreenAWARE project (Greenspace Access, Wellbeing, and Resident Equality), provides a multidimensional assessment of how well residents of Leeds and Bradford can access and use their local parks. It is built on the 6A Framework for Equitable Greenspace Accessibility (6A-4EGA) developed by Gray et al. (2025). This framework recognises that access to parks is shaped by intersecting physical, social, cultural, environmental, and informational conditions. It identifies six domains that together define equitable access: *Availability, Accessibility, Accommodation, Affordability, Acceptability, and Awareness* (Penchansky and Thomas, 1981; Saurman, 2016). By considering all six domains across parks in Leeds and Bradford, the PAI supports a more comprehensive, social justice-oriented understanding of accessibility. It reflects not only whether a park exists, but whether it is perceived and experienced as usable, welcoming, safe, affordable, visible, well equipped, and culturally inclusive.

The Index integrates residents' perceptions, experiences, and contextual barriers into a single measure, based on data collected in the Leeds and Bradford Access to Parks and Green Space Survey, in Spring and Summer 2025. This approach provides decision makers with transparent and comparable information to identify inequalities, guide investment, and inform service planning. Grounded in residents' subjective perceptions and lived experiences of accessing and using parks, the PAI offers a realistic account of how parks serve communities in practice.

The PAI therefore provides a multidimensional measure of accessibility that captures physical, social, cultural, experiential, and environmental aspects of park use. For policy leaders, the Index offers:

- A transparent evidence base for strategic decision making
- Insight into inequalities within and between neighbourhoods
- A mechanism to prioritise investment in parks with the greatest need
- A consistent tool for monitoring green space equity over time

This Technical Report sits alongside the [Leeds and Bradford Parks Accessibility Index User Guide](#). The User Guide explains how to access, interpret, and use the Index, while this report provides an overview of its development, performance across the 54 parks included, and its implications for policy and service planning.

A map of the parks included in the PAI (Figure 1) illustrates the spatial coverage of the analysis across Leeds and Bradford. In total, 54 parks are included, of which 36 are located in Leeds and 18 in Bradford. The full list of parks is provided in Table 1.



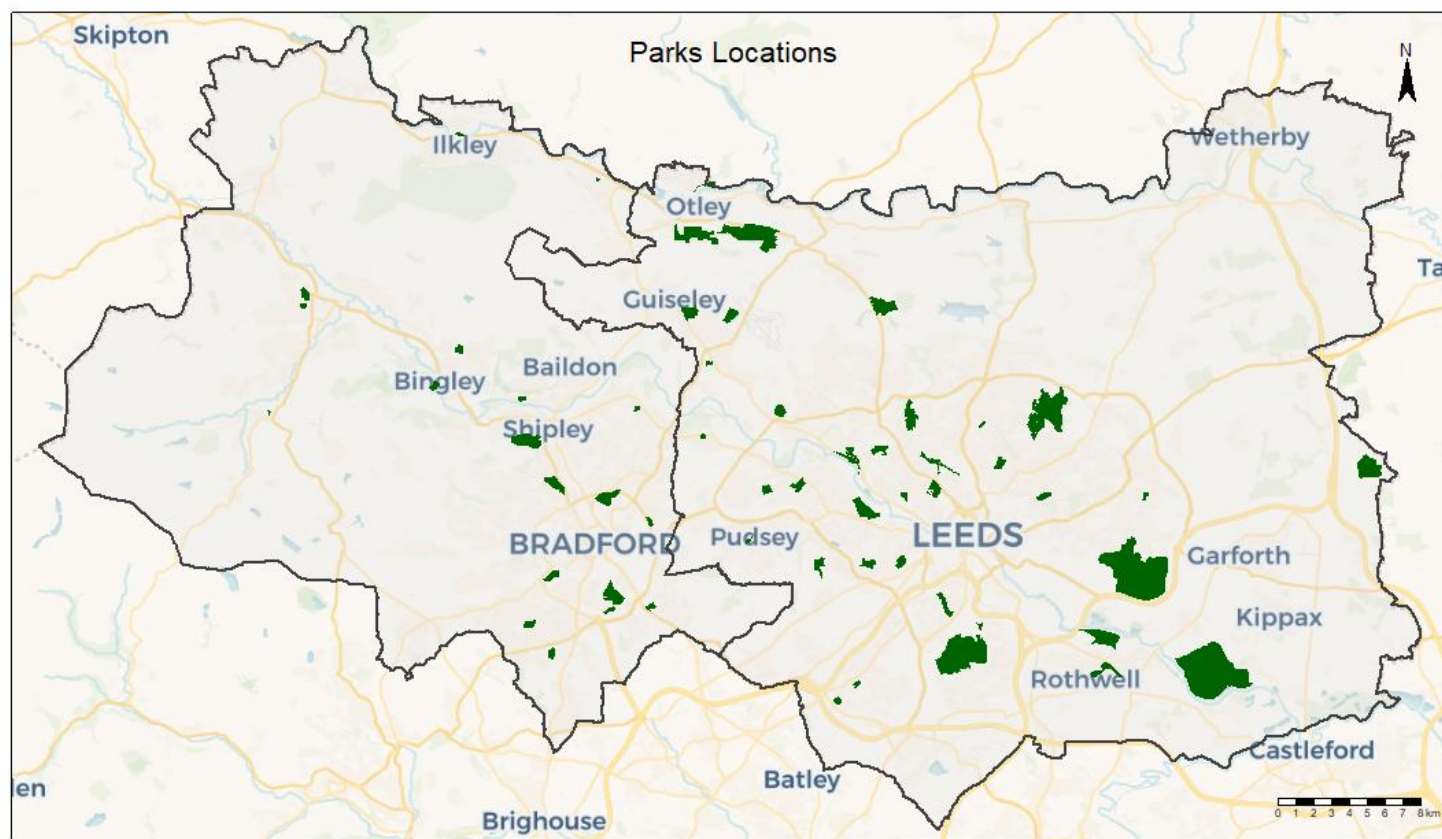


Figure 1: Parks included in the Leeds and Bradford Parks Accessibility Index (parks with 10 or more valid survey responses).

Table 1: Parks included in the PAI, by city

Leeds Parks	Bradford Parks
Beckett Park	Bowling Park
Bramley Park	Bradford Moor Park
Calverley Victoria Park	Cliffe Castle
Chapel Allerton Park	Cross Road Park
Cross Flatts Park	Devonshire Park
Dartmouth Park	Grange Park
Farnley Hall Park	Harold Park
Golden Acre Park	Horton Park
Gotts Park	Idle Recreation Ground
Harehills Park	Ilkley Riverside Gardens
Horsforth Hall Park	Knowles Park
Kirkstall Abbey	Lister Park
Kirkstall Abbey Park	Myrtle Park
Lotherton Hall	Northcliffe Park
Manston Park	Peel Park
Meanwood Park	Prince of Wales Park
Micklefield Park	Roberts Park
Middleton Park	Wibsey Park

Nunroyd Park Otley Chevin Forest Park Potternewton Park Pudsey Park Rothwell Country Park Roundhay Park Scatchered Park St Aidan's Nature Reserve Stanningley Park Temple Newsam Estate Western Flatts Cliff Park Wharfemeadows Park Woodhouse Moor Woodhouse Ridge Wortley Recreation Ground Yeadon Tarnfield Park	
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2. Developing the Parks Accessibility Index

2.1 Survey Data

The Parks Accessibility Index (PAI) is based on data from the Leeds and Bradford Parks and Green Spaces Survey conducted between April to June 2025. The survey employed a mixed-mode recruitment strategy to reach a socio-demographically diverse sample (Dillman et al., 2014). This included targeted online advertising via social media to improve representation across demographic groups, the distribution of 1,000 mailed paper surveys per city to households in the most deprived neighbourhoods to reduce non-response bias among populations typically underrepresented in online surveys, and 3,000 randomly distributed postcard invitations per city directing residents to the online version.

Paper response rates were low (approximately 3% per city), and most respondents completed the survey online. In total, the survey yielded more than 3,000 responses, of which 2,682 were valid after cleaning (805 from Bradford, 1,877 from Leeds). Only parks with at least 10 valid responses were included within the PAI, balancing spatial coverage with statistical reliability. Respondents provided their postcode, which were geocoded to postcode centroids, and identified the park they used most often (their 'main park'), thus linking each respondent with their neighbourhood and identified park. While this introduces some spatial imprecision, typically around 100 to 200 meters in urban UK postcodes, it enables robust linkage between individual experiences and specific park contexts.

Due to the minimum threshold of 10 valid survey responses per park, fewer parks in Bradford are represented within the PAI. This reflects the lower number of survey responses obtained in Bradford compared with Leeds, resulting in fewer parks meeting the inclusion threshold.

2.2 Variables and Domain Assignment

The survey included a mix of Likert-scale items and binary indicators. The Likert-scale items captured resident’s perceptions of park quality and experience, while the binary indicators recorded the presence of personal or contextual barriers to park access. The survey questions are provided in Appendix K. The Likert questions asked respondents to rate their level of agreement with statements about the accessibility of their main park using a five-point scale, ranging from “Strongly agree” to “Strongly disagree”. In contrast, the binary indicators recorded whether respondents selected specific barriers when asked about factors limiting access to parks in their local area. Figure 2 illustrates these two question formats.

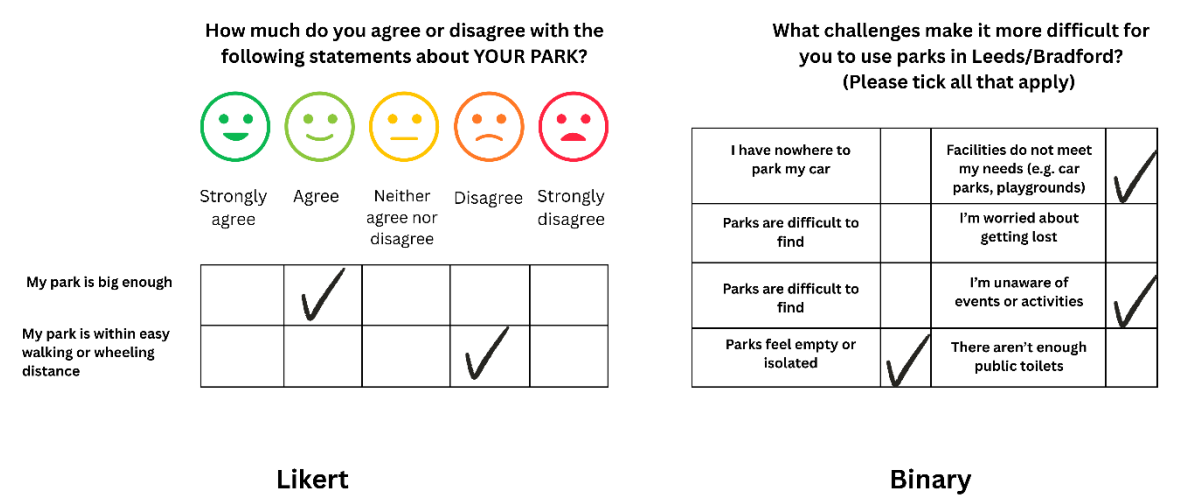


Figure 2: Examples of Likert and Binary Style Survey Items

Data were included in index development for parks with a sufficient number of valid survey responses only, to support the estimation of park-level domain scores with reasonable stability and to minimise the influence of sampling variability associated with very small samples (Houts et al., 2016; MacCallum et al., 1999). Parks with fewer than 10 responses were therefore excluded from the PAI. The threshold was determined following examination of the distribution of responses across parks and reflects a trade-off between maximising spatial coverage and maintaining the reliability of park-level estimates. This threshold results in a total of 54 parks included in the PAI across Leeds (36) and Bradford (18), representing over 1,700 respondents and their experiences with green space access. The smaller number of parks included for



Bradford reflects the lower number of survey responses obtained in the district, and consequently fewer parks meeting the minimum response threshold.

All survey variables were assigned to one of the 6A domains. A summary of the 6As and their interpretation is provided in Table 2, while individual indicators and their domain classifications are provided in Table 3. Note that survey items in Table 3 have been rephrased from the original questions to present a positive, accessibility focused framing rather than a focus on barriers. The original survey questions are provided in Appendix K.

Table 2: The 6As, their description, and interpretation in the Index

6A Dimension	Description
<i>Availability</i>	Are parks available in sufficient size and quantity to support the neighbourhood? Includes perceptions of size and usage (overcrowding, and isolation).
<i>Accessibility</i>	Are parks easy to navigate to and through? Includes the perceived safety of routes, transport and parking options.
<i>Accommodation</i>	Does the park provide diverse facilities for its diverse users? Includes facilities, toilets, events, parking, nature, activities and events.
<i>Affordability</i>	Is the park financially affordable? Includes the cost of activities.
<i>Acceptability</i>	Is the park safe, welcoming, and socially and culturally inclusive? Includes perceptions of safety, maintenance, noise, park condition and satisfaction, fear of crime and harassment
<i>Awareness</i>	Are residents aware of the parks and the facilities and events that they offer? Includes signage, wayfinding to and through the parks, and promotion of events and activities.

Table 3: Variables, their meaning and data type, and A of Accessibility indicator

Variable	Survey Item	Data Type	'A' Domain
LargeEnough	The Park is Large Enough	Likert	Availability

TooFar	The Park is Not Too Far Away	Binary	(A1)
Isolated	The Park is Not Empty or Isolated	Binary	
Overcrowded	The Park is Not Overcrowded	Binary	
EasyDistance	The Park is Within Easy Walking or Wheeling Distance	Likert	Accessibility (A2)
PathLayout	Paths and Layout Aid Navigation	Likert	
BusyRoad	Roads and Traffic en-route are Easy and Safe to Navigate	Binary	
NoTransport	Good Transport Options to the Park	Binary	
NoParking	Parking Available	Binary	
FacilitiesForMe	Diverse Facilities on Offer	Likert	Accommodation (A3)
AppealingNature	Appealing Nature within the Park	Likert	
AppealingEvents	Appealing Events held at the Park	Likert	
NoPublicToilets	Public Toilets Available	Binary	
NoAccessibleToilets	Accessible Toilets Available	Binary	
NeedsNotMet	Diverse Needs are Met	Binary	
UninterestedEvents	Range of Interesting Events and Activities on Offer	Binary	
UnenjoyableEvents	Range of Enjoyable Events and Activities on Offer	Binary	
AffordableEvents	Affordable Activities and Events at the Park	Likert	Affordability (A4)
CleanMaintained	The Park is Clean and Maintained	Likert	Acceptability (A5)
SafeDaytime	The Park Feels Safe in the Daytime	Likert	
SafeAfterDark	The Park Feels Safe After Dark	Likert	
Welcoming	The Park Feels Welcoming	Likert	
Satisfaction	User Satisfaction	Likert	
Condition	Overall Park Condition	Likert	
PoorLighting	The Park has Acceptable Lighting	Binary	
ConcernedCrimeASB	Users are Safe from Fear of Crime and Antisocial Behaviour	Binary	



ConcernedHarassment	Users are Safe from Fear or Harassment	Binary	
NooneLikeMe	Park Users are Diverse and Represented	Binary	
TooNoisy	Comfortable Noise Levels Inside the Park	Binary	
DifficultFind	Wayfinding to the Park	Binary	Awareness (A6)
WorriedLost	Wayfinding through the Park	Binary	
UnawareEvents	Parks, Events, and Activities are Promoted	Binary	

Table 3 summarises the data types used. Survey items coded as ‘Likert’ relate explicitly to the park respondents used most often, while ‘Binary’ items capture general barriers experienced when accessing parks in their local area. Although the latter were framed at an area level, respondents completed them after reflecting on their most used park (see Appendix K). Responses can therefore be understood as being informed by a specific park context, while also capturing broader perceptions and lived experiences of access. These individual responses were aggregated at the park level to construct compositional measures of perceived accessibility for each park. This approach represents a form of cross-level aggregation in which individual-level perceptions are summarised to characterise the group-level barrier environment associated with each park setting (Diez-Roux, 1998; Duncan et al., 1998).

2.3 Index Construction

To ensure consistency across the dataset, all Likert-scale variables were reverse-coded to align higher values with more positive accessibility conditions, then normalised on a 0-1 scale. Binary variables were also recoded such that 0 represented the presence of a barrier and 1 the absence of a barrier.

All variables were assessed for variation, including their distribution, mean, standard deviation, interquartile range, number of unique values, and the proportion of responses at ceiling (≥ 0.95) or floor (≤ 0.05). One variable (ParkAvoidance) showed no variation between parks and was subsequently removed, since the variable provided no discriminatory information and contributed nothing to the construction of the index. All remaining items demonstrated sufficient variation for inclusion.

Indicator variables were then grouped within their respective 6A domains. For each park:

- 1) Individual indicators variables within a domain were grouped by park, and averaged to produce a domain score.

- 2) Each domain score was normalised to a 0–1 scale to support comparability across domains.
- 3) Only parks with at least 10 valid responses were included, balancing spatial coverage with statistical reliability.

Standard errors and 95% confidence intervals were calculated for each domain score and for the overall PAI score, allowing users to assess the precision of estimates, particularly for parks with smaller sample sizes where wider confidence intervals may indicate greater uncertainty, or reflect greater variation in unique user experiences.

2.4 Overall PAI Score

The Parks Accessibility Index (PAI) is defined on a bounded scale with a theoretical maximum score of **6**, corresponding to the highest possible score across all six accessibility domains. In practice, the distribution of observed Index values falls well below this upper bound. In the current dataset, the highest observed overall Index score is **4.70**, indicating that no park achieves uniformly high performance across all domains of accessibility.

This distinction between the theoretical maximum and the observed maximum is analytically important. The theoretical maximum provides a fixed reference point against which absolute performance can be assessed, while the observed maximum reflects the current state of accessibility within the park system as measured by subjective user experience. The gap between these two values indicates that even the best-performing parks exhibit limitations in one or more domains, and that scope for improvement remains across the system.

2.4 The Minimum Domain Threshold Approach

To limit the extent of cross-domain compensation, whereby strong performance in one area can mask weakness in another (OECD, 2008), a minimum domain threshold of 0.3 was introduced. Scores below this threshold were interpreted as indicating categorically inadequate accessibility in that domain. Any domain scoring below 0.3 therefore incurs a penalty of 0.3, which is deducted from the overall Index score. Where multiple domains fall below the threshold, the penalty is applied for each failing domain. This approach is consistent with sufficiency-based frameworks used in multidimensional index construction, where minimum thresholds ensure that critical deficits remain visible in aggregate scores (Alkire & Foster, 2011). After applying these penalties, no park in the dataset received an Adjusted PAI score below 0. The Adjusted PAI score, number of penalised domains, and adjusted quintile are reported alongside the original PAI scores to support transparent and equity-sensitive interpretation.

To illustrate how the minimum domain threshold and penalties work; Cross Roads Park in Bradford has an overall Index score of 4.62, derived from domain scores of A1 = 0.83,



A2 = 0.26, A3 = 0.86, A4 = 1.00, A5 = 0.67, and A6 = 1.00. These results indicate very strong perceived performance in Affordability (A4) and Awareness (A6), alongside high scores for Availability (A1) and Accommodation (A3). However, the aggregate score conceals a substantial deficit in Accessibility (A2), which has a score of just 0.26. As this falls below the minimum domain threshold of 0.3, a penalty of 0.3 is applied, reducing the PAI score of 4.62 to an Adjusted PAI Score of 4.32. While the adjusted score remains high, reflecting strength across multiple domains, the penalty makes the critical shortfall in Accessibility explicit within the Parks Accessibility Index.

2.5 Quintiles

Parks are grouped into quintiles to summarise their position relative to all other parks included in the Index. Quintiles are used in preference to deciles due to the relatively small number of parks available for comparison ($n=54$), for which finer categorical breakdowns become unstable and less informative (Benette and Vickers, 2012). Given the polarity of the domain-level and overall Index scores, lower quintiles correspond to lower scoring parks, while higher quintile correspond to higher scoring parks.

Under this classification, Quintile 1 represents the 20% of parks with the lowest accessibility scores, while Quintile 5 represents the 20% of parks with the highest scores. Quintile groupings are intended to support relative comparison and communication of results, but should not be interpreted in isolation. Quintile assignment involves a loss of information and if being used, should therefore be reported alongside the PAI and Adjusted PAI scores to preserve transparency and analytical detail (Altman, 2005).

2.6 Confidence Intervals

The overall and Adjusted PAI scores, along with domain scores, are reported with 95 percent confidence intervals to characterise the uncertainty surrounding the estimated scores. These intervals represent the range within which the underlying population-level value would be expected to fall, given the observed sample and the structure of the PAI.

Confidence intervals were estimated using a non-parametric bootstrap procedure. This approach was selected because the PAI is derived from composite scores based on bounded (0-1) variables, including both Likert-scale and binary responses, and does not rely on assumptions of normality. Bootstrap resampling allows the sampling distribution of the PAI to be estimated directly from the data, while preserving the hierarchical structure of the index (Kelley, 2005), with scores computed at the individual level before aggregation to park-level estimates.

A bias-corrected and accelerated (BCa) bootstrap method was used to derive confidence intervals, as it adjusts for both bias and skewness within the bootstrap distribution. This provides more reliable estimates for bounded and potentially non-

symmetric measures such as the PAI (Kelley and Pornprasertmanit, 2016). Where BCa intervals could not be estimated, percentile-based intervals were used as a fallback.

As domain scores are defined on a standardised 0–1 scale, resulting confidence intervals were constrained to lie within these bounds to reflect the theoretical limits of the measure. Values outside this range arise as a statistical artefact of the bootstrap procedure rather than representing meaningful estimates.

The width of each confidence interval is reported as an indicator of variability in the estimated scores. Wider intervals may arise from smaller sample sizes or greater dispersion in responses and should be interpreted with caution in comparative analyses, particularly for parks with fewer survey responses.

Importantly, confidence intervals in this context should not be interpreted solely as a measure of statistical imprecision. As the PAI is derived from subjective assessments of park accessibility and experience, wider intervals may also reflect genuine variation in user perceptions rather than statistical noise. Where respondents report substantially different levels of accessibility for the same park, the resulting interval captures this heterogeneity rather than simply sampling error (Mokhtar et al., 2023).

Such variation may arise from differences in demographic and socioeconomic characteristics among respondents, including age, disability, gender, caring responsibilities, ethnicity, and income. In this context, wider confidence intervals can indicate uneven accessibility within a park, highlighting locations where experiences of access differ markedly across user groups. Interpreted in this way, confidence intervals provide insight not only into the precision of the estimated scores, but also the consistency of accessibility experiences across users.

2.7 Limitations

Several limitations should be considered when interpreting the Parks Accessibility Index (PAI). First, coverage across the six domains is uneven: *Affordability* is captured by a single indicator, while *Acceptability* includes 11. Domain scores based on fewer indicators are more sensitive to measurement error in any one item and may not capture the full breadth of the construct. For example, the conceptualisation of *Affordability* also includes temporal availability (Gray et al., 2025), of which are difficult to aggregate to the park level due to their inherent personal nature, though urban design can limit temporal affordability.

Second, aggregating individual responses to the park level provides an indicative rather than precise measure of conditions. Sample sizes also vary between parks, producing confidence intervals of differing widths, and the compositional nature of these measures means they reflect the characteristics of sampled users rather than independently measured environmental attributes (Diez-Roux, 1998), though a wide



confidence interval may also reflect within-park inequality. Additionally, because respondents reported on their most frequently used park, the Index does not characterise all parks accessible to or used by a given respondent.

Third, the PAI applies equal weighting across the six accessibility domains. This improves interpretability and avoids imposing judgements about the relative importance of different dimensions, but it assumes that each domain contributes equally to overall accessibility, an assumption that may not hold for all user groups or contexts. The OECD Handbook on Constructing Composite Indicators notes that equal weighting is a common default but should be understood as an implicit value judgement rather than a neutral choice (OECD, 2008).

Finally, the *Awareness* domain is compiled entirely of binary indicators capturing difficulties finding parks, concerns about getting lost, and lack of awareness of events and activities. These indicators reflect experiences at the area level, rather than attributes of individual parks. The domain should therefore be better interpreted as representing *Awareness*-related issues affecting the communities surrounding each park, rather than characteristics of the parks themselves, as captured in the other domains. In this sense, *Awareness* therefore captures how neighbourhood-level visibility, wayfinding, and information shape residents' ability to locate and engage with nearby parks. Despite this distinction, the domain provides a valid representation of perceived green space *Awareness* as experienced by residents.

3. The Parks Accessibility Index

3.1 Overview of the Parks Accessibility Index

The Parks Accessibility Index (PAI) summarises how well each park performs across the six dimensions of accessibility: *Availability*, *Accessibility*, *Accommodation*, *Affordability*, *Acceptability*, and *Awareness*. Each domain is normalised to a 0–1 scale, and the overall PAI score is the sum of these domain scores. This creates a potential maximum of 6, representing a park that performs perfectly across all six dimensions. In practice, the highest score observed in Leeds and Bradford is 4.79.

Across the 54 parks included, the average PAI score is 3.66 (median 3.64). Scores range from 1.47 to 4.79, reflecting reflects substantial variation in how parks perform, as per users' perceptions and experiences. It reflects real differences in how users perceive their park conditions, their user experience, and the structural accessibility. The gap between the observed maximum of 4.79 and the potential maximum of 6 also indicates that even the highest scoring parks still have room to improve across some dimensions.

Table 4 presents summary statistics for all domains and for the overall PAI scores. *Acceptability* (A5) has the highest average score, followed by *Availability* (A1) and



Affordability (A4), both with mean values of 0.63. This suggests that, on average, parks are generally perceived as welcoming and safe, available within a reasonable distance, and relatively affordable to access.

In contrast, *Awareness* (A6) and *Accessibility* (A2) exhibit lower scores and greater variability, indicating more uneven experiences across parks. This pattern suggests that while many parks are positively regarded overall, differences in *Awareness* and ease of travel continue to shape access unevenly.

Table 4: Descriptive Statistics of the Domain and Overall PAI scores

	Accessibility Domains						Overall Scores	
	A1	A2	A3	A4	A5	A6	PAI	Adj. PAI
Min	0.00	0.00	0.00	0.00	0.00	0.00	1.47	0.27
Mean	0.63	0.56	0.58	0.63	0.72	0.54	3.66	3.53
Q1	0.52	0.42	0.49	0.52	0.62	0.31	3.19	3.11
Median	0.66	0.58	0.57	0.62	0.75	0.56	3.64	3.60
Q3	0.78	0.72	0.70	0.70	0.83	0.75	4.22	4.22
Max	1.00	1.00	1.00	1.00	1.00	1.00	4.79	4.79
Std. dev	0.20	0.19	0.18	0.21	0.17	0.28	0.73	0.93

Tables 5 and 6 summarise the distribution of domain and overall PAI scores for Bradford and Leeds respectively.

Table 5: Descriptive Statistics of the Domain and Overall PAI Scores - Bradford

	Accessibility Domains						Overall Scores	
	A1	A2	A3	A4	A5	A6	PAI	Adj. PAI
Min	0.00	0.00	0.00	0.10	0.00	0.00	1.47	0.27
Mean	0.64	0.52	0.52	0.69	0.66	0.56	3.59	3.37
Q1	0.53	0.37	0.43	0.56	0.59	0.24	3.29	3.15
Median	0.68	0.58	0.51	0.70	0.71	0.63	3.48	3.40
Q3	0.78	0.68	0.68	0.88	0.79	0.80	4.37	4.30
Max	0.93	0.79	0.86	1.00	0.83	1.00	4.68	4.68
Std. dev	0.22	0.21	0.20	0.25	0.19	0.32	0.95	1.29

Table 6: Descriptive Statistics of the Domain and overall PAI Scores - Leeds

	Accessibility Domains						Overall Scores	
	A1	A2	A3	A4	A5	A6	PAI	Adj. PAI
Min	0.31	0.16	0.24	0.00	0.37	0.06	2.48	1.88
Mean	0.63	0.58	0.60	0.59	0.76	0.53	3.69	3.61
Q1	0.48	0.46	0.51	0.49	0.67	0.31	3.18	3.09
Median	0.68	0.58	0.51	0.70	0.71	0.63	3.48	3.40
Q3	0.77	0.74	0.70	0.75	0.84	0.71	4.13	4.07
Max	1.00	1.00	1.00	0.92	1.00	1.00	4.79	4.79
Std. dev	0.19	0.17	0.17	0.19	0.14	0.27	0.61	0.69

Mean scores are broadly similar across both local authorities, generally ranging between 0.5 and 0.7 across domains, indicating moderate to strong levels of perceived

accessibility. However, differences are more apparent in the spread and distribution of scores between the two areas. Bradford (Table 5) shows greater variability across all domains, with larger standard deviations and several minimum values of 0. This indicates a wider range of park performance and more uneven accessibility across different sites; a pattern reflected in the overall PAI scores where Bradford has both lower minimum and substantially higher variability.

Leeds exhibits higher minimum values across most domains and consistently lower standard deviations, indicating a narrower spread of scores. This suggests that accessibility levels are more consistent across parks, with fewer very low performing sites. Interquartile ranges (Q1 and Q3) reinforce this, displaying a tighter clustering of scores in Leeds compared to a broader spread in Bradford.

These differences are reflected in the overall PAI scores, while mean values are similar, Leeds shows lower variability, whereas Bradford shows greater dispersion, indicating that accessibility is more unevenly distributed across parks in Bradford.

Greater variability in domain scores is reflected in wider confidence intervals, which may arise from differences in subjective user perceptions of accessibility among respondents. In this context, this variation can indicate differences user experience and therefore should be interpreted as highlighting differences within local authorities rather than implying that parks in one area are consistently better or worse than those in another.

3.2 Spatial Inequalities

A strong spatial pattern is visible across the region. Parks in suburban and semi-rural areas generally achieve higher scores, particularly in North and Northeast Leeds and along the Aire Valley through Bradford. By contrast, parks in dense inner-urban neighbourhoods show consistently lower scores. The clearest concentration of low-scoring parks occurs in inner Bradford, with the most pronounced clusters in and around Manningham, Girdlington, and Little Horton. These locations correspond to areas of long-standing deprivation, indicating that inequalities in greenspace accessibility are closely aligned with wider structural disadvantage.

This spatial pattern reinforces a central policy implication: despite strong performance in some domains, significant geographic disparities persist. Improving accessibility in inner-urban areas will require targeted investment and coordinated interventions beyond park boundaries, including transport, safety, and local environmental improvements.



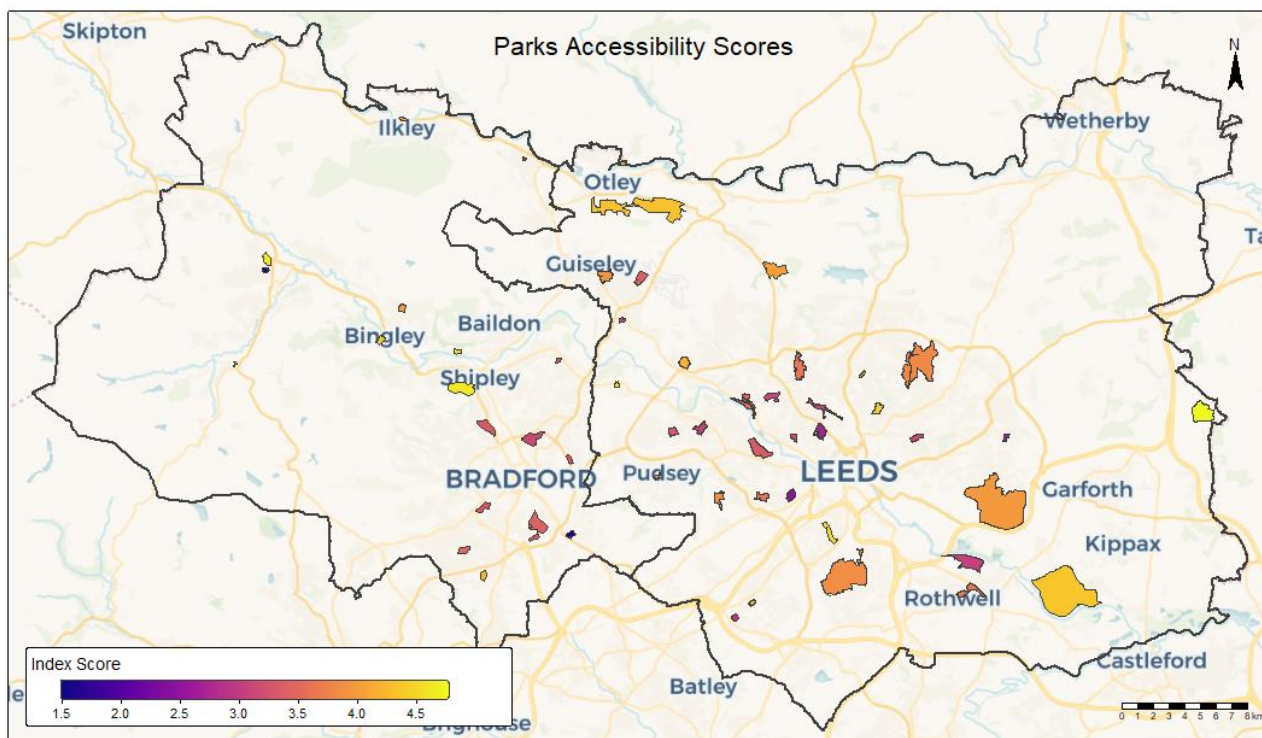


Figure 3: Overall PAI scores across Leeds and Bradford

3.3 Minimum Domain Threshold Analysis

To prevent high performance in some domains masking serious weaknesses in others, the Index applies a minimum domain threshold of 0.30. Parks scoring below this level in any domain receive a 0.30 deduction from their overall Index for each failing domain. This penalty ensures that all parks meet a minimum standard across all six dimensions.

Fourteen parks fall below the minimum threshold in at least one domain, indicating one or more critically weak areas; six in Bradford and eight in Leeds.

These parks include parks with compounded barriers in multiple domains (Knowles Park, Devonshire Park, and Grange Park in Bradford, and Wortley Recreation Ground in Leeds), and parks that score well in several domains but fail on one, typically *Accessibility* or *Awareness* (Cross Roads Park in Bradford, and Farnley Hall Park, Burley Park, and Stanningley Park (Affordability) in Leeds).

Most failures occur in *Awareness* (12 parks), occurring in all six of Bradford's failures, and in 6 of Leeds's eight failures, confirming it as a systemic issue in parks throughout Leeds and Bradford. *Accessibility* failures are the next most common (3 parks; 1 in Bradford, 2 in Leeds), while *Accommodation*, *Affordability*, and *Acceptability* failures appear only among the lowest-scoring parks. *Awareness* emerges as the most systemic weakness in both cities, even in parks with strong scores across other domains. Failures typically relate to poor wayfinding, limited park visibility or signage, or insufficient promotion of events and activities. However, as this domain is constructed solely from

binary indicators and therefore reflects only the presence or absence of issues, rather than the strength or severity of perceptions captured by Likert-based indicators. As outlined in the limitations, Awareness should therefore be interpreted as a neighbourhood-level measure of visibility and information rather than a direct assessment of park-specific characteristics.

The minimum domain threshold has important effects on overall scores, changing the landscape of the Index in meaningful ways, as seen in Figure 4. Several parks with high original PAI scores drop quintiles once when adjustments are applied. For example:

- Cross Roads Park in Bradford decreases from 4.62 to 4.32, dropping from Quintile 5 to Quintile 4.
- Wharfemeadows Park in Leeds, decreases from 4.10 to 3.80, from Quintile 4 to Quintile 3.
- Farnley Hall Park in Leeds, decreases from 3.88 to 3.58, but remains in Quintile 3.

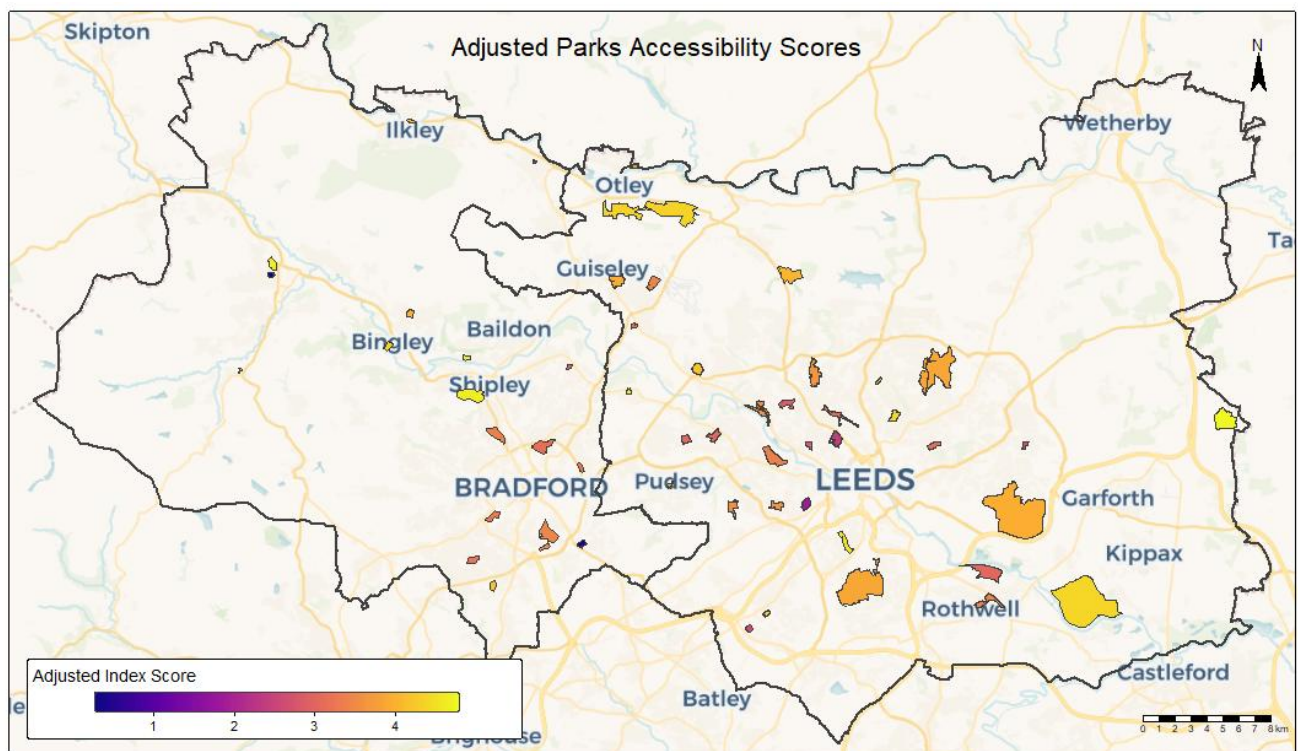


Figure 4: Adjusted PAI Scores after Minimum Threshold Analysis

These adjustments highlight underlying weaknesses that would otherwise be concealed in the overall PAI score alone. For policy purposes, this provides a clearer, more equitable approach to decision-making, for identifying parks that require essential targeted improvement in specific domains.

Even parks that fail one or more domains can still perform strongly in others, demonstrating that weaknesses are often highly specific rather than system-wide. For

example, Knowles Park in Bradford fails four domains but scores 0.79 in *Acceptability*, and Devonshire Park, also in Bradford, fails four domains yet performs exceptionally well in *Availability* (0.93). Farnley Hall Park, in Leeds fails *Awareness* but maintains high scores in *Availability* (0.93) and *Acceptability* (0.96). These patterns show that domain failures do not imply universally poor performance. Instead, they highlight targeted areas where focused improvement is needed, reinforcing the value of the minimum threshold in revealing precise accessibility barriers that would otherwise be obscured by higher performance in other dimensions.

3.4 Interpreting the Index and Adjusted Scores

When interpreting the overall and adjusted PAI scores together, several patterns emerge.

High-scoring parks

Parks in the highest quintile (Quintile 5) such as Lotherton Hall, Calverley Victoria Park (Leeds), Northcliffe Park, Roberts Park and Cliffe Castle (Bradford), show consistently strong performance in most accessibility domains. Their scores reflect good facilities, high *Acceptability*, and good to strong *Accommodation* and *Affordability*, and in most cases relatively strong *Awareness*. These parks are stable in their adjusted PAI scores, remaining in the top quintile even after penalty adjustments.

However, even these parks fall short of the potential maximum score. Several show weaknesses in specific domains, most commonly *Awareness*. For example, Cross Roads Park (Bradford) scores very strongly overall but fails *Awareness* (Adjusted Quintile 4 after minimum threshold analysis), and Scatcherd Park (Leeds) has an almost critical failure in its *Awareness* score despite full marks in *Availability* and *Accessibility*. This indicates that even the highest scoring parks have accessible features that require improvement. High performance should therefore be interpreted as relative strength rather than complete accessibility.

Mid-range parks

Parks the middle quintile (Quintile 3) include Kirkstall Abbey and Kirkstall Abbey Park, Meanwood Park, Yeadon Tarnfield Park (Leeds), and Prince of Wales Park (Bradford), and typically show good to moderate performance across most domains without major failures. However, mid-range parks most commonly underperform in *Availability*, *Accessibility*, and *Awareness*, which consistently limit overall scores, thus represent promising areas for targeted improvement. In contrast, domain failures only occur in *Awareness*, suggesting that while *Availability* and *Accessibility* still represent areas of underperformance, the most severe shortcomings relate less to the physical condition or internal quality of parks and more to how well the parks and their events, facilities, are discoverable to users.



In some cases, relatively modest interventions addressing *Awareness* may have a disproportionate impact on overall park performance, particularly where good-quality provision already exists but is not adequately signposted or communicated.

Low-scoring parks

Parks in the lowest quintile (Quintile 1) show multiple critical weaknesses across several domains. Devonshire Park, Knowles Park, Grange Park (Bradford), Wortley Recreation Ground, and Woodhouse Moor (Leeds), all demonstrate low scores in more than one domain, indicating systemic rather than isolated issues. Low scores are present throughout all domains, but particularly in *Accommodation*, *Awareness*, and also *Affordability* and *Acceptability*. As a result, their adjusted PAI scores drop further, placing these parks consistently within the bottom quintile.

These patterns reflect cumulative and entrenched challenges. For these parks, isolated interventions will likely not be enough. Instead, sustained, coordinated, and multi-agency investment is required to address the underlying structural inequities that reduce accessibility for the communities these parks are intended to serve.

4. Policy Implications

Several key findings and policy implications arise from the Parks Accessibility Index for Leeds and Bradford, and are explored below. As a means of monitoring the effectiveness of policies and interventions, and of ensuring continued alignment with the needs of changing populations, we recommend that the survey be repeated in five years' time.

4.1 Awareness is the Priority Accessibility Dimension

The Parks Accessibility Index shows persistent and systemic weaknesses in the *Awareness* domain, indicating that improvements in this area should be a priority across parks in both Leeds and Bradford. *Awareness* failures occur even in parks that perform well across other accessibility dimensions, highlighting this as a region wide challenge. It is important to note that the *Awareness* domain is constructed solely from binary indicators capturing the presence of *Awareness*-related barriers in the respondents' general area, rather than the strength or severity of perceptions captured through Likert based indicators. As a result, the domain may better reflect issues affecting the communities surrounding the park, rather than park-specific conditions. Despite this, the consistency of *Awareness* failures points to a clear and widespread gap in perceived greenspace *Awareness*.

Addressing *Awareness* barriers will support more equitable access, increase confidence in navigating parks, and ensure that residents from all communities know what their local parks offer. Improving *Awareness* requires coordinated actions. First,



signage should be enhanced to ensure that all residents can find the park easily, including clear visibility of every entrance and improved signs at key junctions, transport stops, and pedestrian routes. Second, route clarity within parks should be strengthened through coherent wayfinding systems that reduce uncertainty and prevent the fear of getting lost, particularly for residents who are unfamiliar with the space or who may have lower mobility or confidence. Third, where parks host events and activities, these should be consistently and visibly promoted. Effective methods include well-maintained notice boards at park entrances and along main paths, banners or temporary signs during event periods, and online promotion through council channels, local community groups, and trusted social media accounts.

Equitable information dissemination is essential. Information should be provided in varied formats tailored to different communities. This includes translated materials in areas with high linguistic diversity, printed posters and laminated notices in neighbourhoods with lower digital access, clear visual and child-friendly materials, and simple text-light posters to support residents with lower literacy. Digital promotion should remain part of the communication strategy but must be supplemented with offline approaches so that no population group is excluded.

A comprehensive, inclusive approach might involve combining online channels, community newsletters, bus stop posters, school and GP surgery notice boards, WhatsApp community groups, and local faith or cultural centres. Using multiple formats and community touchpoints ensures that information about parks, routes, facilities, and events reaches residents of all ages, languages, abilities, and digital access levels, supporting a more equitable and consistent experience of park *Awareness* across Leeds and Bradford.

4.2 Strengthen Cross-Department Action

Transport and navigation barriers require coordinated action across multiple council departments, particularly where low *Accessibility* scores coincide with unsafe, fragmented, or complex routes to parks. These barriers rarely sit within the remit of Parks and Greenspaces teams alone, but arise from wider factors such as road design, traffic volumes, pavement quality, lighting, public transport provision, and the overall condition of neighbourhood walking and wheeling routes.

Addressing these issues effectively requires collaboration between highways, transport planning, neighbourhoods, community safety, public health, and parks services. Joint working can ensure that improvements to routes, signage, lighting, and crossings are planned coherently and delivered in ways that enhance accessibility for all residents. Practical interventions may include safer pedestrian crossings on busy lines, improved lighting on walking routes, widened pavements, tactile or mobility-supportive



infrastructure, and adjustments to bus routes or stop locations to better connect residents with their nearest park.

A shared, cross-department approach ensures that parks are not treated as isolated assets but as integral components of the wider urban environment. Aligning budgets, programmes, and priorities, enables departments to address the structural barriers identified by the Parks Accessibility Index and to support more equitable access to parks across Leeds and Bradford.

The West Yorkshire Combined Authority has a key role through its Active Travel policies and investment programmes (see WYCA, Transport Strategy 2040) Policy 12 commits to improving access to green space in both rural and urban areas, with particular emphasis on people with limited mobility. Alongside wider priorities to expand walking and cycling infrastructure and improve safety for vulnerable road users, this provides a framework for aligning local transport investment with health and equity objectives, supporting coordinated improvements to routes and connections to parks across Leeds and Bradford.

Co-design with residents, community groups, and underserved populations is also essential. It ensures that proposed improvements reflect lived experience and meet the needs of those who face the greatest barriers to accessing parks. Through co-design, departments can better understand how routes, facilities, and information function in practice, supporting solutions that make parks more available, navigable, functional, affordable, safe, and visible to all communities.

4.3 Learning from High-Performing Parks

While the Parks Accessibility Index (PAI) is an effective tool for identifying parks that require targeted improvement, it is also valuable for highlighting parks that demonstrate consistently strong performance across multiple accessibility dimensions. These high-scoring parks offer practical models of what successful, equitable accessibility looks like in real settings.

Importantly, the PAI is grounded in residents' lived experiences rather than administrative assumptions or internal policy statements. This means high-performing parks are those that users genuinely perceive as accessible. Their strength reflects how well they perform in practice for the communities they serve, not how well they are expected to function on paper or in theory.

Although these parks score highly relative to others, they do not reach the potential maximum score of the PAI. This shows that even the best performing parks have specific dimensions where accessibility can be strengthened. In this sense, high scoring parks offer examples of what is working well, while also highlighting that continued improvement is both necessary and achievable.



By learning from these parks, Leeds and Bradford can identify practical steps to raise standards in lower scoring parks, while also supporting ongoing enhancement of the strongest sites. This supports a strategic, evidence-based approach to investment that builds on proven successes and translates residents' experiences into meaningful improvements across the wider green space network.

4.4 Enhancing Equity through Targeted Investment

The minimum domain threshold strengthens equitable decision-making by ensuring that no critical accessibility dimension is overlooked. By identifying parks that fall below a minimum acceptable standard in any domain, the analysis highlights where barriers are most severe and where residents experience the greatest disadvantage. This prevents parks with strong scores in some areas from masking serious weaknesses in others, which is particularly important when decisions about prioritisation or resource allocation are being made.

These critical domains indicate where investment is most needed. They show which aspects of accessibility are actively limiting residents' ability to use and benefit from their local parks, with the indicators giving direct insight into where the dimension is failing. Directing funding toward these dimensions and specific indicators supports a more equitable distribution of resources, ensuring that improvements address the barriers most likely to affect inclusion, safety, confidence, and ease of access. The threshold approach therefore provides a transparent and fair basis for targeting interventions, helping Leeds and Bradford direct funding to the dimensions where it will have the greatest impact on reducing accessibility inequalities.

5. Conclusion

The Leeds and Bradford Parks Accessibility Index provides a robust, transparent, and multidimensional assessment of green space accessibility across Leeds and Bradford, grounded in the perspectives of local park users. It reveals clear spatial inequalities, identifies systemic weaknesses, particularly in the *Awareness* domain, and offers a strong evidence base for targeting action where it is most needed. The PAI demonstrates that accessibility is shaped not only by physical infrastructure, but also by the informational and experiential factors that influence how users locate, navigate, engage with, and experience their local parks.

By integrating perceptions, reported barriers, and contextual factors, the PAI strengthens the foundation for equitable planning and investment in parks and green spaces. It supports decision-makers in moving beyond site-based improvements alone, towards interventions that respond directly to residents' lived experience, helping to ensure that policy and investment deliver meaningful, measurable improvements in access for all communities across Leeds and Bradford.



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Appendices



Appendix A: The Parks Accessibility Index – Overall PAI Scores

Park	PAI Score	Quintile	Adj. PAI Score	Number of Fails	Failed Domains	Adj. Quintile
Beckett Park	3.16	2	2.86	1	A6	1
Bowling Park	3.44	3	3.44	0		3
Bradford Moor Park	3.34	2	3.34	0		2
Bramley Park	3.07	1	3.07	0		2
Burley Park	3.21	2	2.91	0		1
Calverley Victoria Park	4.70	5	4.70	0		5
Chapel Allerton Park	4.43	5	4.43	0		5
Cliffe Castle	4.68	5	4.68	0		5
Cross Flatts Park	4.55	5	4.55	0		5
Cross Roads Park	4.62	5	4.32	1	A6	4
Dartmouth Park	2.96	1	2.66	1	A2	1
Devonshire Park	1.47	1	0.27	4	A3; A4; A5; A6	1
Farnley Hall Park	3.88	3	3.58	1	A6	3
Golden Acre Park	4.03	4	4.03	0		4
Gotts Park	3.37	2	3.37	0		3
Grange Park	2.85	1	2.25	2	A2; A6	1
Harehills Park	3.16	2	3.16	0		2
Harold Park	4.23	4	4.23	0		4
Horsforth Hall Park	4.20	4	4.20	0		4
Horton Park	3.27	2	3.27	0		2
Idle Recreation Ground	3.35	2	3.05	1	A6	1
Ilkley Riverside Gardens	4.07	4	4.07	0		4
Kirkstall Abbey	3.57	3	3.57	0		3
Kirkstall Abbey Park	3.64	3	3.64	0		3
Knowles Park	1.63	1	0.43	4	A1; A3; A4; A6	1
Lister Park	3.35	2	3.35	0		2
Lotherton Hall	4.79	5	4.79	0		5
Manston Park	2.64	1	2.64	0		1
Meanwood Park	3.64	3	3.64	0		3
Micklefield Park	3.19	2	3.19	0		2
Middleton Park	3.88	3	3.88	0		4
Myrtle Park	4.41	5	4.41	0		5
Northcliffe Park	4.64	5	4.64	0		5
Nunroyd Park	3.95	4	3.95	0		4
Otley Chevin Forest Park	4.34	4	4.34	0		4
Peel Park	3.13	2	3.13	0		2
Potternewton Park	4.45	5	4.45	0		5
Prince Of Wales Park	4.05	4	4.05	0		4
Pudsey Park	3.93	4	3.93	0		4
Roberts Park	4.58	5	4.58	0		5
Rothwell Country Park	3.07	1	3.07	0		2
Roundhay Park	3.86	3	3.86	0		3
Scatcherd Park	4.36	4	4.36	0		5

Springhead Park	3.72	3	3.42	1	A6	3
St Aidan's Nature Reserve	4.39	5	4.39	0		5
Stanningley Park	3.36	2	3.06	1	A4	2
Temple Newsam Estate	3.96	4	3.96	0		4
Western Flatts Cliff Park	3.62	3	3.62	0		3
Wharfemeadows Park	4.10	4	3.80	1	A6	3
Wibsey Park	3.52	3	3.22	1	A6	2
Woodhouse Moor	2.71	1	2.41	1	A6	1
Woodhouse Ridge	3.10	1	3.10	0		2
Wortley Recreation Ground	2.48	1	1.88	2	A2; A6	1
Yeadon Tarnfield Park	3.40	3	3.40	0		3



Appendix B: The Parks Accessibility Index - Domain Scores

Park	Availability	Accessibility	Accommodation	Affordability	Acceptability	Awareness	PAI Score	Adjusted PAI Score
Beckett Park	0.66	0.53	0.46	0.55	0.71	0.25	3.16	2.86
Bowling Park	0.79	0.68	0.41	0.52	0.54	0.50	3.44	3.44
Bradford Moor Park	0.55	0.37	0.49	0.68	0.75	0.50	3.34	3.34
Bramley Park	0.62	0.42	0.57	0.55	0.54	0.37	3.07	3.07
Burley Park	0.72	0.74	0.51	0.47	0.71	0.06	3.21	2.91
Calverley Victoria Park	0.83	0.74	0.78	0.62	0.92	0.81	4.70	4.70
Chapel Allerton Park	0.86	0.63	0.59	0.92	0.87	0.56	4.43	4.43
Cliffe Castle	0.69	0.58	0.70	0.92	0.79	1.00	4.68	4.68
Cross Flatts Park	0.79	0.58	0.68	0.85	0.71	0.94	4.55	4.55
Cross Roads Park	0.83	0.26	0.86	1.00	0.67	1.00	4.62	4.32
Dartmouth Park	0.31	0.16	0.59	0.70	0.83	0.37	2.96	2.66
Devonshire Park	0.93	0.32	0.00	0.10	0.00	0.12	1.47	0.27
Farnley Hall Park	0.93	0.79	0.57	0.38	0.96	0.25	3.88	3.58
Golden Acre Park	0.66	0.53	0.78	0.58	0.92	0.56	4.03	4.03
Gotts Park	0.48	0.42	0.65	0.55	0.71	0.56	3.37	3.37
Grange Park	0.72	0.00	0.41	0.70	0.83	0.19	2.85	2.25
Harehills Park	0.55	0.37	0.41	0.77	0.37	0.69	3.16	3.16
Harold Park	0.62	0.68	0.62	0.77	0.79	0.75	4.23	4.23
Horsforth Hall Park	0.66	0.63	0.54	0.72	0.96	0.69	4.20	4.20
Horton Park	0.76	0.58	0.43	0.55	0.58	0.37	3.27	3.27
Idle Recreation Ground	0.76	0.79	0.43	0.60	0.58	0.19	3.35	3.05
Ilkley Riverside Gardens	0.52	0.68	0.59	0.70	0.83	0.75	4.07	4.07
Kirkstall Abbey	0.55	0.53	0.57	0.42	0.75	0.75	3.57	3.57
Kirkstall Abbey Park	0.52	0.42	0.65	0.75	0.67	0.63	3.64	3.64



Knowles Park	0.00	0.37	0.22	0.25	0.79	0.00	1.63	0.43
Lister Park	0.41	0.42	0.54	0.75	0.54	0.69	3.35	3.35
Lotherton Hall	0.69	0.74	0.95	0.55	0.92	0.94	4.79	4.79
Manston Park	0.52	0.53	0.32	0.38	0.58	0.31	2.64	2.64
Meanwood Park	0.48	0.58	0.73	0.52	0.83	0.50	3.64	3.64
Micklefield Park	0.97	0.32	0.32	0.50	0.58	0.50	3.19	3.19
Middleton Park	0.55	0.47	0.78	0.90	0.62	0.56	3.88	3.88
Myrtle Park	0.83	0.84	0.51	0.75	0.79	0.69	4.41	4.41
Northcliffe Park	0.52	0.63	0.76	1.00	0.79	0.94	4.64	4.64
Nunroyd Park	0.86	0.63	0.51	0.45	0.87	0.63	3.95	3.95
Otley Chevin Forest Park	0.69	0.58	0.70	0.75	0.87	0.75	4.34	4.34
Peel Park	0.45	0.47	0.46	0.52	0.67	0.56	3.13	3.13
Potternewton Park	0.72	0.74	0.65	0.68	0.79	0.87	4.45	4.45
Prince Of Wales Park	0.55	0.37	0.70	1.00	0.62	0.81	4.05	4.05
Pudsey Park	0.62	0.74	0.57	0.77	0.79	0.44	3.93	3.93
Roberts Park	0.66	0.68	0.73	0.95	0.75	0.81	4.58	4.58
Rothwell Country Park	0.55	0.32	0.62	0.52	0.75	0.31	3.07	3.07
Roundhay Park	0.34	0.74	0.70	0.38	0.83	0.87	3.86	3.86
Scatcherd Park	1.00	1.00	0.51	0.75	0.79	0.31	4.36	4.36
Springhead Park	0.48	0.74	0.70	0.80	0.75	0.25	3.72	3.42
St Aidan's Nature Reserve	0.31	0.47	1.00	0.82	0.79	1.00	4.39	4.39
Stanningley Park	0.83	0.63	0.51	0.00	0.83	0.56	3.36	3.06
Temple Newsam Estate	0.41	0.53	0.84	0.35	0.83	1.00	3.96	3.96
Western Flatts Cliff Park	0.86	0.79	0.38	0.55	0.67	0.37	3.62	3.62
Wharfemeadows Park	0.76	0.84	0.68	0.70	1.00	0.12	4.10	3.80
Wibsey Park	0.90	0.68	0.51	0.62	0.62	0.19	3.52	3.22
Woodhouse Moor	0.38	0.74	0.49	0.50	0.54	0.06	2.71	2.41
Woodhouse Ridge	0.41	0.58	0.51	0.58	0.58	0.44	3.10	3.10
Wortley Recreation Ground	0.69	0.42	0.24	0.47	0.54	0.12	2.48	1.88
Yeadon Tarnfield Park	0.38	0.42	0.62	0.65	0.83	0.50	3.40	3.40



Appendix C: The Parks Accessibility Index – Availability Indicators

Park	Availability			
	The Park is Large Enough	The Park is Not Too Far Away	The Park is Not Empty or Isolated	The Park is Not Overcrowded
Beckett Park	0.69	0.85	0.96	0.92
Bowling Park	0.66	0.96	0.82	0.96
Bradford Moor Park	0.58	0.78	0.67	1.00
Bramley Park	0.68	0.83	0.91	0.91
Burley Park	0.77	0.84	1.00	0.91
Calverley Victoria Park	0.79	0.91	0.91	0.91
Chapel Allerton Park	0.83	0.90	1.00	0.90
Cliffe Castle	0.70	0.85	0.85	0.95
Cross Flatts Park	0.74	0.88	0.88	0.96
Cross Roads Park	0.72	0.90	0.90	1.00
Dartmouth Park	0.62	0.62	0.85	0.92
Devonshire Park	0.69	1.00	0.61	1.00
Farnley Hall Park	0.82	1.00	1.00	0.89
Golden Acre Park	0.58	0.94	0.98	0.94
Gotts Park	0.62	0.70	0.70	1.00
Grange Park	0.75	0.88	1.00	0.88
Harehills Park	0.54	1.00	0.92	0.83
Harold Park	0.64	0.84	1.00	0.96
Horsforth Hall Park	0.65	0.96	0.96	0.84
Horton Park	0.75	0.85	0.70	0.95
Idle Recreation Ground	0.79	0.82	0.82	0.94
Ilkley Riverside Gardens	0.68	0.85	0.89	0.81
Kirkstall Abbey	0.47	0.89	0.94	1.00
Kirkstall Abbey Park	0.70	0.82	1.00	0.82
Knowles Park	0.89	0.56	0.78	0.44
Lister Park	0.48	0.96	0.87	0.80
Lotherton Hall	0.70	1.00	1.00	0.78
Manston Park	0.67	0.83	0.83	0.83
Meanwood Park	0.53	0.93	0.93	0.84
Micklefield Park	0.73	1.00	0.92	1.00
Middleton Park	0.50	0.94	0.94	0.94
Myrtle Park	0.67	0.95	0.93	1.00
Northcliffe Park	0.46	0.97	0.93	0.90
Nunroyd Park	0.75	1.00	1.00	0.89
Otley Chevin Forest Park	0.62	0.93	1.00	0.93
Peel Park	0.54	0.95	0.88	0.80
Potternewton Park	0.66	1.00	0.95	0.87
Prince Of Wales Park	0.55	0.91	0.91	0.91
Pudsey Park	0.71	0.87	1.00	0.84
Roberts Park	0.72	0.84	0.91	0.91



Rothwell Country Park	0.56	0.88	0.88	0.94
Roundhay Park	0.46	0.89	0.95	0.84
Scatcherd Park	0.75	1.00	1.00	1.00
Springhead Park	0.55	0.81	0.96	0.96
St Aidan's Nature Reserve	0.40	0.92	1.00	0.83
Stanningley Park	0.82	0.90	0.80	0.90
Temple Newsam Estate	0.49	0.90	0.97	0.87
Western Flatts Cliff Park	0.85	0.90	0.80	0.90
Wharfemeadows Park	0.66	0.94	1.00	0.94
Wibsey Park	0.77	0.95	0.95	0.95
Woodhouse Moor	0.61	0.83	0.90	0.79
Woodhouse Ridge	0.60	0.91	1.00	0.73
Wortley Recreation Ground	0.70	0.80	0.90	1.00
Yeadon Tarnfield Park	0.51	0.86	1.00	0.86



Appendix D: The Parks Accessibility Index – Accessibility Indicators

Park	Accessibility				
	Easy Walking or Wheeling Distance	The Park and Path Layout aids Navigation	Road and Traffic en-route to the Park is Easy and Safe to Navigate	Good Transport Options to the Park	Parking Available
Beckett Park	0.46	0.82	0.88	0.92	0.85
Bowling Park	0.67	0.77	0.82	0.96	0.86
Bradford Moor Park	0.65	0.83	0.78	0.89	0.67
Bramley Park	0.44	0.87	0.78	0.96	0.78
Burley Park	0.64	0.80	0.91	0.91	0.91
Calverley Victoria Park	0.54	0.87	0.91	0.82	1.00
Chapel Allerton Park	0.38	0.85	1.00	1.00	0.80
Cliffe Castle	0.52	0.83	0.70	0.95	1.00
Cross Flatts Park	0.57	0.77	0.88	0.92	0.88
Cross Roads Park	0.50	0.68	0.90	1.00	0.60
Dartmouth Park	0.54	0.91	0.69	0.92	0.54
Devonshire Park	0.50	0.44	1.00	0.94	0.89
Farnley Hall Park	0.68	0.84	0.89	1.00	0.78
Golden Acre Park	0.54	0.81	0.89	0.94	0.78
Gotts Park	0.58	0.75	0.80	0.90	0.80
Grange Park	0.52	0.80	0.62	0.75	0.75
Harehills Park	0.52	0.79	0.75	0.75	1.00
Harold Park	0.59	0.89	0.84	0.92	0.84
Horsforth Hall Park	0.63	0.74	0.84	0.98	0.84
Horton Park	0.59	0.81	0.80	0.90	0.90
Idle Recreation Ground	0.65	0.78	0.88	0.94	0.94
Ilkley Riverside Gardens	0.52	0.87	0.93	0.89	0.89
Kirkstall Abbey	0.53	0.82	0.78	0.94	0.89
Kirkstall Abbey Park	0.52	0.86	0.82	0.91	0.73
Knowles Park	0.84	0.73	0.56	0.67	1.00
Lister Park	0.54	0.85	0.69	0.89	0.89
Lotherton Hall	0.60	0.88	0.78	0.89	1.00
Manston Park	0.81	0.70	0.83	0.92	0.67
Meanwood Park	0.51	0.80	0.86	0.90	0.93
Micklefield Park	0.56	0.79	0.75	1.00	0.67
Middleton Park	0.54	0.78	0.81	0.97	0.81
Myrtle Park	0.67	0.78	0.98	1.00	0.83
Northcliffe Park	0.49	0.81	0.87	0.93	0.93
Nunroyd Park	0.68	0.70	0.94	0.94	0.78
Otley Chevin Forest Park	0.47	0.73	0.87	1.00	0.93
Peel Park	0.60	0.84	0.78	0.90	0.80
Potternewton Park	0.57	0.83	0.84	0.95	0.95
Prince Of Wales Park	0.41	0.66	0.91	0.91	0.91
Pudsey Park	0.59	0.87	0.87	0.94	0.87
Roberts Park	0.63	0.88	0.84	0.96	0.80
Rothwell Country Park	0.54	0.82	0.76	0.82	0.82



Roundhay Park	0.60	0.83	0.89	0.92	0.89
Scatcherd Park	0.67	0.78	0.93	1.00	1.00
Springhead Park	0.55	0.89	0.92	0.96	0.81
St Aidan's Nature Reserve	0.46	0.88	0.83	0.92	0.83
Stanningley Park	0.75	0.68	0.90	0.90	0.80
Temple Newsam Estate	0.55	0.82	0.86	0.94	0.79
Western Flatts Cliff Park	0.70	0.60	1.00	0.90	1.00
Wharfemeadows Park	0.59	0.85	0.88	1.00	0.94
Wibsey Park	0.62	0.82	0.95	0.95	0.76
Woodhouse Moor	0.56	0.80	0.90	0.95	0.95
Woodhouse Ridge	0.48	0.81	0.82	1.00	0.91
Wortley Recreation Ground	0.52	0.75	0.80	0.90	0.90
Yeadon Tarnfield Park	0.59	0.81	0.77	0.91	0.77



Appendix E: The Parks Accessibility Index – Accommodation Indicators

Park	Accommodation							
	Diverse Facilities on Offer	Appealing Nature within the Park	Appealing Events held at the Park	Public Toilets Available	Accessible Toilets Available	Diverse Needs are Met	Range of Interesting Events and Activities on Offer	Range of Enjoyable Events and Activities on Offer
Beckett Park	0.50	0.80	0.48	0.23	0.81	0.77	0.92	0.88
Bowling Park	0.49	0.72	0.53	0.50	0.64	0.86	0.71	0.75
Bradford Moor Park	0.50	0.77	0.73	0.22	0.56	0.89	0.89	0.89
Bramley Park	0.62	0.67	0.53	0.35	0.83	0.87	0.91	0.87
Burley Park	0.47	0.60	0.43	0.47	0.88	0.88	0.94	0.88
Calverley Victoria Park	0.69	0.69	0.67	0.45	1.00	0.91	0.91	1.00
Chapel Allerton Park	0.50	0.73	0.60	0.40	0.70	1.00	0.90	0.90
Cliffe Castle	0.74	0.75	0.73	0.60	0.85	0.90	0.70	0.85
Cross Flatts Park	0.66	0.65	0.75	0.42	0.81	0.88	0.92	0.88
Cross Roads Park	0.62	0.72	0.78	0.70	0.90	0.80	1.00	1.00
Dartmouth Park	0.62	0.80	0.52	0.46	0.92	0.77	1.00	0.69
Devonshire Park	0.12	0.49	0.28	0.44	0.67	0.56	0.72	0.72
Farnley Hall Park	0.59	0.77	0.43	0.78	0.67	1.00	0.78	0.67
Golden Acre Park	0.73	0.87	0.49	0.67	0.94	0.86	0.86	0.92
Gotts Park	0.58	0.78	0.50	0.30	1.00	1.00	0.80	1.00
Grange Park	0.40	0.52	0.65	0.25	0.88	0.75	0.88	0.88
Harehills Park	0.60	0.69	0.60	0.33	0.58	0.75	0.83	0.83
Harold Park	0.53	0.78	0.66	0.24	0.92	0.96	0.84	0.88
Horsforth Hall Park	0.54	0.70	0.60	0.30	0.80	0.93	0.84	0.93
Horton Park	0.44	0.71	0.54	0.40	0.45	0.90	0.85	0.95
Idle Recreation Ground	0.51	0.50	0.49	0.53	0.88	0.76	0.88	0.76
Ilkley Riverside Gardens	0.78	0.70	0.47	0.63	0.85	0.93	0.63	0.78
Kirkstall Abbey	0.68	0.88	0.67	0.33	0.67	0.83	0.78	0.83
Kirkstall Abbey Park	0.75	0.82	0.77	0.09	0.82	0.73	1.00	0.91



Knowles Park	0.52	0.34	0.36	0.33	0.78	0.89	0.78	0.67
Lister Park	0.73	0.78	0.66	0.31	0.62	0.91	0.76	0.87
Lotherton Hall	0.86	0.89	0.79	0.67	1.00	0.89	0.89	0.78
Manston Park	0.41	0.57	0.41	0.42	0.83	0.67	0.67	1.00
Meanwood Park	0.72	0.88	0.50	0.40	0.89	0.89	0.90	0.96
Micklefield Park	0.52	0.65	0.52	0.08	0.67	0.67	0.92	0.92
Middleton Park	0.81	0.88	0.72	0.56	0.72	0.75	0.88	1.00
Myrtle Park	0.57	0.78	0.70	0.33	0.67	0.71	0.93	0.86
Northcliffe Park	0.55	0.93	0.70	0.47	0.73	0.93	0.90	1.00
Nunroyd Park	0.53	0.79	0.53	0.39	0.61	0.83	0.89	0.94
Otley Chevin Forest Park	0.50	0.98	0.47	0.47	0.93	0.93	0.93	0.87
Peel Park	0.50	0.79	0.59	0.40	0.55	0.90	0.75	0.90
Potternewton Park	0.54	0.69	0.66	0.45	0.82	0.87	0.92	0.95
Prince Of Wales Park	0.62	0.93	0.71	0.45	0.91	0.82	0.82	0.82
Pudsey Park	0.57	0.60	0.66	0.32	0.81	0.87	0.90	0.97
Roberts Park	0.68	0.78	0.79	0.40	0.78	0.84	0.91	0.96
Rothwell Country Park	0.66	0.75	0.52	0.47	0.82	0.88	0.88	0.88
Roundhay Park	0.75	0.82	0.60	0.49	0.85	0.86	0.81	0.94
Scatcherd Park	0.57	0.69	0.42	0.57	0.71	0.86	0.86	0.86
Springhead Park	0.83	0.77	0.66	0.38	0.92	0.73	0.85	0.96
St Aidan's Nature Reserve	0.85	0.98	0.60	0.75	1.00	1.00	0.75	1.00
Stanningley Park	0.40	0.52	0.52	0.50	0.80	0.90	1.00	0.90
Temple Newsam Estate	0.77	0.85	0.67	0.64	0.89	0.88	0.85	0.94
Western Flatts Cliff Park	0.33	0.70	0.40	0.30	0.70	0.90	0.90	0.90
Wharfemeadows Park	0.66	0.81	0.46	0.50	0.81	0.94	0.88	0.94
Wibsey Park	0.51	0.82	0.52	0.24	0.71	0.95	0.90	0.86
Woodhouse Moor	0.50	0.63	0.49	0.36	0.81	0.87	0.88	0.90
Woodhouse Ridge	0.40	0.94	0.48	0.36	0.91	0.73	0.82	0.91
Wortley Recreation Ground	0.43	0.57	0.32	0.30	0.90	0.50	0.90	0.80
Yeadon Tarnfield Park	0.67	0.85	0.49	0.41	0.77	0.86	0.91	0.86



Appendix F: The Parks Accessibility Index – Affordability Indicators

Park	Affordability
	Affordable Events and Activities at the Park
Beckett Park	0.62
Bowling Park	0.61
Bradford Moor Park	0.67
Bramley Park	0.62
Burley Park	0.59
Calverley Victoria Park	0.65
Chapel Allerton Park	0.77
Cliffe Castle	0.77
Cross Flatts Park	0.74
Cross Roads Park	0.80
Dartmouth Park	0.68
Devonshire Park	0.44
Farnley Hall Park	0.55
Golden Acre Park	0.63
Gotts Park	0.62
Grange Park	0.68
Harehills Park	0.71
Harold Park	0.71
Horsforth Hall Park	0.69
Horton Park	0.62
Idle Recreation Ground	0.64
Ilkley Riverside Gardens	0.68
Kirkstall Abbey	0.57
Kirkstall Abbey Park	0.70
Knowles Park	0.50
Lister Park	0.70
Lotherton Hall	0.62
Manston Park	0.55
Meanwood Park	0.61
Micklefield Park	0.60
Middleton Park	0.76
Myrtle Park	0.70
Northcliffe Park	0.80
Nunroyd Park	0.58
Otley Chevin Forest Park	0.70
Peel Park	0.61
Potternewton Park	0.67
Prince Of Wales Park	0.80
Pudsey Park	0.71
Roberts Park	0.78



Rothwell Country Park	0.61
Roundhay Park	0.55
Scatcherd Park	0.70
Springhead Park	0.72
St Aidan's Nature Reserve	0.73
Stanningley Park	0.40
Temple Newsam Estate	0.54
Western Flatts Cliff Park	0.62
Wharfemeadows Park	0.68
Wibsey Park	0.65
Woodhouse Moor	0.60
Woodhouse Ridge	0.63
Wortley Recreation Ground	0.59
Yeadon Tarnfield Park	0.66



Appendix G: The Parks Accessibility Index – Acceptability Indicators

Park	Acceptability										
	The Park is Clean and Maintained	The Park Feels Safe in the Daytime	The Park Feels Safe After Dark	The Park Feels Welcoming	User Satisfaction	Overall Park Condition	The Park has Acceptable Lighting	Users are Safe from Fear of Crime & Antisocial Behaviour	Users are Safe from Fear of Harassment	Park Users are Diverse and Represented	Comfortable Noise Levels Inside the Park
Beckett Park	0.78	0.12	0.65	0.67	0.63	0.77	0.73	0.54	0.85	1.00	0.96
Bowling Park	0.58	0.30	0.45	0.60	0.69	0.63	0.79	0.46	0.79	0.93	0.89
Bradford Moor Park	0.60	0.19	0.70	0.60	0.56	0.69	0.67	0.78	1.00	1.00	1.00
Bramley Park	0.72	0.26	0.54	0.73	0.67	0.73	0.39	0.35	0.87	0.91	0.96
Burley Park	0.67	0.20	0.54	0.83	0.87	0.70	0.59	0.59	0.72	0.97	0.97
Calverley Victoria Park	0.77	0.21	0.67	0.69	0.75	0.75	0.82	0.73	0.82	1.00	1.00
Chapel Allerton Park	0.81	0.19	0.69	0.71	0.85	0.81	0.70	0.50	0.90	0.90	1.00
Cliffe Castle	0.80	0.15	0.64	0.64	0.62	0.76	0.85	0.50	0.90	1.00	1.00
Cross Flatts Park	0.64	0.30	0.55	0.71	0.77	0.65	0.69	0.62	0.85	0.88	1.00
Cross Roads Park	0.78	0.12	0.70	0.70	0.75	0.68	0.60	0.40	0.80	1.00	1.00
Dartmouth Park	0.88	0.12	0.59	0.54	0.77	0.84	0.85	0.54	0.92	0.92	1.00
Devonshire Park	0.10	0.71	0.24	0.56	0.32	0.12	0.72	0.22	0.72	0.94	1.00
Farnley Hall Park	0.66	0.09	0.61	0.75	0.75	0.77	0.78	0.89	1.00	1.00	1.00
Golden Acre Park	0.80	0.17	0.56	0.62	0.71	0.80	0.89	0.81	0.92	0.98	0.97
Gotts Park	0.60	0.20	0.62	0.82	0.72	0.68	0.80	0.40	0.90	1.00	0.90
Grange Park	0.85	0.10	0.92	0.60	0.68	0.78	0.62	0.62	1.00	0.88	1.00
Harehills Park	0.67	0.29	0.37	0.62	0.62	0.63	0.42	0.42	0.75	1.00	0.92
Harold Park	0.78	0.15	0.62	0.68	0.65	0.81	0.68	0.64	0.92	0.96	1.00
Horsforth Hall Park	0.80	0.15	0.60	0.70	0.77	0.77	0.82	0.82	0.98	0.96	0.98
Horton Park	0.61	0.24	0.56	0.70	0.76	0.68	0.60	0.45	0.85	0.95	0.85
Idle Recreation Ground	0.60	0.36	0.43	0.75	0.71	0.63	0.71	0.41	0.71	1.00	1.00
Ilkley Riverside Gardens	0.86	0.12	0.70	0.72	0.66	0.88	0.67	0.63	0.85	0.96	0.93
Kirkstall Abbey	0.84	0.07	0.59	0.54	0.63	0.86	0.78	0.72	0.78	1.00	0.94



Kirkstall Abbey Park	0.89	0.09	0.45	0.59	0.73	0.91	0.36	0.82	0.82	1.00	0.91
Knowles Park	0.48	0.32	0.59	0.73	0.80	0.57	0.67	0.78	0.89	1.00	1.00
Lister Park	0.71	0.20	0.46	0.63	0.59	0.78	0.69	0.51	0.76	0.96	0.91
Lotherton Hall	0.95	0.06	0.56	0.62	0.57	0.89	1.00	0.78	1.00	1.00	0.78
Manston Park	0.59	0.34	0.38	0.79	0.71	0.59	0.67	0.33	0.92	0.92	1.00
Meanwood Park	0.81	0.08	0.64	0.56	0.61	0.83	0.84	0.78	0.95	0.97	0.97
Micklefield Park	0.65	0.12	0.46	0.77	0.65	0.65	0.67	0.42	0.92	0.92	1.00
Middleton Park	0.76	0.20	0.49	0.55	0.58	0.78	0.75	0.50	0.88	0.94	0.91
Myrtle Park	0.73	0.20	0.65	0.77	0.74	0.78	0.69	0.62	0.81	0.90	0.98
Northcliffe Park	0.75	0.14	0.69	0.61	0.58	0.73	0.83	0.67	0.93	1.00	0.93
Nunroyd Park	0.80	0.18	0.62	0.72	0.79	0.80	0.72	0.72	0.83	1.00	1.00
Otley Chevin Forest Park	0.69	0.12	0.59	0.66	0.52	0.83	0.93	0.80	0.93	1.00	1.00
Peel Park	0.72	0.26	0.44	0.71	0.65	0.73	0.72	0.50	0.92	0.95	0.90
Potternewton Park	0.67	0.18	0.54	0.71	0.68	0.69	0.82	0.76	0.95	0.97	0.95
Prince Of Wales Park	0.86	0.11	0.50	0.46	0.45	0.75	0.91	0.64	0.91	0.91	0.91
Pudsey Park	0.78	0.16	0.64	0.71	0.77	0.73	0.68	0.58	0.87	0.97	0.97
Roberts Park	0.83	0.17	0.50	0.62	0.61	0.87	0.80	0.56	0.82	1.00	0.98
Rothwell Country Park	0.78	0.17	0.58	0.62	0.66	0.75	0.76	0.53	0.88	1.00	1.00
Roundhay Park	0.78	0.18	0.57	0.65	0.64	0.80	0.82	0.66	0.91	0.97	0.97
Scatcherd Park	0.75	0.14	0.64	0.70	0.77	0.75	0.71	0.57	0.86	1.00	1.00
Springhead Park	0.86	0.12	0.67	0.56	0.54	0.87	0.81	0.54	0.92	1.00	0.88
St Aidan's Nature Reserve	0.85	0.08	0.62	0.48	0.52	0.85	0.92	0.67	1.00	1.00	0.92
Stanningley Park	0.48	0.20	0.52	0.88	0.85	0.52	0.80	0.80	1.00	1.00	1.00
Temple Newsam Estate	0.73	0.17	0.57	0.66	0.62	0.73	0.93	0.68	0.93	0.98	0.96
Western Flatts Cliff Park	0.62	0.30	0.40	0.85	0.90	0.52	0.50	0.60	0.90	1.00	0.90
Wharfemeadows Park	0.82	0.07	0.56	0.71	0.84	0.72	0.94	0.81	1.00	1.00	1.00
Wibsey Park	0.62	0.34	0.44	0.81	0.66	0.65	0.62	0.43	0.90	0.95	0.95
Woodhouse Moor	0.66	0.22	0.34	0.76	0.79	0.70	0.52	0.51	0.73	0.97	0.94
Woodhouse Ridge	0.75	0.15	0.50	0.37	0.67	0.79	0.64	0.55	0.82	1.00	1.00
Wortley Recreation Ground	0.59	0.25	0.27	0.80	0.73	0.57	0.70	0.40	0.80	1.00	1.00
Yeadon Tarnfield Park	0.76	0.13	0.55	0.57	0.68	0.73	0.86	0.82	0.95	1.00	1.00



Appendix H: The Parks Accessibility Index – Awareness Indicators

Park	Awareness		
	Wayfinding to the Park	Wayfinding through the Park	Events and Activities Promoted
Beckett Park	1.00	1.00	0.54
Bowling Park	1.00	1.00	0.68
Bradford Moor Park	1.00	1.00	0.67
Bramley Park	1.00	0.96	0.65
Burley Park	0.97	0.97	0.53
Calverley Victoria Park	1.00	1.00	0.82
Chapel Allerton Park	1.00	1.00	0.70
Cliffe Castle	0.95	1.00	0.95
Cross Flatts Park	1.00	1.00	0.88
Cross Roads Park	1.00	1.00	0.90
Dartmouth Park	0.92	1.00	0.69
Devonshire Park	1.00	1.00	0.50
Farnley Hall Park	1.00	1.00	0.56
Golden Acre Park	0.98	1.00	0.73
Gotts Park	0.90	1.00	0.80
Grange Park	0.75	0.88	0.88
Harehills Park	1.00	1.00	0.75
Harold Park	0.96	0.96	0.88
Horsforth Hall Park	0.98	1.00	0.79
Horton Park	0.95	0.90	0.75
Idle Recreation Ground	0.94	1.00	0.59
Ilkley Riverside Gardens	1.00	1.00	0.78
Kirkstall Abbey	1.00	1.00	0.78
Kirkstall Abbey Park	1.00	1.00	0.73
Knowles Park	1.00	1.00	0.44
Lister Park	1.00	0.98	0.78
Lotherton Hall	0.89	1.00	1.00
Manston Park	1.00	1.00	0.58
Meanwood Park	1.00	0.99	0.67
Micklefield Park	1.00	1.00	0.67
Middleton Park	0.97	0.97	0.75
Myrtle Park	0.95	1.00	0.81
Northcliffe Park	1.00	1.00	0.87
Nunroyd Park	0.94	1.00	0.78
Otley Chevin Forest Park	0.93	1.00	0.87
Peel Park	0.98	1.00	0.72
Potternewton Park	0.97	1.00	0.87
Prince Of Wales Park	1.00	0.91	0.91
Pudsey Park	0.97	1.00	0.68
Roberts Park	1.00	1.00	0.82
Rothwell Country Park	1.00	1.00	0.59



Roundhay Park	1.00	1.00	0.86
Scatcherd Park	0.93	1.00	0.64
Springhead Park	1.00	0.96	0.58
St Aidan's Nature Reserve	1.00	1.00	0.92
Stanningley Park	1.00	1.00	0.70
Temple Newsam Estate	0.99	1.00	0.92
Western Flatts Cliff Park	1.00	1.00	0.60
Wharfemeadows Park	0.94	0.94	0.62
Wibsey Park	1.00	0.95	0.57
Woodhouse Moor	0.96	0.97	0.52
Woodhouse Ridge	1.00	0.82	0.82
Wortley Recreation Ground	1.00	1.00	0.50
Yeadon Tarnfield Park	1.00	1.00	0.68



Appendix I: The Parks Accessibility Index – Index Score Confidence Intervals

Park	Lower Confidence Interval	Upper Confidence Interval	Interval Width	<i>n</i>
Beckett Park	2.10	4.22	2.12	29
Bowling Park	2.40	4.48	2.07	31
Bradford Moor Park	1.99	4.69	2.70	12
Bramley Park	1.89	4.25	2.36	26
Burley Park	2.20	4.22	2.02	34
Calverley Victoria Park	3.63	5.77	2.15	13
Chapel Allerton Park	3.48	5.38	1.91	12
Cliffe Castle	3.52	5.84	2.32	21
Cross Flatts Park	3.49	5.61	2.12	28
Cross Roads Park	3.65	5.59	1.95	10
Dartmouth Park	1.55	4.37	2.82	14
Devonshire Park	0.39	2.55	2.15	18
Farnley Hall Park	3.07	4.69	1.61	11
Golden Acre Park	3.22	4.84	1.62	73
Gotts Park	1.98	4.76	2.78	10
Grange Park	1.75	3.95	2.19	10
Harehills Park	2.10	4.22	2.12	13
Harold Park	3.31	5.15	1.84	29
Horsforth Hall Park	3.22	5.18	1.95	59
Horton Park	1.95	4.59	2.63	21
Idle Recreation Ground	2.09	4.61	2.52	18
Ilkley Riverside Gardens	2.79	5.35	2.56	30
Kirkstall Abbey	2.66	4.48	1.83	19
Kirkstall Abbey Park	2.45	4.83	2.39	11
Knowles Park	-0.06	3.32	3.38	11
Lister Park	2.17	4.53	2.36	49
Lotherton Hall	3.85	5.73	1.88	14
Manston Park	1.25	4.03	2.78	14
Meanwood Park	2.57	4.71	2.15	81
Micklefield Park	2.44	3.94	1.50	13
Middleton Park	2.96	4.80	1.84	37
Myrtle Park	3.64	5.18	1.53	46
Northcliffe Park	3.72	5.56	1.85	33
Nunroyd Park	3.17	4.73	1.55	19
Otley Chevin Forest Park	3.50	5.18	1.68	16
Peel Park	1.94	4.32	2.37	42
Potternewton Park	3.58	5.32	1.74	42
Prince Of Wales Park	2.96	5.14	2.17	14
Pudsey Park	2.87	4.99	2.12	33
Roberts Park	3.44	5.72	2.28	52
Rothwell Country Park	1.94	4.20	2.27	20
Roundhay Park	2.77	4.95	2.18	269
Scatcherd Park	3.89	4.83	0.93	16



Springhead Park	2.68	4.76	2.08	29
St Aidan's Nature Reserve	3.36	5.42	2.05	13
Stanningley Park	2.10	4.62	2.52	10
Temple Newsam Estate	2.95	4.97	2.02	115
Western Flatts Cliff Park	2.37	4.87	2.50	10
Wharfemeadows Park	3.29	4.91	1.63	17
Wibsey Park	2.65	4.39	1.75	22
Woodhouse Moor	1.42	4.00	2.59	155
Woodhouse Ridge	1.93	4.27	2.33	13
Wortley Recreation Ground	1.35	3.61	2.26	11
Yeadon Tarnfield Park	2.33	4.47	2.15	24







Appendix J1: The Parks Accessibility Index: Indicator Confidence Intervals – A1, A2, A3

Park	Availability			Accessibility			Accommodation		
	Lower Confidence Interval	Upper Confidence Interval	Interval Width	Lower Confidence Interval	Upper Confidence Interval	Interval Width	Lower Confidence Interval	Upper Confidence Interval	Interval Width
Beckett Park	0.27	0.89	0.62	0.25	0.70	0.45	0.29	0.62	0.33
Bowling Park	0.58	0.99	0.41	0.37	0.91	0.54	0.18	0.59	0.41
Bradford Moor Park	0.02	0.86	0.84	0.00	0.96	0.96	0.24	0.71	0.48
Bramley Park	0.35	0.84	0.50	0.03	0.70	0.67	0.39	0.70	0.31
Burley Park	0.46	0.93	0.47	0.44	0.98	0.55	0.36	0.65	0.29
Calverley Victoria Park	0.17	1.00	0.83	0.33	1.00	0.67	0.56	0.97	0.41
Chapel Allerton Park	0.28	1.00	0.72	0.23	0.78	0.54	0.38	0.81	0.44
Cliffe Castle	0.34	0.95	0.61	0.31	0.81	0.50	0.40	0.88	0.48
Cross Flatts Park	0.50	1.00	0.50	0.29	0.85	0.56	0.45	0.83	0.38
Cross Roads Park	0.22	1.00	0.78	0.00	0.66	0.66	0.71	1.00	0.29
Dartmouth Park	0.00	0.79	0.79	0.00	0.81	0.81	0.32	0.79	0.47
Devonshire Park	0.74	1.00	0.26	0.00	0.65	0.65	0.00	0.27	0.27
Farnley Hall Park	0.08	1.00	0.92	0.36	1.00	0.64	0.18	0.83	0.65
Golden Acre Park	0.51	0.77	0.25	0.34	0.73	0.39	0.72	0.86	0.14
Gotts Park	0.00	0.94	0.94	0.00	0.92	0.92	0.46	0.86	0.40
Grange Park	0.00	1.00	1.00	0.00	0.49	0.49	0.00	0.68	0.68
Harehills Park	0.38	0.81	0.43	0.00	0.81	0.81	0.15	0.62	0.47
Harold Park	0.22	0.88	0.66	0.30	0.95	0.65	0.45	0.72	0.26
Horsforth Hall Park	0.46	0.80	0.34	0.37	0.78	0.41	0.46	0.64	0.19
Horton Park	0.45	0.99	0.54	0.28	0.83	0.55	0.20	0.61	0.42
Idle Recreation Ground	0.39	1.00	0.61	0.43	1.00	0.57	0.14	0.69	0.55
Ilkley Riverside Gardens	0.28	0.76	0.49	0.45	0.90	0.44	0.37	0.76	0.39
Kirkstall Abbey	0.27	0.77	0.50	0.00	0.90	0.90	0.34	0.76	0.42
Kirkstall Abbey Park	0.00	0.87	0.87	0.00	0.82	0.82	0.49	0.83	0.34



Knowles Park	0.00	0.82	0.82	0.00	0.99	0.99	0.00	0.43	0.43
Lister Park	0.22	0.58	0.36	0.14	0.65	0.51	0.44	0.66	0.22
Lotherton Hall	0.06	1.00	0.94	0.27	1.00	0.73	0.65	1.00	0.35
Manston Park	0.00	0.89	0.89	0.01	0.84	0.82	0.16	0.53	0.37
Meanwood Park	0.31	0.62	0.31	0.39	0.74	0.34	0.64	0.80	0.16
Micklefield Park	0.76	1.00	0.24	0.00	0.75	0.75	0.11	0.55	0.44
Middleton Park	0.24	0.73	0.49	0.24	0.69	0.46	0.61	0.91	0.30
Myrtle Park	0.70	0.98	0.28	0.66	1.00	0.34	0.38	0.63	0.25
Northcliffe Park	0.34	0.67	0.34	0.41	0.81	0.39	0.63	0.89	0.26
Nunroyd Park	0.54	1.00	0.46	0.16	0.91	0.75	0.32	0.69	0.37
Otley Chevin Forest Park	0.32	0.94	0.62	0.18	0.89	0.71	0.50	0.89	0.39
Peel Park	0.22	0.64	0.42	0.26	0.67	0.40	0.31	0.59	0.28
Potternewton Park	0.53	0.90	0.37	0.46	0.89	0.44	0.52	0.75	0.23
Prince Of Wales Park	0.09	0.87	0.79	0.00	0.71	0.71	0.39	0.93	0.54
Pudsey Park	0.26	0.88	0.61	0.42	0.94	0.52	0.47	0.68	0.21
Roberts Park	0.40	0.85	0.45	0.45	0.93	0.48	0.63	0.82	0.18
Rothwell Country Park	0.20	0.88	0.68	0.00	0.70	0.70	0.44	0.83	0.40
Roundhay Park	0.24	0.40	0.16	0.61	0.78	0.17	0.66	0.76	0.10
Scatcherd Park	0.75	1.00	0.25	0.75	1.00	0.25	0.22	0.71	0.49
Springhead Park	0.29	0.68	0.40	0.48	0.95	0.47	0.57	0.85	0.28
St Aidan's Nature Reserve	0.00	0.63	0.63	0.00	0.92	0.92	0.83	1.00	0.17
Stanningley Park	0.10	1.00	0.90	0.39	0.98	0.59	0.09	0.74	0.65
Temple Newsam Estate	0.29	0.55	0.27	0.41	0.68	0.27	0.78	0.91	0.13
Western Flatts Cliff Park	0.48	1.00	0.52	0.37	1.00	0.63	0.14	0.54	0.40
Wharfemeadows Park	0.52	0.97	0.45	0.51	1.00	0.49	0.52	0.81	0.29
Wibsey Park	0.61	1.00	0.39	0.30	0.94	0.64	0.32	0.68	0.35
Woodhouse Moor	0.26	0.52	0.26	0.67	0.84	0.17	0.43	0.54	0.11
Woodhouse Ridge	0.08	0.74	0.66	0.20	0.89	0.68	0.23	0.78	0.55
Wortley Recreation Ground	0.20	1.00	0.80	0.00	0.84	0.84	0.00	0.63	0.63
Yeadon Tarnfield Park	0.12	0.67	0.55	0.00	0.76	0.76	0.45	0.78	0.32



Appendix J2: The Parks Accessibility Index: Indicator Confidence Intervals – A4, A5, A6

Park	Affordability			Acceptability			Awareness		
	Lower Confidence Interval	Upper Confidence Interval	Interval Width	Lower Confidence Interval	Upper Confidence Interval	Interval Width	Lower Confidence Interval	Upper Confidence Interval	Interval Width
Beckett Park	0.25	0.81	0.56	0.56	0.85	0.28	0.00	0.64	0.64
Bowling Park	0.32	0.74	0.43	0.31	0.68	0.37	0.09	0.85	0.77
Bradford Moor Park	0.25	1.00	0.75	0.43	0.99	0.56	0.00	0.98	0.98
Bramley Park	0.32	0.73	0.41	0.36	0.70	0.34	0.00	0.72	0.72
Burley Park	0.27	0.66	0.39	0.57	0.87	0.31	0.00	0.49	0.49
Calverley Victoria Park	0.41	0.92	0.52	0.63	1.00	0.37	0.00	1.00	1.00
Chapel Allerton Park	0.58	1.00	0.42	0.60	1.00	0.40	0.00	1.00	1.00
Cliffe Castle	0.73	1.00	0.27	0.65	0.94	0.29	0.52	1.00	0.48
Cross Flatts Park	0.58	1.00	0.42	0.49	0.90	0.42	0.56	1.00	0.44
Cross Roads Park	0.61	1.00	0.39	0.37	0.93	0.56	0.00	1.00	1.00
Dartmouth Park	0.39	1.00	0.61	0.63	0.99	0.36	0.00	0.93	0.93
Devonshire Park	0.00	0.46	0.46	0.00	0.25	0.25	0.00	0.62	0.62
Farnley Hall Park	0.25	0.61	0.36	0.67	1.00	0.33	0.00	0.84	0.84
Golden Acre Park	0.46	0.70	0.24	0.83	1.00	0.17	0.33	0.81	0.48
Gotts Park	0.31	0.88	0.57	0.41	0.95	0.54	0.00	1.00	1.00
Grange Park	0.41	0.88	0.47	0.65	1.00	0.35	0.00	0.84	0.84
Harehills Park	0.33	1.00	0.67	0.16	0.66	0.50	0.00	1.00	1.00
Harold Park	0.52	0.98	0.45	0.62	0.94	0.32	0.29	1.00	0.71
Horsforth Hall Park	0.62	0.84	0.22	0.86	1.00	0.14	0.44	0.90	0.46
Horton Park	0.19	0.88	0.68	0.36	0.77	0.41	0.00	0.84	0.84
Idle Recreation Ground	0.38	0.88	0.49	0.35	0.83	0.48	0.00	0.67	0.67
Ilkley Riverside Gardens	0.54	0.92	0.39	0.66	0.97	0.31	0.31	0.98	0.67
Kirkstall Abbey	0.07	0.72	0.65	0.53	0.91	0.39	0.15	1.00	0.85
Kirkstall Abbey Park	0.50	1.00	0.50	0.47	0.92	0.45	0.00	1.00	1.00
Knowles Park	0.00	0.56	0.56	0.37	1.00	0.63	0.00	0.73	0.73
Lister Park	0.55	0.94	0.39	0.44	0.66	0.22	0.41	0.90	0.49



Lotherton Hall	0.08	0.88	0.79	0.73	1.00	0.27	0.00	1.00	1.00
Manston Park	0.25	0.72	0.47	0.35	0.79	0.44	0.00	0.87	0.87
Meanwood Park	0.43	0.62	0.19	0.77	0.92	0.14	0.21	0.71	0.51
Micklefield Park	0.12	0.88	0.75	0.31	0.78	0.47	0.00	0.96	0.96
Middleton Park	0.71	1.00	0.29	0.43	0.75	0.32	0.10	0.84	0.74
Myrtle Park	0.58	0.91	0.34	0.65	0.89	0.23	0.37	0.94	0.57
Northcliffe Park	0.81	1.00	0.19	0.66	0.89	0.24	0.53	1.00	0.47
Nunroyd Park	0.31	0.67	0.36	0.65	1.00	0.35	0.00	1.00	1.00
Otley Chevin Forest Park	0.52	1.00	0.48	0.74	0.97	0.23	0.00	1.00	1.00
Peel Park	0.37	0.69	0.32	0.54	0.77	0.23	0.22	0.83	0.62
Potternewton Park	0.54	0.86	0.32	0.67	0.92	0.26	0.51	1.00	0.49
Prince Of Wales Park	0.56	1.00	0.44	0.23	0.84	0.61	0.03	1.00	0.97
Pudsey Park	0.59	0.96	0.38	0.64	0.91	0.27	0.00	0.81	0.81
Roberts Park	0.83	1.00	0.17	0.63	0.86	0.23	0.50	1.00	0.50
Rothwell Country Park	0.38	0.76	0.38	0.52	0.95	0.43	0.00	0.82	0.82
Roundhay Park	0.30	0.45	0.15	0.77	0.86	0.09	0.76	0.96	0.20
Scatcherd Park	0.52	1.00	0.48	0.47	1.00	0.53	0.00	0.89	0.89
Springhead Park	0.59	1.00	0.41	0.62	0.88	0.26	0.00	0.62	0.62
St Aidan's Nature Reserve	0.60	1.00	0.40	0.61	0.99	0.38	0.29	1.00	0.71
Stanningley Park	0.00	0.30	0.30	0.58	1.00	0.42	0.00	1.00	1.00
Temple Newsam Estate	0.23	0.47	0.23	0.76	0.89	0.13	0.83	1.00	0.17
Western Flatts Cliff Park	0.25	0.97	0.72	0.34	0.86	0.52	0.00	0.93	0.93
Wharfemeadows Park	0.47	0.99	0.52	0.89	1.00	0.11	0.00	0.72	0.72
Wibsey Park	0.32	0.88	0.56	0.40	0.85	0.46	0.00	0.59	0.59
Woodhouse Moor	0.42	0.57	0.15	0.45	0.62	0.17	0.00	0.21	0.21
Woodhouse Ridge	0.35	0.99	0.64	0.39	0.77	0.37	0.00	0.96	0.96
Wortley Recreation Ground	0.00	0.81	0.81	0.09	0.82	0.73	0.00	0.67	0.67
Yeadon Tarnfield Park	0.46	0.88	0.42	0.68	0.97	0.29	0.08	0.88	0.79



Appendix K: The Survey Questions

The Likert-based indicators are based on the following park-specific survey questions:

How much do you agree or disagree with the following statements about **YOUR PARK**?

Need	Strongly Agree	Slightly Agree	Neither	Slightly Disagree	Strongly Disagree	Prefer not to answer
My park is big enough						
My park is within easy walking or wheeling distance						
Roads are safe for walking, running, or wheeling to my park						
The paths and layout of my park make it easy to get around						
My park has nature and wildlife that appeal to me						
My park has facilities that meet most of my needs (e.g. car parks, playgrounds, benches, toilets)						
There are events in my park that appeal to me						
Activities and events in my park are affordable						
My park is clean and well-maintained						
My park feels safe during the daytime						
My park feels safe after dark						
My park feels welcoming						
Overall, I am satisfied with my park						



The binary style indicators are based on the following, more general based barrier survey questions: **NOTE:** *Those ticked are the responses included as variables in the construction of the PAI.*

What challenges make it more difficult for you to use parks in Leeds/Bradford? (Please tick all that apply)

Accessibility and Transportation					
Parks are too far away	☒	Busy roads/traffic make it hard to get to parks	☒	Paths or layouts are too difficult to use (e.g. steps, slopes, uneven surfaces)	☒
I don't have access to transport		Parks are difficult to find	☒	I have nowhere to park my car	☒
Facilities and Maintenance					
Parks are too small		Parks are not clean or maintained enough		There aren't enough public toilets	☒
There aren't enough accessible toilets	☒	Facilities do not meet my needs (e.g. car parks, playgrounds, benches)	☒	There aren't enough facilities/activities for me	
Safety and Comfort					
Lighting is poor	☒	I'm concerned about crime/antisocial behaviour	☒	I don't feel safe during the day	
I don't feel safe after dark		I feel unwelcome because of my gender, ethnicity, religion, disability, or sexuality		I feel unsafe because of my gender, ethnicity, religion, disability, or sexuality	
I'm worried about getting lost	☒	I'm afraid of becoming ill while visiting		I feel judged because of my appearance	
I'm concerned about harassment	☒	There are too many dogs off-leash			
Social and Environmental Factors					
Parks are overcrowded	☒	Parks feel empty or isolated	☒	I don't see other people like me in parks	
Parks are too noisy	☒				
Activities and Events					
Activities or events in the park don't interest me	☒	Activities or events in the park are too expensive		There aren't activities I enjoy	☒
I don't know of any activities or events held in the park	☒				
Personal Barriers					



I'm too busy with responsibilities at home or work		I have mental health challenges		I have physical health challenges	
I have sensory challenges (e.g. sensitivity to noise/crowds)		I don't have the right clothing for different weather conditions		I don't have anyone to go with	
I have caring responsibilities					

