According to big data: Who are museums’ visitors in Germany?

**Background**
- Audience Development as a relevant concept of museums work
  - Need to know its (non-)visitors
  - Develop, design, communicate, and distribute educational programmes for both visitors and non-visitors
- Museums undertake their own visitor-structure analysis
- But: general audience research for a whole city, a federal state/department/region or an entire country are missing (cause: costs, conducting difficulties, little interest in cultural activities)

**Open questions**
- Nevertheless, big data could be helpful to clarify who is the general (non-)audience in museums and what kinds of educational offerings are needed. Or could it not?
- What did big data say: In general, who visits museums in Germany?

**Data**
- NEPS - National Educational Panel Study
  - (collect longitudinal data in Germany throughout the life span, focus: education)
- Starting cohort 6 (adults), wave 7 (2014/15)
  - N = 9770
    - 49.2% male (N = 4804), 50.8% female (N = 4966)
    - Average age: M = 52.07 years, SD = 10.85, Min = 28.75, Max = 72.17
  - Cultural capital (one item):
    - Now we want to address further activities one can do during one’s spare time.
    - How often have you done the following things in the past 12 months:
      - visited a museum or an art exhibition?
        - Never
        - Once
        - 2 to 3 times
        - 4 to 5 times
        - More than 5 times
  - Non-visitors: 36.2% (N = 3532)
  - Visitors: 63.8% (N = 6232)

**Methods**
- Descriptive statistics, (non-)parametric comparisons, regression analysis (partly constructive replication of Kirchberg 2005) using SPSS and Stata

**Benefits of big data**
- Generalizable data
- Could validate single museum visitor-structure analysis
- Stimulating thinking about existing opinions about (non-)visitors
- Basic knowledge for developing educational offerings for both visitors and non-visitors (Who are they?)
- Possibility to draw a sample of specific non-visitors → obtain more relevant information about this group → develop an offering

**Limitations of NEPS (big data)**
- No differentiation between different museum types
- Only a few variables relevant for visitor-structures are gathered (added and/or novelty value?)
- No relevant information about motives for visiting & used educational offerings
- Of course, data couldn’t answer the question how to reach non-visitors

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**Following NEPS adult museums’ visitors in Germany approximately tend to...**

**Socio-economic**
- have a higher educational level (e.g. university degree).
- have an occupational status.
- have a higher net household income (above 3,000 Euro/month).

**Demographic**
- be one year older.
- (No significance: gender, marital status, number of children)

**Cultural capital**
- do more reading on average per day in their free time.
- have a higher number of (real) books at their home.
- participate more often in - opera, ballet, classical concert
  - - theatre.
  - - cinema.
  - - rock-pop-concert.

**Sports**
- do sports (average per week) more often.

**Satisfaction**
- be more satisfied with their life in general.

**Table:** Results of logistic regression analysis: sample size (N), dichotomous outcome variable (non-visitors/visitors)

<table>
<thead>
<tr>
<th></th>
<th>Socio-economic</th>
<th>Demographic</th>
<th>Cultural capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>7,259</td>
<td>9,764</td>
<td>9,732</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>-4337.44</td>
<td>-6372.15</td>
<td>-5195.67</td>
</tr>
<tr>
<td>Chi² (p)</td>
<td>677.29 (.000)</td>
<td>35.05 (.000)</td>
<td>2342.22 (.000)</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.0724</td>
<td>0.0027</td>
<td>0.1839</td>
</tr>
</tbody>
</table>

**References**
- Replications or rather other representative surveys of (German) population are needed (upcoming study e.g.: “Cultural education and cultural participation in Germany”, 2016-2019, Prof. Dr. Gunnar Otte, University of Mainz, funded by BMBF)

**Conclusion**
- The NEPS panel data confirm our already existing wide knowledge of museum audience for Germany as whole
- Cultural capital predicts the probability of visiting a museum or an art exhibition the best → supporting regression analysis from Kirchberg (2005)
- Further analysis are needed, e.g. taking a look at the differentiation between different numbers of visits (more significance?)