LIBER 40th Annual Conference

29 June - 2 July 2011

Universitat Politècnica de Catalunya, Barcelona

University of HUDDERSFIELD

Does library use affect student attainment? A preliminary report on the Library Impact Data Project

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http://eprints.hud.ac.uk/10208/

#lidp

#jiscad

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Background

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- Huddersfield's non/low usage project
  - Data from 700+ courses from 2005 onwards
  - White, S and Stone, G (2010) Maximising use of library resources at the University of Huddersfield. Serials, 23 (2). pp. 83-90. http://eprints.hud.ac.uk/7811/

Non/Low Use Project

digging deeper into data

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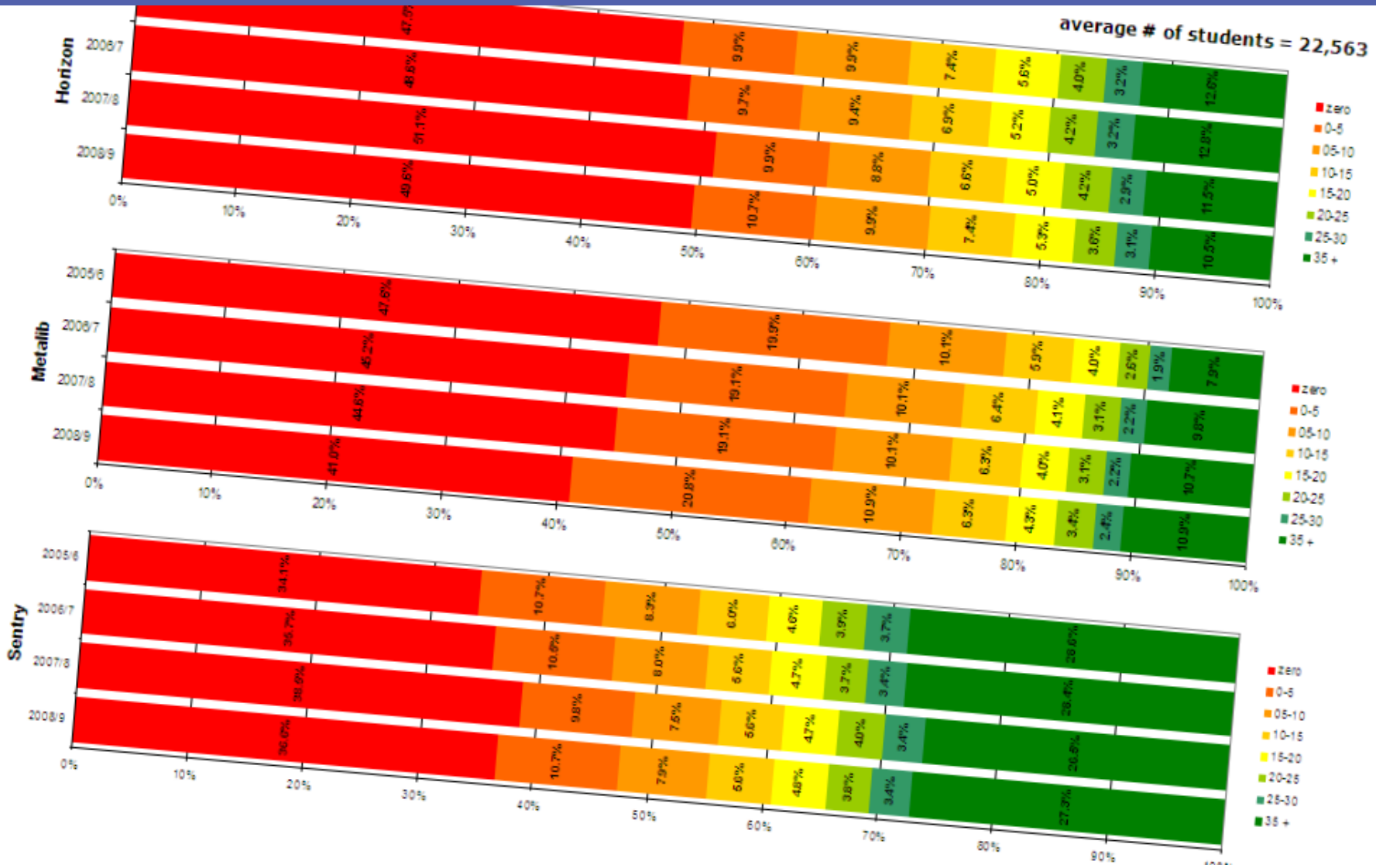

Measuring Library Impact
2008/9 honours graduates

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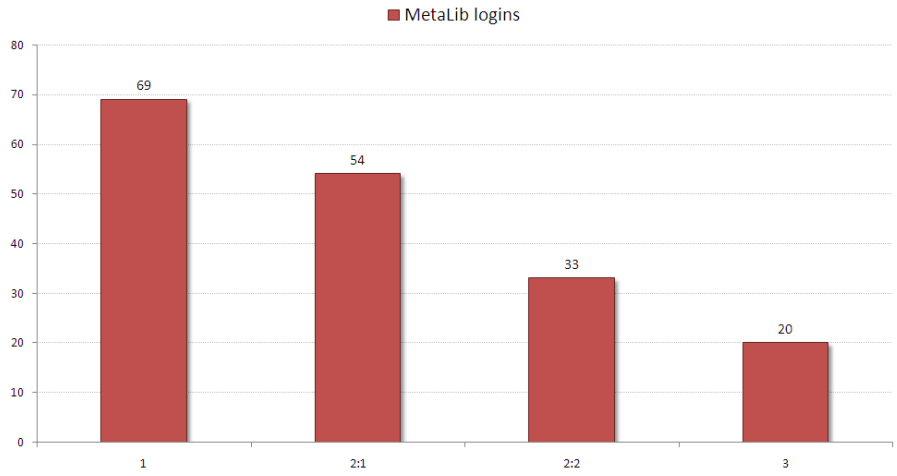

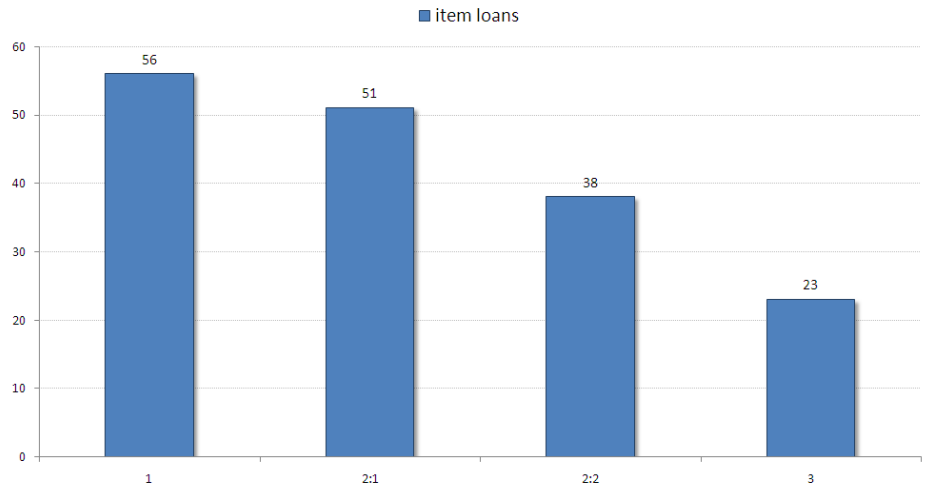

Analysis of the results consistently revealed a correlation between e-resource use, book borrowing and student attainment

This appears to be the case across all disciplines

Results

- Not a cause and effect relationship
- Never proven statistically significant
- Potential for collaboration on future projects

http://www.flickr.com/photos/atoach/3344411469/

JISC Activity Data Call

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- Obtained funding from the JISC Activity Data Call
- 6 month project (Feb-Jul 2011)

Library Impact Data Project

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To prove the hypothesis that…

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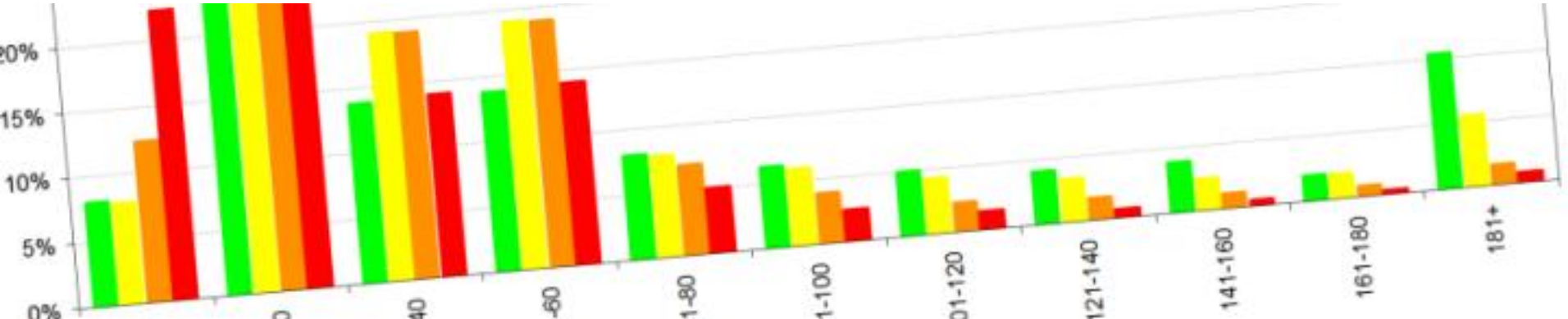
“There is a statistically significant correlation across a number of universities between library activity data and student attainment”



Project reports

- Themed posts
  - The Project Plan
  - Hypothesis
  - Users
  - Benefits
  - Technical and Standards
  - Licensing & reuse of software and data
  - Wins and fails (lessons along the way)
  - Final post

Data requirements

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- For each student who graduated in a given year, the following data was required:
  - Final grade achieved
  - Number of books borrowed
  - Number of times e-resources were accessed
  - Number of times each student entered the library, e.g. via a turnstile system that requires identity card access
  - School/Faculty

Legal issues

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- Consultation with JISC Legal, University legal officer and data protection officer
- Ensured that any identifying information is excluded before it is handled for analysis
- Excluded any small courses to prevent identification of individuals e.g. where a course has less than 35 students and/or fewer than 5 of a specific degree level
- Received guidance from the Using OpenURL Activity Data

Data issues

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- Anticipated that there may be problems in getting enough data to make the project viable
  - Potential partners were asked to confirm that they could provide at least 2 of the 3 measures of usage as well as student grades
  - Huddersfield has provided definitions on the data required and the form the data can be accepted in
- Some partners have already run into some issues with data collection, but it is felt that there is still enough information to prove the hypothesis one way or another

Initial findings

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- Are we measuring apples against pears or are we really on to something?
- Probably!

http://www.flickr.com/photos/mammaoca2008/4163158549/

Can we prove the hypothesis?

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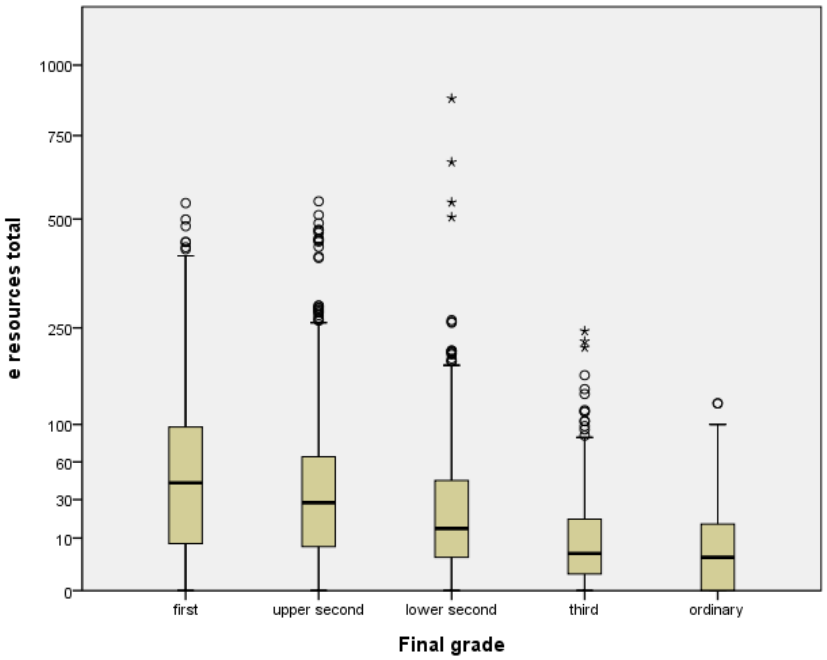
- Not quite!
- Due to the data not being continuous, a correlation cannot be calculated

http://www.flickr.com/photos/26015375@N06/3715306069/

Further statistical tests (1)

- Running a Kruskal-Wallis test
  - to indicate whether there is a difference between values e.g. between levels of e-resource usage across degree results
  - THEN we analyse the data visually to check which variables to compare



Further statistical tests (2)

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- Running a the Mann-Whitney U test to see whether there is a significant difference between variables tested

- Initial findings imply that there is a relationship between usage and attainment
- And that these findings concur with previous tests using ANOVA and the Student T test

What we think we can prove

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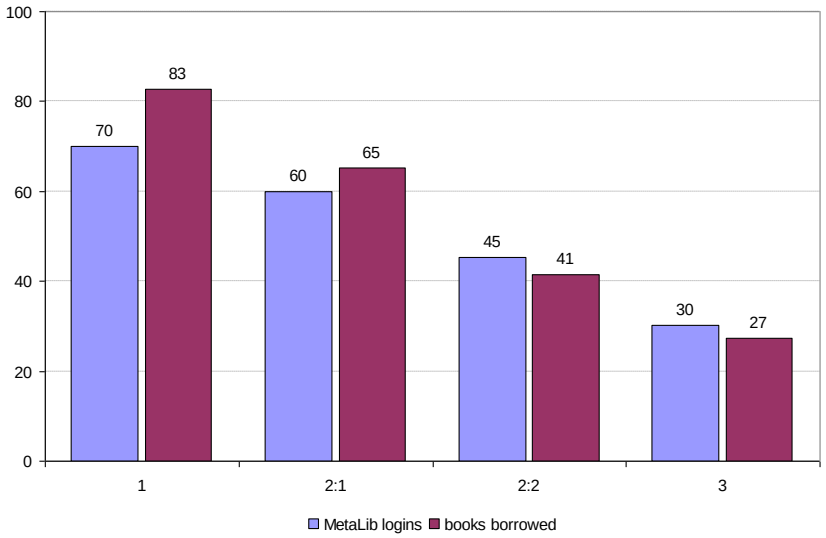
- That the relationship and variance means that you can believe what you see
- And you can believe it across a range of data, e.g. subjects
- So library usage does impact on students attainment



Remember the disclaimer!

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Not a cause and effect relationship

Library Impact Data Project

book loans inc. renewals (2009/10)

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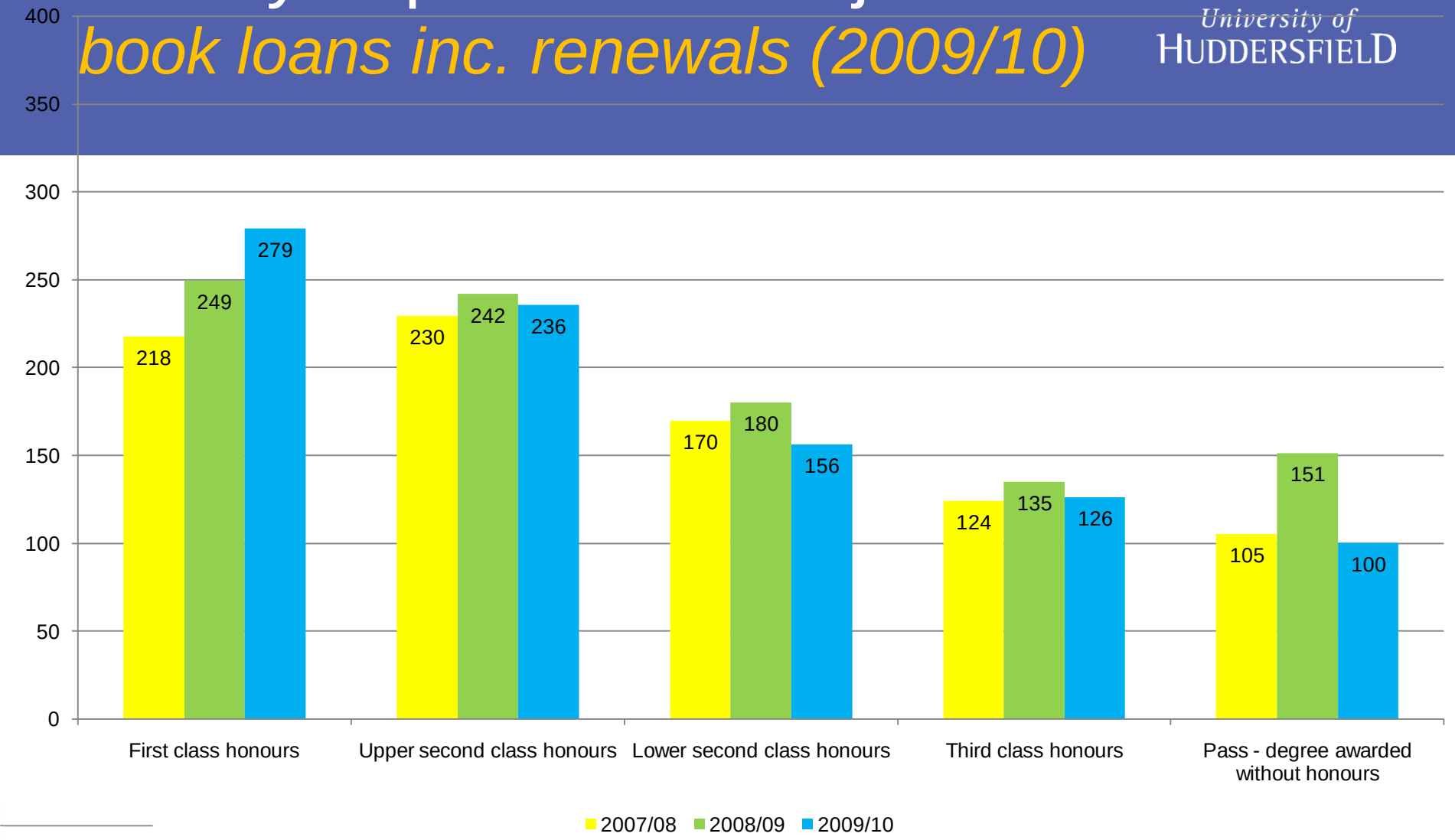

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book loans & Athens (2009/10)

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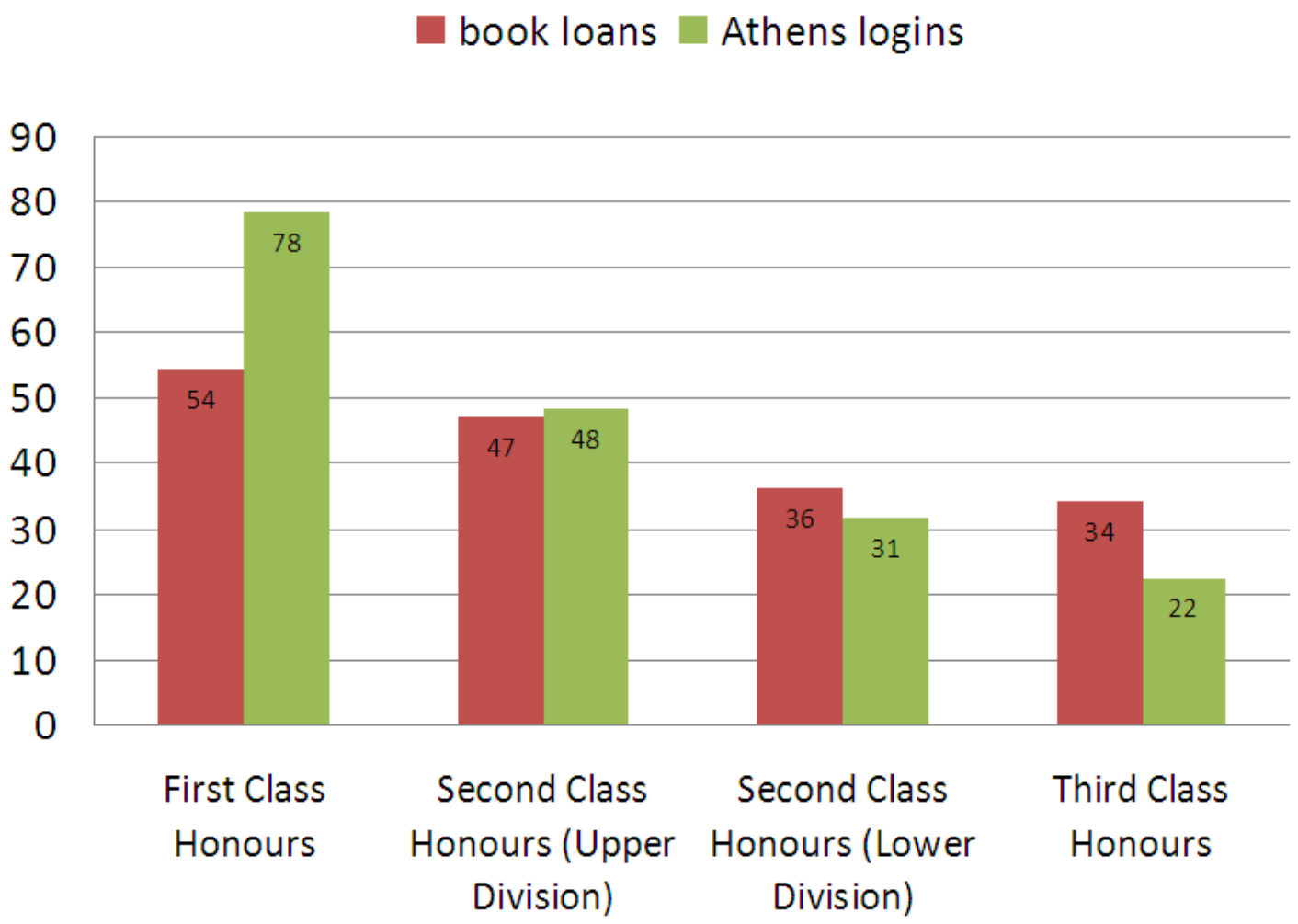

Library Impact Data Project

library PC logins & visits (2009/10)

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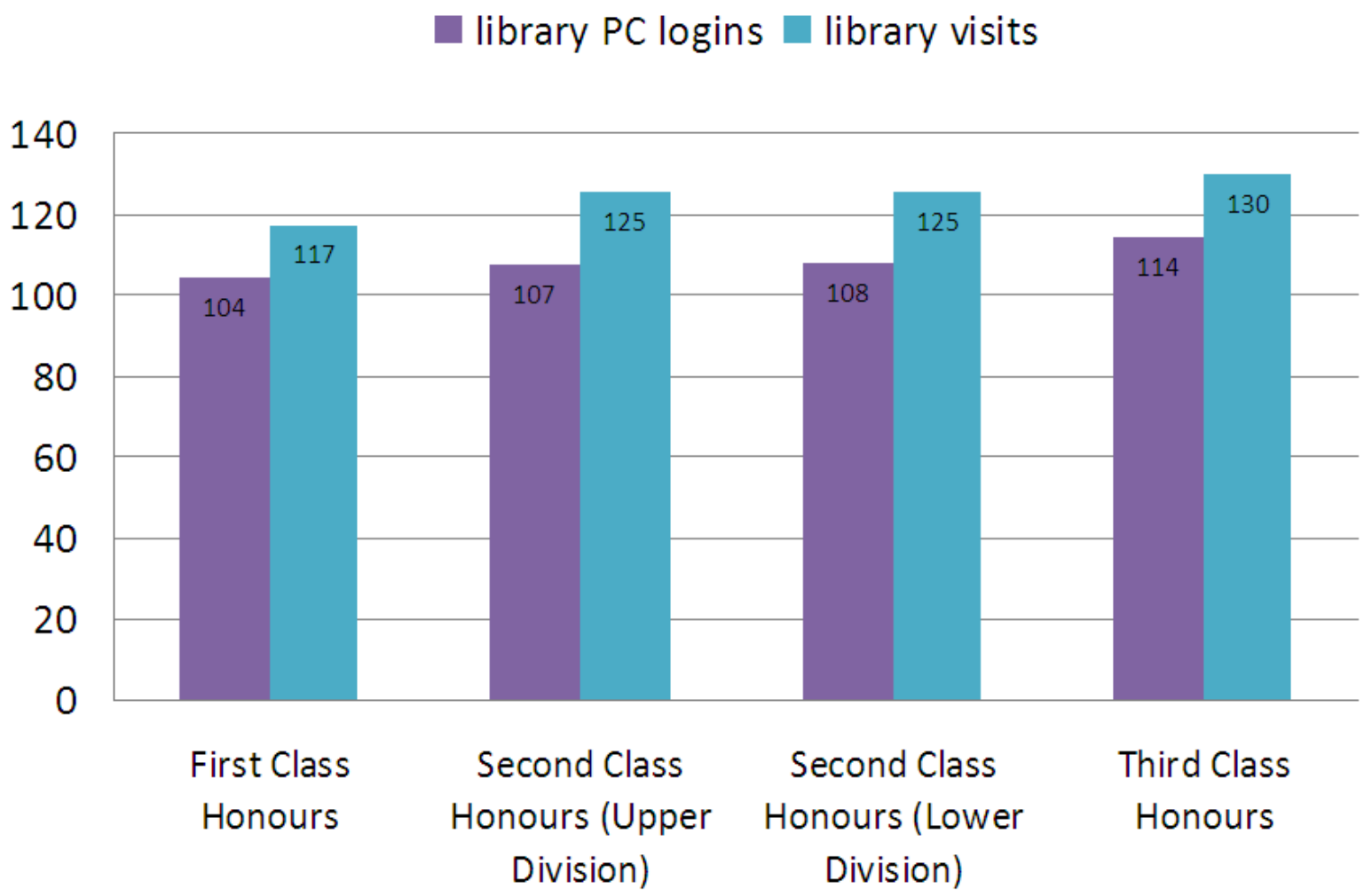

Linking back to non/low usage

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- At this early stage, for books and e-resource usage, there appears to be a statistical significance across all partner libraries

- If we know that there is a link between usage and attainment
  - We can link this back to non/low usage

Measuring Library Impact

2008/9 – library visits

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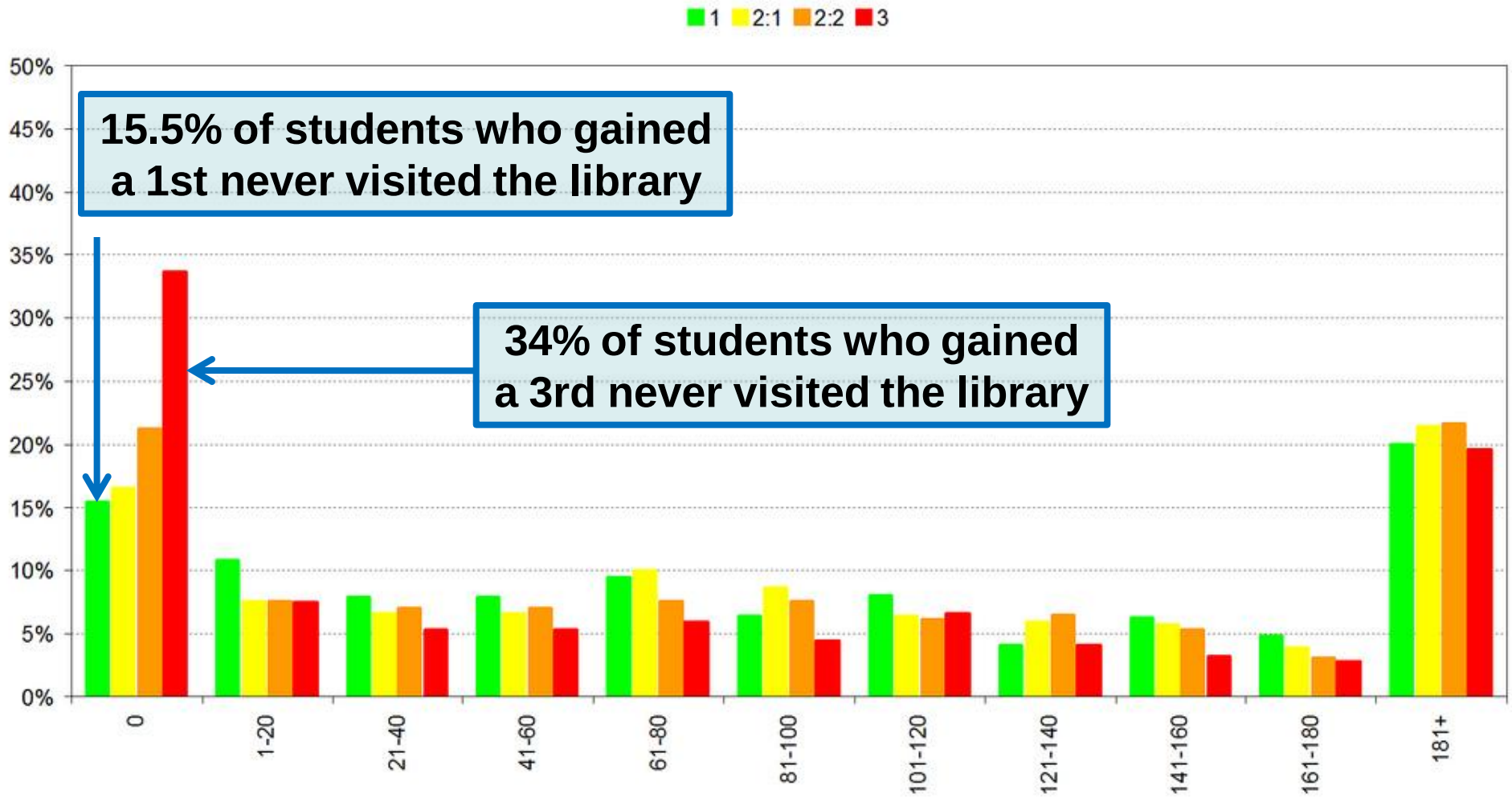

Measuring Library Impact

2008/9 – MetaLib usage

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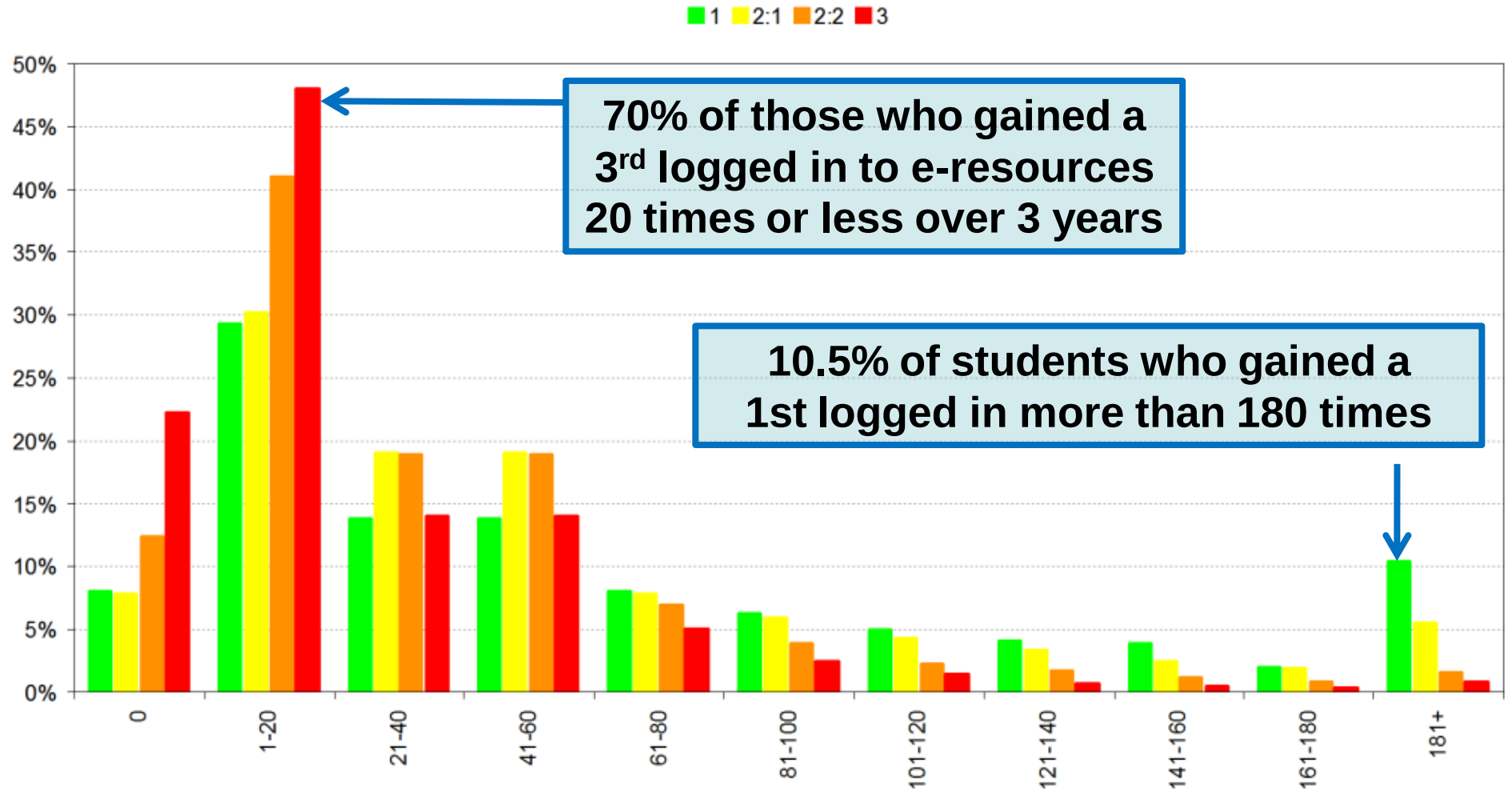

Measuring Library Impact

2008/9 – book loans

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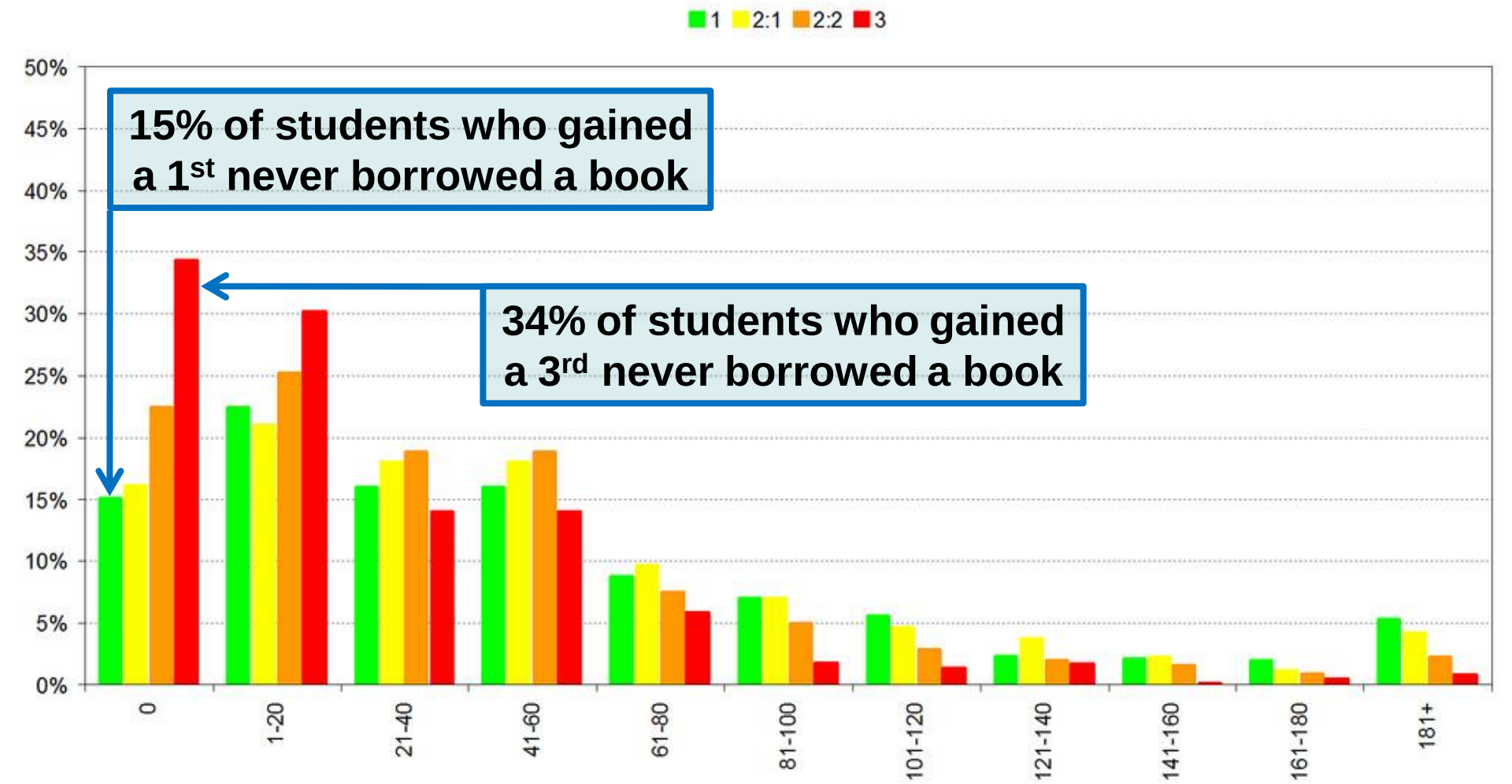

Profiling non/low users

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- Flesh out themes from the focus groups
  - to advise on areas to work on
- Check the amount and type of contact subject teams have had with the specific courses
  - to compare library teaching hours to attainment
- Baseline questionnaire or exercise for new students
  - To establish the level of information literacy skills for new students
- Target our users by concentrating staff resources at the right point

Better use leads to better attainment

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Next steps for the project

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- Finish statistical testing
- Pull out any themes from the focus groups
- Release the data on an Open Data Commons Licence
- Release a toolkit to help others benchmark their data

- Do cuts to the information budget mean that attainment will fall?
- Can we add more value by better use of resources?
  - By analysing the data in conjunction with UCAS tariff points

Acknowledgements

- Dave Pattern and Bryony Ramsden

- Phil Adams, Leo Appleton, Iain Baird, Polly Dawes, Regina Ferguson, Pia Krogh, Marie Letzgus, Dominic Marsh, Habby Matharoo, Kate Newell, Sarah Robbins, Paul Stainthorp

Thank you

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- http://library.hud.ac.uk/blogs/projects/lidp/
- http://eprints.hud.ac.uk/10208/

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