



Understanding our impact – technical report

This report gives an overview of the technical design, pre-processing and analysis of the data collected and referenced in Girlguiding's 'understanding our impact' 2023 report. The 'understanding our impact' report forms part of a broader study entitled Impact and experience study (which we will refer to as 'the study' throughout this document). This technical report is not designed to be a full account of the analysis for the study. If you have any further questions about our sampling, methodology, outputs and reporting approaches, please get in touch with the Insight team at insight@girlguiding.org.uk.

Overview and study design

The study is Girlguiding's first quasi-experimental, longer-term, mixed methods analysis into the experiences and outcomes of Girlguiding girls and volunteers. It replaces the annual survey, and is based on our theory of change and impact framework.

It asks two broad research questions:

1. What are the experiences of Girlguiding members?

This question looks at the activities, discussions and relationships that our members report having during their time at Girlguiding.

2. What impact does Girlguiding have on its members?

This question looks at the levels of self-reported confidence, life satisfaction, resilience and community engagement of our members, compared to national averages. The purpose of this line of enquiry is to hypothesise about the outcomes that Girlguiding helps deliver for people and their communities.

In line with our theory of change and results chain, the study collects data on activities and mechanisms of change (expressed as 'experiences' in the study), and analyses these against the short and medium-term outcomes (expressed as 'impact' in the study) reported by girls, their parents, and our volunteers.

This study forms the baseline of a wider impact evaluation led by Girlguiding, which examines the experiences and outcomes of girls and volunteers at various different stages of their journey with us: at the point of joining, each year during their time with us, and when they move on from Girlguiding.

The study and analysis has been conducted mainly by the Insight team at Girlguiding, with technical support and analysis from external research agency, State of Life.

Data collection

Sampling

The study was made up of three survey 'waves' sent to an anonymous random stratified sample of Girlguiding girls (and their parents and carers if girls are under 14) and volunteers. The dates of data collection for the three waves were as follows:

Wave 1 (Nov – Dec 2021)

Wave 2 (May 2022)

Wave 3 (Nov – Dec 2022)

Ethnicity	Girlguiding %	UK population % (girls aged 4-18)
Any other ethnic group	<1	2
Arab or Middle Eastern	<1	1
Asian or Asian British	3	12
Black or Black British	2	5
Mixed / multi-ethnic	5	6
White	90	74

The survey was sent via email to a 20% random sample of each of the following Girlguiding countries and regions (Anglia, BGO, London and South East England, Midlands, North East England, North West England, Scotland and South West England) and a 25% random sample of two smaller countries (Wales and Ulster/Northern Ireland).

In addition to these surveys, girls, parents and carers, and volunteers registered online to take part in focus group discussions and interviews between March and April 2023. Groups representing a variety of countries and regions, ethnic and cultural backgrounds, abilities and ages were selected.

Response rates and representativeness

We received responses from 21,109 Girlguiding members (12,654 girls aged 4-13 and their parents, 692 girls 14-18, and 7,701 volunteers), amounting to around 5% of the total Girlguiding membership in 2023.

The percentage of respondents from each country and region is within 1 percentage point of the total membership from each country and region, indicating that our sample is fairly representative of the overall Girlguiding membership. See table for more details:

Country / Region	Total Girlguiding Membership %	Survey respondents %
Anglia	15.22	15.01
BGO (British Girlguiding Overseas)	0.70	0.78
Cymru (Wales)	3.97	3.91
LaSER (London and South East England)	14.38	14.67
Midlands	14.36	14.55
North East England	11.21	11.70
North West England	11.83	11.63
Scotland	11.66	10.67
South West	14.68	15.01
Ulster	1.99	2.07

Qualitative focus groups and interviews

At Girlguiding, we're passionate about amplifying girls' voices and want our impact evaluation to give our girls different opportunities to share their experiences.

During March and April 2023, we delivered 12 qualitative focus groups and interviews with 42 girls, parents and carers, and volunteers from across 8 countries and regions.

Analysis

The study data was pre-processed and analysed using Stata statistical programming software. The analysis for Waves 2 and 3 was delivered in-house by our Insight team, with support and review from external agency State of Life who also delivered analysis and reporting for Wave 1.

Pre-processing

Following data collection, the data set was prepared for analysis using a range of macro and micro-cleaning processes. These include: restructuring columns, combining responses for respondent sub-groups, and numerically coding binary and categorical variables.

Statistical analysis

Three types of statistical analysis were performed on the prepared study data: descriptive statistics, bivariate linear regressions, and multivariate linear regressions (with both one or multiple explanatory variables, including in dose-response models). By running various different statistical analyses, we are better able to triangulate and validate our findings.

Descriptive statistics give us a good first insight into the trends in our members' experiences and outcomes. Bi- and multivariate linear regressions help us to identify statistically significant correlations between dependent variables (i.e., higher confidence, resilience or life satisfaction outcomes) and explanatory variables (i.e., experiences which might help explain these outcomes, such as doing adventurous activities and speaking about things that are important to you).

Multivariate linear regressions also control for demographic variables, which gives us a clearer understanding of the impact of the explanatory variable on the dependent variable. The influence of demographic variables like ethnicity, socioeconomic deprivation or disability has been removed from the estimated regression coefficient. Our multivariate regression models controlled for the following demographic variables: Girlguiding section, age, length of time in Girlguiding, country or region, disability, ethnicity, religion, local area deprivation and eligibility for free school meals.

National comparisons

In addition to these descriptive and regression analyses, we also compared the outcomes of Girlguiding girls and volunteers to the outcomes of non-guiding young people (girls and boys) and adults in the UK.

Descriptive tabulations were created, comparing the categorical answers and mean scores of guiding members to non-guiding populations. Multivariate regression models were performed on combined datasets of Girlguiding and national responses to evidence the influence of guiding by estimating the coefficient of the dependent 'guiding participation' variable, in which 'no guiding participation' acted as a base group.

For two models, a broader dose-response dependent variable was created to explore the influence of (a) no involvement in guiding compared to limited involvement in guiding and active involvement in guiding, or (b) no volunteering compared to volunteering once per year, volunteering once per month and, finally, volunteering for Girlguiding. These models allowed for more nuanced analysis of the impact of Girlguiding on our volunteers' lives.

These national comparison data sets were identified prior to data collection and acted as a proxy control group of young people and adults with no guiding experience, so that we could better hypothesise the difference that Girlguiding has on the lives of girls and volunteers.

Statistical significance

All reported regression findings were statistically significant. For the purposes of our study and in line with good practice in social science quantitative research, this is defined as a probability (p-value) of less than 0.05 or a confidence level of 95% or more.

This means that there is less than a 5% chance that our results have been generated through sampling error, provided that the standard OLS regression assumptions hold, so they are likely to reflect real relationships and correlations.

Thematic coding

We supported this quantitative analysis with qualitative analysis of the 12 interviews and focus groups. Sessions were recorded and transcribed, then thematically coded in an internal qualitative report.

Anonymous findings and quotes were integrated into the quantitative narrative of findings, bringing girls' and volunteers' voices to life.

Limitations

As with any impact evaluation or research study, the study has some limitations.

Our study is observational and cross-sectional, instead of fully experimental and / or longitudinal, so we can only draw correlations and not definitive causal links between experiences and outcomes at Girlguiding. Our respondents were self-selecting and responses may be subject to various biases, such as social desirability bias.

Conclusion

Girlguiding's study, and the baseline results that we're sharing in October 2023, represent a significant step forward in impact evaluation within the UK youth, voluntary and girls' rights sectors.

Our results are compelling, consistent and credible – and speak to the impactful and empowering community of girls and volunteers that we've seen thrive over the last 114 years.