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GoWell East Study of Physical Activity in Secondary School Pupils in Glasgow

Baseline Survey: Headline Indicators Report for S1 Pupils, 2013

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The GoWell East Study of Physical Activity Among Secondary School Pupils

In 2013, GoWell East commenced a cohort study of physical activity among secondary school pupils in Glasgow. The study will run from 2013 to 2017, following a group of pupils throughout their school career from S1 to S5. The study tracks pupils' participation in physical activities, including sports, as well as other types of activity, during their school time and leisure time, during the week and at the weekend. The research is done by asking pupils to complete the Youth Physical Activity Questionnaire (YPAQ)¹. A group of S5 pupils were also asked to complete the survey in 2013 in order to provide a benchmark with which to compare the S1 study cohort when they reach S5 in 2017.

The study forms part of our wider research into the impacts of the Commonwealth Games, and associated regeneration and legacy programmes, on the communities of the East End of Glasgow. To do this, the research design compares physical activity of pupils in six secondary schools in Glasgow, organised into three pairings: two East End secondary schools; two secondary schools located in other deprived parts of Glasgow; and two secondary schools in more affluent part of the city. By comparing results across the three groups of schools we can see whether physical activity is different between deprived and affluent schools, and whether there is any additional effect from being located near the main Games site in the East End of the city.

A total of 740 S1 pupils completed the YPAQ survey across the six schools in May 2013: 391 girls and 349 boys. This report presents some of the key findings from the baseline 2013 survey of S1 pupils, comparing results for boys and girls across four activity areas:

- Physical Activities, including Sports
- Active Travel to School
- Homework
- Screen Time

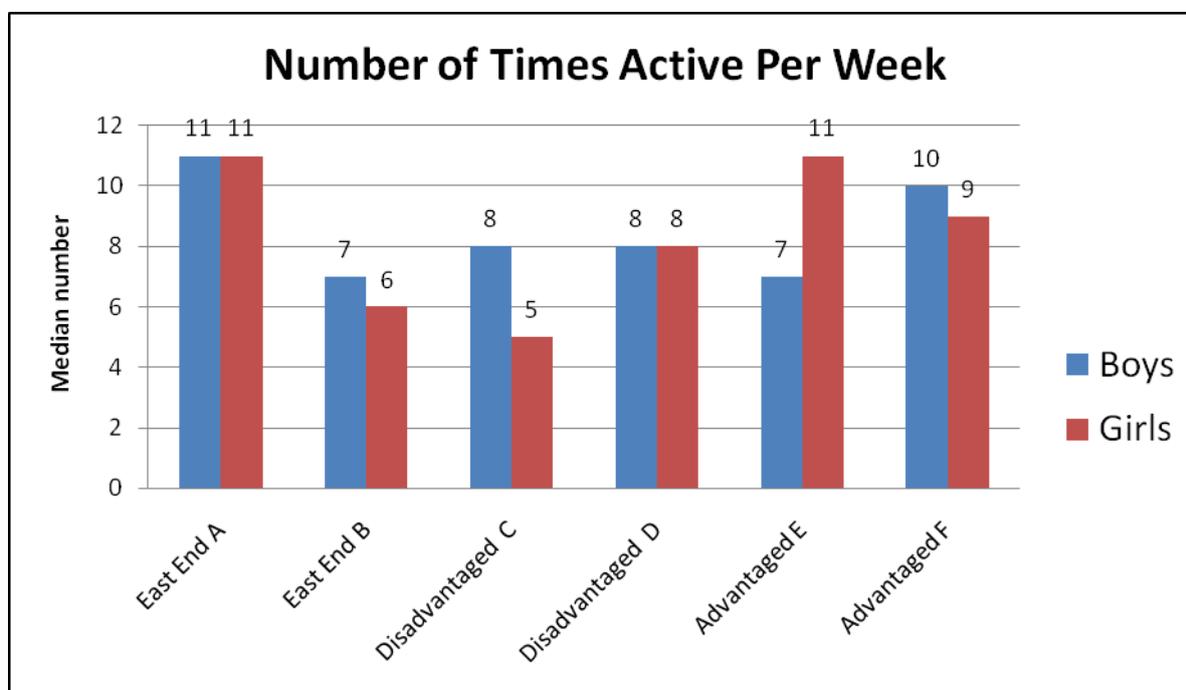
1. The YPAQ was assessed for validity and reliability in: Corder K, van Sluijs EMF, Wright A, Whincup P, Wareham NJ, Ekelund U: Is it possible to assess free-living physical activity and energy expenditure in young people by self-report? *Am J Clin Nutr* 2009, 89:862-870

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We would like to thank the pupils and staff at all six participating schools for their interest and support. Thanks also go to Dr Michele McClung at Glasgow City Council Planning Education and Research. This report was produced with the help of Natalie Nicholls and Laura Baggley.

1. PHYSICAL ACTIVITIES, INCLUDING SPORTS

Number of Physical Activity Episodes



Pupils were asked if they did any of a list of 25 physical activities (including sports), in the past week, separately for weekdays and at the weekend. They were also asked how many times they did each activity, if they did it. This chart shows the median number of times that pupils took part in any physical activity over the past seven days, both during school time and during leisure time, combined.

Key Findings:

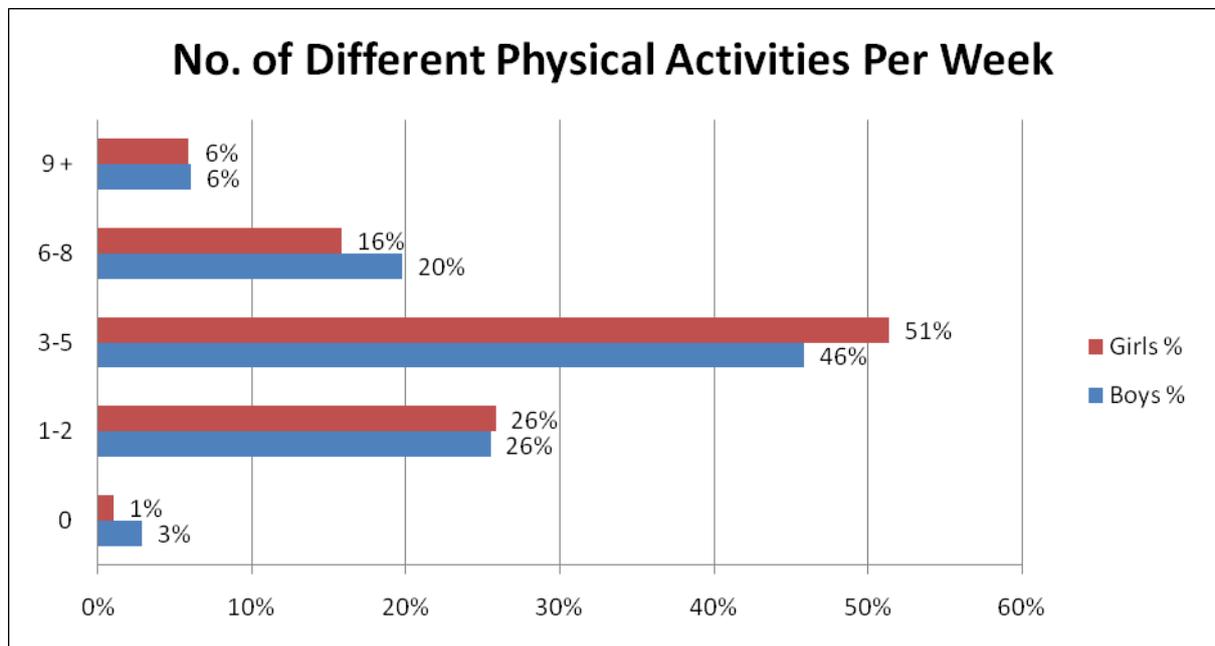
- The highest number of periods of physical activity was found in one of the East End schools, with an average (median) of eleven periods of physical activity participation per week for both boys and girls.
- Apart from this one East End school, it was generally the case that girls had higher rates of participation in physical activity in the advantaged schools than in the disadvantaged schools, but this was not always the case for boys.

- There was more variation in the number of times girls participated in physical activity than boys. In one of the disadvantaged schools, girls took part in physical activity on average five times per week, less than half the number of the times girls did this at the best performing school.

The physical activities included in the count above were:

Aerobics	Martial arts / boxing	Bike riding
Baseball / softball	Netball	Trampolining
Basketball / volleyball	Rugby	Bowling
Cricket	Running or jogging	Rollerblading / roller skating
Dancing	Swimming lessons	Skateboarding
Football	Swimming for fun	Skiing, snowboarding, sledging
Shinty, Gaelic football, lacrosse	Racquet sports, e.g. table tennis, tennis, badminton, squash.	Skipping rope
Gymnastics	Golf	Walk for exercise / hiking
Hockey (field or ice)	Bike riding	

Range of Physical Activities

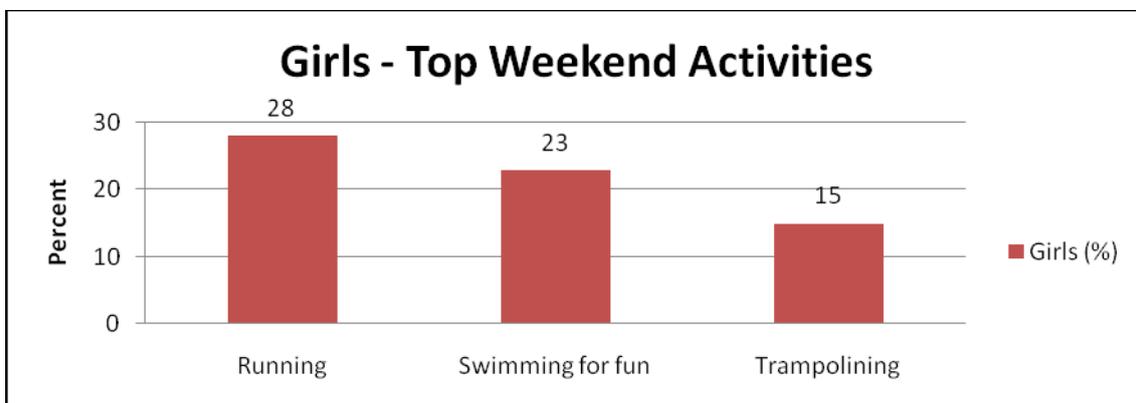
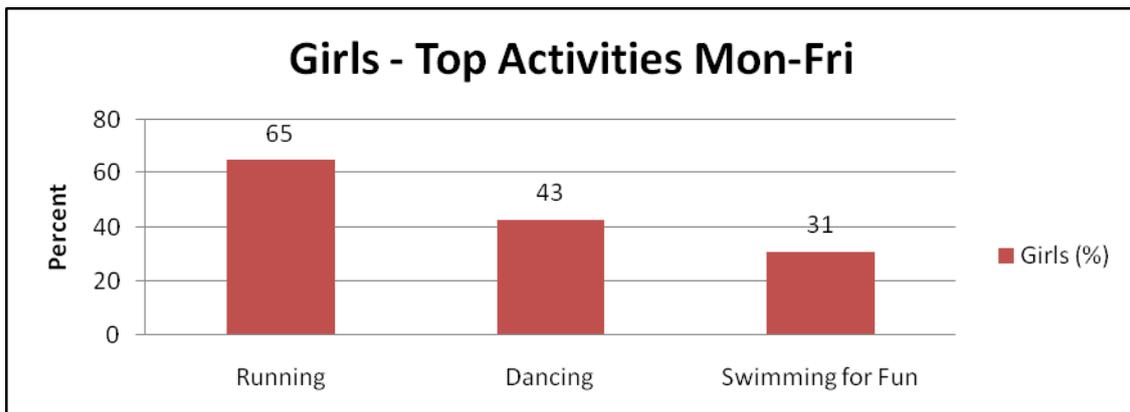


Across school-based activities and leisure time activities, we can see how many different physical activities pupils did in the past week.

Key Findings:

- It was most common for pupils to take part in 3-5 different physical activities per week.
- Around a quarter of pupils took part in 6 or more physical activities in a week.
- Very few pupils, 1% of girls and 3% of boys, did not take part in any physical activities in the past week.

Most Common Physical Activities: Girls

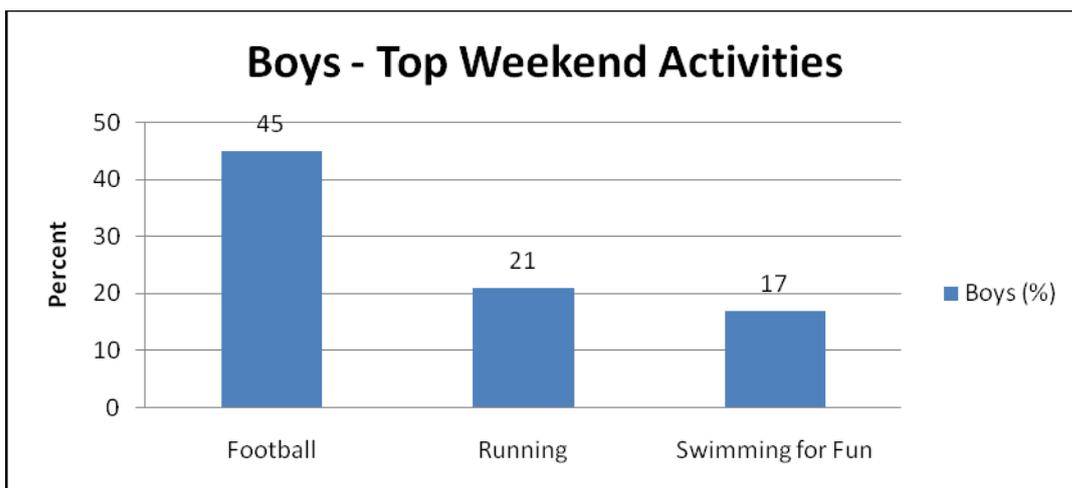
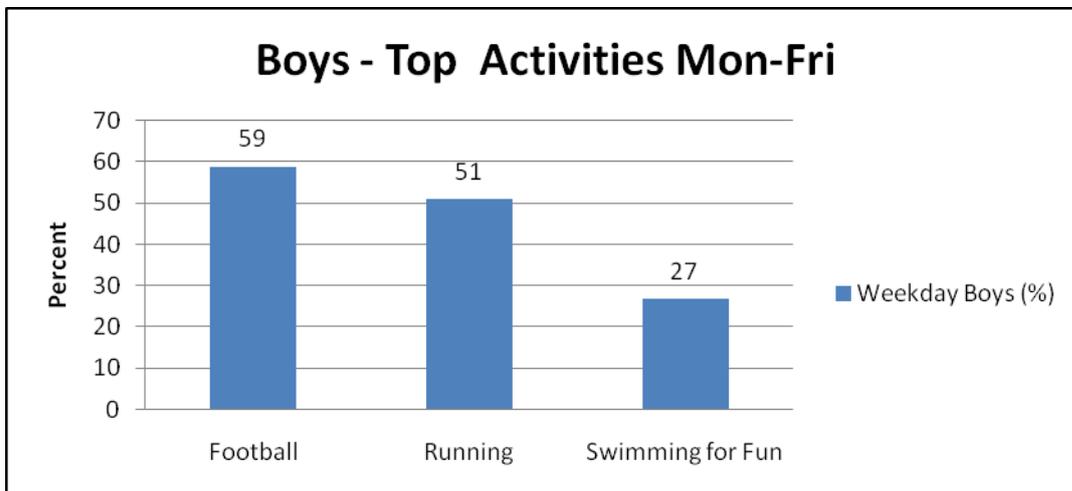


Looking just at how many pupils took part in each physical activity in the past week (irrespective of how many times they did the activity in question), we can see what the most popular activities were.

Key Findings:

- Running was the most common physical activity for girls, both during the week and at the weekend, though the numbers taking part at the weekend were less than half those during the week.
- Swimming for fun was the third most common physical activity for girls during the week, and the second most common at the weekend.
- Dancing was the second most common physical activity for girls during the week, but its popularity did not carry over into the weekend, when trampolining became the third most common activity among girls.

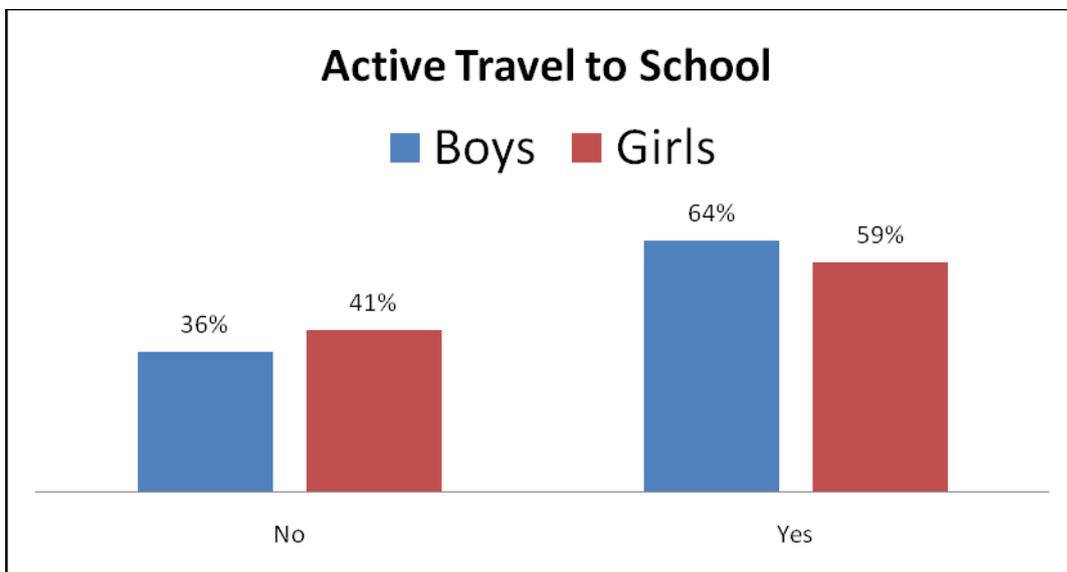
Most Common Physical Activities: Boys



Key Findings:

- Football was the most common physical activity for boys, both during the week and at the weekend. Football played by boys, was by far the most common single physical activity by either gender during the weekend.
- As for girls, running and swimming were also popular among boys, being the second and third most common activity, respectively, both during the week and at the weekend.

2. ACTIVE TRAVEL

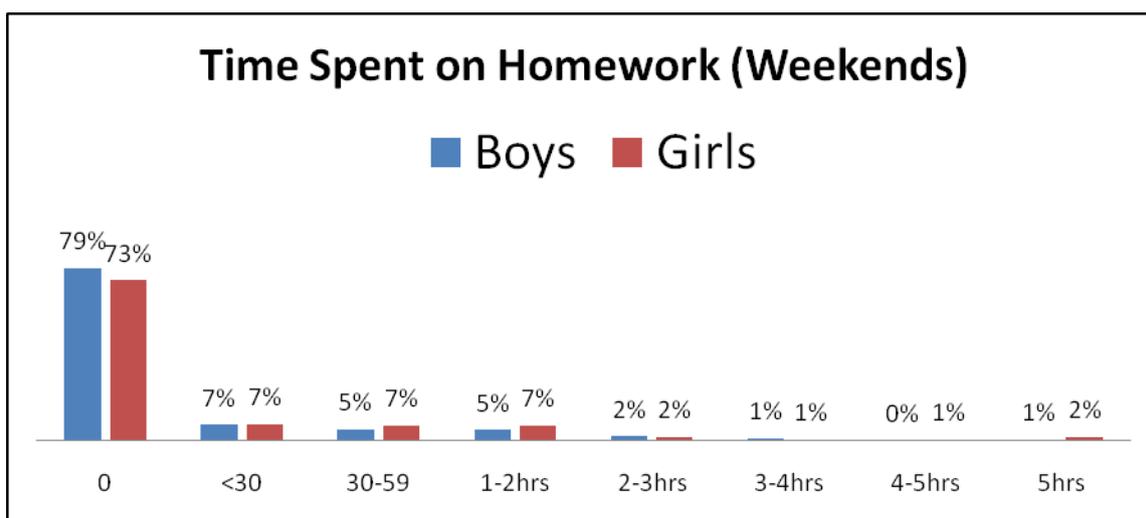
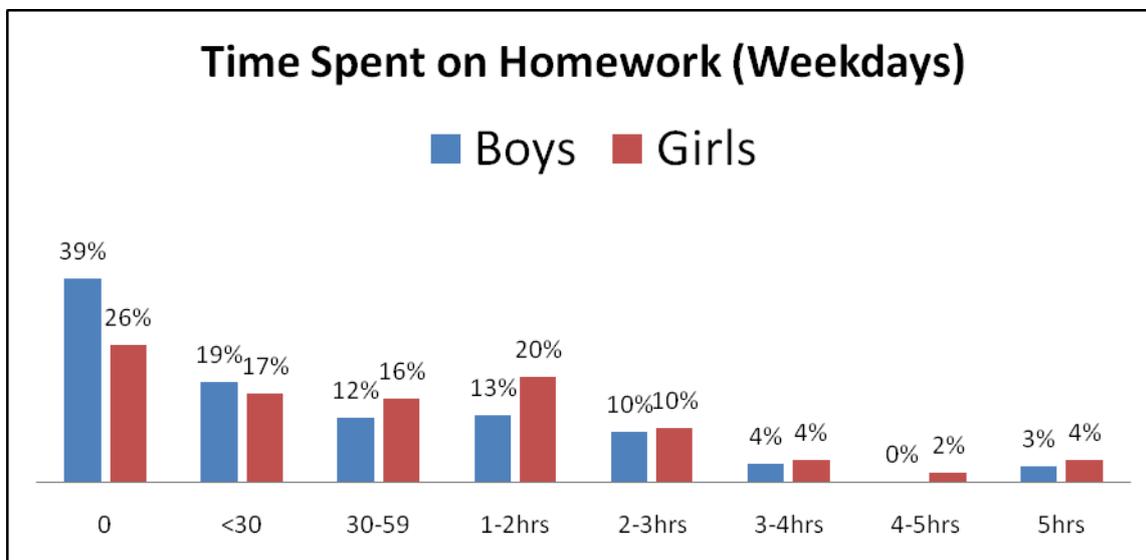


Pupils were asked how many times per week they travelled to or from school by each of three modes of transport: walking; cycling; or motorised means. The chart shows the number of pupils who, across the week, travelled and from school *only* by active travel means, i.e. by walking, cycling, or a combination of the two, and without any recourse to motorised means.

Key Findings:

- The majority of pupils, three-out-of-five, travelled to school on a regular basis only by active means.
- There was only a small gender difference, with 5% more boys than girls using active travel.

3. HOMEWORK



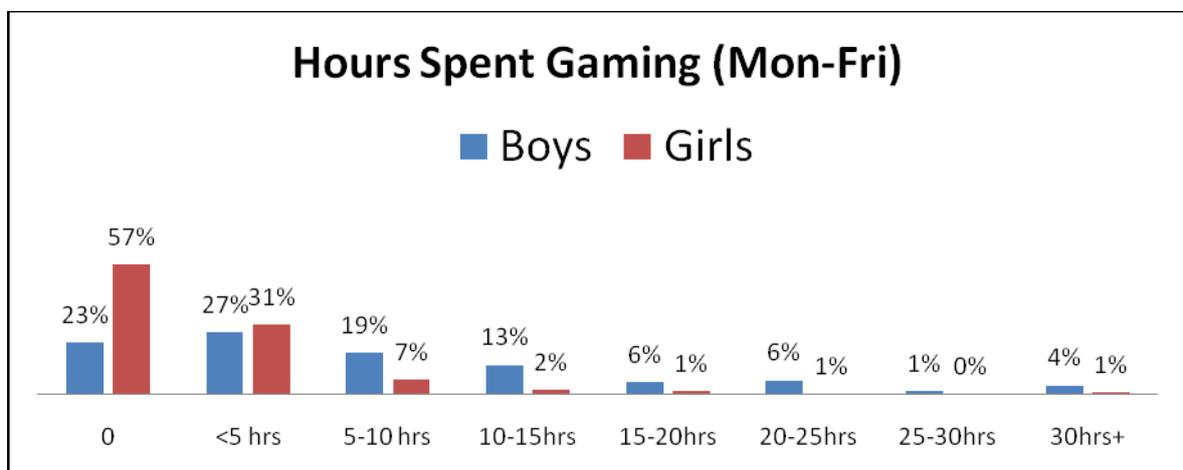
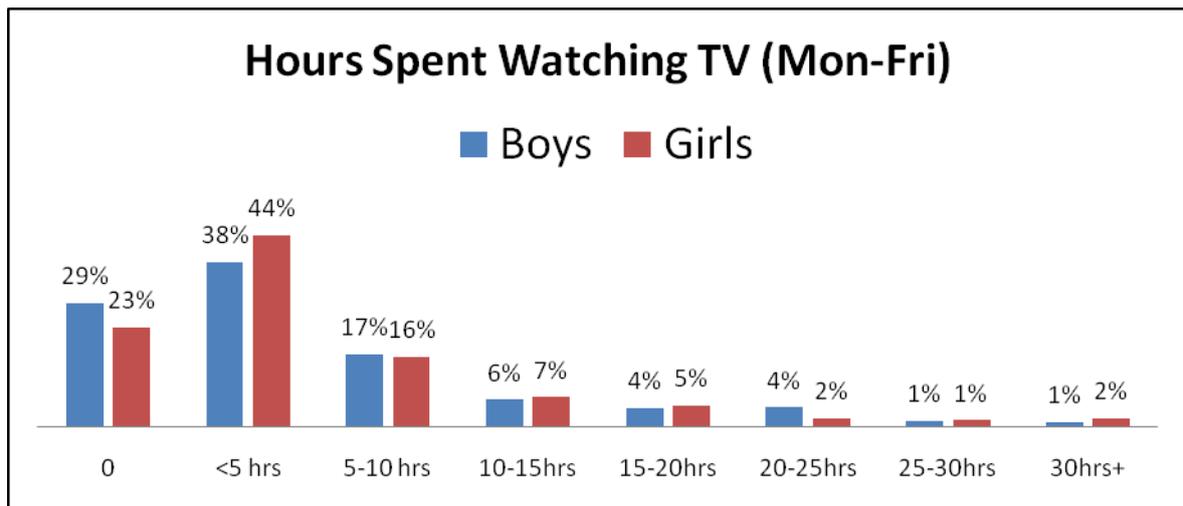
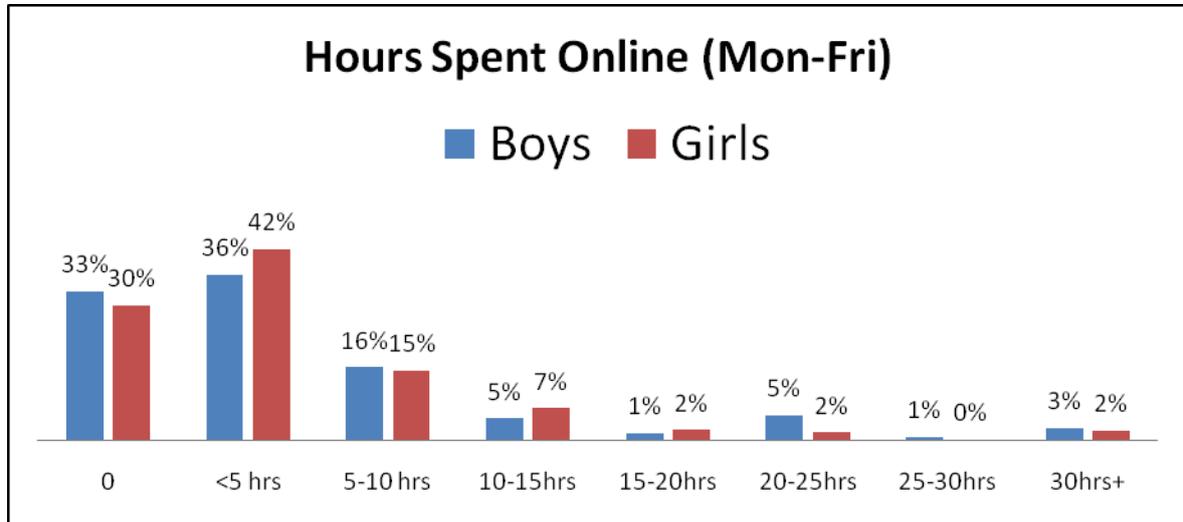
Pupils were asked how much time they spent doing homework during the week and at the weekend.

Key Findings:

- Girls do more homework than boys during the week, though there is little gender difference at the weekend.
- Few pupils do the equivalent of one hour's homework per day, i.e. 5 hours or more during the week and two hours or more at the weekend: around 1-in-20 girls, and fewer boys do this much homework.

4. SCREEN TIME

Weekday Screen Time Activities



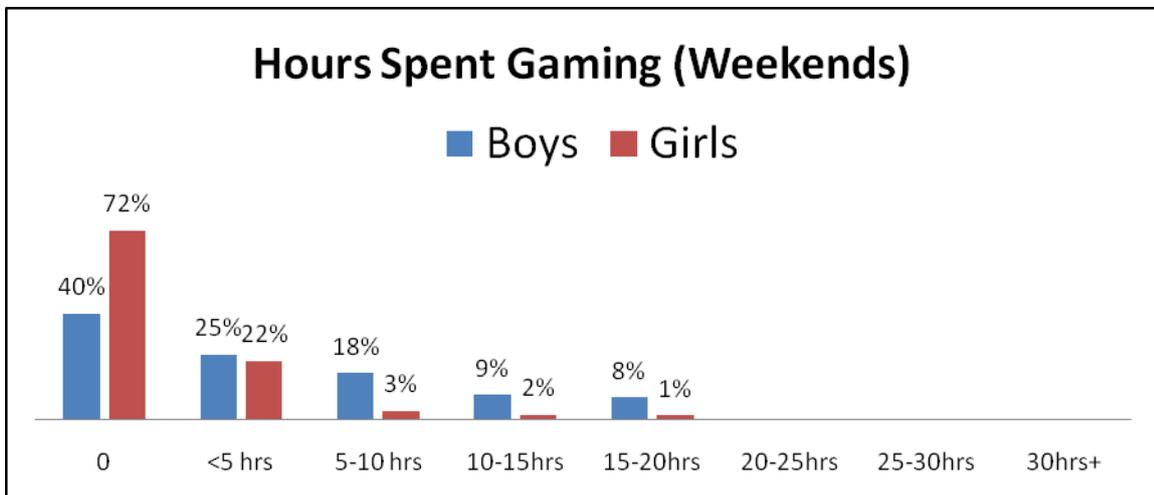
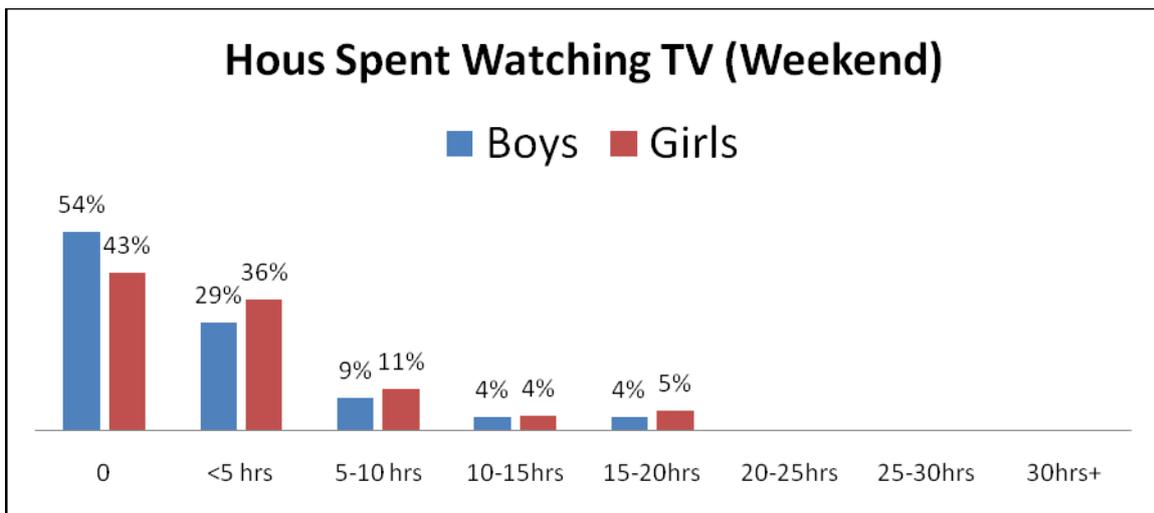
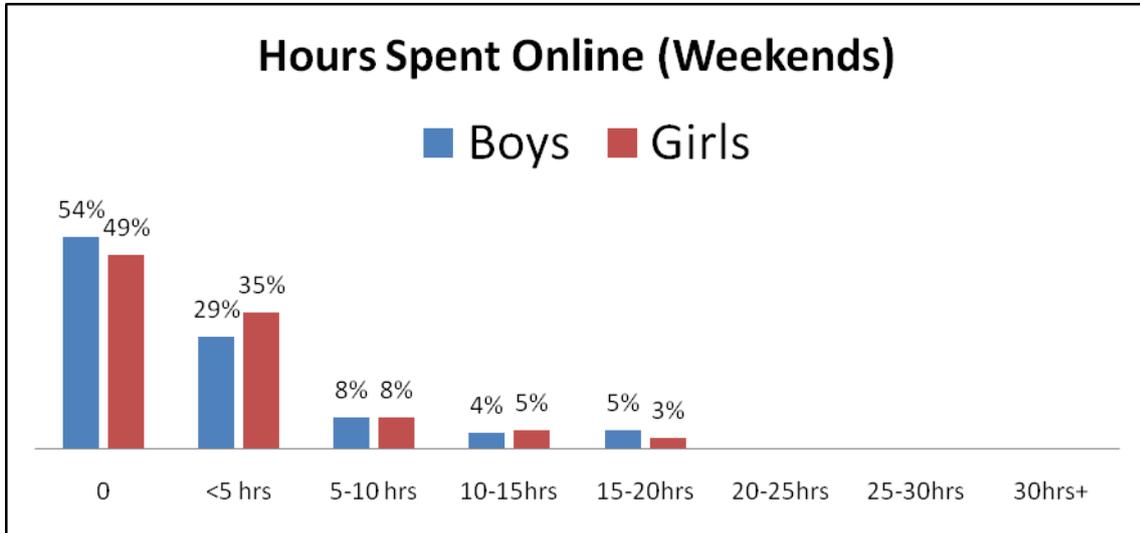
Pupils were asked how long they spent (in hours and minutes) during their leisure time during the week, doing a number of things including: playing computer games; using the computer/going on line; watching tv/dvds.

Key findings:

- There was little difference between boys and girls in the amount of time spent during the week going on-line, or watching tv.
- Boys spent a lot more time than girls playing computer games. Half the boys in the study spent more than an hour a day during the week playing computer games, including 17% who spent more than three hours per day. Only one-in-ten girls spent more than an hour a day playing computer games during the week.

Weekend Screen Time Activities

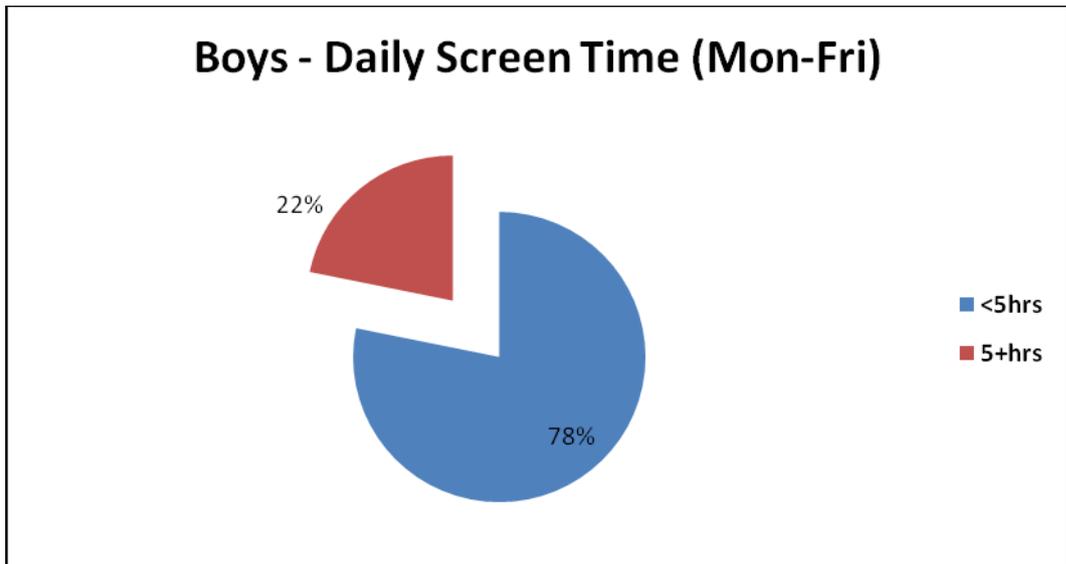
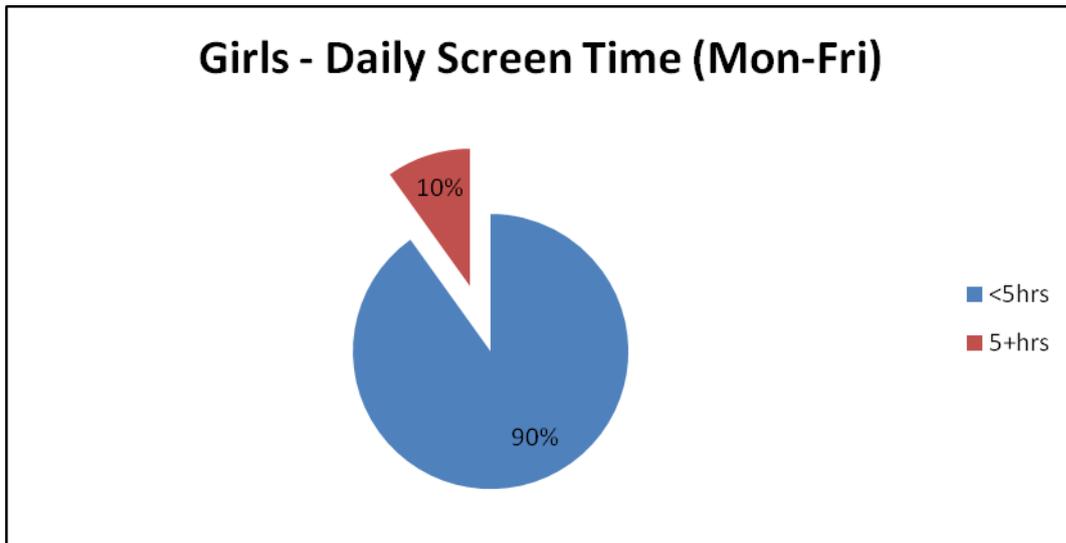
Similar questions were asked about different kinds of screen time at the weekend.



Key Findings:

- Girls spend slightly more time than boys online or watching TV at the weekend.
- Boys spend a lot more time playing computer games at the weekend than girls. The majority of girls do not participate in 'gaming' at the weekend, whereas one-in-six boys spend ten hours or more playing computer games at the weekend.

Total Screen Time: Weekdays



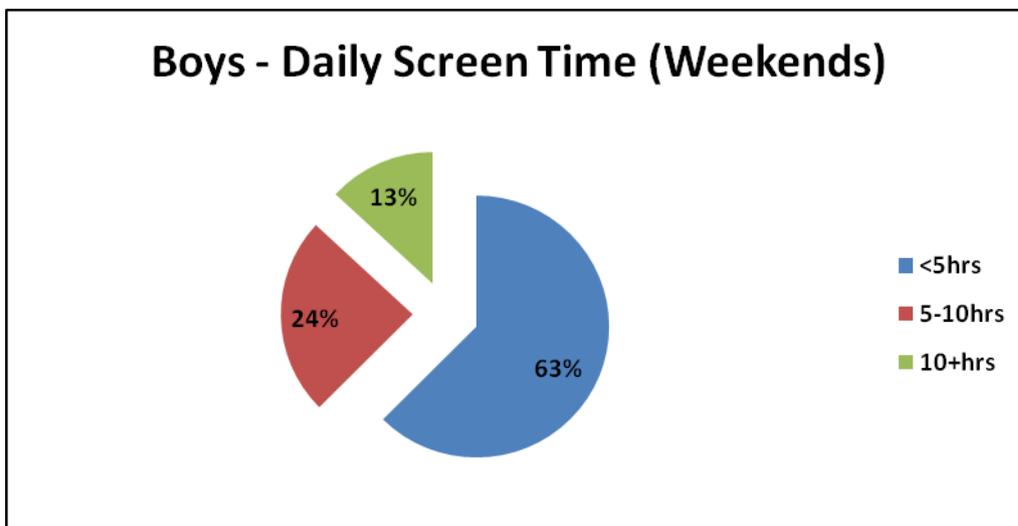
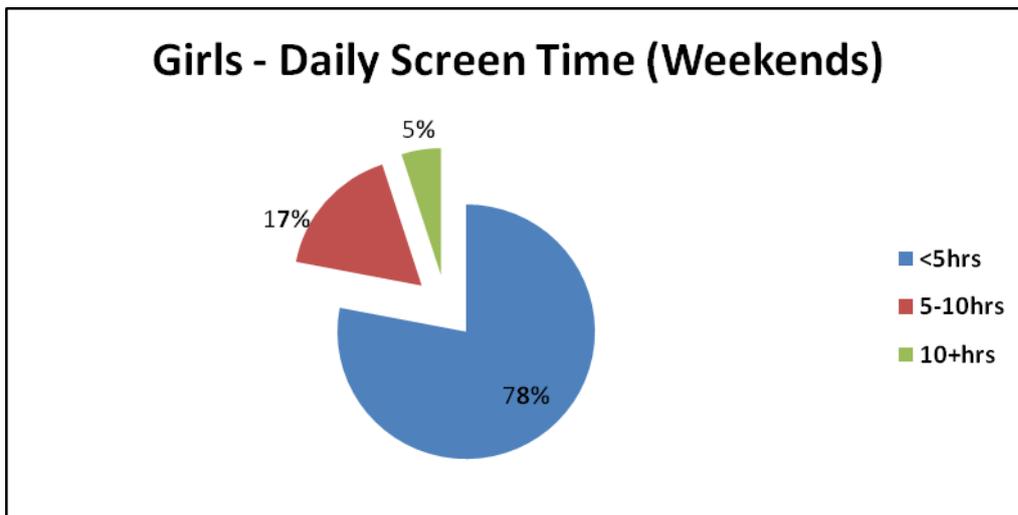
We can add the three screen-based activities together to produce a total screen time measure, and divide this by the number of days to calculate the total daily leisure screen time for each pupil (i.e. not including screen time at school or on homework).

Key Findings:

- During the week, boys have higher screen time than girls.
- Just over one-fifth of boys spend the equivalent of five hours or more per weekday in front of a screen to go online, watch tv, or play computer games.

- One-in-ten girls spend five hours or more in front of a screen during their leisure time on weekdays.

Total Screen Time: Weekends



Aggregate daily screen time figures can also be produced for the weekend:

Key Findings:

- Boys have much higher screen time at the weekends than girls.
- Just over a fifth of girls (22%) spend more than five hours per day in front of a screen at the weekend, compared with nearly two-in-five boys (37%).
- Twice as many boys as girls (13% versus 5%) spend more than ten hours per day in front of a screen at the weekend.

CONCLUSION

This report gives results for some of the main indicators that can be produced from the schools survey, but there are others, such as rates of participation for individual sports, and the balance of physical activities between school-time and leisure time. We have focused on gender differences here, but there are other ways in which the data can be analysed, including:

- By pupils' ethnicity and family religion, which may be of interest to those schools that have very diverse pupil intakes.
- Comparing the results for schools in deprived areas with those in more affluent areas.
- Comparing the East End schools with the two schools located in other deprived parts of the city.

We shall be conducting these analyses in the future, and will disseminate the findings when available.

The second wave of data collection from the pupils, who are now in S2, is scheduled to take place in spring 2014. We will then be able to see if there is evidence of change in participation in physical activities, or in the duration of sedentary activities like screen time, in the lead up period to the Commonwealth Games. Thereafter, we will continue to collect information on pupils' activities in the three years after the Games, as the pupils move up through their schools towards S5, at which point we will compare their levels of physical activity with those of pupils who were in S5 four years earlier, before the Games, in 2013.