

Beginning to think about Open Science

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- There are no right or wrong answers here!
- The idea is to help us start thinking about 'Open Science'.

Thought Experiments

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5. “Which research area should always stay open?”

Thought Experiments (Cont.)

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7. “How can scientists reach non-scientists better?”
8. “Which field should be instantly made transparent?”
9. “Everyday thing more people should know the science of?”
10. “How to encourage wider participation in open science?”

Thought Experiments (Cont.)

11. “One project you would crowdsource globally?”

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11. “One project you would crowdsource globally?”
12. “Historical breakthrough faster with open science?”

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11. “One project you would crowdsource globally?”
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- 14. “What risks come with open scientific methods?”

Thought Experiments (Cont.)

11. “One project you would crowdsource globally?”
12. “Historical breakthrough faster with open science?”
13. “If you could share one dataset with all?”
14. “What risks come with open scientific methods?”
15. “What ethical issues arise from open scientific data?”

Learning Objectives

The remainder of this session aims to:

- Give an overview of ‘Open Science’ principles.
- Discuss what it is, and, importantly is not.
- Briefly mention how it applies to qualitative work.
- Despite quant focus, it is a major general (REF) debate.
- Introduce you to some of my ‘Open’ research work.
 - Discuss what open quant research can make possible.
- Aim: give a broader ‘flavour’ of the potential of Open work.

Everything here is made with free, and ‘Open’ tools:

- Linux (operating system)
- Python (data wrangling and statistical software)
- L^AT_EX (typesetting)

Why mention this? We’re talking about ‘Open’ Science!

What is ‘Open Science’?

‘Open science ... promotes transparency, accessibility, and collaboration throughout the research process. It involves making scientific knowledge, data, and methodologies openly available to the public, researchers, and other stakeholders, without restrictions or barriers.’

Source: ChatGPT 4-o

What is the ‘Scientific Record’?

‘The scientific record is crucial for the advancement of knowledge and serves as a foundation for scientific progress. It provides a means for scientists to communicate their research findings to the broader scientific community, allowing for scrutiny, validation, and further exploration.’

Source: ChatGPT 4-o.

Pragmatically ‘Open Science’:

1. Allows creation of value and advancement.
2. Allows verification of the scientific record.
3. Allows public disclosure and engagement.
4. Allows science to become accessible/transparent.

*"If I have seen further, it is by standing on the
shoulders of giants."*

Source: Isaac Newton to Robert Hooke, in February 1676

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 4. Consider using open-source software.
- Disclaimer: presently LNL Co-ordinator for UKRN.

One of the most important parts of the book is this table:

Compared to Original	Original Procedures	Key Differences
Same Data	Verification	Reanalysis
Different Data	Direct Replication	Extension

- Maybe you've heard 'Verification' called 'Exact Replication'.
- Increasing push towards teaching concepts of 'Replication'.
- One area where Sociology has really progressed forwards.

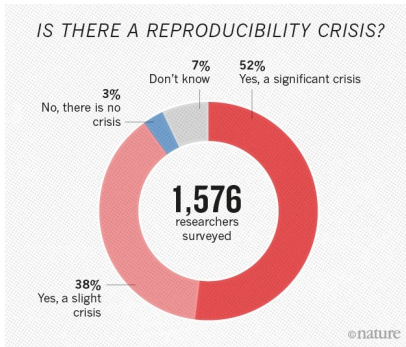
How it started:

Why Most Published Research Findings Are False

John P. A. Ioannidis

Published: August 30, 2005 • <https://doi.org/10.1371/journal.pmed.0020124>

How it's going:



‘But I do qualitative work!’

How do these ideas relate to researchers doing qualitative work?

1. Transparency in Fieldwork: Openly document fieldwork methods and decisions.
2. Open Field Notes: Share anonymized field notes for transparency.
3. Collaborative Interpretation: Invite peer or community interpretation of data.
4. Reflexive Journaling: Publish researcher reflections and biases.
5. Open Interviews: Share interview protocols and questions.

‘But I do qualitative work! (Cont.)’

6. Participant Feedback: Involve participants in data interpretation.
7. Open Coding Process: Publicize how themes and codes were developed.
8. Ethnographic Context: Provide detailed, open descriptions of research settings.
9. Transparent Ethics: Share how ethical dilemmas were navigated in the field.
10. Open Peer Review: Allow ethnographic work to be openly critiqued.

What does ‘Open Science’ look like?

1. Preprints and ‘Open Access’.
2. Publicly available data.
3. Open source code



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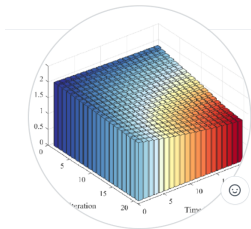
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Getting started

What does 'Open Science' look like in practice?

1. Preprints and 'Open Access'.
2. Publicly available data.
3. Open source code



Pinned

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A Scientometric Review of Genome Wide Association Studies

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Public ⋮

Source code for the GWAS Diversity Monitor

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These slides are made with an open source typesetting language!

I_make_this_slide.tex

```

\begin{frame}[]
  These slides are made with an open source typesetting language!
  \begin{center}
    \begin{scriptsize}
      \begin{minipage}{.95\linewidth}
        \begin{myenv}{guess$_\_what$__this$__does.py}
          \begin{minted}{latex}
            # Hello friends :)
          \end{minted}
        \end{myenv}
      \end{minipage}
    \end{scriptsize}
  \end{center}
\end{frame}

```

Open source statistical code can come in the form of Python (or R):

guess_what_this_does.py

```
import json, io, imageio, requests
from PIL import Image

def get_cat_bounded(url):
    api_ret = requests.get(url)
    if api_ret.status_code==200:
        text = json.loads(api_ret.text)
        while (text[0]['width']<=400 or text[0]['width']>=600) or \
            (text[0]['height']<=400 or text[0]['height']>=600):
            api_ret = requests.get(url)
            if api_ret.status_code==200:
                text = json.loads(api_ret.text)
        r = requests.get(api_text[0]['url'])
        return Image.open(io.BytesIO(r.content))

url = 'https://api.thecatapi.com/v1/images/search'
images = []
for _ in range(0, 50):
    images.append(get_cat_bounded(url))
imageio.mimsave('CATS.gif', images, fps=1)
```


Thats right: Cats!



Why show you this? Well, Python is great at lots of useful things:

1. Scientific Computing (SciPy, numpy)
2. Data visualisation (Matplotlib, seaborn)
3. Web scraping (requests)
4. Data wrangling (Pandas)

A natural choice for un/semi-structured data. Python also excels at NLP/ML, but maybe a little less with classical statistics.

Despite being qualitative researchers, I encourage learning (open source) quant tools.

Python is **great** at building new datasets. But why bother?

'We have been using the same data sets over and over again, and since we wanted new answers, we have been developing new econometric techniques to try to transform the data, and get more meaningful information out of them. Just having a fresh, new data set brings a whole new perspective, and I think people are starting to realize that, and gradually people are becoming more interested in data collection itself'

A. Cavallo, 15 November 2012 in Taylor et al. (2014)

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New datasets allow fresh **insight** and are typically **open**!

What's the main issue with using proprietary, licensed software?

5 Reasons Why Open Science Benefits You

1. Increases visibility/impact across scientific communities.
2. Promotes transparency, enhancing trust in research findings.
3. Fosters collaboration, broadening networks and opportunities.
4. Accelerates discovery by sharing data and resources openly.
5. Strengthens reproducibility, ensuring reliable/credible results.

5 Reasons Why Open Science isn't Costless

1. Time-consuming to share data, code, and protocols openly.
2. Risk of being scooped by faster competitors.
3. May expose errors; potential criticism/reputational harm.
4. Lack of incentives or recognition in some research fields.
5. Intellectual property concerns/loss of competitive advantage.

Things that Open Science is Not

1. Only for academics (it's for everyone)!
2. Lowering research quality (it promotes rigorous review).
3. Only about sharing data (it encompasses all stages).
4. Removal of IP (it allows for proper attribution/licensing)
5. Requiring of all research to be open (some may remain confidential)
6. Too complex for beginners (lots of accessible tools for all levels!)

Generative AI Facilitates Open Science

- Summarizes open-access research into multilingual digests.

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- Translates complex findings into accessible language.

GDPR and Open Science

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5. Imposes strict rules on sensitive categories

GDPR and Open Science (Cont.)

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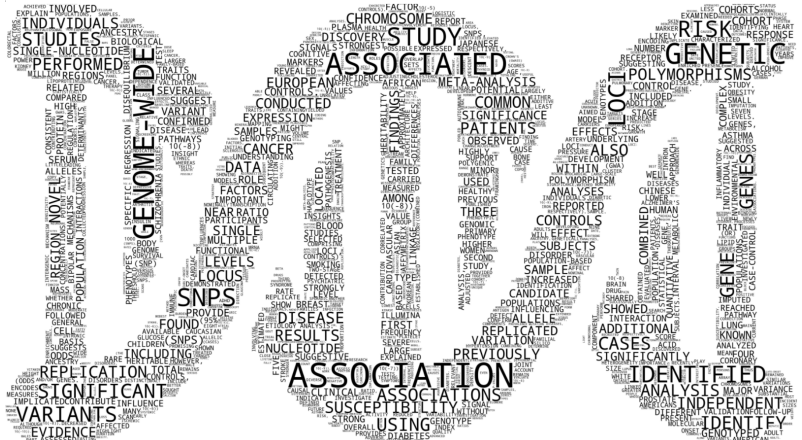
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4. Varies across jurisdictions, complicating collaboration
5. Requires researchers to plan for compliance early

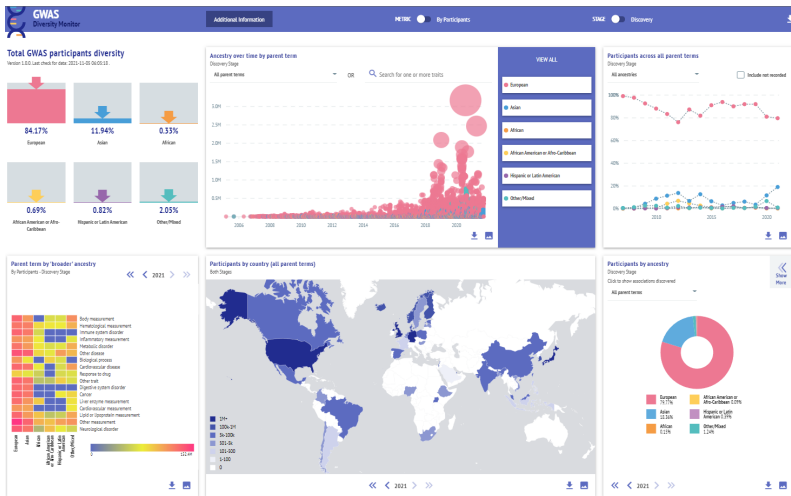
Studying Inequalities through Open Science

- My early scientometric work analyzed GWAS.
- It took curated lists of catalogued information from the European Bioinformatics Institute. We published two papers:
 1. Conduct a thorough scientometric review.
 2. Launch a substantial interactive dashboard.
- Why is 'open' scientometrics good? It helps us understand what has already been done, and where opportunities remain!



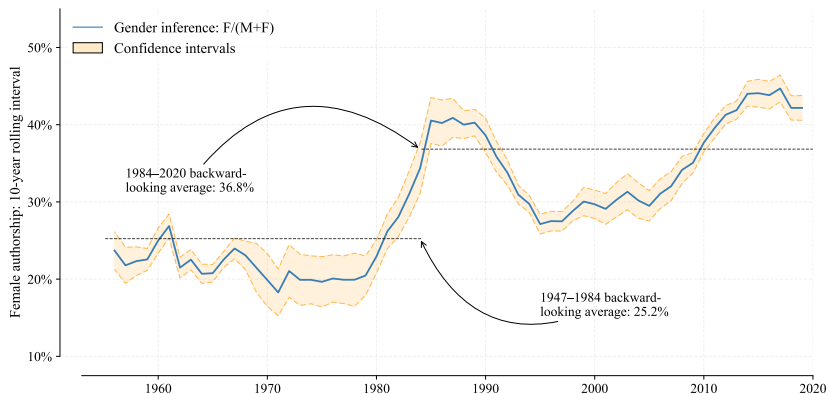
‘The Scientometrics of Genome Wide Association Studies’

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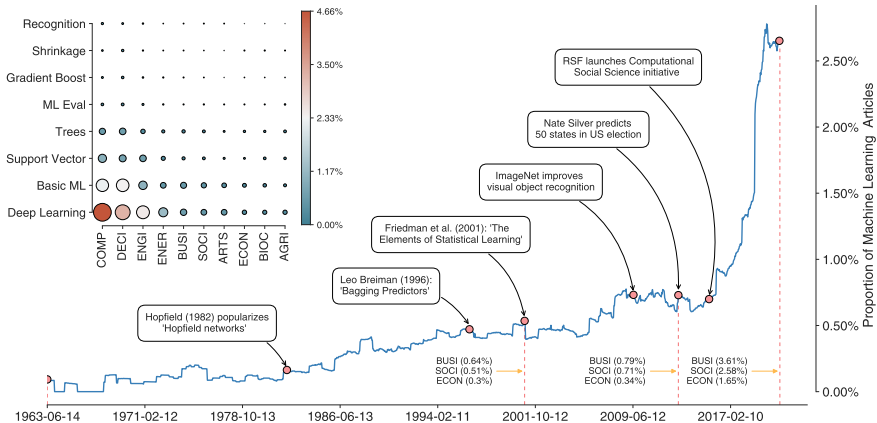


‘The GWAS Diversity Monitor Tracks Diversity in Real Time’
with Melinda C. Mills

Studying Gender with Open Science Tools



‘Population Studies at 75 Years: An empirical review’
With Melinda C. Mills



‘The Rise of Machine Learning in the Academic Social Sciences’

With Dave Kirk and Mark Verhagen

Administrative Data is an invaluable resource for Good.

ADR UK (2018)

- UK leads the world in terms of ‘Openness’ of government data.
- The value of public government data is increasingly recognised.
 - Increasingly recognised by the ESRC (e.g. ADRNs).
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 - Using curated data from the ONS SRS would be too easy.

TRANSPARENCY INTERNATIONAL UK
 Open Access Home Other versions DONATE About

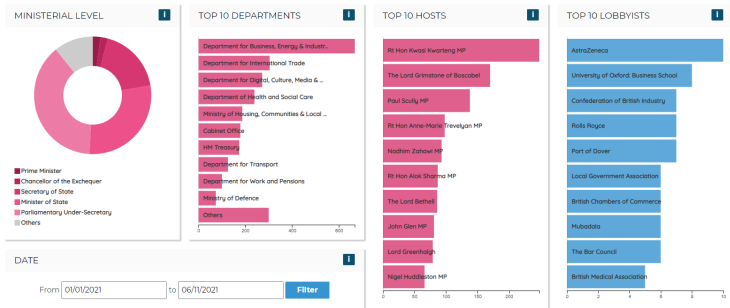
2,623 out of 74,435 meetings

SEARCH BY LOBBYIST, HOST, SUBJECT

Reset

UK GOVERNMENT

LOBBYIST



openaccess.transparency.org.uk

With Ian Knowles, Paulo Serôdio, David Stuckler and TI UK

Procurement Data

- David Cameron opened data on government contracts (2010).
- This provided a totally new type of semi-structured data.
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- This sounds like it might be useful for academic research...
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However, I am currently working with the ONS to improve collection!

Lets list a few of the problems with procurement data. Some are common to semi-structured data, some are not:

1. Some organisations don't believe in their legal obligation.
2. Every file is in a heterogeneous format in a different location.
(There are **thousands** of locations on the internet.)
3. Data commonly converted from a tabular file...

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1. Some organisations don't believe in their legal obligation.
2. Every file is in a heterogeneous format in a different location.
(There are **thousands** of locations on the internet.)
3. Data commonly converted from a tabular file... **into** a .pdf!
(This is a **direct** downgrade in the Berners-Lee 5* schema.)
4. Naturally, of course, there are no supplier UIDs.

Just one quick example, followed by what we can do...

A3131

Expenditure Over Threshold

Department/Agency	City	Supply	Public Sector	Supplier	Transaction number	AP Amount	VAT registration number	Purchase Invoice number	
Department of health	Benoni	Benoni CCG	3054201	Clinical/Medical-Clinic Public Sector	COMMUNITY SERVICES	BEXLEY COUNCIL	11599483	608 000.00	6100071863
Department of health	Benoni	Benoni CCG	3054201	Clinical/Medical-Clinic Public Sector	COMMUNITY SERVICES	BEXLEY COUNCIL	11599482	100 000.00	6100071861
Department of health	Benoni	Benoni CCG	3054201	Other Gen Supplies & Inv	COMMUNITY SERVICES	BEXLEY COUNCIL	11599483	156 669.00	6100071862
Department of health	Benoni	Benoni CCG	3054201	Clinical/Medical-Clinic Public Sector	WYLLIE RESTAURANT	BEXLEY COUNCIL	11599482	64 000.00	6100071857
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11607291	68 226.00	6054838507
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING - NON ACUTE	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11607291	68 226.00	6054838507
Department of health	Benoni	Benoni CCG	3054201	Clinical/Medical-Voluntary Sector	COMMUNITY SERVICES	BEXLEY COUNCIL	11615024	30 000.00	6100071859
Department of health	Benoni	Benoni CCG	3054201	Clinical/Medical-Independent Sector	ACUTE COMMISSIONING	IN-HEALTH LTD	11615070	38 528.24	787424655
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	HOSPICES	GREENWICH & BEXLEY COMMUNITY HOSPICE	11623537	218 000.00	871
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res NHS Trust-Contract Baseline	ACUTE COMMISSIONING	LEWISHAM & GREENWICH NHS TRUST	11633401	4 440 144.00	84458257
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res NHS Trust-Contract Baseline	PROGRAMME PROJECTS	NHS PROPERTY SERVICES LTD	11641857	213 167.00	146205964
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res NHS Trust-Contract Baseline	PROGRAMME PROJECTS	NHS PROPERTY SERVICES LTD	11642864	25 672.53	48413715
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESEND NHS TRUST	11642923	-38 068.00	2003004184
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESEND NHS TRUST	11642923	20 000.00	2003004139
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11654425	-3 662 119.34	CM00218970
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res NHS Trust-Contract Baseline	AMBUULANCE SERVICES	LONDON AMBUULANCE SERVICE NHS TRUST	11663375	587 757.29	100111174
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11666893	768 536.00	227 489
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11666893	768 536.00	233561
Department of health	Benoni	Benoni CCG	3054201	Cont Care Adult 100% Fully Funded	FUNDED NURSING CARE	BURA CARE HOMES	11669582	26 512.00	2359731641
Department of health	Benoni	Benoni CCG	3054201	Charges From GCU	RECHARGES	NHS SOUTH EAST GCU	11669595	85 249.00	GB554442045
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11671023	273 828.00	1206096
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11680115	82 558.00	CO0129403
Department of health	Benoni	Benoni CCG	3054201	Hilton-Foundation Trusts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701702	228 989.00	278586
Department of health	Benoni	Benoni CCG	3054201	Hilton-Foundation Trusts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701702	141 917.00	278532
Department of health	Benoni	Benoni CCG	3054201	Hilton-Foundation Trusts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701710	807 726.00	378922
Department of health	Benoni	Benoni CCG	3054201	Income Mx < 11%	BALANCE SHEET	HMRC	11720565	47 733.00	6044623331
Department of health	Benoni	Benoni CCG	3054201	Income Mx < 11% Student Loans	BALANCE SHEET	HMRC	11720565	738.00	6044623331
Department of health	Benoni	Benoni CCG	3054201	National Insurance < 1% NI&P-RMS	BALANCE SHEET	HMRC	11720565	29 114.84	6044623331
Department of health	Benoni	Benoni CCG	3054201	National Insurance < 1% F&E	BALANCE SHEET	HMRC	11720565	19 284 116.00	120920556570 MAR 18
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11724081	213 245.00	2029126
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11724081	288 141.00	2295894
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11724081	27 120.00	1000044308
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722209	266 424.00	231364
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11724114	224 793.00	2029126
Department of health	Benoni	Benoni CCG	3054201	Clinical/Medical-Clinic Public Sector	PLANNED CARE	LEASIDE EYE TRUST	11734023	449 310.00	2029126
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Over Under Performance	ACUTE COMMISSIONING	QUEEN VICTORIA HOSPITAL NHS FOUNDATION TRUST	11738362	-28 056.34	1365
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Over Under Performance	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11738369	53 540.00	CO004988
Department of health	Benoni	Benoni CCG	3054201	Hilton-Foundation Trusts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11748440	345 505.00	175451
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	QUEEN VICTORIA HOSPITAL NHS FOUNDATION TRUST	11748386	47 300.00	2010009982
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res NHS Trust-Contract Baseline	ACUTE COMMISSIONING	ROYAL HEALTH UNIT TRUST	11771725	10 826.00	263322
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESEND NHS TRUST	11771723	2 691 512.00	1000044308
Department of health	Benoni	Benoni CCG	3054201	Hilton-Foundation Trusts	MENTAL HEALTH CONTRACTS	SOUTH LONDON AND MAUDSLAY NHS FOUNDATION TRUST	11777767	25 202.00	800027387
Department of health	Benoni	Benoni CCG	3054201	Clinical/Medical-Voluntary Sector	COMMUNITY SERVICES - NON ACUTE	BEXLEY COUNCIL	11801116	30 000.00	6100071860
Department of health	Benoni	Benoni CCG	3054201	Hilton-Foundation Trusts	MENTAL HEALTH CONTRACTS	OXLEAS NHS FOUNDATION TRUST	11782492	1 728 324.00	378937
Department of health	Benoni	Benoni CCG	3054201	Hilton-Foundation Trusts	MENTAL HEALTH CONTRACTS	OXLEAS NHS FOUNDATION TRUST	11801116	30 000.00	378908
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Department of health	Benoni	Benoni CCG	3054201	Hilton-Foundation Trusts	CHILD AND ADOLESCENT MENTAL HEALTH	OXLEAS NHS FOUNDATION TRUST	11818020	258 781.00	378905
Department of health	Benoni	Benoni CCG	3054201	Hilton-Foundation Trusts	CHILD AND ADOLESCENT MENTAL HEALTH	OXLEAS NHS FOUNDATION TRUST	11818020	55 506.00	378904
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Department of health	Benoni	Benoni CCG	3054201	Clinical/Medical-Clinic Public Sector	WYLLIE RESTAURANT	GREENWICH INTERNATIONAL	11818190	25 000.00	6054838507
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11824800	1 869 517.00	243430
Department of health	Benoni	Benoni CCG	3054201	Clinical/Medical-Clinic Public Sector	LEARNING DIFFICULTIES	BEXLEY COUNCIL	11854467	250 000.00	6100071247
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11854467	1 167 126.00	6054838507
Department of health	Benoni	Benoni CCG	3054201	Clinical/Medical-Independent Sector	COMMUNITY SERVICES	BELLEVUE ROAD SURGERY	11903191	65 592.39	BA-0320156
Department of health	Benoni	Benoni CCG	3054201	Healthcare Srv Res CCG	NHS 111	NHS BROMLEY CCG	11923323	71 147.88	1002302149
Department of health	Benoni	Benoni CCG	3054201	Clinical/Medical-Independent Sector	COMMUNITY SERVICES	KAUF-CARD TOWN SURGERY	11923323	26 700.00	1002302149
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11923373	1 137 848.98	234497
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	GUY'S & ST THOMAS HOSPITAL NHS FOUNDATION TRUST	11931340	1 455 963.00	654923417
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	GUY'S & ST THOMAS HOSPITAL NHS FOUNDATION TRUST	11933581	9 133 812.00	654923417
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res NHS Trust-Non Contract	PLANNED CARE	LEWISHAM & GREENWICH NHS TRUST	11933581	-129 548.00	84458655
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951210	1 187 569.00	233276
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951210	200 156.00	CO00119029
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	PLANNED CARE	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951211	229 254.29	233240
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Department of health	Benoni	Benoni CCG	3054201	Cont Care Adult 100% Fully Funded	PHC AD FULL FUND PERKS HLTH FUND	BEXLEY COUNCIL	11951290	269 574.97	6100071865
Department of health	Benoni	Benoni CCG	3054201	Health Srv Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11959235	68 226.00	6054838507

Expenditure Over Threshold

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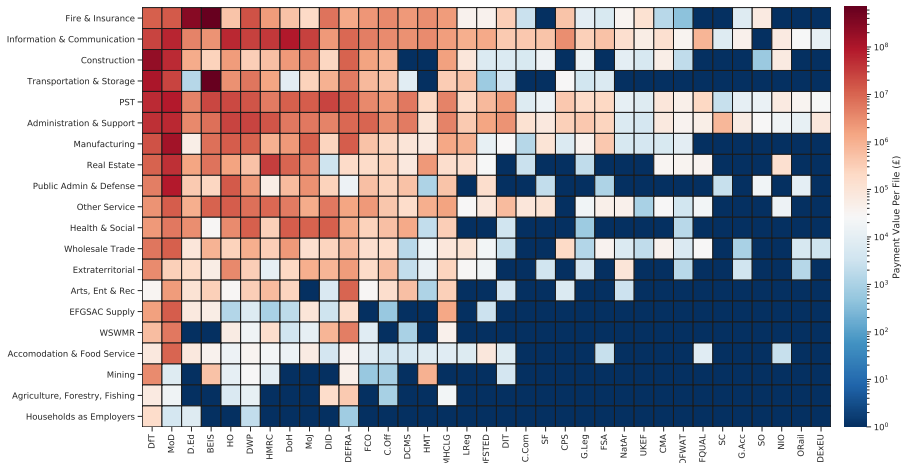
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Expenditure Over Threshold

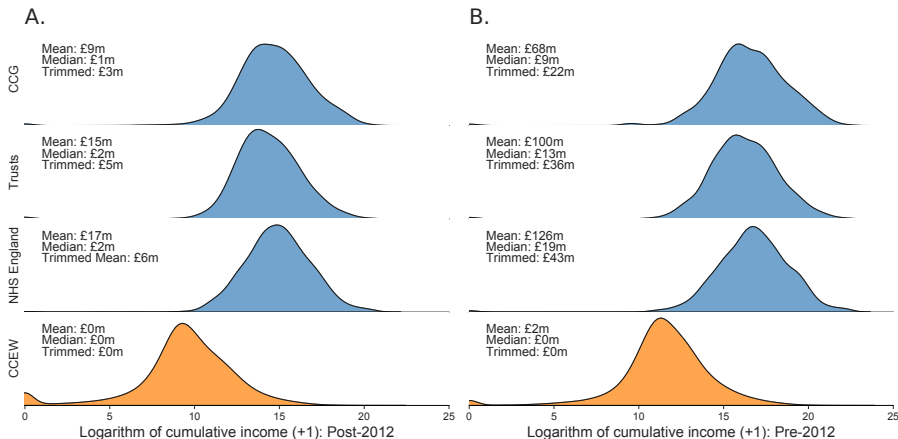
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Department of health	NHS	Becky CCG	3042401	ClinicalMedica-Clinic Public Sector	COMMUNITY SERVICES	11599635	100 000 000	6100071861
Department of health	NHS	Becky CCG	3042401	Open Gen Supplies & Serv	COMMUNITY SERVICES	11599637	156 669 000	6100071869
Department of health	NHS	Becky CCG	3042401	ClinicalMedica-Clinic Public Sector	WYLLIE RESTAURANT	11599642	64 000 000	6100071867
Department of health	NHS	Becky CCG	3042401	Heath Sln Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	11607291	68 226 000	605485867
Department of health	NHS	Becky CCG	3042401	Heath Sln Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING - NON ACUTE	11607292	68 226 000	605485867
Department of health	NHS	Becky CCG	3042401	ClinicalMedica-Clinic Public Sector	COMMUNITY SERVICES	11615604	30 000 000	6100071868
Department of health	NHS	Becky CCG	3042401	ClinicalMedica-Independent Sector	ACUTE COMMISSIONING	11615610	38 528 240	787424855
Department of health	NHS	Becky CCG	3042401	Heath Sln Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	11615612	158 147 000	6100071868
Department of health	NHS	Becky CCG	3042401	ClinicalMedica-Independent Sector	HOSPICES	11622637	218 000 000	871
Department of health	NHS	Becky CCG	3042401	Heath Sln Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	11636201	4 440 144 000	6448267
Department of health	NHS	Becky CCG	3042401	Heath Sln Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	11641657	218 147 000	6448267
Department of health	NHS	Becky CCG	3042401	Heath Sln Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	11642864	25 672 530	48413715
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Department of health	NHS	Becky CCG	3042401	Heath Sln Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	11642924	20 000 000	1000041339
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Department of health	NHS	Becky CCG	3042401	Charges From GCU	RECHARGES	11669995	85 249 000	GB054420405
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Department of health	NHS	Becky CCG	3042401	Heath Sln Res P8th Trust-Contract Baseline	ACUTE COMMISSIONING	11744386	47 400 000	201000982
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Department of health	NHS	Becky CCG	3042401	Heath Sln Res P8th Trust-Contract Baseline	PLANNED CARE	11951210	229 254 230	2334340
Department of health	NHS	Becky CCG	3042401	Heath Sln Res P8th Trust-Contract Baseline	PLANNED CARE	11951210	-411 000 000	CM00218929
Department of health	NHS	Becky CCG	3042401	Cont Care Adult 100% Fully Funded	CHC AD FULL FUND PERKS HLTH BUD	11951210	269 532 970	6100071866
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Expenditure Over Threshold

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‘Tools for Transparency in Central Government Spending’



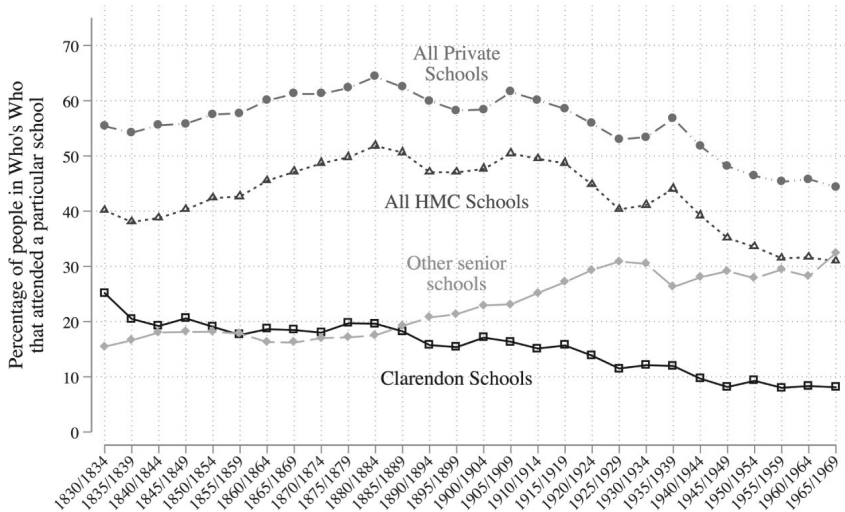
‘The Role of Non-Profits in Public Health Service Provision’

With John Mohan

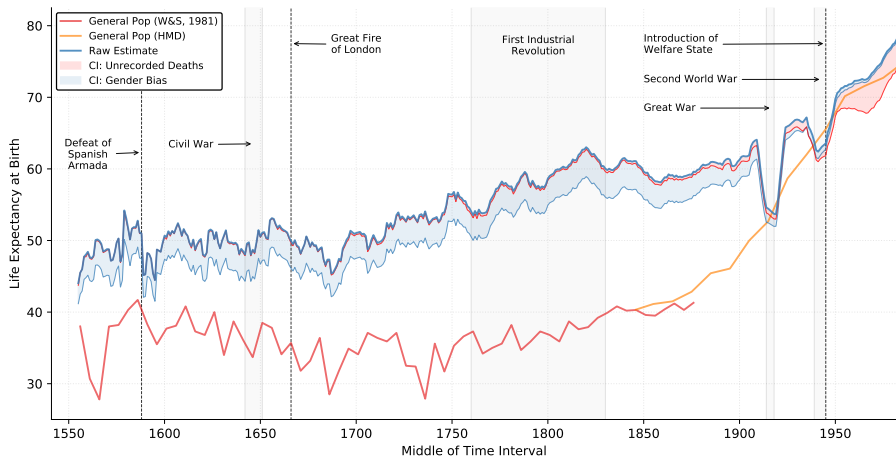
The heatmap displays the sentiment of tweets from 2014 to 2020. The x-axis represents the years, and the y-axis represents the sentiment categories: Positive, Neutral, and Negative. The color intensity indicates the frequency or proportion of tweets in each sentiment category for each year. Positive sentiment is represented by light blue, Neutral by light orange, and Negative by dark red. The chart shows a general trend of increasing negative sentiment over time, particularly after 2018.

'Creeping Commercialization in the NHS'

By Ben Goodair and Aaron Reeves



‘The decline and persistence of the old boy’
With Aaron Reeves, Sam Friedman. and Magne Flemmen



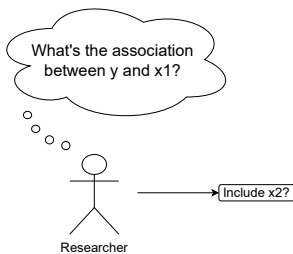
'The Legacy of Longevity: Inequalities in UK Life Expectancy 1500-2016'

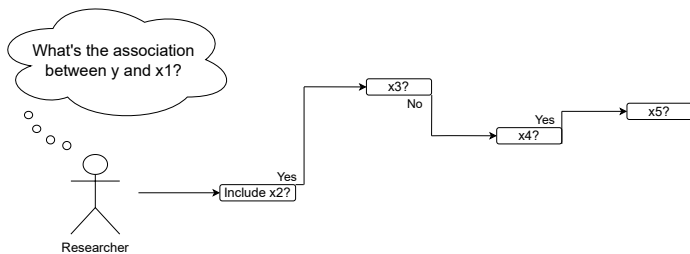
with Aaron Reeves, Felix Tropsch and Darryl Lundy

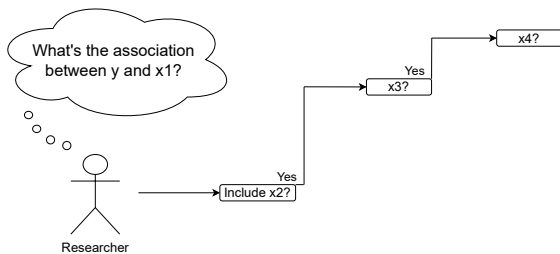
- There are close links between ‘Open Science’ and traditional modeling paradigms!
- By **opening** research, we can examine the certainty of statistical results.
- Does β_1 really equal 7.12452?

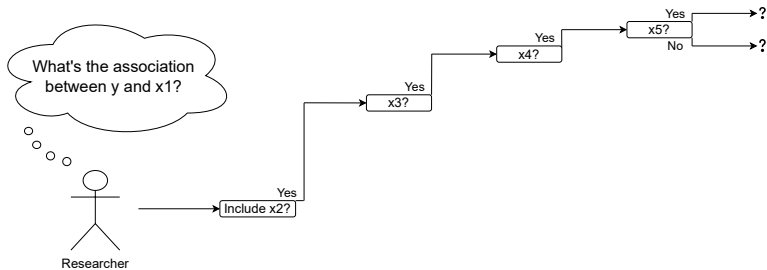
- There are close links between ‘Open Science’ and traditional modeling paradigms!
- By **opening** research, we can examine the certainty of statistical results.
- Does β_1 really equal 7.12452?
- How can we "take the ‘con’ out of econometrics"?

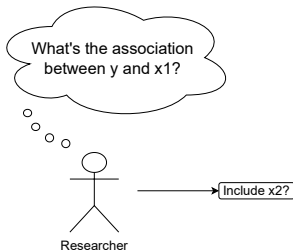
- There are close links between ‘Open Science’ and traditional modeling paradigms!
- By **opening** research, we can examine the certainty of statistical results.
- Does β_1 really equal 7.12452?
- How can we "take the ‘con’ out of econometrics"?
- Transparency and more computational procedures!

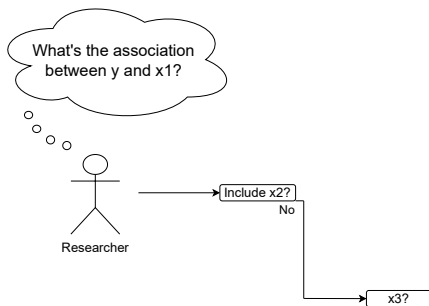


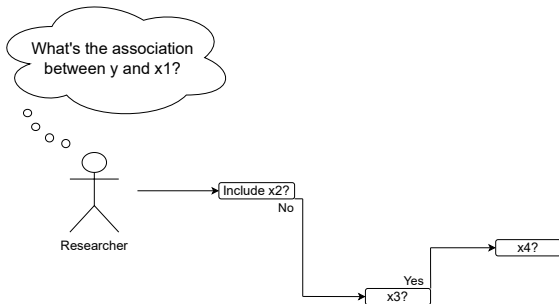


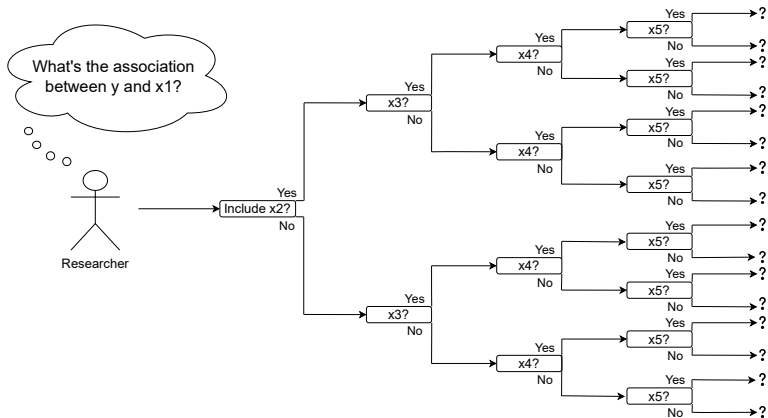




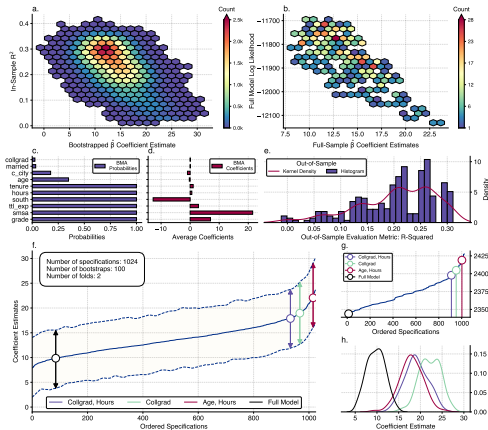








Introducing RobustiPy as a solution!



1. Make modelling uncertainty more transparent!
2. Incorporate all multiverse tools in one place!
3. Allow researchers to do more rigorous quantitative research!

Especially lacking in 'Care' space; reliant on 'classical' approaches!!



A simple, minimal website for RobustiPy!

[View the Project on GitHub here!](#)

[View the Python Documentation here!](#)

[View the RobustiPy working paper here!](#)

Welcome to the RobustiPy homepage!

RobustiPy is an efficient multiversal library with model selection, averaging, resampling and out-of-sample analysis. It analyses various output spaces, in addition to the control variable space (e.g. multiple dependent variables, estimands of interest, etc). Developed for Python and R, it is designed to be both accessible and computationally efficient.

Note: This site (and project!) are a work in progress!

Installation

Installation is as simple (in Python) as:

```
pip install robustipy
```

and – potentially in the future for R – as:

```
install.packages("robustipy")
```

Examples: A series of toy examples with which might be useful to get you up and running can be found [here](#). A series of empirical examples which might be useful can be found [here](#).

Hackathon: We are holding a hackathon regarding RobustiPy in Oxford during June 2024. Participants can click [here](#) for further information on the day's activities!

Inspiration: We found great inspiration in the following three papers, which you might also enjoy reading:

robustipy Public

main

1 Branch

2 Tags

Go to file

Add file

Code

crahal Update union placeholder for github repo header ✓ 15e173f · 5 days ago 439 Commits		
github/workflows	Create publish-to-pypi.yml	3 years ago
empirical_examples	Update union placeholder for github repo header	5 days ago
figures/union_example	Update union placeholder for github repo header	5 days ago
simulated_examples	removing cpu default for sim1 example	last month
src	Remove nested loops in _check_colinearity, resolves #69	last week
tests	fit test cases for utils.py	last month
.gitignore	Take *.ipynb out of gitignore	4 months ago
CITATION.cff	Try not to break the CITATION.cff?	3 months ago
CODE-OF-CONDUCT.md	Update code of conduct and contributing.md file (as well...	last year
LICENSE	Initial commit	5 years ago
README.md	Add link to paper and citing data into readme.md	3 months ago
contributing.md	Update code of conduct and contributing.md file (as well...	last year
pyproject.toml	pushed to pypi	3 months ago
readthedocs.yml	Testing readthedocs re-push.	3 months ago
requirements.txt	Add sphinx_rtd_theme to requirements.txt for readthed...	last year

README

Code of conduct

Contributing

GPL-3.0 license



RobustiPy

[Purpose](#)
[Research](#)
[Python 3.11](#)
[License: GNUv3.0](#)
[DOI: 10.5281/zenodo.1570696](#)

Welcome to the home of `RobustiPy`, a Python library for the creation of a more robust and stable model space. RobustiPy does a large number of things, included but not limited to: high dimensional visualisation, Bayesian Model Averaging, bootstrapped resampling, (in- and)out-of-sample model evaluation, model selection via Information Criterion, explainable AI (via [SHAP](#)), and joint inference tests (as per [Simonsohn et al. 2019](#)).

Full documentation is available on [Read the Docs](#). The first release is indexed onto Zenodo [here](#).

Estimating the Cost of Informal Care: A novel two-stage approach to individual synthetic control

Maria Petrillo^{1,2*}, Daniel Valdenegro Ibarra^{1,3*}, Charles Rahal^{1,3,4}, Yanan Zhang^{1,5,6}, Gwilym Pryce^{1,7}, and Matthew R. Bennett^{1,8}

¹ESRC Centre for Care

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³Leverhulme Centre for Demographic Science, University of Oxford

⁴Nuffield College, University of Oxford

⁵Oxford Institute of Population Aging, University of Oxford

⁶University College, University of Oxford

⁷Department of Economics, University of Sheffield

⁸School of Social Policy, University of Birmingham

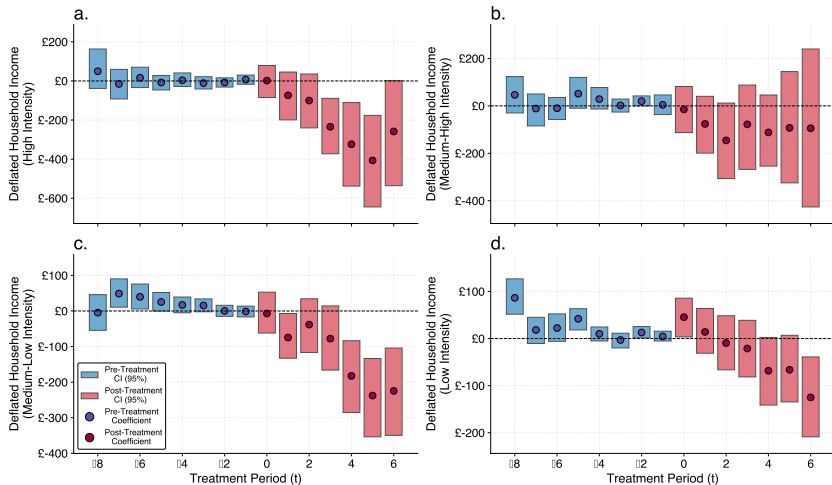
*Denotes joint lead authorship

September 19, 2024

Abstract

Informal carers provide the majority of care for people living with challenges related to older age, long-term illness, or disability. However, the care they provide carries a potentially significant income penalty for caregivers, a factor that is largely overlooked in both the economics literature and in policy discourse. Leveraging data from the UK Household Longitudinal Study, this paper provides the first robust causal estimates of the caregiving income penalty using a novel individual synthetic control method that accounts for unit-level heterogeneity in post-treatment trajectories over time. Our baseline estimates identify an average relative income gap of up to 45%, with an average decrease of £162 in monthly income, peaking at £192 per month after 4 years, based on the difference between informal carers providing the highest-intensity of care and their synthetic counterparts. We find that the income penalty is more pronounced for women than for men, and varies by ethnicity and age.

Keywords: *Causal Methods, Informal Care, Social Care, Longitudinal Analysis.*




costofcare
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Code


MPetrillo25
Create psm
e06ccf1 · 3 days ago
87 Commits

 .vscode	small analysis changes	6 months ago
 Stata_code	Create psm	3 days ago
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 output/figures	changes made up to paa 2024	4 months ago
 outputs	changes made up to paa 2024	4 months ago
 replication_attempt	Reorganising to move stuff out of root	8 months ago
 src	changes made up to paa 2024	4 months ago
 .gitignore	Reorganising to move stuff out of root	8 months ago
 README.md	Update README.md	2 years ago

README


Cost of Care

This repository documents our work on calculating the cost of providing informal care. It takes an intersectional, comparative approach based on the [Individual Synthetic Control Method](#) of [Vagni and Breen \(2021\)](#).

About

No description, website, or topics provided.

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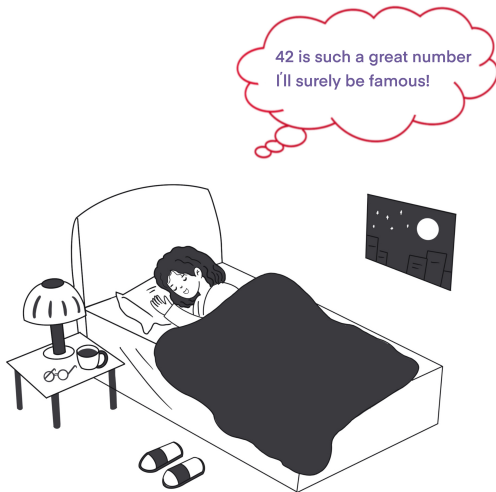
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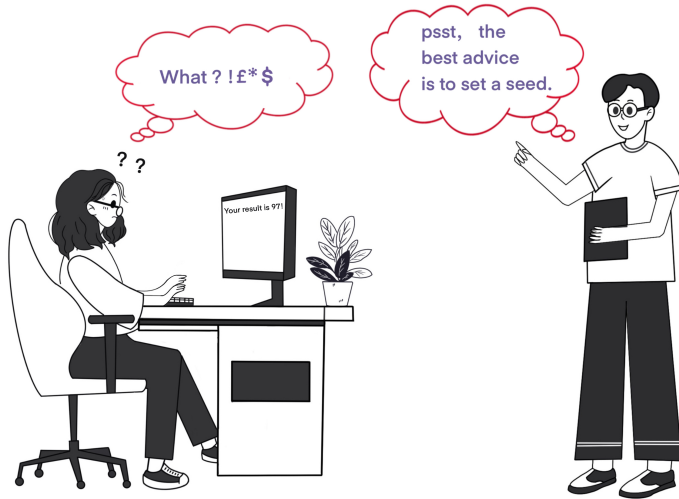
Contributors

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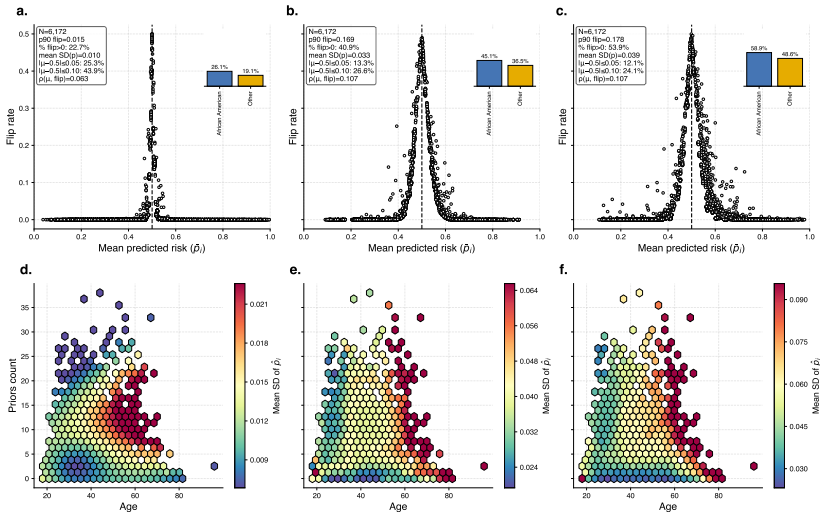
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- Pseudo-Random Number Generators occur **everywhere!**
- The variation in estimand can be **huge**.
- We bring attention to this through multiple types of replications.
 - Simulations, machine learning, topic modelling, and inferential research.

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- **Solution:** Visualize the outcome space of a of large number (10k? 100k?) seeds simultaneously. This is computationally intensive, but scientifically illuminating.
- **Replication:** We can consider whether an original result is in the tail of our distribution (or IQR?) or not.



‘From a Seed of Doubt Grows a Forest of Uncertainty’
 With Jiani Yan and Mark Verhagen

Conclusion

I hope I've been able confer my excitement, enthusiasm and inspiration for:

- 'Assumption free' social science.
- 'Semi-structured' data found 'in the wild'.
- Openness and Transparency in (Care) research.
- An appreciation of how to better evaluate quantitative research, uncertainty, and the value of 'Openness'.

If just one more 'open' paper, program, design, or estimator enters scientific record, everything here will have been worth while it ☺.

Thank you for attending!

Thank you to my collaborators!

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and

github.com/crahall!