



“How To Eat An Elephant”: Outcomes & Impacts of the Eco-Schools programme in Ireland and the implications

- Eco-Schools (Green-Schools) started in Ireland in 1997

In 2016

- 3,800 schools participating in Ireland (>95% of all schools in Ireland)
- 3,000 schools with Green Flags (75% of all schools in Ireland)
- Equates to over 800,000 students & teachers
- Schools operating themes of:
 - Litter & Waste
 - Energy
 - Water
 - School Travel
 - Biodiversity
 - Global Citizenship
- National Operator – 30 full time staff (20 on the Green-School Travel Theme)
- Long-term Operational & Institutional Partnerships with Local Authorities, Government Agencies, Government Departments, Corporate Funders
- Programme has also successfully developed in the 3rd Level Sector





01 Green Schools Committee



This directs the school's involvement in the programme. Ideally, the committee includes students, teachers, non-teaching staff, management and parents.



02 Environmental Review



A process of examining the school's environmental impacts in order to identify targets for action and improvement.



03 Action Plan



This gives specific and achievable targets with proposed completion dates that will show real success.



04 Monitoring and Evaluation



Constant monitoring of the programme ensures that progress towards targets is checked, amendments made where necessary and success celebrated.



05 Curriculum Work



Curriculum materials are provided that give ideas on how to integrate environmental issues into lessons.



06 Informing and Involving



A publicity programme keeps the school and wider community involved and informed through displays, assemblies and press coverage.



07 Green Code



This is a statement of the school's commitment to environmental good habits.



Green-Schools Performance 2014

A BIG THANK to all 3,830 Schools in Ireland participating in the Green-Schools Programme. These are the results of your work during the last school year [2013-2014]. Well done to all. You are making a REAL Difference.

Waste to Landfill



Reduced by 46%

Reduction of 7.65kg of waste per participant per year

Combined reduction from all participants
5,100 tonnes



2,260

That the same mass as 2,260 hippos & 6 Hamsters!



Electricity

17,682,652 units of electricity saved

That amount of electricity will make 716 million cups of tea and coffee



Oil

2.08 million litres of heating oil saved



That amount of oil will heat 230,000 homes for a day.

Water

384 million litres of drinking water conserved

Enough water to supply County Kilkenny for 4 weeks or have 4.8 million showers or 1.5 million baths!



School Travel

Over 12,000 more students walking to school everyday



Over 10,000 more students cycling to school everyday

Over 12,000 more students walking to school everyday



Over 10,000 more students cycling to school everyday



25,000 less cars on the school run everyday

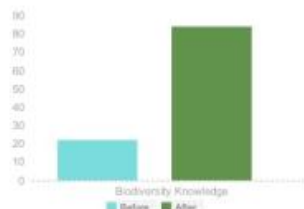


1.3 million litres of transport fuel saved

That's enough fuel to go to the moon and back 32 times and then go around the earth 9.5 times.

Biodiversity

Increase in knowledge of biodiversity from 22% to 84%



2,500 trees planted by schools in 2014



Global Citizenship - Litter & Waste

Further decrease in waste by 27%

Increase in awareness of Fairtrade

Direct Financial Savings to Schools for 2013-2014 school year



Over €8,000,000

All of the above saved 35,000 tonnes of carbon dioxide, 5,000 tonnes of methane and 65 tonnes of carbon monoxide. This is equivalent to taking 7,000 cars off the road every year for the next 30 years!

www.greenschoolsireland.org

GREEN-SCHOOLS PERFORMANCE 2014/2015

Savings made by schools participating in the Green-Schools programme during the 2014/2015 academic year. Congratulations - you're making a huge difference!



THAT'S THE SAME AS
1,000



140
SCHOOLS RECEIVED
1st
GREEN FLAG

41
GRAMS
P/P/P/D
DIVERTED FROM
LANDFILL



Act Locally,
Think Globally!

15.6 MILLION
UNITS OF
ELECTRICITY
SAVED†

ENOUGH TO
MAKE 13
MILLION



slices of toast...

370
MILLION
LITRES
POTABLE
WATER
SAVED

= THREE BILLION CUPS OF TEA



1.5
MILLION
LITRES OF
TRANSPORT
FUEL SAVED



THAT WILL GET YOU TO THE
MOON AND BACK

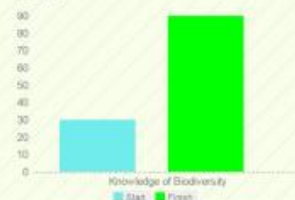
19
TIMES!



WITH ENOUGH FUEL LEFT OVER
TO SPIN AROUND THE EARTH
TEN TIMES!

BIODIVERSITY

The number of people who know about Biodiversity and why it's so important has gone from 30% to 90%.



Further reduction in
waste to landfill of

↓27%

by schools working on

**GLOBAL
CITIZENSHIP**

1110 NEW GREEN FLAGS FLYING



Direct financial savings to
schools in excess of

€8 MILLION

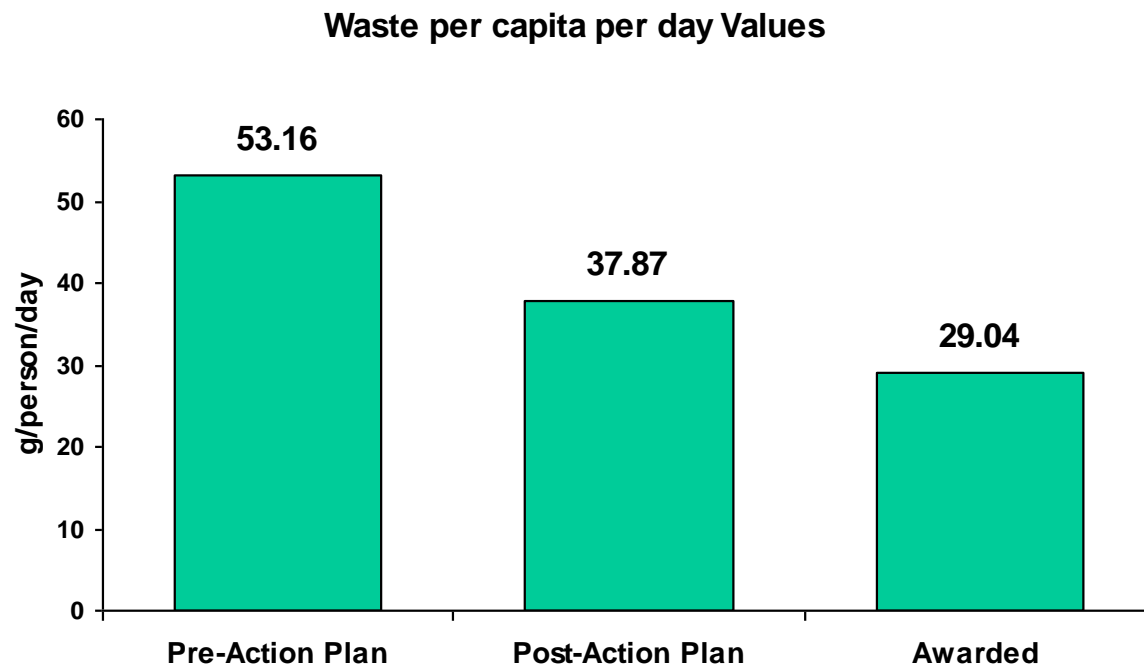


WWW.GREENSCHOOLSIRELAND.ORG

@GREENSCHOOLSIRE

WWW.FACEBOOK.COM/GREENSCHOOLSIRE





2000-2001
47 schools; Total School Population – 11,300 students & teachers

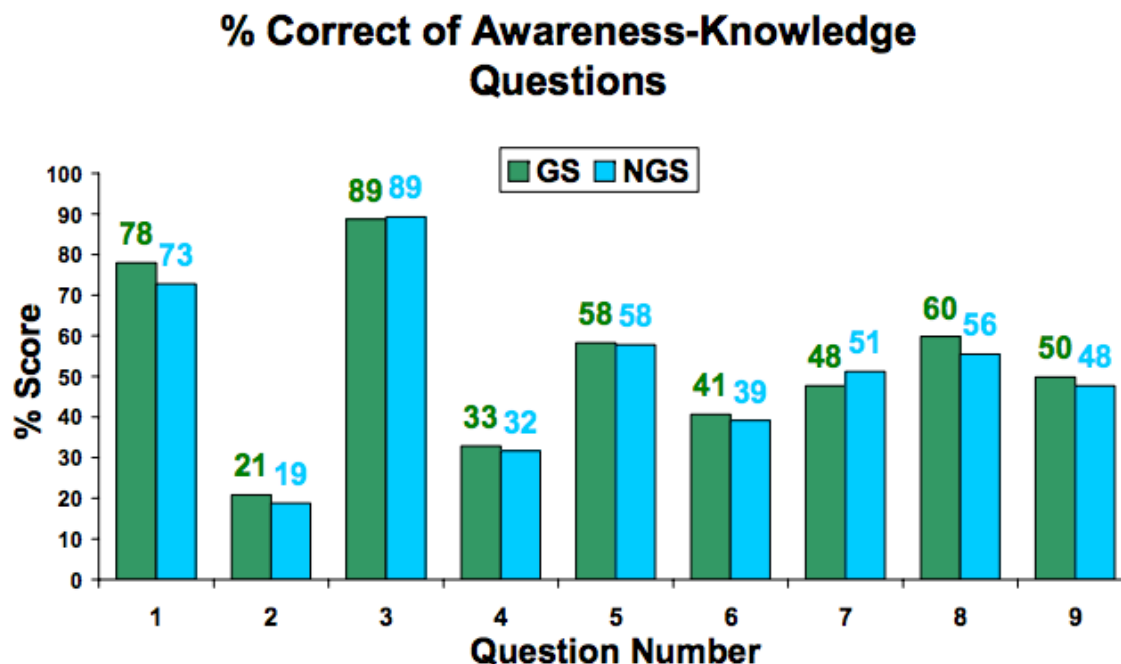
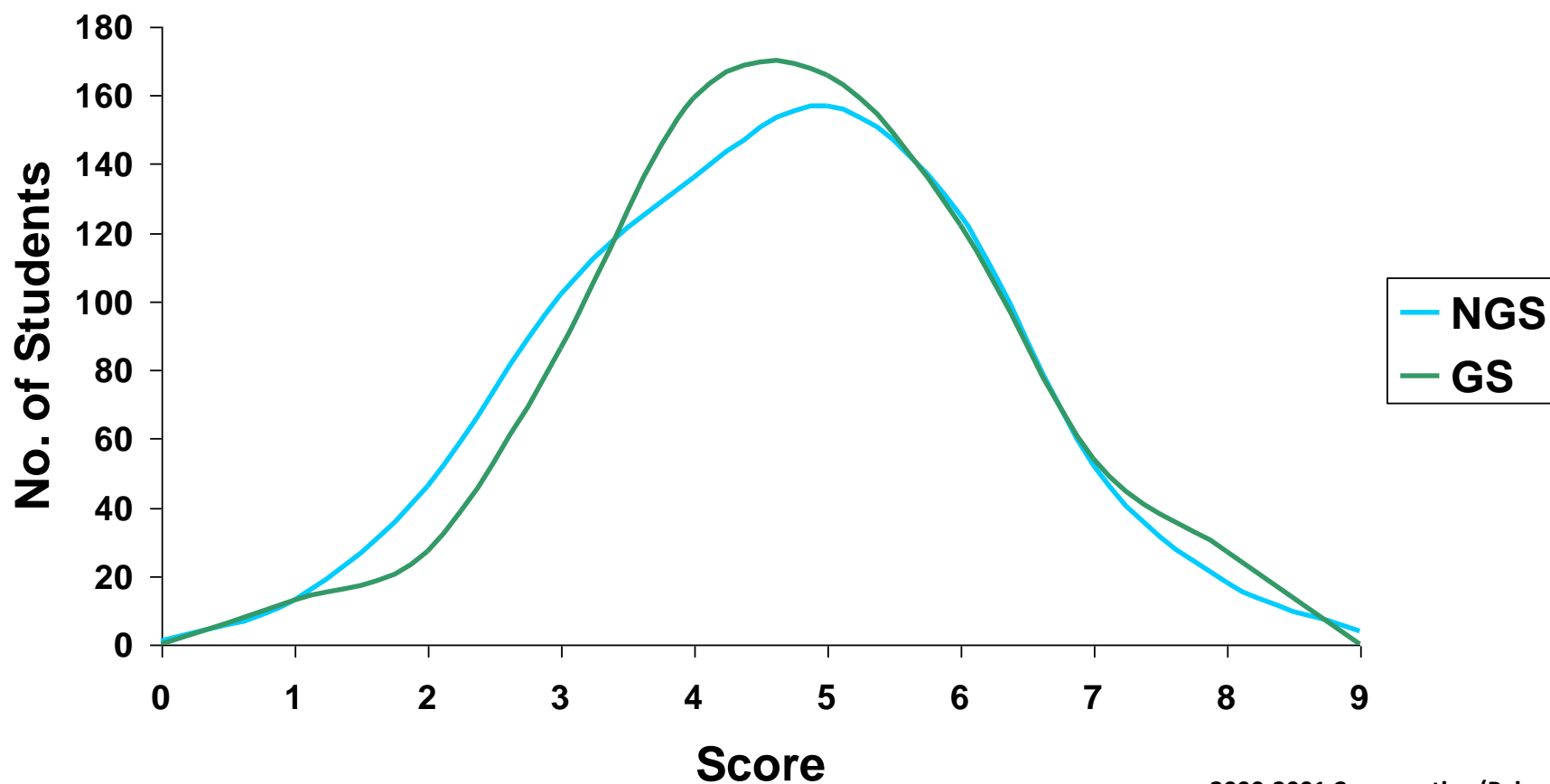


Fig. 5.1 (ii) Percentage of correct responses per awareness-knowledge question in both school types. Questions 1-5 True/False Questions, Questions 6-9 Multiple choice questions. Correct responses in square brackets. Q.1 - 'Human activity has no effect on the state of the environment' [**False**], Q.2 - 'The greenhouse effect is caused by the hole in the ozone layer' [**False**], Q.3 - 'Cars are not a major cause of air pollution' [**False**], Q.4 - 'It is better to prevent waste than recycle waste' [**True**], Q.5 - 'The greenhouse effect does not cause any changes to the earth's climate' [**False**], Q.6 - 'How long does it take an aluminium can to decompose?' [**80-100 years**], Q.7 - 'What percentage of Irish household waste goes to landfill for disposal?' [**90%**], Q.8. - 'Paper & Cardboard makeup what proportion of Irish Household Waste?' [**30%**], Q.9 - 'On average how much paper does an Irish person use per year?' [**170kg**]. Only question 1 revealed a statistical difference (+5% to GS) in the percentage of correct responses between the Green-schools and Non-Green-Schools.

Knowledge & Awareness Scores

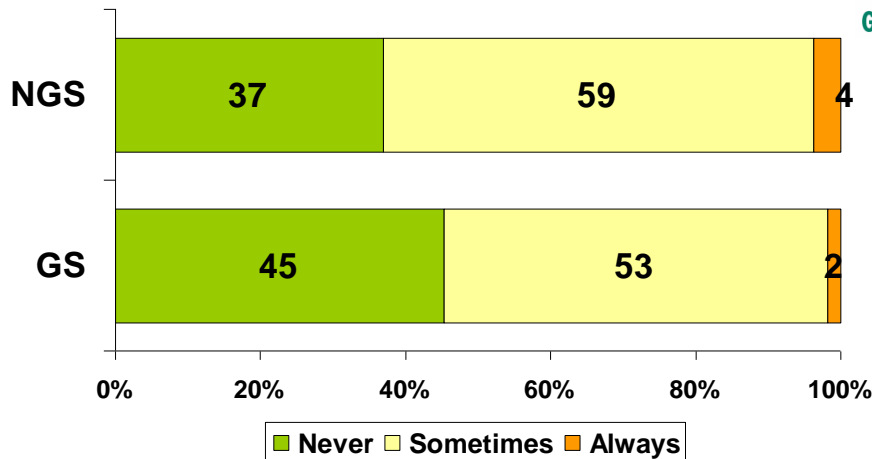


2000-2001 Comparative (Paired)
;n =1,300 students surveyed (650 GS/650 NGS); 36 schools

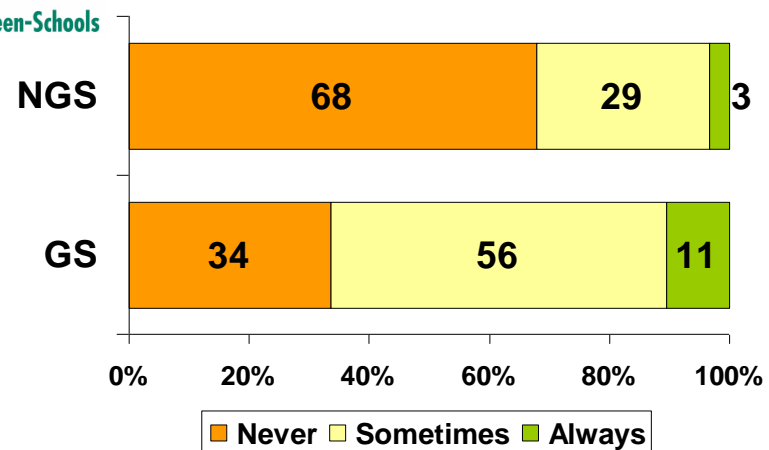
Environmental Behaviour



'Do you drop litter on the ground?'

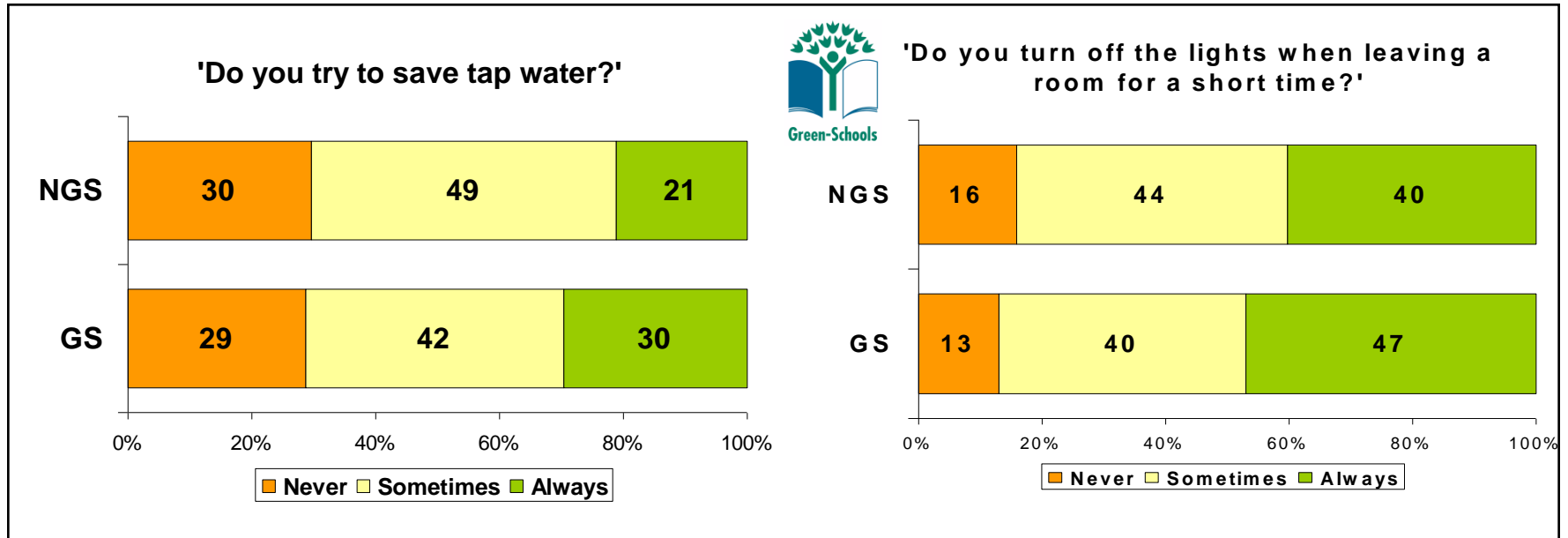


'Do you take part in local environmental projects?'



2000-2001 Comparative (Paired)
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Environmental Behaviour

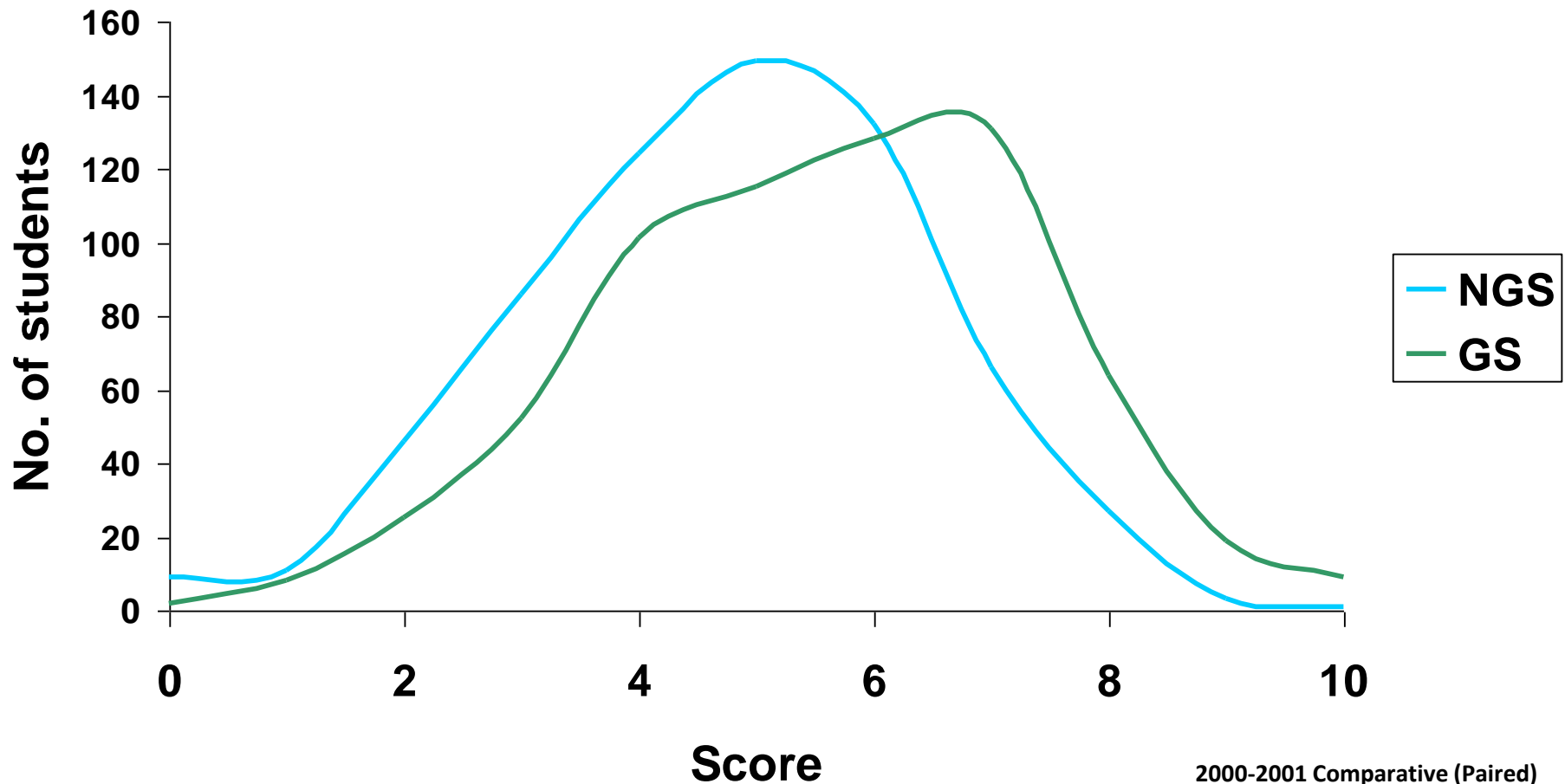


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Environmental Behaviour



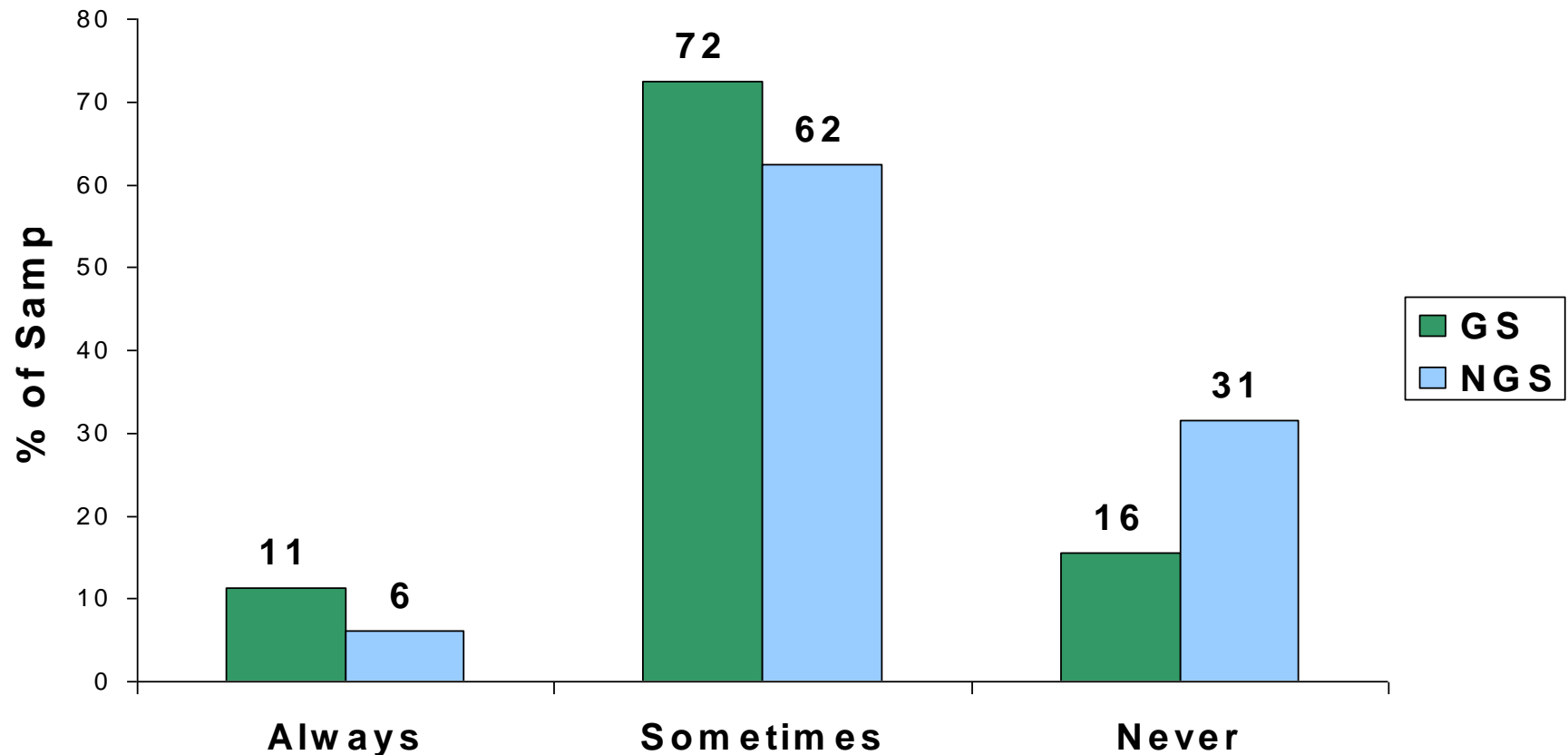
Frequency distribution plot of behaviour scores



2000-2001 Comparative (Paired)
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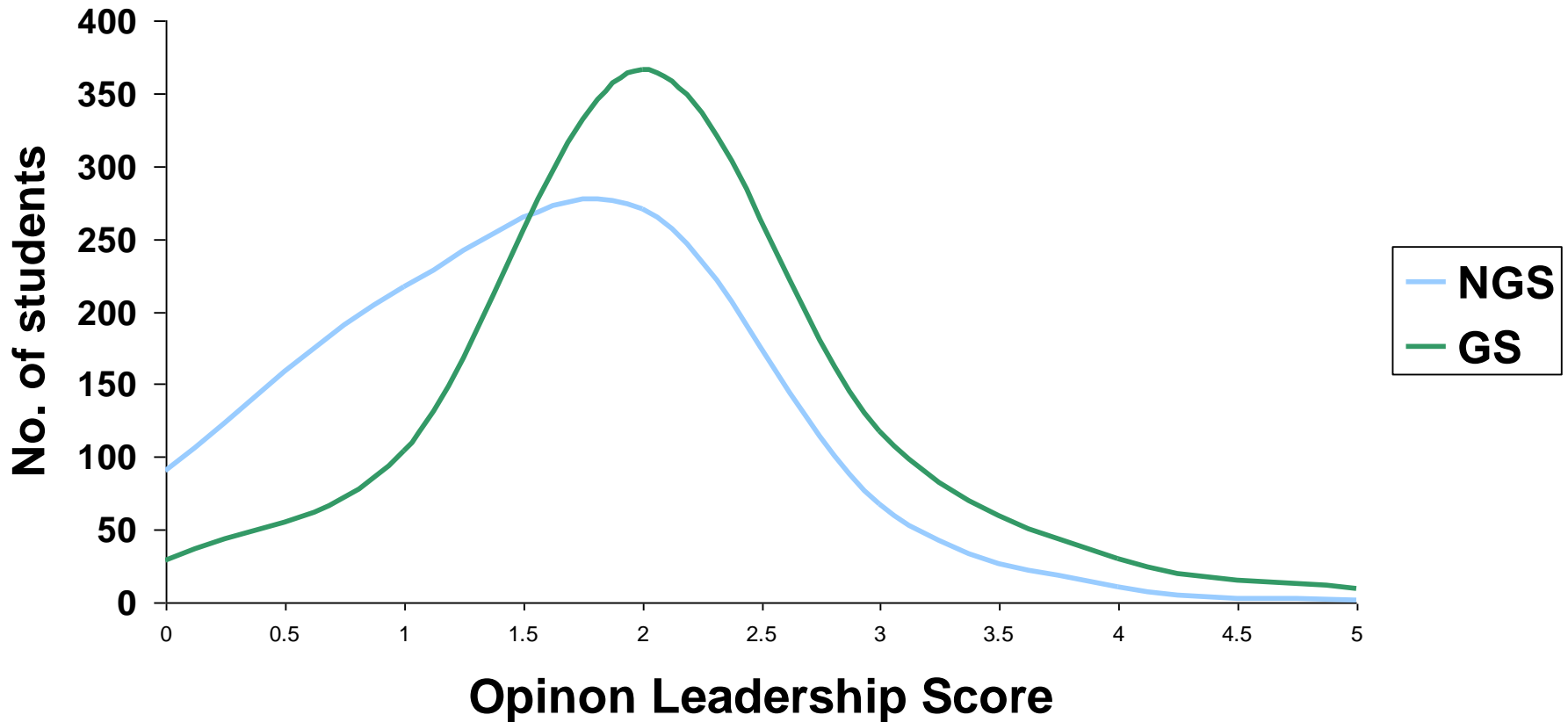
Opinion Leadership

'Do you encourage others to be more environmentally friendly'

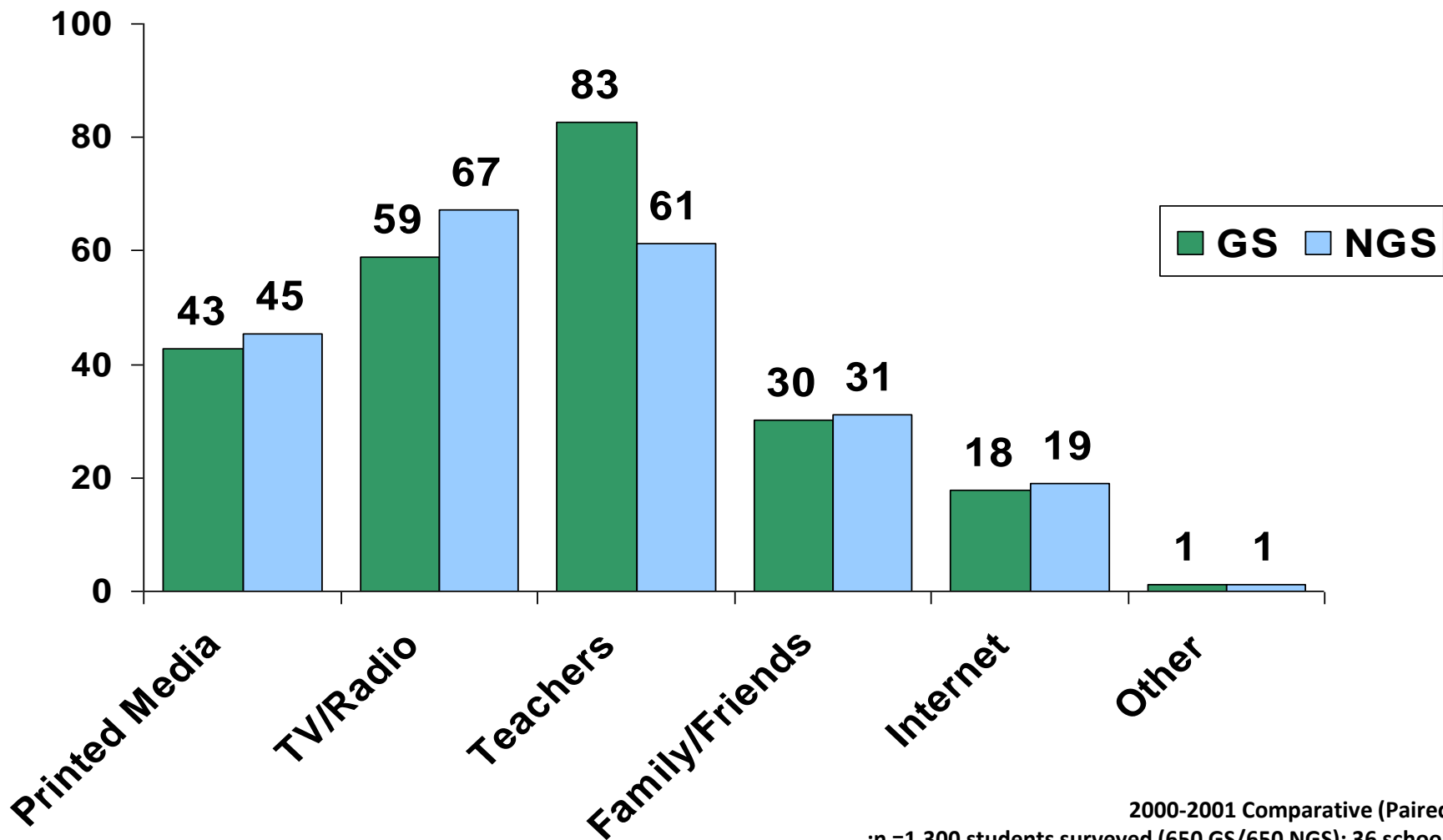


Opinion Leadership

Frequency Distribution of Opinion Leadership scores



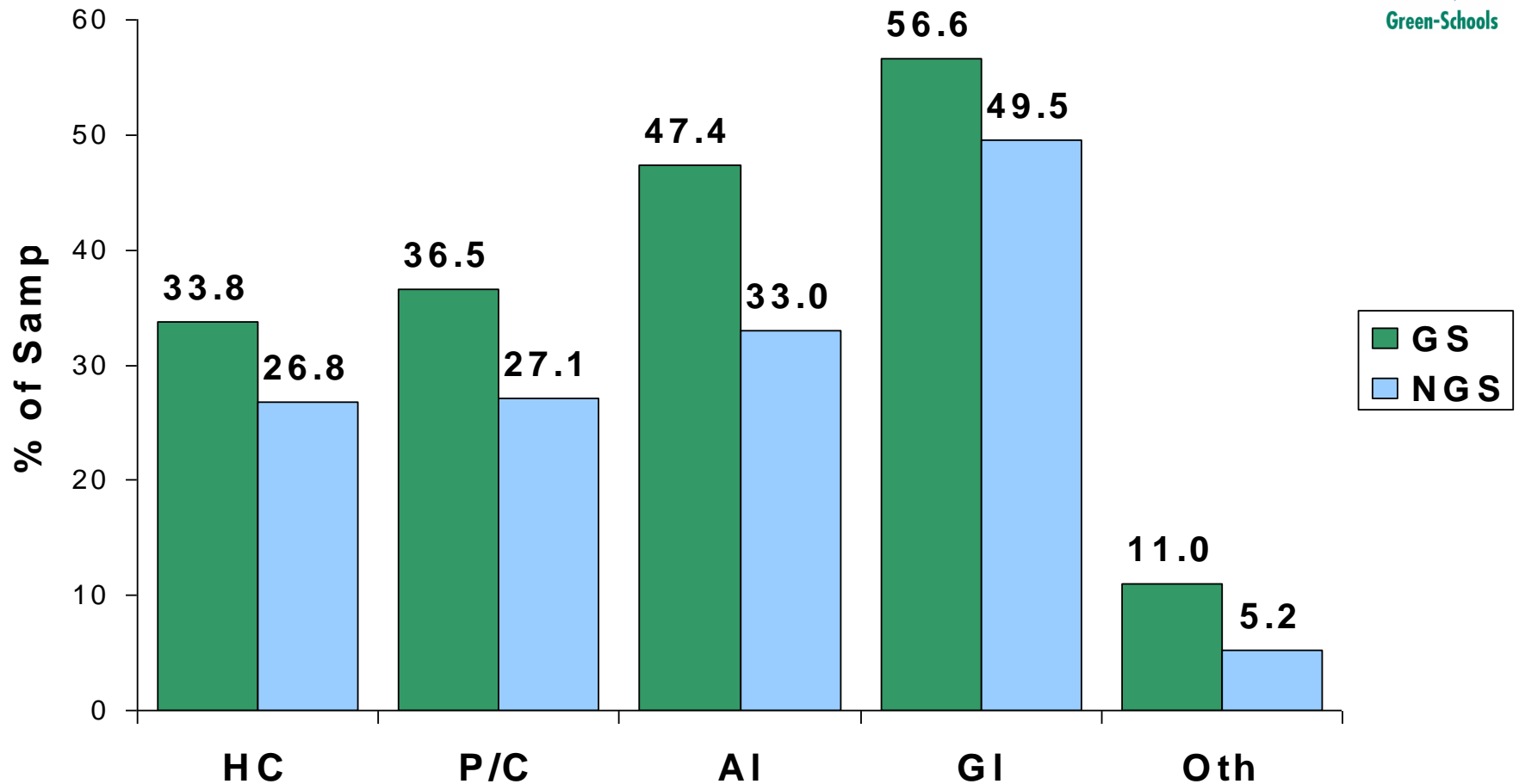
Information about the environment

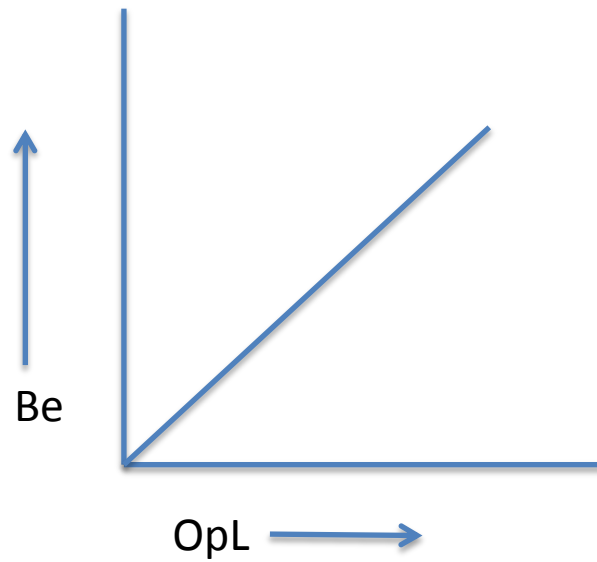
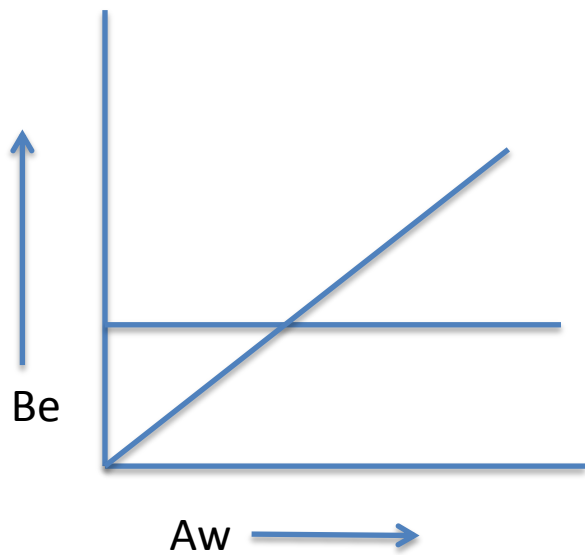


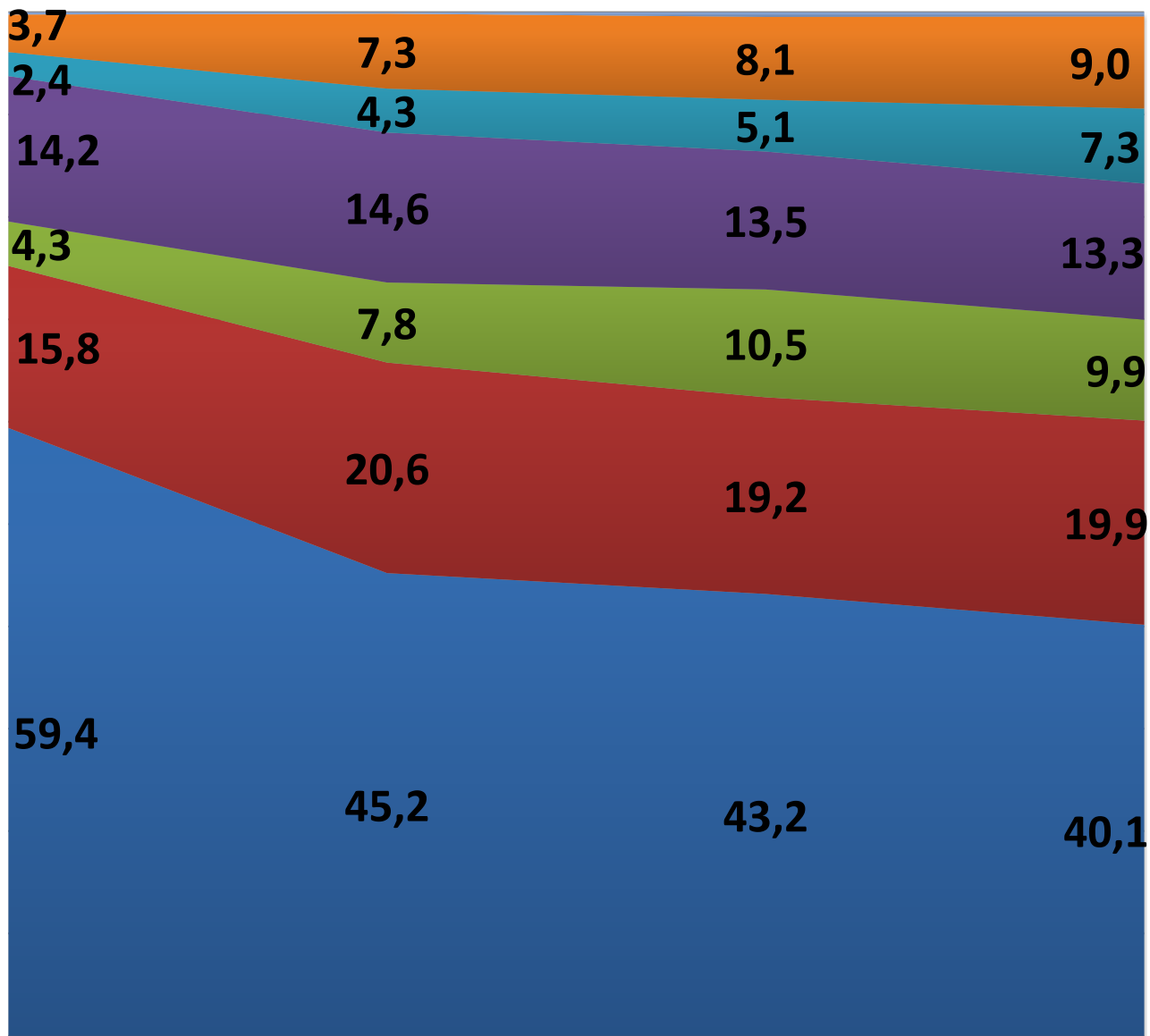
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Home Recycling

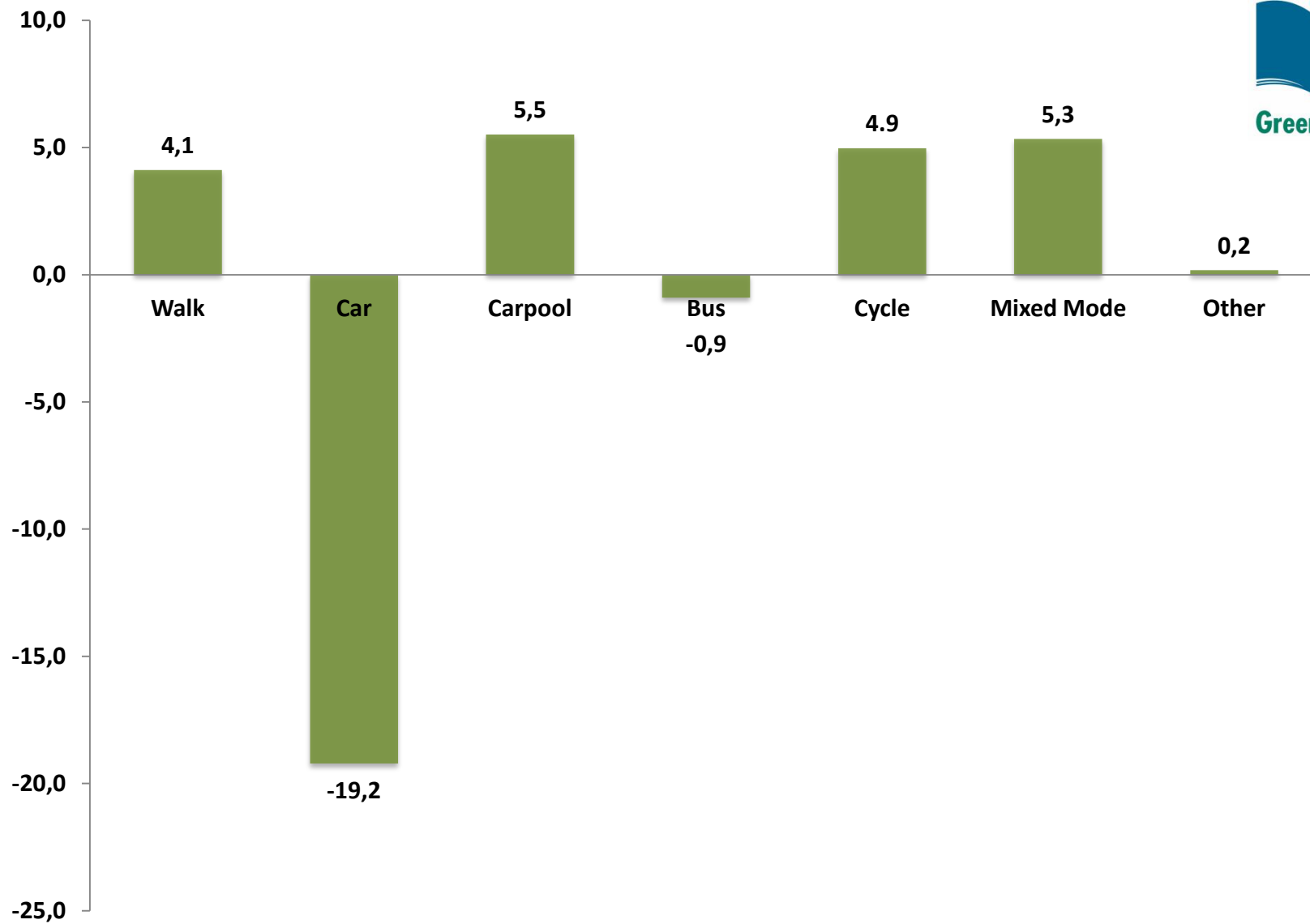




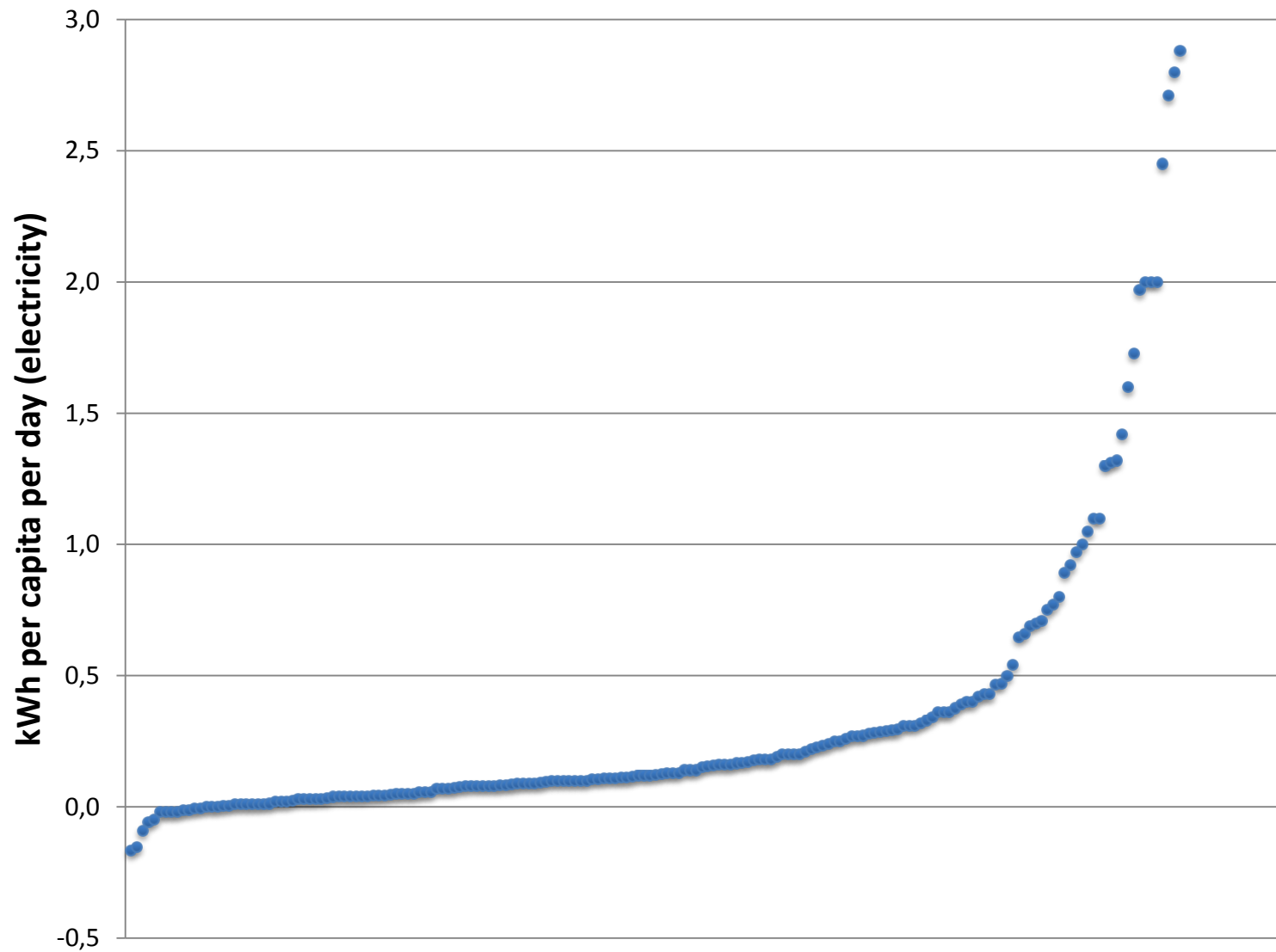


- Other
- Mixed Mode
- Cycle
- Bus
- Carpool
- Walk
- Car

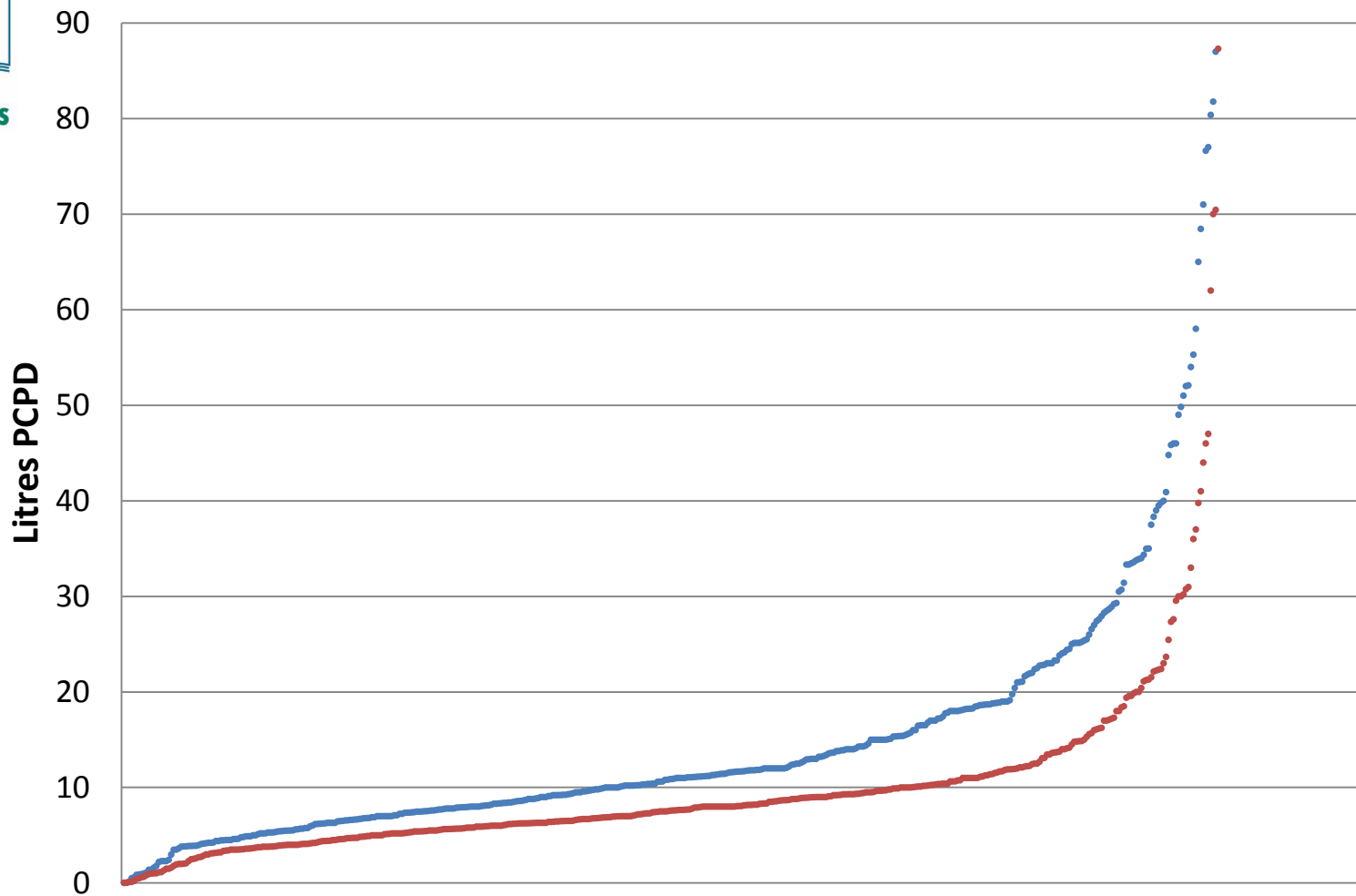
2010 2010-2012 GST Longitudinal Study of Mode Share 2012
1,100 students 105 schools



2010-2012 GST Longitudinal Study
1,100 students 105 schools



Electricity Usage Difference Pre- & Post- (Bench Mark)



Water per capita per day before and after ES intervention (Bench Marked)

Thematic KPI's 2016 (>500 schools data; 2009-2015)

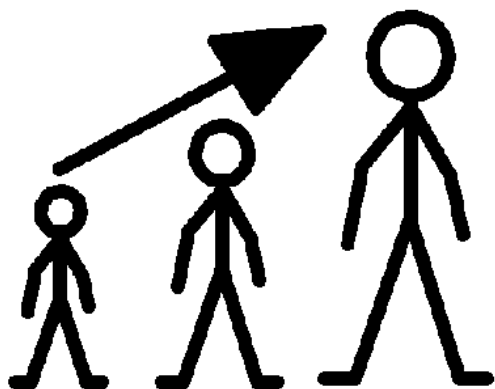
- Waste Reduction – 40g per capita per school day;
 - 7.65 kg per capita per school year
 - 45-50% reduction
- Electricity Reduction – 0.3 kWh per capita per school day;
 - c.50 kWh per capita per school year
 - 18% reduction
- Heating Oil – 4 litres per capita per year
 - 2% reduction
- Gas – 87 kWh per capita per year
 - 13% reduction
- Water – 5.5 litres per capita per school day;
 - 1m³ (1,000 litres) per capita per year
 - 30% reduction
- Transport Fuel- 5 litres per capita per year.



Theme	Performance (2013-2014 school year)	Economic Saving/(euro)
Waste	11,000 tones diverted from landfill (0.18 euro per kg)	1,980,000
Water	300,000,000 litres saved (2 euro per m ³)	600,000
Transport	500,000 litres of transport fuel saved (1.5 euro per litre)	750,000
Energy	Electricity, Gas & Oil Savings	4,619,000
Total		7,949,000

Participant Evaluation





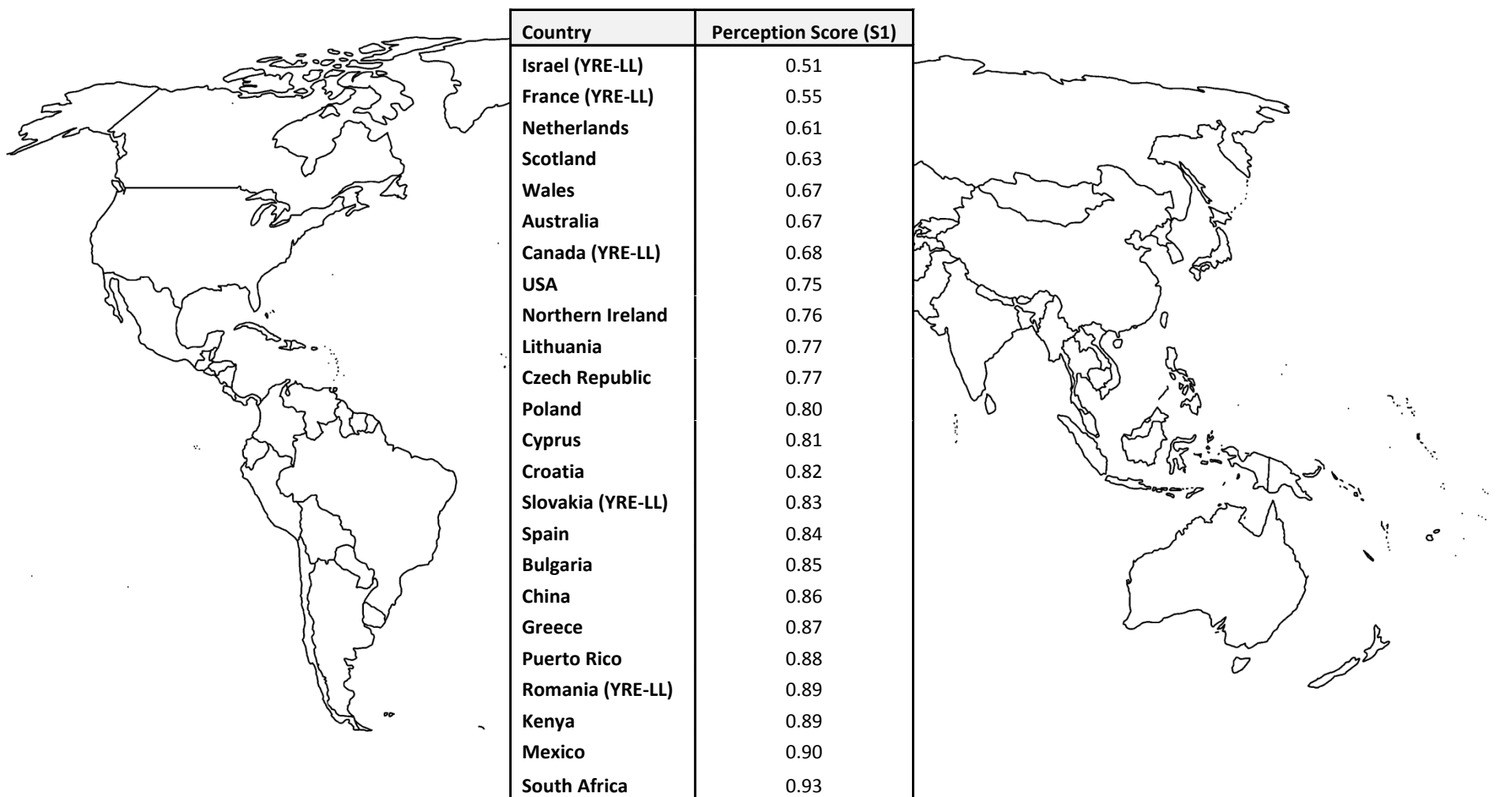
Age	n	PS	BSL	BSR	BC	OPL L	OPL R	OPL C
10	365	0.81	0.78	0.80	0.79	0.55	0.55	0.57
11	501	0.78	0.79	0.72	0.75	0.52	0.51	0.54
12	640	0.74	0.77	0.77	0.77	0.51	0.51	0.52
13	587	0.71	0.78	0.77	0.78	0.48	0.47	0.49
14	314	0.73	0.77	0.65	0.71	0.50	0.48	0.51
15	272	0.65	0.80	0.59	0.70	0.43	0.39	0.42
16	242	0.67	0.78	0.56	0.67	0.46	0.42	0.45



Gender	n	PS	BSL	BSR	BC	OPL L	OPL R	OPL C
Male	1403	0.71	0.77	0.71	0.74	0.48	0.46	0.48
Female	1743	0.76	0.81	0.72	0.76	0.53	0.51	0.54



ES-LL Committee	PS	BSL	BSR	BC	OPL L	OPL R	OPL C
Member	0.83	0.82	0.81	0.82	0.58	0.58	0.60
Non-Member	0.72	0.80	0.72	0.76	0.49	0.47	0.50



Implications



Implications



