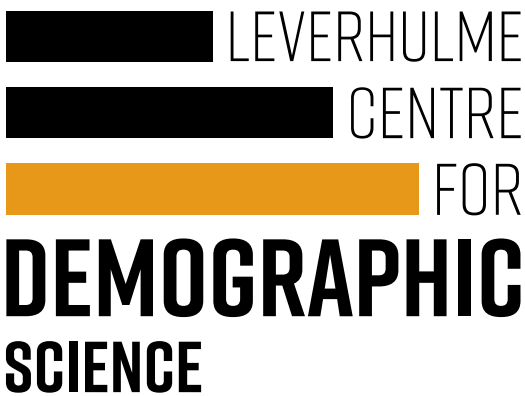
What can an Open, Computational Approach Bring to the Social Sciences?

Charlie Rahal

LCDS and Nuffield College, University of Oxford

An invited talk at Hong Kong University, 2023



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- Open Science
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4. Model Uncertainty, and ways reduce or represent it.
5. Machine/Deep Learning in health and social contexts.

In the spirit of 'Open Science':

crahal.github.io/files/hku_talk.pdf

and *all* of the research you see here today is at:

github.com/crahal

github.com/OxfordDemSci

github.com/centre-for-care

github.com/uk-third-sector-database

Throughout the talk, I'll frequently focus on 'What's Next?'.

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

Pragmatically ‘Open Science’:

1. Allows creation of value and advancement.
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"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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Disclaimer: Presently the LNL Co-ordinator for UKRN!

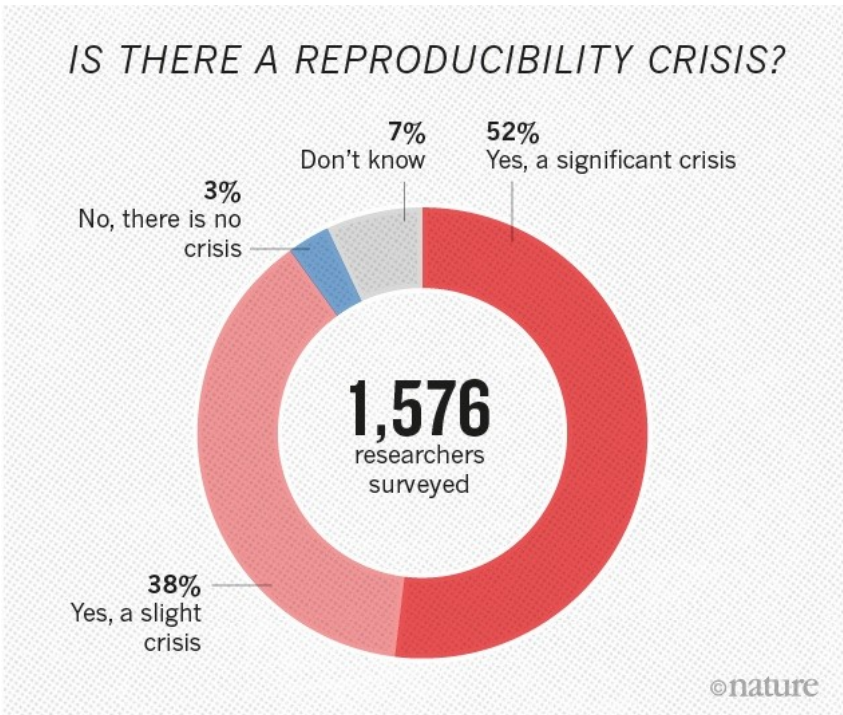
How it started:

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:



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}
```

- This slide and the next emphasize not just transparency, but the beautiful flexibility of open source tools!

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!

Scientometrics

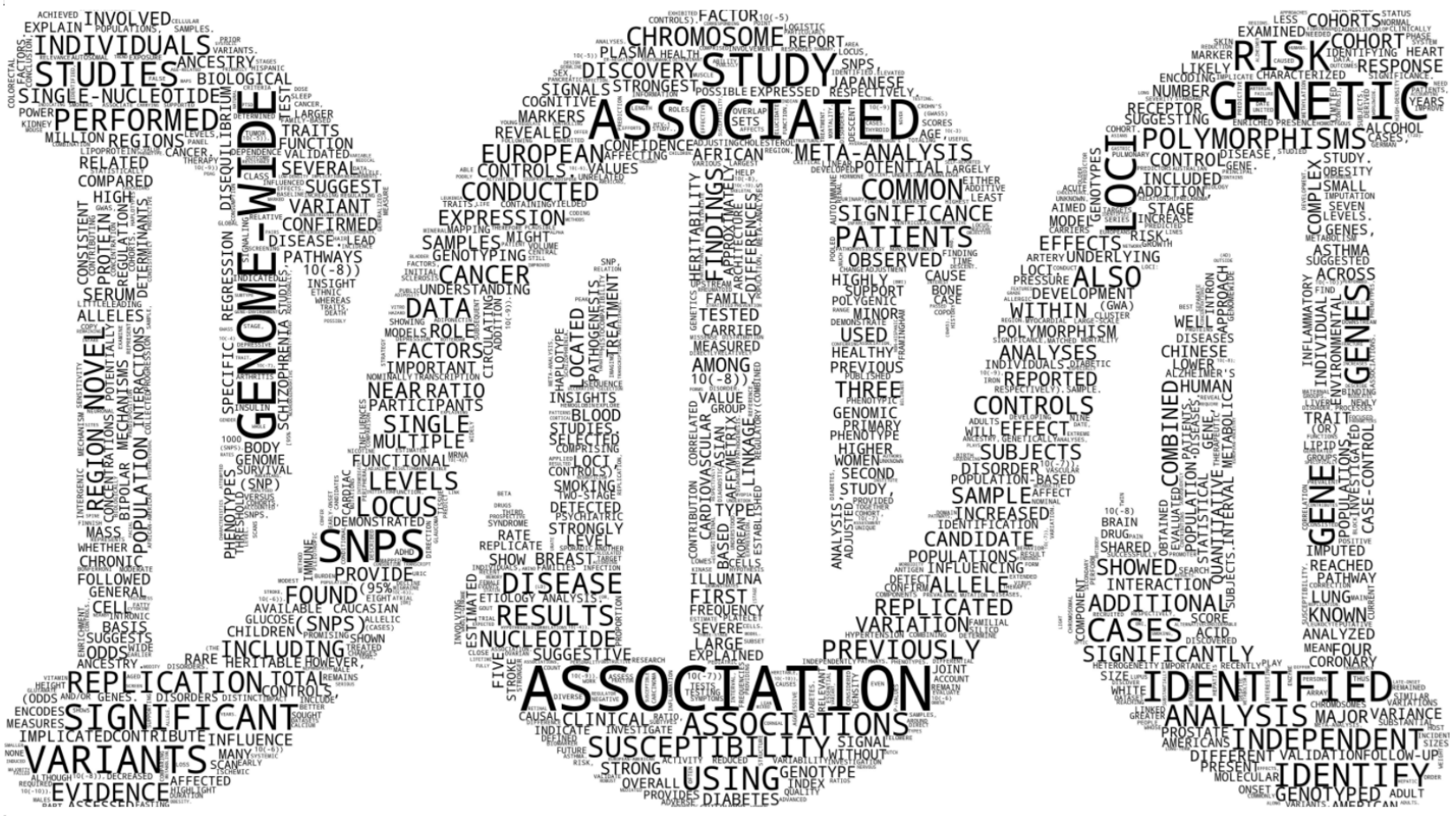
I frequently work within the areas of 'Scientometrics', 'Bibliometrics', and the 'Sociology of Science':

- Scientometrics: concerned with measuring and analysing science itself.
- Bibliometrics: statistical methods to analyze quantitative information pertaining to research.
- Sociology of Science: how society influences discovery, knowledge production, and advancement.

These fields are naturally related to 'Open Science', and are well-facilitated by a computational approach.

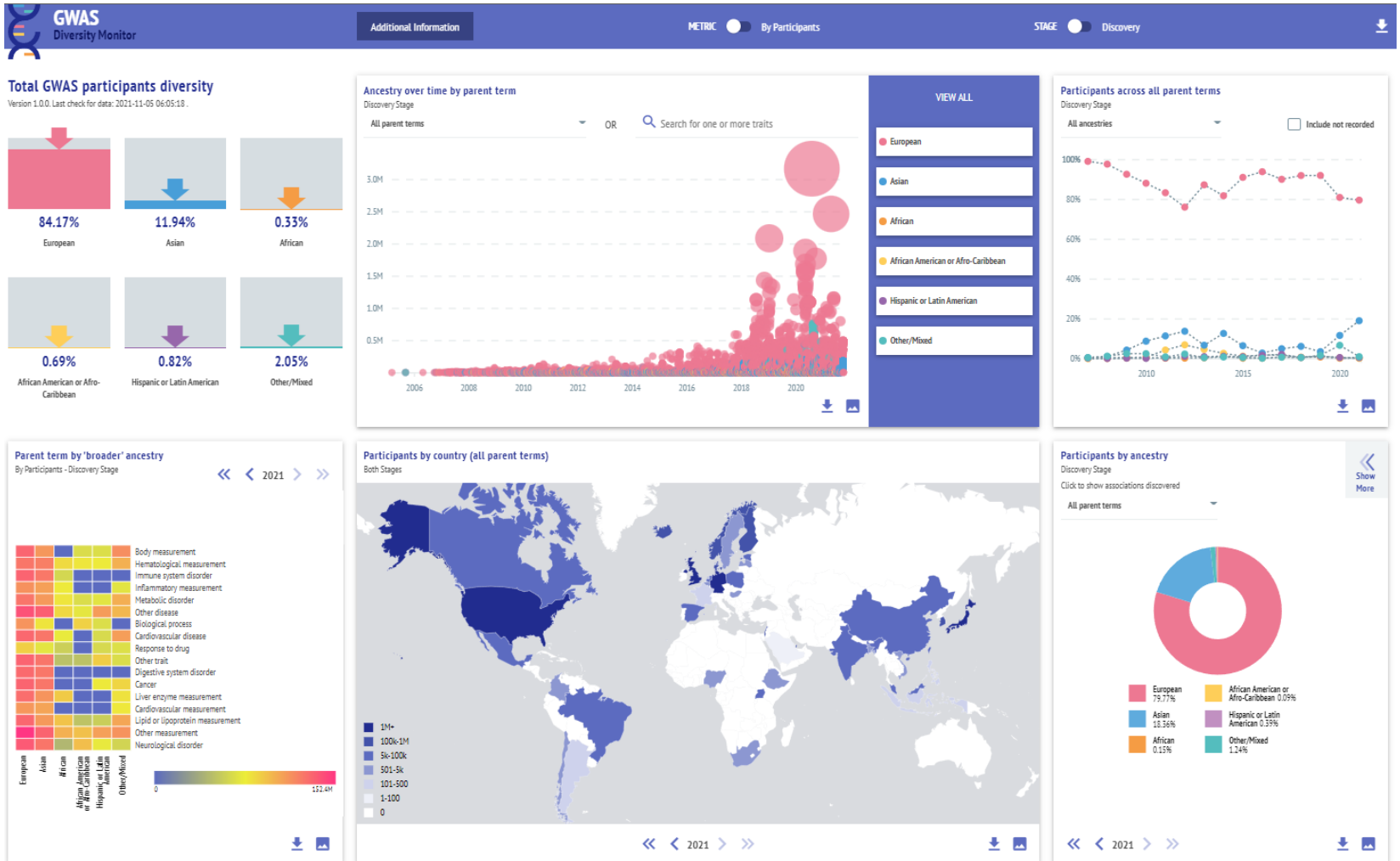
Genome Wide Association Studies

- My early scientometric work analyzed GWAS.
  - What is a GWAS?
  - Why is this type of generative inequality so important?
- We take lists of GWAS from the European Bioinformatics Institute, then call scientific meta-data from PubMed.
- We published two papers which:
  1. Conduct a thorough scientometric review.
  2. Launch a substantial interactive dashboard.
- Conducting genomic work ethically of paramount importance.



‘The Scientometrics of Genome Wide Association Studies’

With Melinda C. Mills

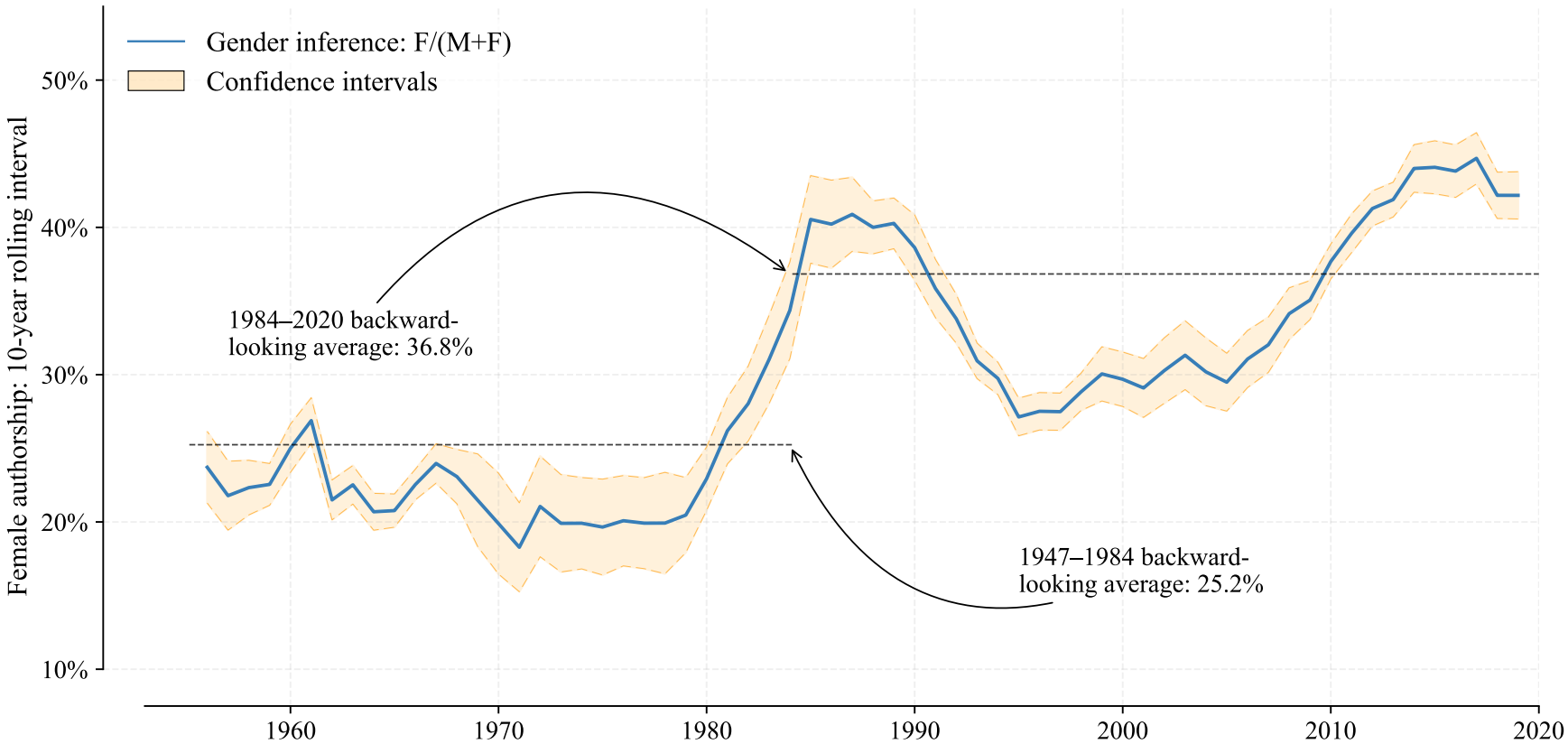


‘The GWAS Diversity Monitor Tracks Diversity in Real Time’
with Melinda C. Mills

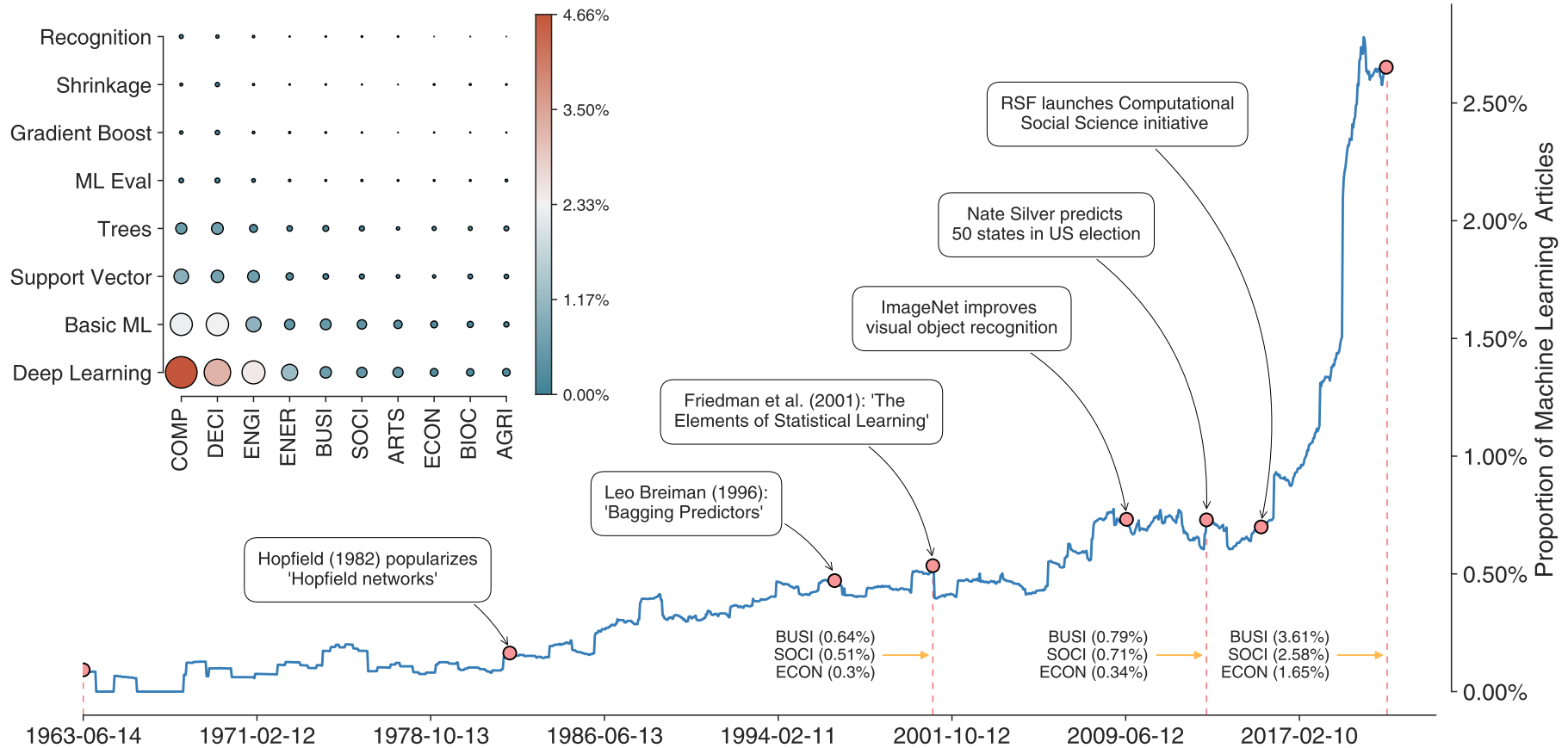
What's Next? GWAS Diversity by Funder

- The GWAS Diversity Monitor was generally a huge success.
  - We are always striving to generate maximal impact.
- One mechanism for impact: delineate analysis by funders.
- *Some* funders have policies on diversity of participant pools.
- Our work will generate – in real time – analysis showing differential diversity.
- Other milestones: extend by 'Polygenic Scores'.

Other Scientometric Studies

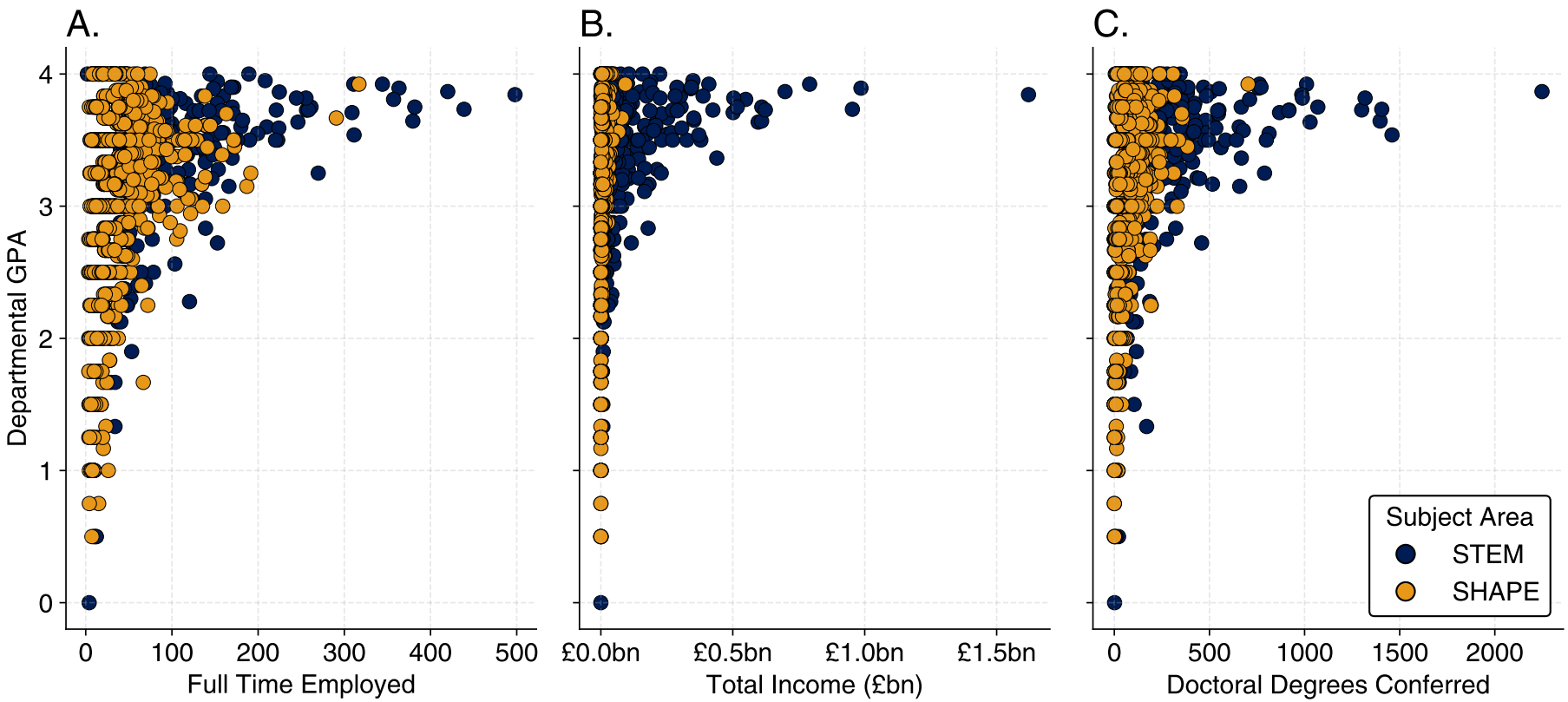


'Population Studies at 75 Years: An empirical review'
With Melinda C. Mills



'The Rise of Machine Learning in the Academic Social Sciences'

With Dave Kirk and Mark Verhagen

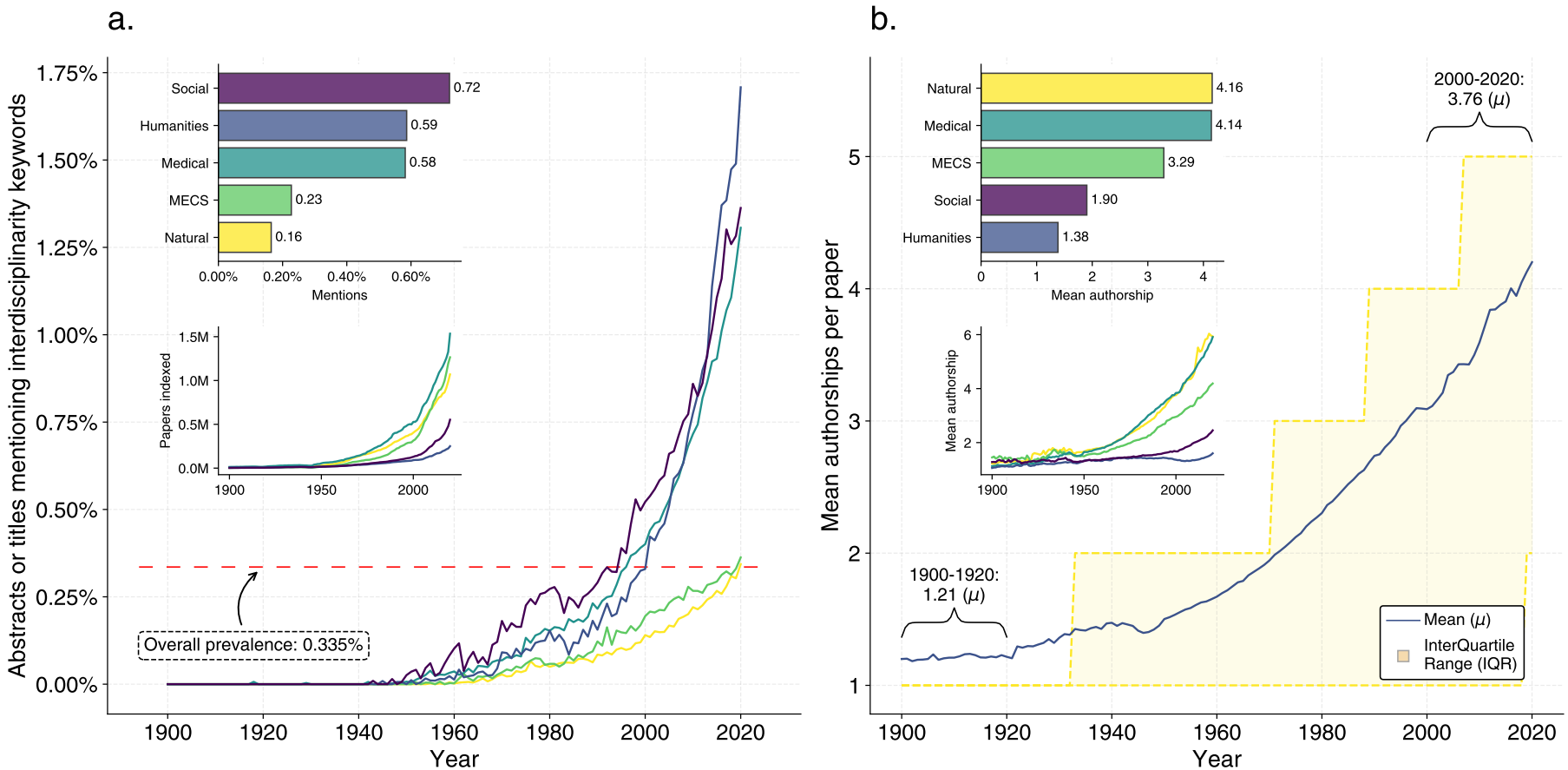


'The SHAPE of Impact'

With M.C. Mills, S. Wagner, M. Verhagen, B. Zhao, and D. Leasure, (2023)

What's Next? The Evolution of Science Lab!

- With bespoke agreement, we have access to Dimensions.
- We've used this to reconstruct the **entire scientific record***.
- This is going to power an 'Evolution of Science Lab'. RQs:
  1. How have scientific ideas evolved over the (very-) long run?
     - What new academic disciplines have gradually emerged?
  2. How are scholars internationally migrating over time?
  3. How have patterns in multi-/inter-disciplinarity changed?



‘The Evolution of Interdisciplinarity’

With Kyla Chasalow and Melinda C. Mills

‘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.
  - Example: the rise of ‘Government Data Science’.
- For better or worse:
  - I’m more interested in ‘hard to use’, semi-structured data.
  - I frequently work with national statistical agencies to add value.

Procurement Data

Another example of the unstructured data I work with:

- David Cameron opened data on government contracts (2010).
- This provided a totally new type of semi-structured information.
- From from local authorities, to the NHS, to central government.
- This comes in the form of spent line-items of various values.
- This sounds like it might be useful for academic research...
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Lets list a few of the problems with procurement data, which is a good example of semi-structured data more generally:

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4. Naturally, of course, there are no supplier UIDs.

Just one quick example, followed by what can be made possible:

A3131

Expenditure Over Threshold

RUN AT 5/6/2016 2:28:52 PM

Department family	Entity	Date	Expense Type	Expense area	Supplier	Transaction number	AP Amount (£)	VAT registration number	Purchase invoice number
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	COMMUNITY SERVICES	BEXLEY COUNCIL	11595633	658,000.00		6100071658
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	COMMUNITY SERVICES	BEXLEY COUNCIL	11595652	100,000.00		6100071661
Department of Health	NHS Bexley CCG	30/04/201	Other Gen Supplies & Srv	COMMUNITY SERVICES	BEXLEY COUNCIL	11595677	90,000.00		6100071674
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	Winter Resilience	BEXLEY COUNCIL	11595692	64,000.00		6100071687
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11607291	68,256.00	654948687	5010086544
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	CHC ADULT FULLY FUNDED	CRAEGMOOR OAKS SIDCUP PRIORY	11609225	76,409.99		9510007000
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	COMMISSIONING - NON ACUTE	BEXLEY COUNCIL	11615604	30,000.00		6100070989
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	ACUTE COMMISSIONING	INHEALTH LTD	11615704	38,528.26	787424685	IHL00056882
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MEDWAY NHS FOUNDATION TRUST	11623774	58,284.00		2383
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	HOSPICES	GREENWICH & BEXLEY COMMUNITY HOSPICE	11628377	218,000.00		877
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	LEWISHAM & GREENWICH NHS TRUST	11635401	4,440,144.00		8466267
Department of Health	NHS Bexley CCG	30/04/201	Rent	PROGRAMME PROJECTS	NHS PROPERTY SERVICES LTD	11641657	218,724.14		48409294
Department of Health	NHS Bexley CCG	30/04/201	Rent	PROGRAMME PROJECTS	NHS PROPERTY SERVICES LTD	11642864	25,672.53		48413715
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11642923	-32,306.00		2000004184
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11642927	250,000.00		1000044139
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11654529	-3,042,119.26		CR00018970
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Commercial Sector	COMMUNITY SERVICES	BEXLEY HEALTH LTD	11655039	26,930.40		BHL0662
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	AMBULANCE SERVICES	LONDON AMBULANCE SERVICE NHS TRUST	11663378	587,757.29	654967192	L0011214
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11669889	768,836.00		227489
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11669905	760,530.26		233541
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	FUNDED NURSING CARE	BUPA CARE HOMES	11669992	26,912.00	239731641	ALM038930TOALM038988
Department of Health	NHS Bexley CCG	30/04/201	Charges from CSU	RECHARGES	NHS SOUTH EAST CSU	11669996	85,259.00	GB654442045	7311608994
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11670000	279,925.00		228086
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11680115	82,568.00		IC0026903
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701702	228,989.00		37856
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701707	141,917.00		37832
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701710	807,726.00		37822
Department of Health	NHS Bexley CCG	30/04/201	Income tax <1Yr	BALANCE SHEET	HMRC	11720066	47,523.65	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	Income tax <1Yr-Student Loans	BALANCE SHEET	HMRC	11720066	338.00	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	National Insurance < 1 yr-NI- ERS	BALANCE SHEET	HMRC	11720066	29,114.84	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	National Insurance < 1 yr-NI-EES	BALANCE SHEET	HMRC	11720066	19,284.15	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722081	213,455.00		229026
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722088	265,141.00		229984
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722091	273,009.00		230641
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722099	256,424.00		231364
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722114	224,799.00		232502
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	REABLEMENT	BEXLEY COUNCIL	11722554	468,334.92		6890019276
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Over/ Under Performance	ACUTE COMMISSIONING	QUEEN VICTORIA HOSPITAL NHS FOUNDATION TRUST	11738262	-26,066.24		1365
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Over/ Under Performance	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11738298	30,540.00		IC0026446
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11738402	545,605.00		37841
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	QUEEN VICTORIA HOSPITAL NHS FOUNDATION TRUST	11748386	47,900.00		2010008962
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	BARTS HEALTH NHS TRUST	11771729	84,072.08		254522
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11771733	2,691,952.00		1000044308
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	SOUTH LONDON AND MAUDSLEY NHS FOUNDATION TRUST	11777527	25,202.00		B0007357
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	COMMISSIONING - NON ACUTE	BEXLEY COUNCIL	11777582	34,361.83		6890018060
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	OXLEAS NHS FOUNDATION TRUST	11790994	1,749,240.00		37857
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	OXLEAS NHS FOUNDATION TRUST	11801176	50,000.00		37806
Department of Health	NHS Bexley CCG	30/04/201	Rent	ESTATES AND FACILITIES	NHS PROPERTY SERVICES LTD	11801410	51,009.75		48414351
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	CHILD AND ADOLESCENT MENTAL HEALTH	OXLEAS NHS FOUNDATION TRUST	11818020	255,781.00		37805
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	CHILD AND ADOLESCENT MENTAL HEALTH	OXLEAS NHS FOUNDATION TRUST	11818040	59,906.00		37804
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	LEARNING DIFFICULTIES	BEXLEY COUNCIL	11818100	51,416.67		6890019263
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	HOSPICES	GREENWICH & BEXLEY COMMUNITY HOSPICE	11818190	276,741.00		888
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Commercial Sector	MATERNITY SERVICES	MARIE STOPES INTERNATIONAL	11835658	28,917.00	882426016	MS160477
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11845602	1,869,631.00		234549
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	LEARNING DIFFICULTIES	BEXLEY COUNCIL	11854667	250,000.00		6100071247
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11878126	82,568.00		IC0026968
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	COMMUNITY SERVICES	BELLEGROVE ROAD SURGERY	11882991	65,392.39		BAC032016
Department of Health	NHS Bexley CCG	30/04/201	Healthcare Srv Rec CCG	NHS 111	NHS BROMLEY CCG	11923329	71,747.88		7022701149
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	COMMUNITY SERVICES	CRAYFORD TOWN SURGERY	11923342	26,000.00		PHL01
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11923379	1,137,946.58		234497
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	GUYS & ST THOMAS HOSPITAL NHS FOUNDATION TRUST	11931340	1,455,963.00	654923417	3190559
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Non Contract	PLANNED CARE	GUYS & ST THOMAS HOSPITAL NHS FOUNDATION TRUST	11935269	-3,129,822.00	654923417	9009585
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Non Contract	PLANNED CARE	LEWISHAM & GREENWICH NHS TRUST	11935361	-128,548.00		8466655
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951010	1,157,569.00		232736
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951061	-388,405.89		CR00018929
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951071	229,254.29		233540
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951090	-473,000.00		CR00019017
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	CHC AD FULL FUND PERS HLTH BUD	BEXLEY COUNCIL	11951211	299,534.77		6100071865
Department of Health	NHS Bexley CCG	6	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11969298	68,256.00	654948687	5010089625

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Expenditure Over Threshold

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Department family	Entity	Date	Expense Type	Expense area	Supplier	Transaction number	AP Amount (£)	VAT registration number	Purchase invoice number
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	COMMUNITY SERVICES	BEXLEY COUNCIL	11595633	658,000.00		6100071658
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	COMMUNITY SERVICES	BEXLEY COUNCIL	11595652	100,000.00		6100071661
Department of Health	NHS Bexley CCG	30/04/201	Other Gen Supplies & Srv	COMMUNITY SERVICES	BEXLEY COUNCIL	11595677	90,000.00		6100071674
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	Winter Resilience	BEXLEY COUNCIL	11595692	64,000.00		6100071687
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11607291	68,256.00	654948687	5010086544
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	CHC ADULT FULLY FUNDED	CRAEGMOOR OAKS SIDCUP PRIORY	11609225	76,409.99		9510007000
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	COMMISSIONING - NON ACUTE	BEXLEY COUNCIL	11615604	30,000.00		6100070989
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	ACUTE COMMISSIONING	INHEALTH LTD	11615704	38,528.26	787424685	IHL00056882
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MEDWAY NHS FOUNDATION TRUST	11623774	58,284.00		2383
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	HOSPICES	GREENWICH & BEXLEY COMMUNITY HOSPICE	11628377	218,000.00		877
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	LEWISHAM & GREENWICH NHS TRUST	11635401	4,440,144.00		8466267
Department of Health	NHS Bexley CCG	30/04/201	Rent	PROGRAMME PROJECTS	NHS PROPERTY SERVICES LTD	11641657	218,724.14		48409294
Department of Health	NHS Bexley CCG	30/04/201	Rent	PROGRAMME PROJECTS	NHS PROPERTY SERVICES LTD	11642864	25,672.53		48413715
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11642923	-32,306.00		2000004184
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11642927	250,000.00		1000044139
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11654529	-3,042,119.26		CR00018970
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Commercial Sector	COMMUNITY SERVICES	BEXLEY HEALTH LTD	11655039	26,930.40		BHL0662
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	AMBULANCE SERVICES	LONDON AMBULANCE SERVICE NHS TRUST	11663378	587,757.29	654967192	L0011214
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11669889	768,836.00		227489
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11669905	760,530.26		233541
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	FUNDED NURSING CARE	BUPA CARE HOMES	11669992	26,912.00	239731641	ALM038930TOALM038988
Department of Health	NHS Bexley CCG	30/04/201	Charges from CSU	RECHARGES	NHS SOUTH EAST CSU	11669996	85,259.00	GB654442045	7311608994
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11670000	279,925.00		228086
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11680115	82,568.00		IC0026903
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701702	228,989.00		37856
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701707	141,917.00		37832
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701710	807,726.00		37822
Department of Health	NHS Bexley CCG	30/04/201	Income tax <1Yr	BALANCE SHEET	HMRC	11720066	47,523.65	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	Income tax <1Yr-Student Loans	BALANCE SHEET	HMRC	11720066	338.00	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	National Insurance < 1 yr-NI- ERS	BALANCE SHEET	HMRC	11720066	29,114.84	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	National Insurance < 1 yr-NI-EES	BALANCE SHEET	HMRC	11720066	19,284.15	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722081	213,455.00		229026
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722088	265,141.00		229984
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722091	273,009.00		230641
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722099	256,424.00		231364
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722114	224,799.00		232502
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	REABLEMENT	BEXLEY COUNCIL	11722554	468,334.92		6890019276
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Over/ Under Performance	ACUTE COMMISSIONING	QUEEN VICTORIA HOSPITAL NHS FOUNDATION TRUST	11738262	-26,066.24		1365
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Over/ Under Performance	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11738298	30,540.00		IC0026446
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11738402	545,605.00		37841
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	QUEEN VICTORIA HOSPITAL NHS FOUNDATION TRUST	11748386	47,900.00		2010008962
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	BARTS HEALTH NHS TRUST	11771729	84,072.08		254522
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11771733	2,691,952.00		1000044308
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	SOUTH LONDON AND MAUDSLEY NHS FOUNDATION TRUST	11777527	25,202.00		B0007357
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	COMMISSIONING - NON ACUTE	BEXLEY COUNCIL	11777582	34,361.83		6890018060
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	OXLEAS NHS FOUNDATION TRUST	11790994	1,749,240.00		37857
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	OXLEAS NHS FOUNDATION TRUST	11801176	50,000.00		37806
Department of Health	NHS Bexley CCG	30/04/201	Rent	ESTATES AND FACILITIES	NHS PROPERTY SERVICES LTD	11801410	51,009.75		48414351
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	CHILD AND ADOLESCENT MENTAL HEALTH	OXLEAS NHS FOUNDATION TRUST	11818020	255,781.00		37805
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	CHILD AND ADOLESCENT MENTAL HEALTH	OXLEAS NHS FOUNDATION TRUST	11818040	59,906.00		37804
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	LEARNING DIFFICULTIES	BEXLEY COUNCIL	11818100	51,416.67		6890019263
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	HOSPICES	GREENWICH & BEXLEY COMMUNITY HOSPICE	11818190	276,741.00		888
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Commercial Sector	MATERNITY SERVICES	MARIE STOPES INTERNATIONAL	11835658	28,917.00	882426016	MS160477
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11845602	1,869,631.00		234549
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	LEARNING DIFFICULTIES	BEXLEY COUNCIL	11854667	250,000.00		6100071247
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11878126	82,568.00		IC0026968
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	COMMUNITY SERVICES	BELLEGROVE ROAD SURGERY	11882991	65,392.39		BAC032016
Department of Health	NHS Bexley CCG	30/04/201	Healthcare Srv Rec CCG	NHS 111	NHS BROMLEY CCG	11923329	71,747.88		7022701149
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	COMMUNITY SERVICES	CRAYFORD TOWN SURGERY	11923342	26,000.00		PHL01
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11923379	1,137,946.58		234497
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	GUYS & ST THOMAS HOSPITAL NHS FOUNDATION TRUST	11931340	1,455,963.00	654923417	3190559
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Non Contract	PLANNED CARE	GUYS & ST THOMAS HOSPITAL NHS FOUNDATION TRUST	11935269	-3,129,822.00	654923417	9009585
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Non Contract	PLANNED CARE	LEWISHAM & GREENWICH NHS TRUST	11935361	-128,548.00		8466655
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951010	1,157,569.00		232736
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951061	-388,405.89		CR00018929
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951071	229,254.29		233540
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951090	-473,000.00		CR00019017
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	CHC AD FULL FUND PERS HLTH BUD	BEXLEY COUNCIL	11951211	299,534.77		6100071865
Department of Health	NHS Bexley CCG	6	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11969298	68,256.00	654948687	5010089625

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Expenditure Over Threshold

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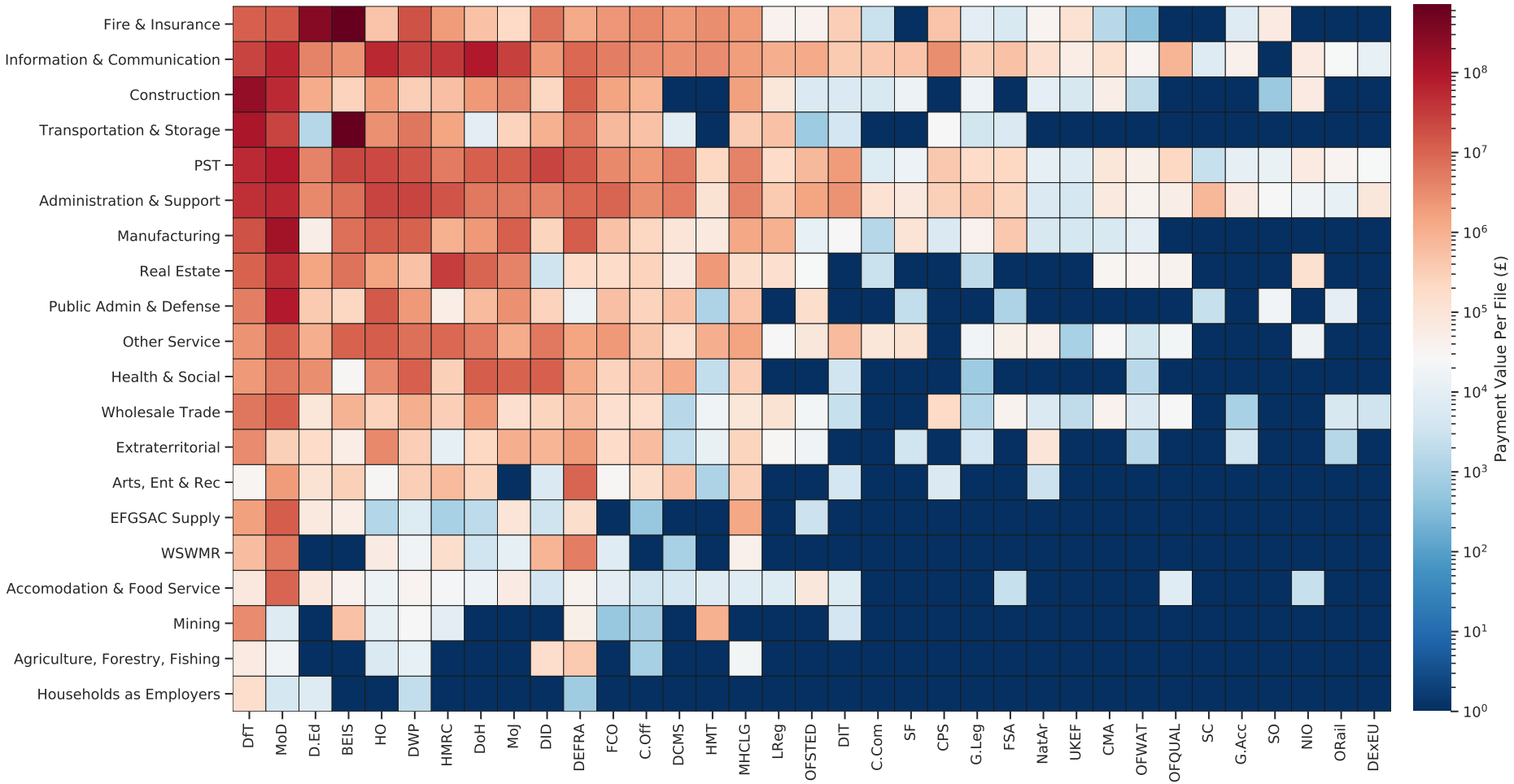
Department family	Entity	Date	Expense Type	Expense area	Supplier	Transaction number	AP Amount (£)	VAT registration number	Purchase invoice number
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	COMMUNITY SERVICES	BEXLEY COUNCIL	11595633	658,000.00		6100071658
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	COMMUNITY SERVICES	BEXLEY COUNCIL	11595652	100,000.00		6100071661
Department of Health	NHS Bexley CCG	30/04/201	Other Gen Supplies & Srv	COMMUNITY SERVICES	BEXLEY COUNCIL	11595677	90,000.00		6100071674
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	Winter Resilience	BEXLEY COUNCIL	11595692	64,000.00		6100071687
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11607291	68,256.00	654948687	5010086544
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	CHC ADULT FULLY FUNDED	CRAEGMOOR OAKS SIDCUP PRIORY	11609225	76,409.99		9510007000
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	COMMISSIONING - NON ACUTE	BEXLEY COUNCIL	11615604	30,000.00		6100070989
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	ACUTE COMMISSIONING	INHEALTH LTD	11615704	38,528.26	787424685	IHL00056882
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MEDWAY NHS FOUNDATION TRUST	11623774	58,284.00		2383
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	HOSPICES	GREENWICH & BEXLEY COMMUNITY HOSPICE	11628377	218,000.00		877
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	LEWISHAM & GREENWICH NHS TRUST	11635401	4,440,144.00		8466267
Department of Health	NHS Bexley CCG	30/04/201	Rent	PROGRAMME PROJECTS	NHS PROPERTY SERVICES LTD	11641657	218,724.14		48409294
Department of Health	NHS Bexley CCG	30/04/201	Rent	PROGRAMME PROJECTS	NHS PROPERTY SERVICES LTD	11642864	25,672.53		48413715
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11642923	-32,306.00		2000004184
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11642927	250,000.00		1000044139
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11654529	-3,042,119.26		CR00018970
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Commercial Sector	COMMUNITY SERVICES	BEXLEY HEALTH LTD	11655039	26,930.40		BHL0662
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	AMBULANCE SERVICES	LONDON AMBULANCE SERVICE NHS TRUST	11663378	587,757.29	654967192	L0011214
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11669889	768,836.00		227489
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11669905	760,530.26		233541
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	FUNDED NURSING CARE	BUPA CARE HOMES	11669992	26,912.00	239731641	ALM038930TOALM038988
Department of Health	NHS Bexley CCG	30/04/201	Charges from CSU	RECHARGES	NHS SOUTH EAST CSU	11669996	85,259.00	GB654442045	7311608994
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11670000	279,925.00		228086
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11680115	82,568.00		IC0026903
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701702	228,989.00		37856
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701707	141,917.00		37832
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701710	807,726.00		37822
Department of Health	NHS Bexley CCG	30/04/201	Income tax <1Yr	BALANCE SHEET	HMRC	11720066	47,523.65	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	Income tax <1Yr-Student Loans	BALANCE SHEET	HMRC	11720066	338.00	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	National Insurance < 1 yr-NI- ERS	BALANCE SHEET	HMRC	11720066	29,114.84	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	National Insurance < 1 yr-NI-EES	BALANCE SHEET	HMRC	11720066	19,284.15	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722081	213,455.00		229026
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722088	265,141.00		229984
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722091	273,009.00		230641
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722099	256,424.00		231364
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722114	224,799.00		232502
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	REABLEMENT	BEXLEY COUNCIL	11722554	468,334.92		6890019276
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Over/ Under Performance	ACUTE COMMISSIONING	QUEEN VICTORIA HOSPITAL NHS FOUNDATION TRUST	11738262	-26,066.24		1365
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Over/ Under Performance	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11738298	30,540.00		IC0026446
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11738402	45,605.00		37841
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	QUEEN VICTORIA HOSPITAL NHS FOUNDATION TRUST	11748386	47,900.00		2010008962
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	BARTS HEALTH NHS TRUST	11771729	84,072.08		254522
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11771733	2,691,952.00		1000044308
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	SOUTH LONDON AND MAUDSLEY NHS FOUNDATION TRUST	11777527	25,202.00		B0007357
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	COMMISSIONING - NON ACUTE	BEXLEY COUNCIL	11777582	34,361.83		6890018060
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	OXLEAS NHS FOUNDATION TRUST	11790994	1,749,240.00		37857
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	OXLEAS NHS FOUNDATION TRUST	11801176	50,000.00		37806
Department of Health	NHS Bexley CCG	30/04/201	Rent	ESTATES AND FACILITIES	NHS PROPERTY SERVICES LTD	11801410	51,009.75		48414351
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	CHILD AND ADOLESCENT MENTAL HEALTH	OXLEAS NHS FOUNDATION TRUST	11818020	255,781.00		37805
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	CHILD AND ADOLESCENT MENTAL HEALTH	OXLEAS NHS FOUNDATION TRUST	11818040	59,906.00		37804
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	LEARNING DIFFICULTIES	BEXLEY COUNCIL	11818100	51,416.67		6890019263
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	HOSPICES	GREENWICH & BEXLEY COMMUNITY HOSPICE	11818190	276,741.00		888
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Commercial Sector	MATERNITY SERVICES	MARIE STOPES INTERNATIONAL	11835658	28,917.00	882426016	MS160477
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11845602	1,869,631.00		234549
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	LEARNING DIFFICULTIES	BEXLEY COUNCIL	11854667	250,000.00		6100071247
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11878126	82,568.00		IC0026968
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	COMMUNITY SERVICES	BELLEGROVE ROAD SURGERY	11882991	65,392.39		BAC032016
Department of Health	NHS Bexley CCG	30/04/201	Healthcare Srv Rec CCG	NHS 111	NHS BROMLEY CCG	11923329	71,747.88		7022701149
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	COMMUNITY SERVICES	CRAYFORD TOWN SURGERY	11923342	26,000.00		PHL01
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11923379	1,137,946.58		234497
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	GUYS & ST THOMAS HOSPITAL NHS FOUNDATION TRUST	11931340	1,455,963.00	654923417	3190559
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Non Contract	PLANNED CARE	GUYS & ST THOMAS HOSPITAL NHS FOUNDATION TRUST	11935269	-3,129,822.00	654923417	9009585
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Non Contract	PLANNED CARE	LEWISHAM & GREENWICH NHS TRUST	11935361	-128,548.00		8466655
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951010	1,157,569.00		232736
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951061	-388,405.89		CR00018929
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951071	229,254.29		233540
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951090	-473,000.00		CR00019017
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	CHC AD FULL FUND PERS HLTH BUD	BEXLEY COUNCIL	11951211	299,534.77		6100071865
Department of Health	NHS Bexley CCG	6	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11969298	68,256.00	654948687	5010089625

A3131

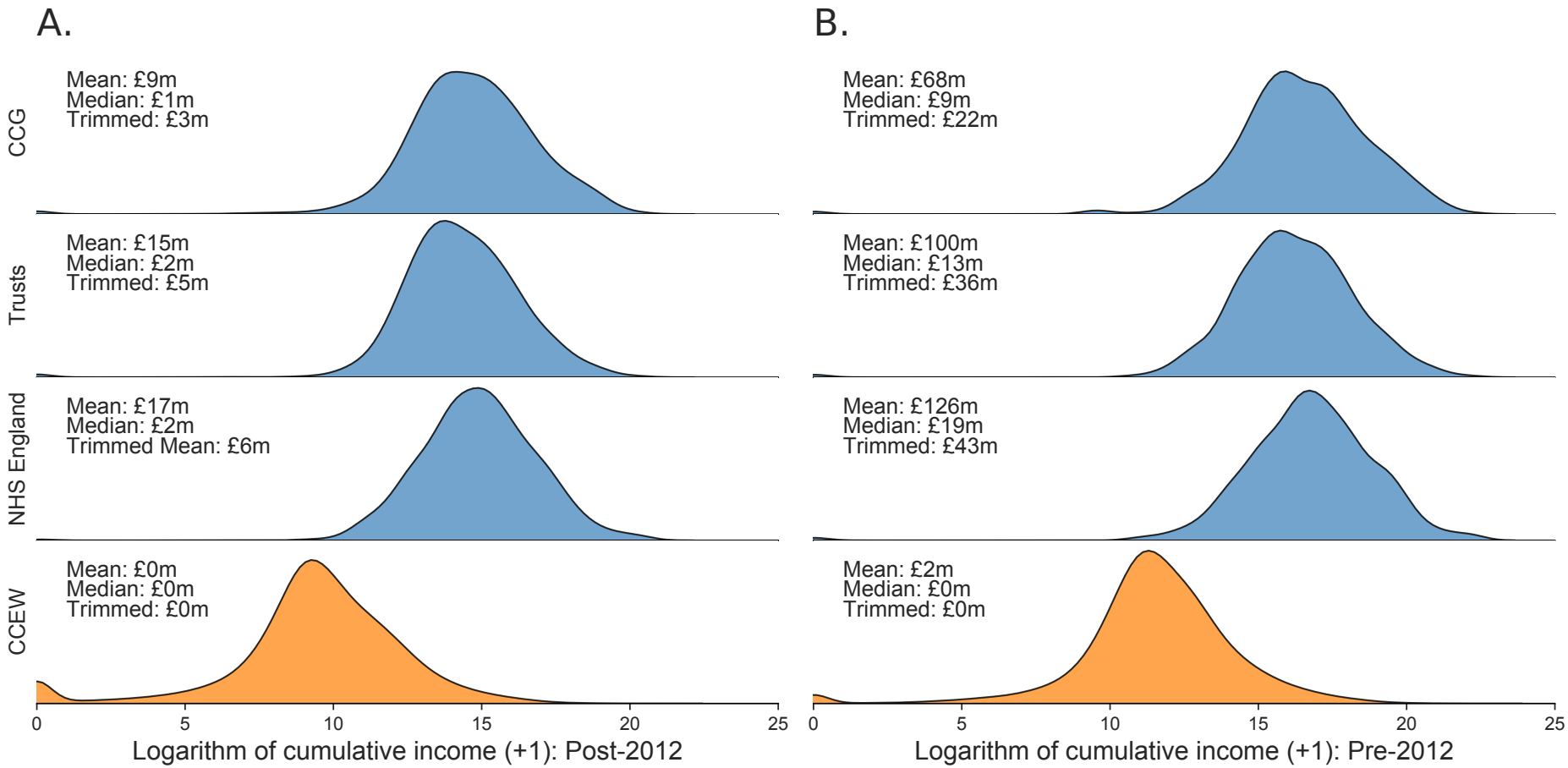
Expenditure Over Threshold

Department family	Entity	Date	Expense Type	Expense area	Supplier	Transaction number	AP Amount (£)	VAT registration number	Purchase invoice number
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	COMMUNITY SERVICES	BEXLEY COUNCIL	11595633	658,000.00		6100071658
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	COMMUNITY SERVICES	BEXLEY COUNCIL	11595652	100,000.00		6100071661
Department of Health	NHS Bexley CCG	30/04/201	Other Gen Supplies & Srv	COMMUNITY SERVICES	BEXLEY COUNCIL	11595677	90,000.00		6100071674
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	Winter Resilience	BEXLEY COUNCIL	11595692	64,000.00		6100071687
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11607291	68,256.00	654948687	5010086544
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	CHC ADULT FULLY FUNDED	CRAEGMOOR OAKS SIDCUP PRIORY	11609225	76,409.99		9510007000
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	COMMISSIONING - NON ACUTE	BEXLEY COUNCIL	11615604	30,000.00		6100070989
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	ACUTE COMMISSIONING	INHEALTH LTD	11615704	38,528.26	787424	IHL00056882
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MEDWAY NHS FOUNDATION TRUST	11623774	58,284.00		2383
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	HOSPICES	GREENWICH & BEXLEY COMMUNITY HOSPICE	11628377	218,000.00		877
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	LEWISHAM & GREENWICH NHS TRUST	11635401	4,440,144.00		8466267
Department of Health	NHS Bexley CCG	30/04/201	Rent	PROGRAMME PROJECTS	NHS PROPERTY SERVICES LTD	11641657	218,724.14		48409294
Department of Health	NHS Bexley CCG	30/04/201	Rent	PROGRAMME PROJECTS	NHS PROPERTY SERVICES LTD	11642864	25,672.53		48413715
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11642923	-32,306.00		2000004184
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11642927	250,000.00		1000044139
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11654529	-3,042,119.26		CR00018970
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Commercial Sector	COMMUNITY SERVICES	BEXLEY HEALTH LTD	11655039	26,930.40		BHL0662
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	AMBULANCE SERVICES	LONDON AMBULANCE SERVICE NHS TRUST	11663378	587,757.29	654967192	L0011214
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11669889	768,836.00		227489
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11669905	760,530.26		233541
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	FUNDED NURSING CARE	BUPA CARE HOMES	11669992	26,912.00	239731641	ALM038930TOALM038988
Department of Health	NHS Bexley CCG	30/04/201	Charges from CSU	RECHARGES	NHS SOUTH EAST CSU	11669996	85,259.00	GB654442045	7311608994
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11670000	279,925.00		228086
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11680115	82,568.00		IC0026903
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701702	228,989.00		37856
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701707	141,917.00		37832
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11701710	807,726.00		37822
Department of Health	NHS Bexley CCG	30/04/201	Income tax <1Yr	BALANCE SHEET	HMRC	11720066	47,523.65	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	Income tax <1Yr-Student Loans	BALANCE SHEET	HMRC	11720066	338.00	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	National Insurance < 1 yr-NI- ERS	BALANCE SHEET	HMRC	11720066	29,114.84	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	National Insurance < 1 yr-NI-EES	BALANCE SHEET	HMRC	11720066	19,284.15	654462331	120PH00565770 MAR 16
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722081	213,455.00		229026
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722088	265,141.00		229984
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722091	273,009.00		230641
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722099	256,424.00		231364
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11722114	224,799.00		232502
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	REABLEMENT	BEXLEY COUNCIL	11722554	468,334.92		6890019276
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Over/ Under Performance	ACUTE COMMISSIONING	QUEEN VICTORIA HOSPITAL NHS FOUNDATION TRUST	11738262	-26,066.24		1365
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Over/ Under Performance	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11738298	30,540.00		IC0026446
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	COMMUNITY SERVICES	OXLEAS NHS FOUNDATION TRUST	11738402	15,605.00		37841
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	QUEEN VICTORIA HOSPITAL NHS FOUNDATION TRUST	11748386	47,900.00		2010008962
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	BARTS HEALTH NHS TRUST	11771729	84,072.08		254522
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Contract Baseline	ACUTE COMMISSIONING	DARTFORD AND GRAVESHAM NHS TRUST	11771733	2,691,952.00		1000044308
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	SOUTH LONDON AND MAUDSLEY NHS FOUNDATION TRUST	11777527	25,202.00		B0007357
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	COMMISSIONING - NON ACUTE	BEXLEY COUNCIL	11777582	34,361.83		6890018060
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	OXLEAS NHS FOUNDATION TRUST	11790994	1,749,240.00		37857
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	MENTAL HEALTH CONTRACTS	OXLEAS NHS FOUNDATION TRUST	11801176	50,000.00		37806
Department of Health	NHS Bexley CCG	30/04/201	Rent	ESTATES AND FACILITIES	NHS PROPERTY SERVICES LTD	11801410	51,009.75		48414351
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	CHILD AND ADOLESCENT MENTAL HEALTH	OXLEAS NHS FOUNDATION TRUST	11818020	255,781.00		37805
Department of Health	NHS Bexley CCG	30/04/201	Hithcre-Foundation Trsts	CHILD AND ADOLESCENT MENTAL HEALTH	OXLEAS NHS FOUNDATION TRUST	11818040	59,906.00		37804
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	LEARNING DIFFICULTIES	BEXLEY COUNCIL	11818100	51,416.67		6890019263
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Voluntary Sector	HOSPICES	GREENWICH & BEXLEY COMMUNITY HOSPICE	11818190	276,741.00		888
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Commercial Sector	MATERNITY SERVICES	MARIE STOPES INTERNATIONAL	11835658	28,917.00	882426016	MS160477
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11845602	1,869,631.00		234549
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Othe Public Sector	LEARNING DIFFICULTIES	BEXLEY COUNCIL	11854667	250,000.00		6100071247
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST	11878126	82,568.00		IC0026968
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	COMMUNITY SERVICES	BELLEGROVE ROAD SURGERY	11882991	65,392.39		BAC032016
Department of Health	NHS Bexley CCG	30/04/201	Healthcare Srv Rec CCG	NHS 111	NHS BROMLEY CCG	11923329	71,747.88		7022701149
Department of Health	NHS Bexley CCG	30/04/201	Clinical&Medical-Independent Sector	COMMUNITY SERVICES	CRAYFORD TOWN SURGERY	11923342	26,000.00		PHL01
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11923379	1,137,946.58		234497
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	GUYS & ST THOMAS HOSPITAL NHS FOUNDATION TRUST	11931340	1,455,963.00	654923417	3190559
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Non Contract	PLANNED CARE	GUYS & ST THOMAS HOSPITAL NHS FOUNDATION TRUST	11935269	-3,129,822.00	654923417	9009585
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec NHS Trust-Non Contract	PLANNED CARE	LEWISHAM & GREENWICH NHS TRUST	11935361	-128,548.00		8466655
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951010	1,157,569.00		232736
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951061	-388,405.89		CR00018929
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951071	229,254.29		233540
Department of Health	NHS Bexley CCG	30/04/201	Hcare Srv Rec Fdtn Trust-Contract Baseline	PLANNED CARE	KING`S COLLEGE HOSPITAL NHS FOUNDATION TRUST	11951090	-473,000.00		CR00019017
Department of Health	NHS Bexley CCG	30/04/201	Cont Care- Adult 100% Fully Funded	CHC AD FULL FUND PERS HLTH BUD	BEXLEY COUNCIL	11951211	299,534.77		6100071865
Department of Health	NHS Bexley CCG	6	Hcare Srv Rec Fdtn Trust-Contract Baseline	ACUTE COMMISSIONING	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	11969298	68,256.00	654948687	5010089625



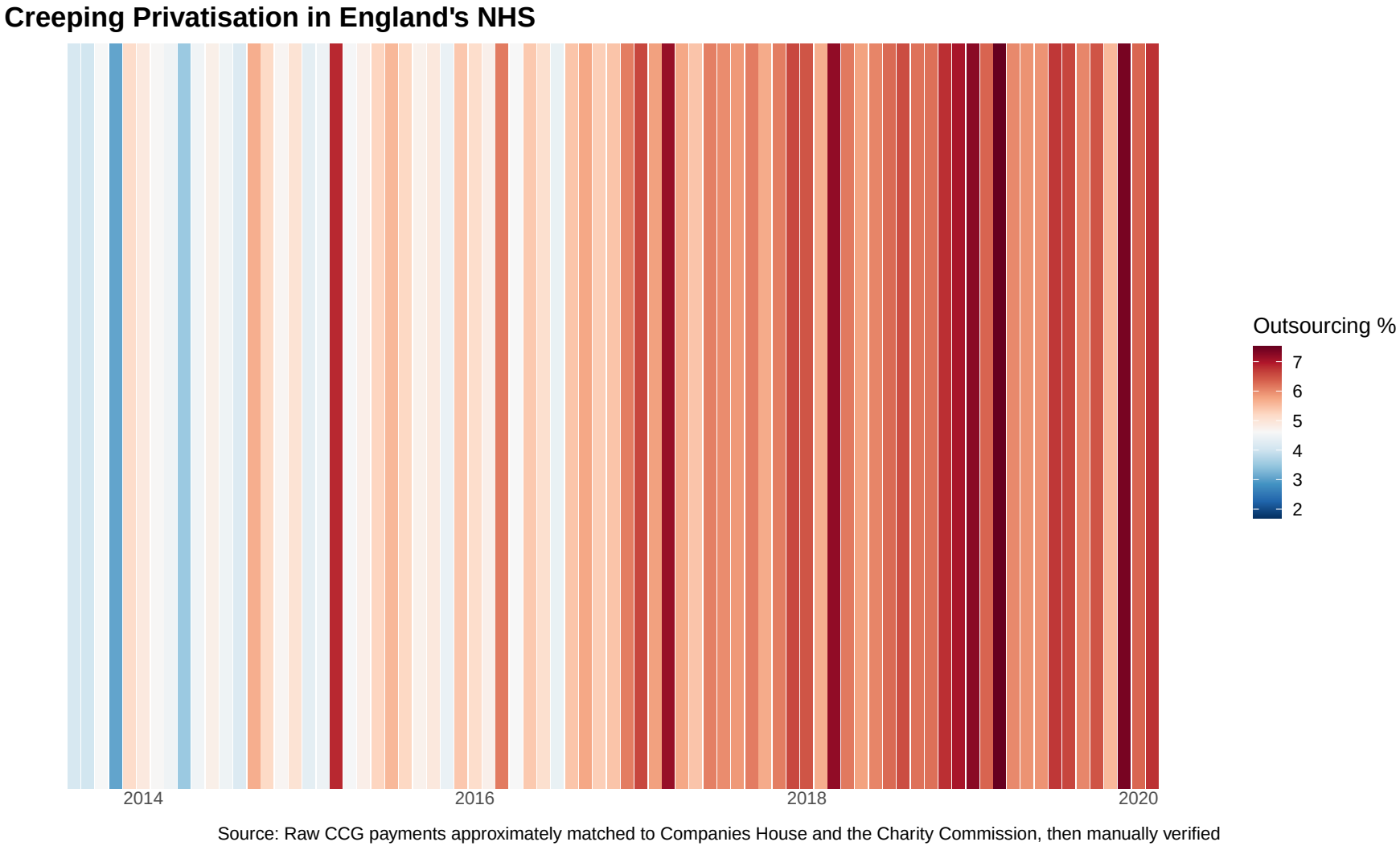
‘Tools for Transparency in Central Government Spending’

What’s Next? Working with the ONS to improve data provision!



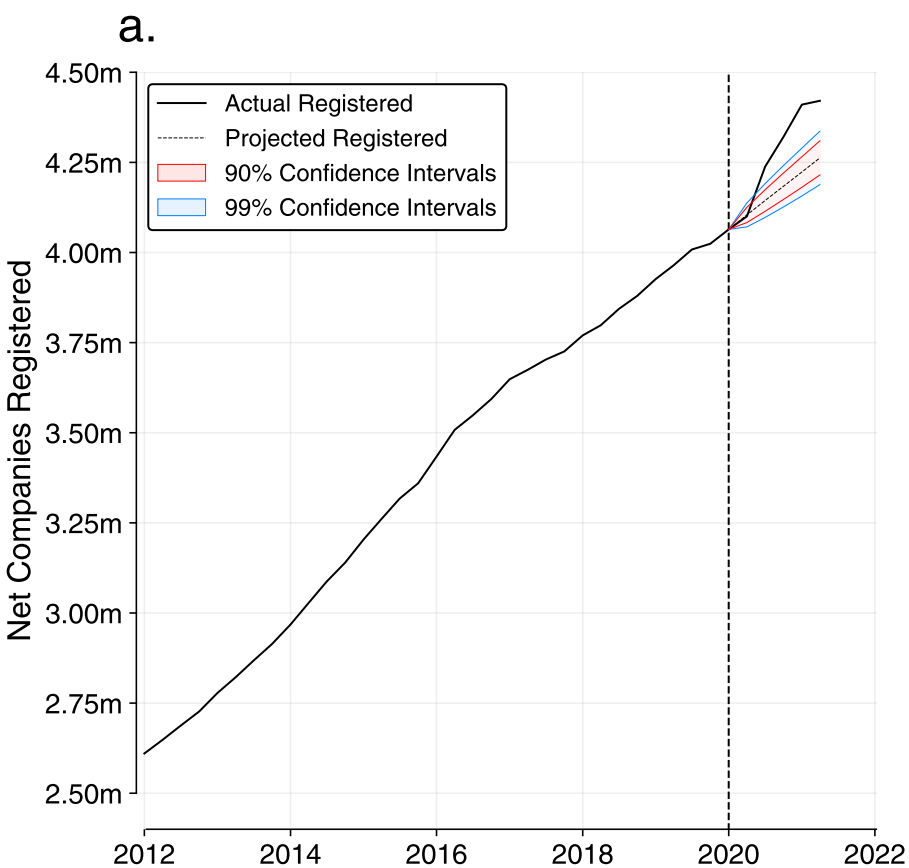
'The Role of Non-Profits in Public Health Service Provision'
With John Mohan

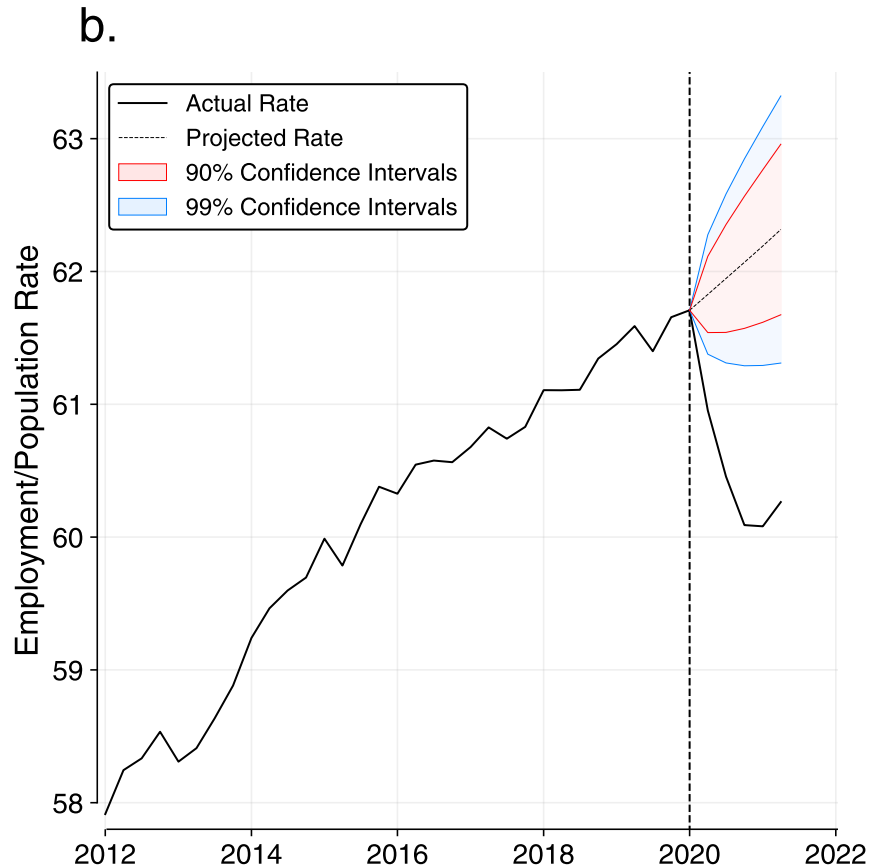
What's Next? A new database of all Third Sector Organisations!



‘Creeping Commercialization in the NHS’

By Ben Goodair and Aaron Reeves





'Modelling Labour Market Inequalities and the Covid-19 Pandemic'
With Aaron Reeves and Naomi Muggleton

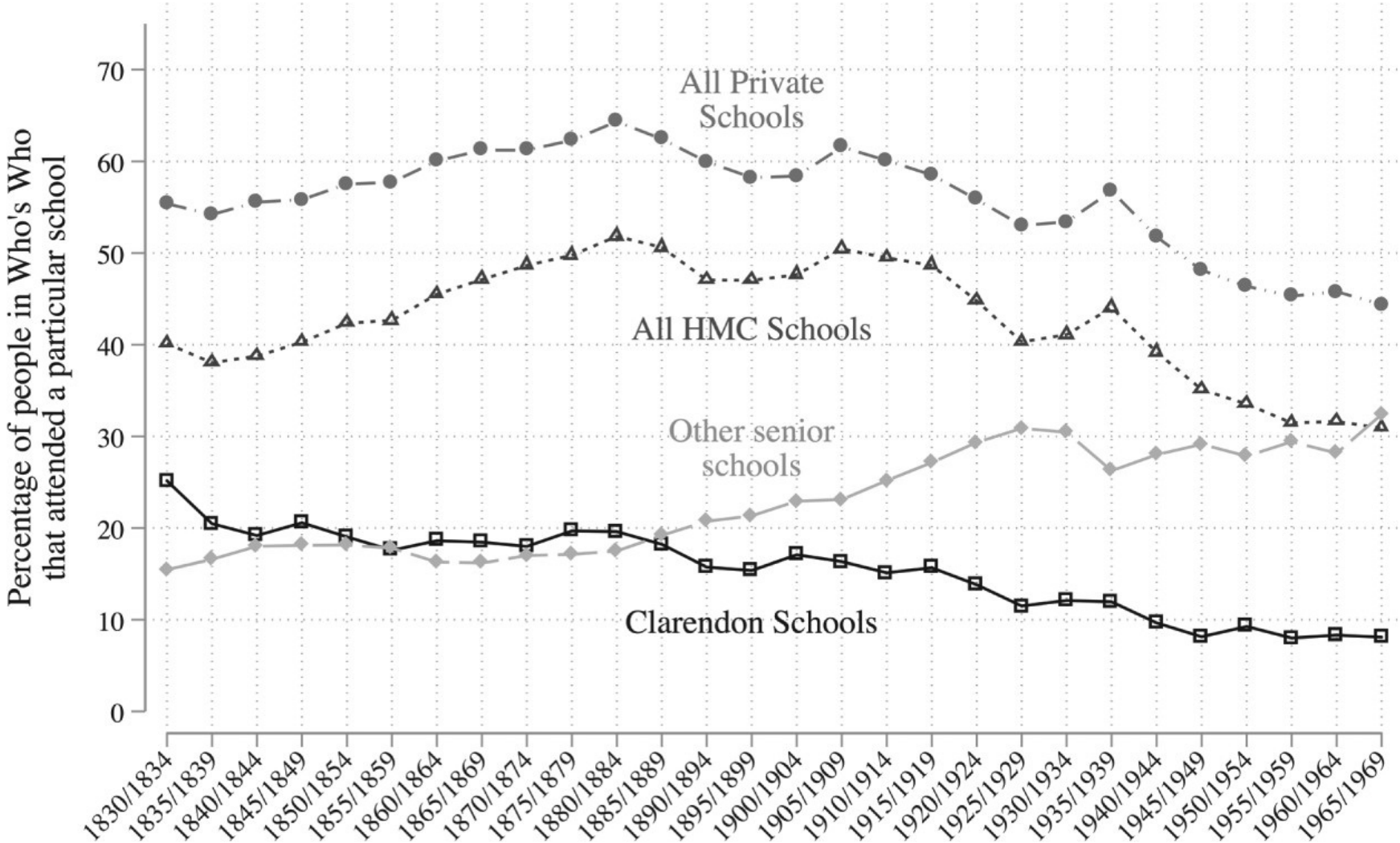
What's Next? Inequalities across the Companies House Register!

What's Next? Population Level Vehicle Data!

- We're currently working with vehicle administration data.
- The dataset contains **hundreds of millions** of observations.
- Information on emissions, characteristics, and registration.
- We are set to answer a range of questions, such as:
  1. What are the effects of unregulated exports?
  2. What are the inter-sectional characteristics of polluting?
  3. Can this data be used for estimating internal migration?

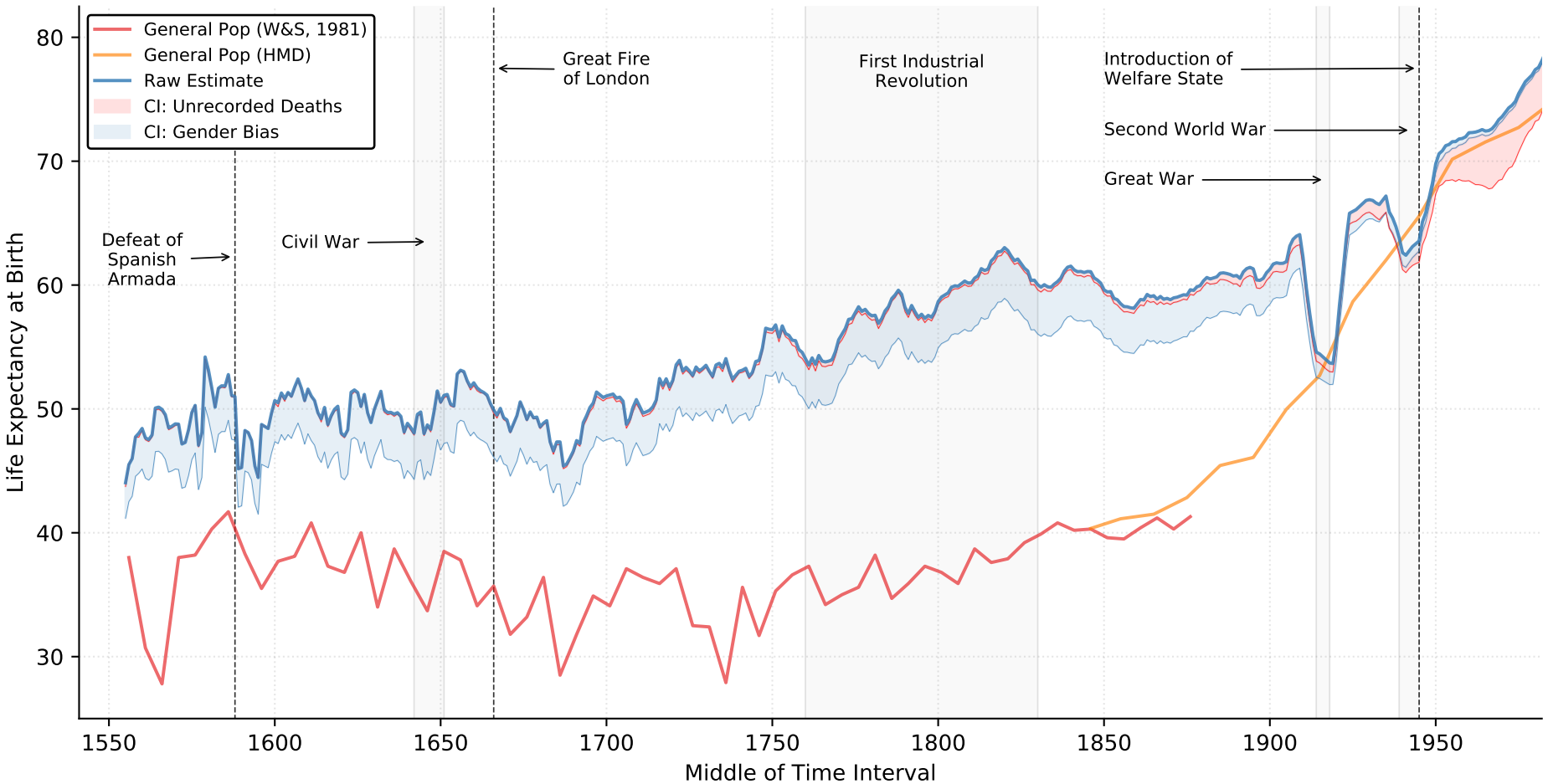
Semi-Structured Data for Inequality Research

- Data can come from a multitude of sources.
  - Sometimes, it can come from raw `.html` itself.
- One example of this is when we scraped 'Who's Who' to get information on education background of professional elites.
- Another is when we scraped `thepeerage.com` to get data on dates of birth and death of British Peers.
- Exciting opportunities for digital archival research with computational methods.
- Let's see some examples, and again consider 'What's Next?'



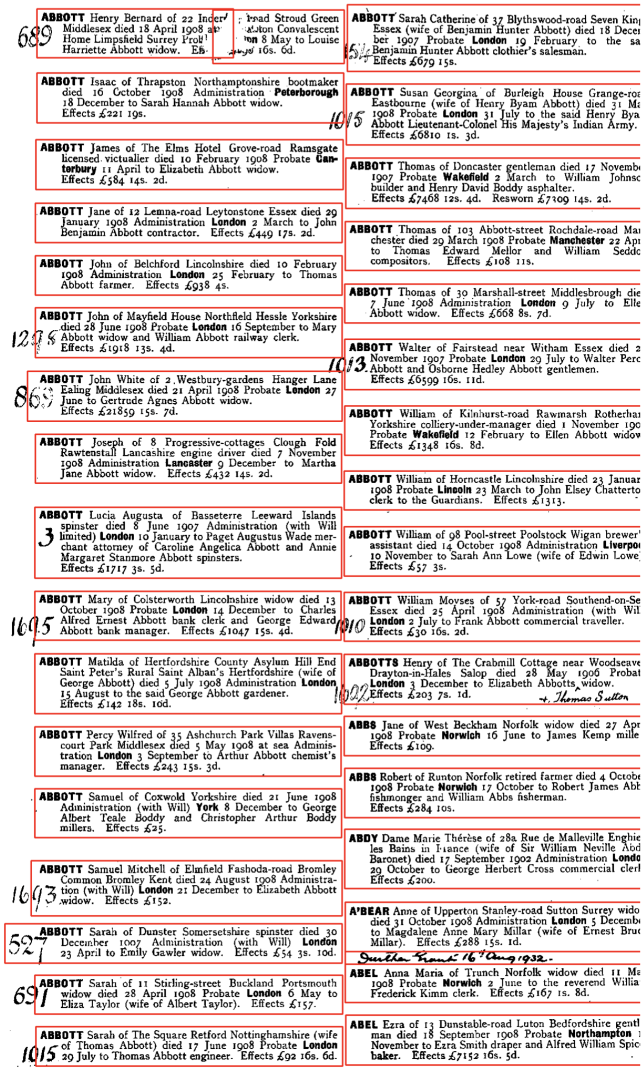
‘The decline and persistence of the old boy’

With Aaron Reeves, Sam Friedman. and Magne Flemmen



'The Legacy of Longevity: Inequalities in UK Life Expectancy 1500-2016'
with Aaron Reeves, Felix Tropf and Darryl Lundy

What's Next? Data on Wealth at Death



ABBOTT Henry Bernard of 22 Inder[illegible] road Stroud Green Middlesex died 18 April 1908 at [illegible]kton Convalescent Home Limpsfield Surrey Prob[illegible] 8 May to Louise Harriette Abbott widow. Effects [illegible] 16s. 6d.

ABBOTT Isaac of Thrapston Northamptonshire bootmaker died 16 October 1908 Administration **Peterborough** 18 December to Sarah Hannah Abbott widow. Effects £221 19s.

ABBOTT James of The Elms Hotel Grove-road Ramsgate licensed victualler died 10 February 1908 Probate **Canterbury** 11 April to Elizabeth Abbott widow. Effects £584 14s. 2d.

ABBOTT Jane of 12 Lemna-road Leytonstone Essex died 29 January 1908 Administration **London** 2 March to John Benjamin Abbott contractor. Effects £449 17s. 2d.

ABBOTT John of Belchford Lincolnshire died 10 February 1908 Administration **London** 25 February to Thomas Abbott farmer. Effects £938 4s.

ABBOTT John of Mayfield House Northfield Hessle Yorkshire died 28 June 1908 Probate **London** 16 September to Mary Abbott widow and William Abbott railway clerk. Effects £1918 13s. 4d.

ABBOTT John White of 2 Westbury-gardens Hanger Lane Ealing Middlesex died 21 April 1908 Probate **London** 27 June to Gertrude Agnes Abbott widow. Effects £21859 15s. 7d.

ABBOTT Joseph of 8 Progressive-cottages Clough Fold Rawtenstall Lancashire engine driver died 7 November 1908 Administration **Lancaster** 9 December to Martha Jane Abbott widow. Effects £432 14s. 2d.

ABBOTT Lucia Augusta of Basseterre Leeward Islands spinster died 8 June 1907 Administration (with Will limited) **London** 10 January to Paget Augustus Wade merchant attorney of Caroline Angelica Abbott and Annie Margaret Saunders Abbott spinsters. Effects £1717 3s. 5d.

ABBOTT Mary of Colsterworth Lincolnshire widow died 13 October 1908 Probate **London** 14 December to Charles Alfred Ernest Abbott bank clerk and George Edward Abbott bank manager. Effects £1047 15s. 4d.

ABBOTT Matilda of Hertfordshire County Asylum Hill End Saint Peter's Rural Saint Alban's Hertfordshire (wife of George Abbott) died 5 July 1908 Administration **London** 15 August to the said George Abbott gardener. Effects £142 18s. 10d.

ABBOTT Percy Wilfred of 35 Ashchurch Park Villas Ravenscourt Park Middlesex died 5 May 1908 at sea Administration **London** 3 September to Arthur Abbott chemist's manager. Effects £243 15s. 3d.

ABBOTT Samuel of Coxwold Yorkshire died 21 June 1908 Administration (with Will) **York** 8 December to George Albert Teale Boddy and Christopher Arthur Boddy millers. Effects £25.

ABBOTT Samuel Mitchell of Elmfield Fashoda-road Bromley Common Bromley Kent died 24 August 1908 Administration (with Will) **London** 21 December to Elizabeth Abbott widow. Effects £152.

ABBOTT Sarah of Dunster Somersetshire spinster died 30 December 1907 Administration (with Will) **London** 23 April to Emily Gawler widow. Effects £54 3s. 10d.

ABBOTT Sarah of 11 Stirling-street Buckland Portsmouth widow died 28 April 1908 Probate **London** 6 May to Eliza Taylor (wife of Albert Taylor). Effects £157.

ABBOTT Sarah of The Square Retford Nottinghamshire (wife of Thomas Abbott) died 17 June 1908 Probate **London** 29 July to Thomas Abbott engineer. Effects £92 16s. 6d.

ABBOTT Sarah Catherine of 37 Blythswood-road Seven Kin[illegible] Essex (wife of Benjamin Hunter Abbott) died 18 Decem[illegible]ber 1907 Probate **London** 19 February to the sa[illegible] Benjamin Hunter Abbott clothier's salesman. Effects £679 15s.

ABBOTT Susan Georgina of Burleigh House Grange-roa[illegible] Eastbourne (wife of Henry Byam Abbott) died 31 Ma[illegible] 1908 Probate **London** 31 July to the said Henry Bya[illegible] Abbott Lieutenant-Colonel His Majesty's Indian Army. Effects £6810 1s. 3d.

ABBOTT Thomas of Doncaster gentleman died 17 Novembe[illegible] 1907 Probate **Wakefield** 2 March to William Johnso[illegible] builder and Henry David Boddy asphalter. Effects £7468 12s. 4d. Resworn £7109 14s. 2d.

ABBOTT Thomas of 103 Abbott-street Rochdale-road Man[illegible] chester died 29 March 1908 Probate **Manchester** 22 Apr[illegible] to Thomas Edward Mellor and William Seddo[illegible] compositors. Effects £108 11s.

ABBOTT Thomas of 30 Marshall-street Middlesbrough die[illegible] 7 June 1908 Administration **London** 9 July to Elle[illegible] Abbott widow. Effects £668 8s. 7d.

ABBOTT Walter of Fairstead near Witham Essex died 2[illegible] November 1907 Probate **London** 29 July to Walter Perc[illegible] Abbott and Osborne Hedley Abbott gentlemen. Effects £6599 10s. 11d.

ABBOTT William of Kilnhurst-road Rawmarsh Rotherha[illegible] Yorkshire colliery-under-manager died 1 November 190[illegible] Probate **Wakefield** 12 February to Ellen Abbott widow Effects £1348 16s. 8d.

ABBOTT William of Horncastle Lincolnshire died 23 Januar[illegible] 1908 Probate **Lincoln** 23 March to John Elsey Chatterto[illegible] clerk to the Guardians. Effects £1313.

ABBOTT William of 98 Pool-street Poolstock Wigan brewer[illegible] assistant died 14 October 1908 Administration **Liverpo[illegible]** 10 November to Sarah Ann Lowe (wife of Edwin Lowe[illegible] Effects £57 3s.

ABBOTT William Moyses of 57 York-road Southend-on-Se[illegible] Essex died 25 April 1908 Administration (with Wil[illegible] **London** 2 July to Frank Abbott commercial traveller. Effects £30 16s. 2d.

ABBOTTS Henry of The Crabmill Cottage near Woodseave[illegible] Drayton-in-Hales Salop died 28 May 1906 Probat[illegible] **London** 3 December to Elizabeth Abbotts widow. Effects £203 7s. 1d.

ABBS Jane of West Beckham Norfolk widow died 27 Apr[illegible] 1908 Probate **Norwich** 16 June to James Kemp mille[illegible] Effects £109.

ABBS Robert of Runton Norfolk retired farmer died 4 Octobe[illegible] 1908 Probate **Norwich** 17 October to Robert James Abb[illegible] fishmonger and William Abbs fisherman. Effects £284 10s.

ABDY Dame Marie Thérèse of 28a Rue de Malleville Enghie[illegible] les Bains in France (wife of Sir William Neville Abd[illegible] Baronet) died 17 September 1902 Administration **Londo[illegible]** 29 October to George Herbert Cross commercial clerk Effects £200.

A'BEAR Anne of Upperton Stanley-road Sutton Surrey widow[illegible] died 31 October 1908 Administration **London** 5 Decembe[illegible] to Magdalene Anne Mary Millar (wife of Ernest Bruc[illegible] Millar). Effects £288 15s. 1d.

ABEL Anna Maria of Trunch Norfolk widow died 11 Ma[illegible] 1908 Probate **Norwich** 2 June to the reverend Willia[illegible] Frederick Kimm clerk. Effects £167 1s. 8d.

ABEL Ezra of 13 Dunstable-road Luton Bedfordshire gentl[illegible] man died 18 September 1908 Probate **Northampton** [illegible] November to Ezra Smith draper and Alfred William Spic[illegible] baker. Effects £7152 16s. 5d.

Ongoing/prospective research (with A. Reeves and N. Muggleton) plans to use probate records from 1858-1996. The idea is to:

1. Scrape 800k .pdfs containing 24m probates.
2. Pre-process images ready for OCR.
3. Run OCR on HPC in parallel.
4. Build lifetables to calculate e_0 by wealth at death.

What's Next? Estimating Inter-sectional Costs of Care

- Provision of informal care becoming an **international crisis**.
- In addition to differential demand, costs are different, too.
- However, estimating the costs of providing care is difficult.
- This motivates improvements to Synthetic Control estimators.
  - We aim to incorporate ML into the 'individual' level.
  - This will allow us to estimate different 'costs'.
  - To be used on detailed, granular data (census, biobank, etc).
  - Key idea: create individual synthetic versions (non-carers).
  - Costs can be operationalised in many ways.

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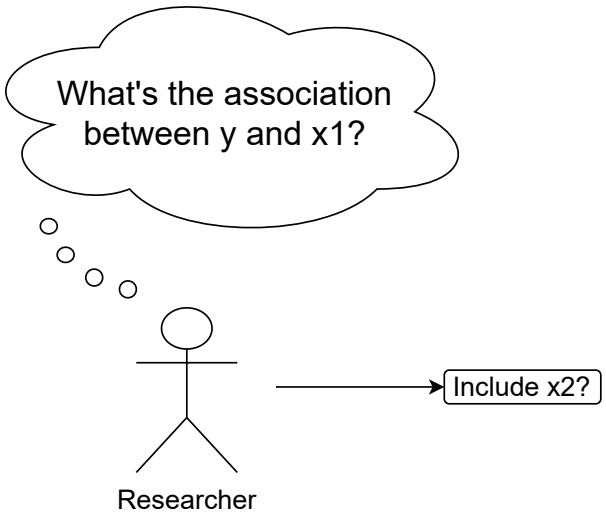
- Transparency and more computational procedures!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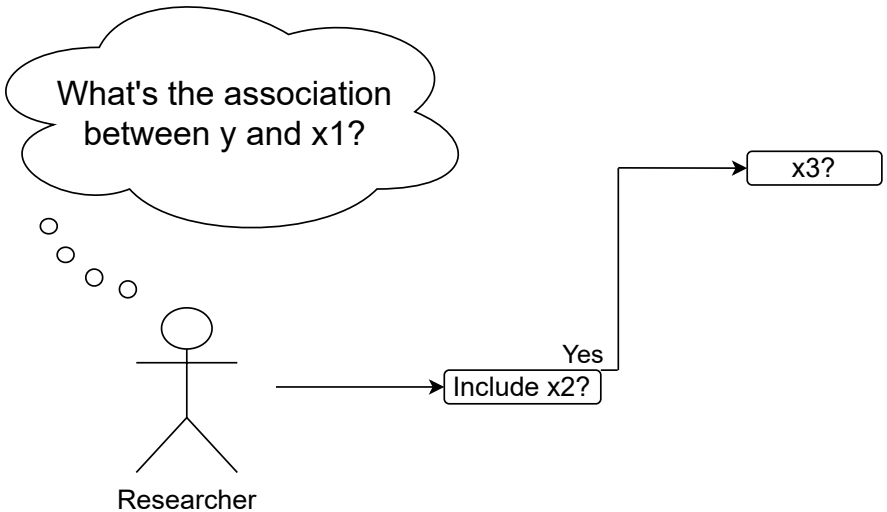
Include x2?
Researcher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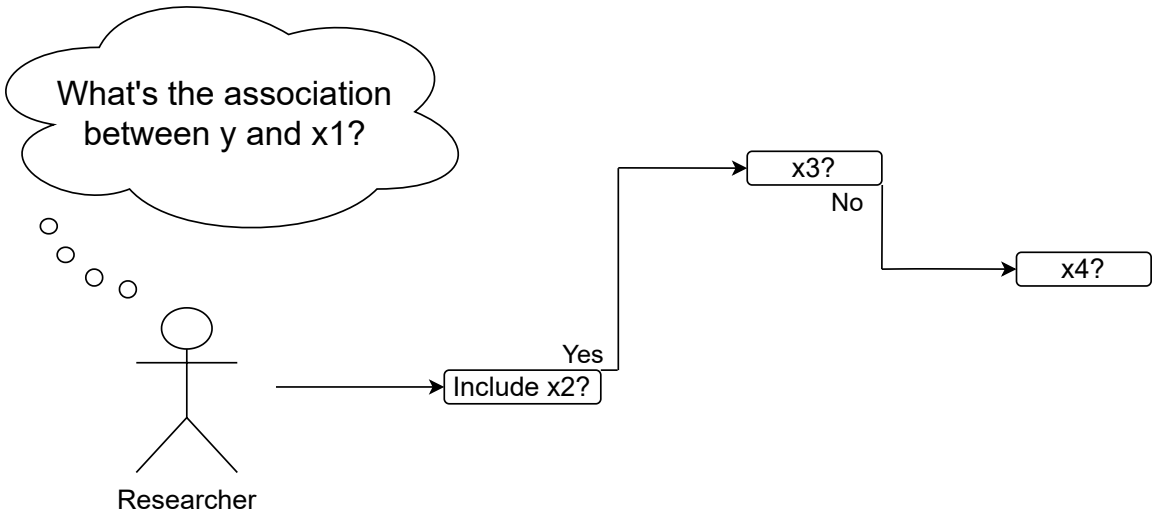
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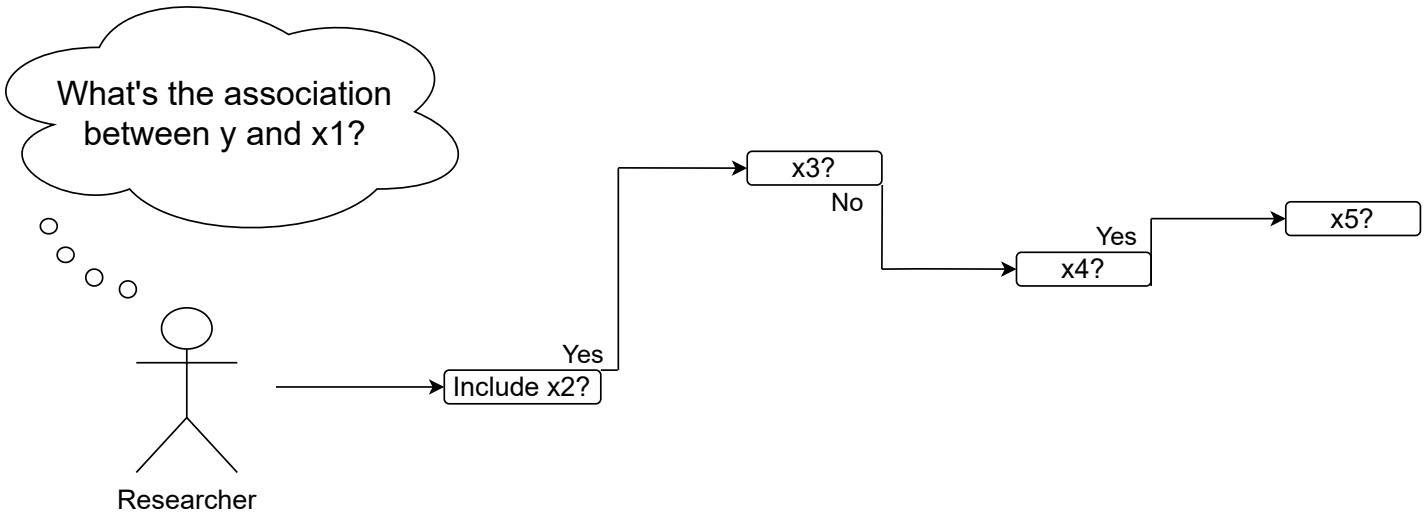
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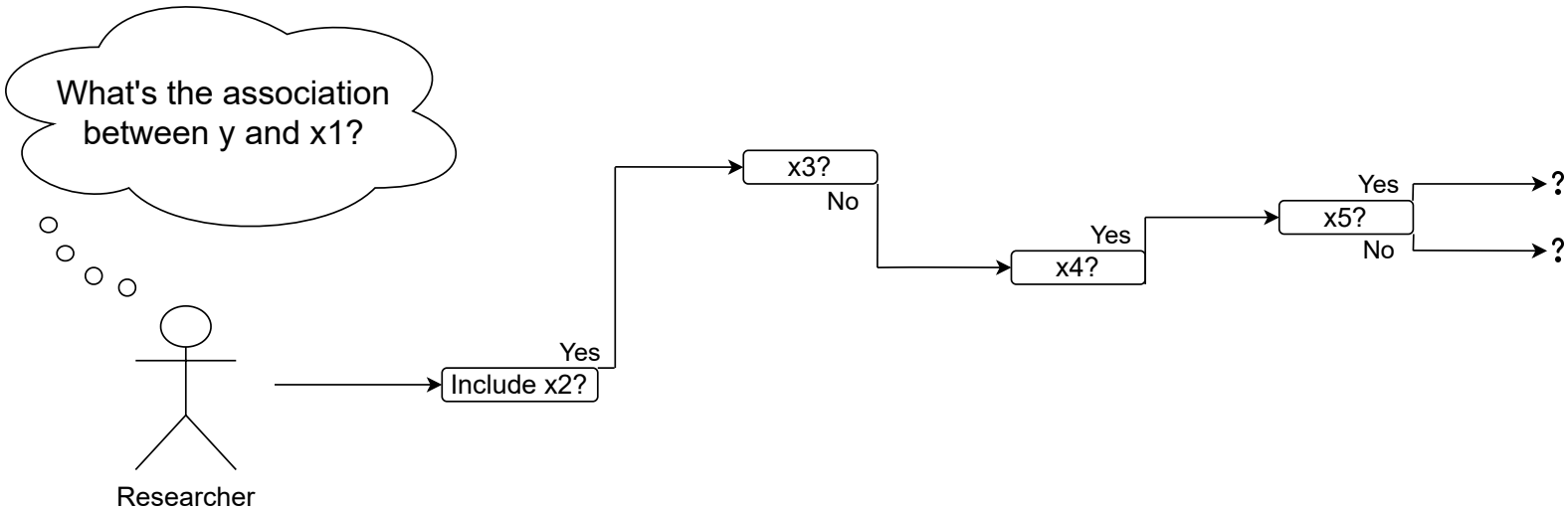
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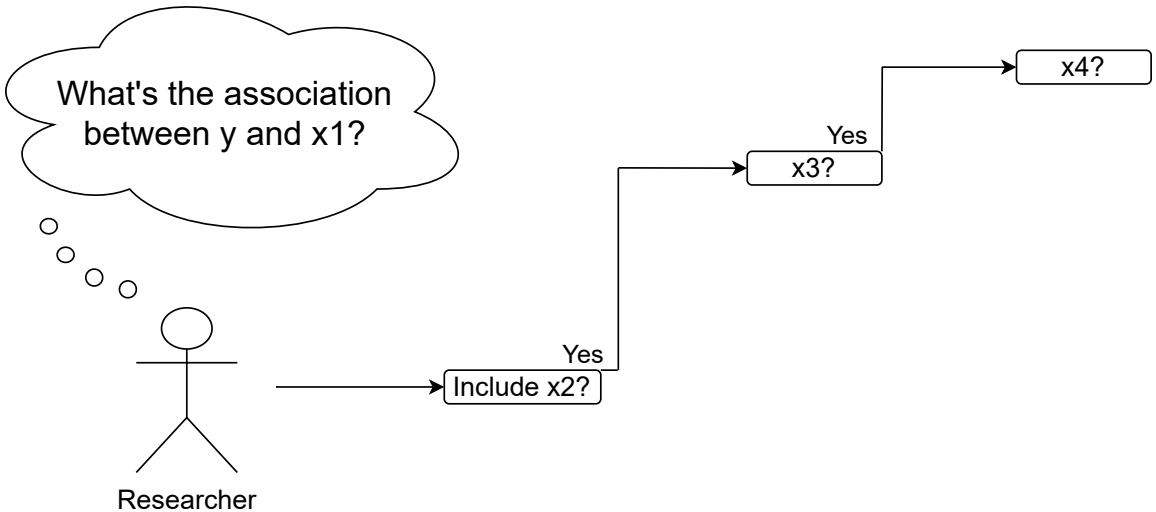
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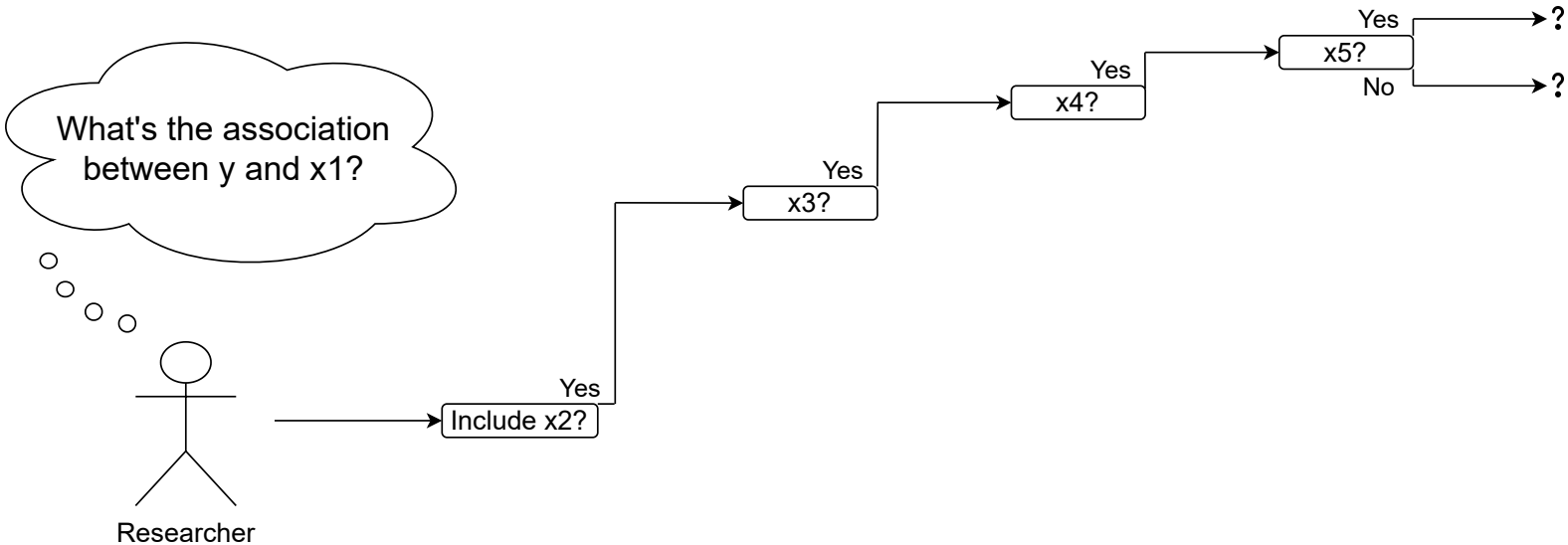
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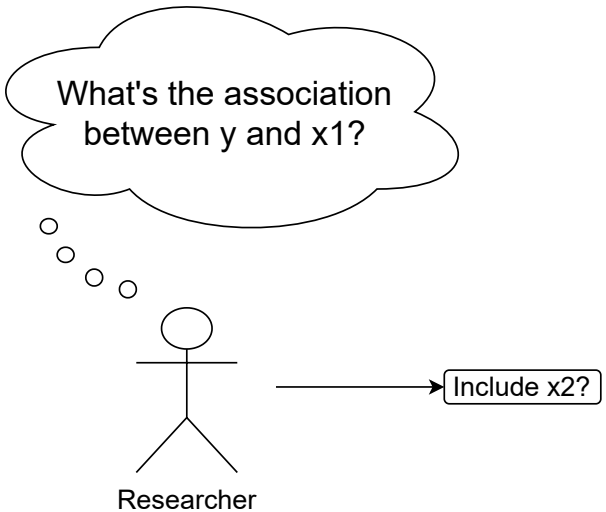
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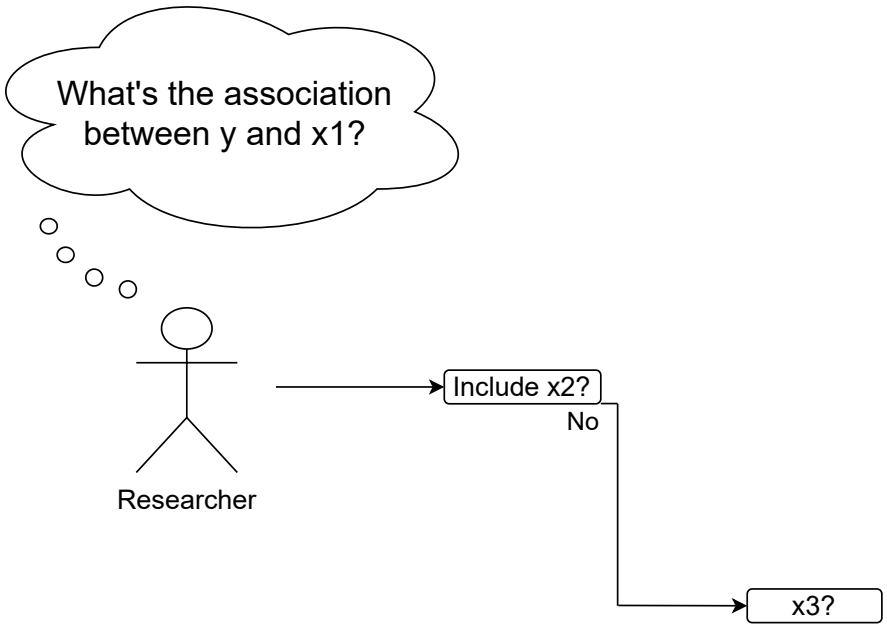
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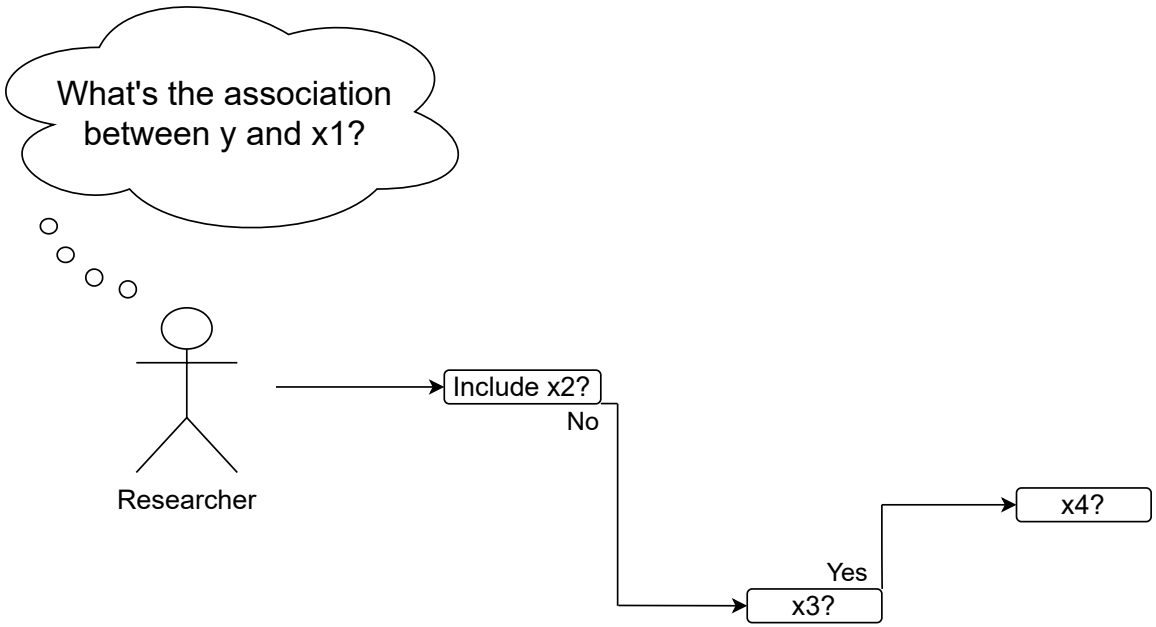
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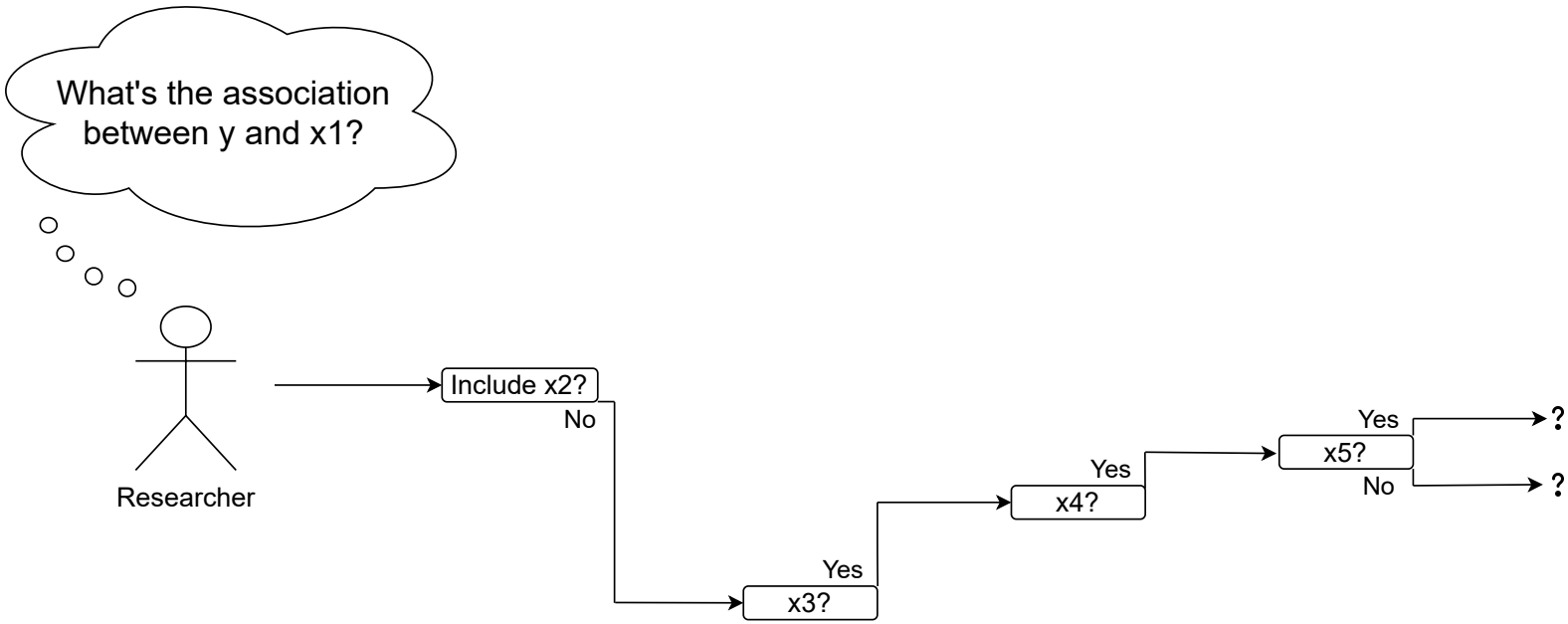
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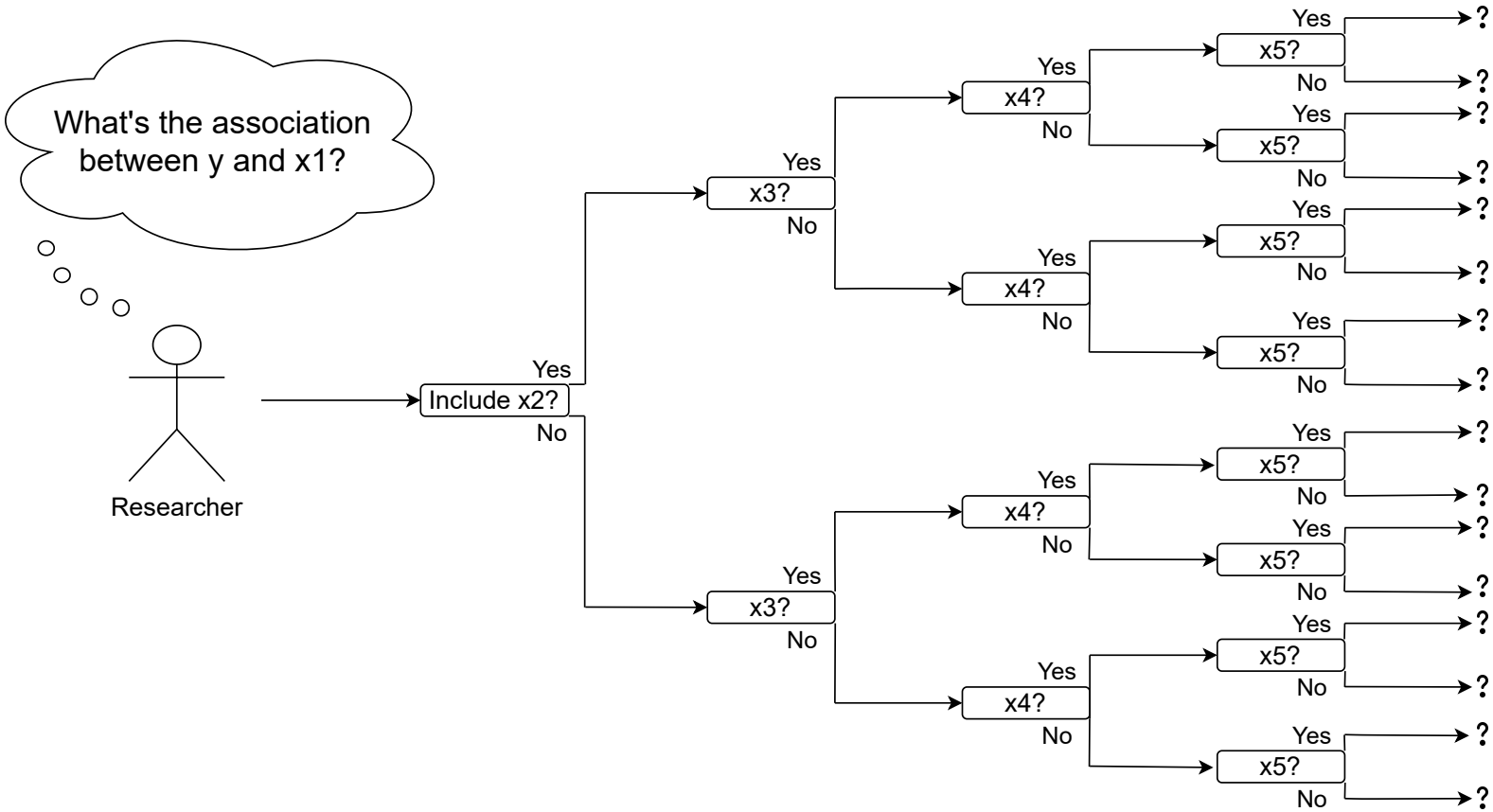
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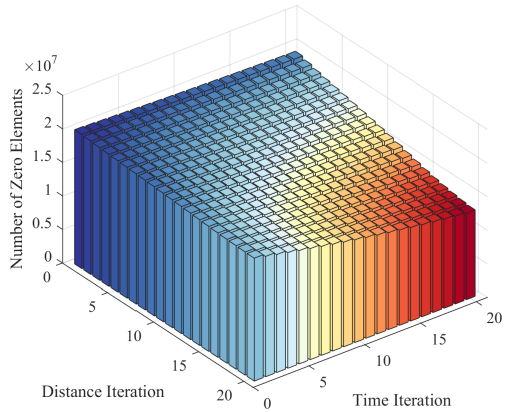

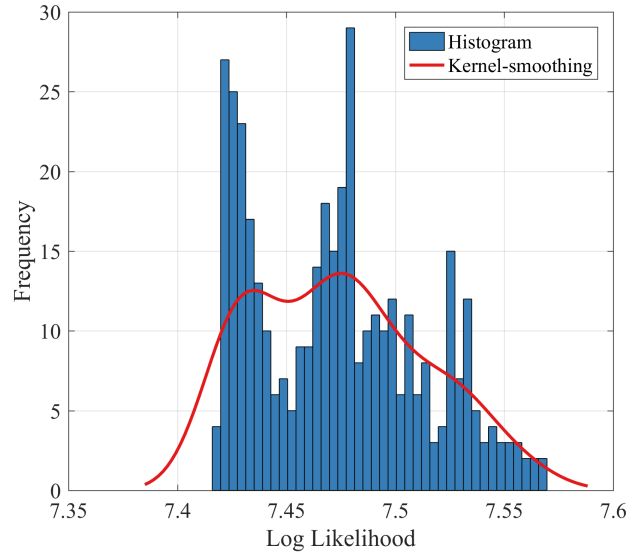

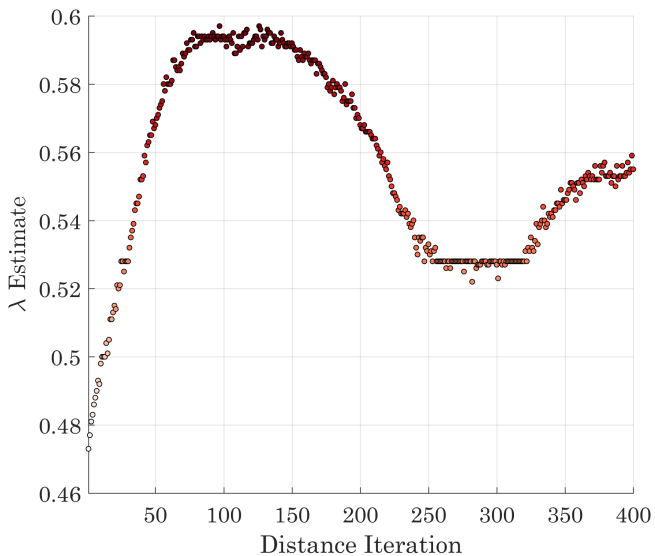

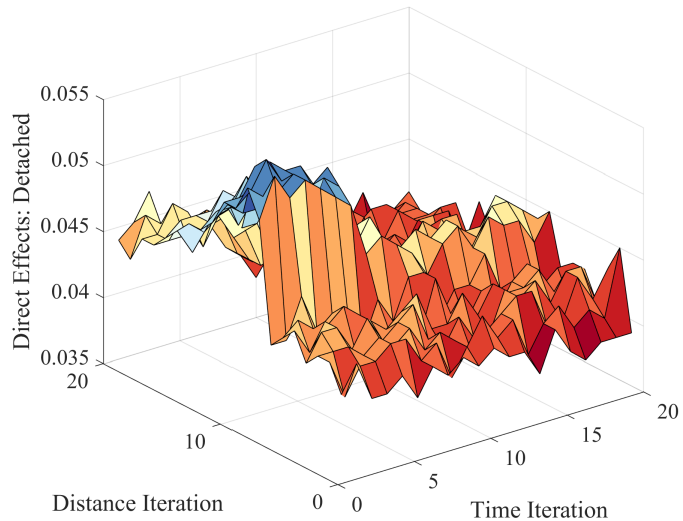

‘A Grid Based Approach to Analysing Spatial Weighting Matrix Specification’

What's Next? Advancing the Spec-Curve Literature!

- Current research culture around robustness only mandates examination of a couple of choices.
  - With current computational power; why not all combinations?
  - Is specification choice the only source of variability?
- How can we visualize the *feasible* output space?
- This represents uncertainty around traditional point estimates.
- NRobust: The next generation of Specification Curves!
  - Bootstrap Resampling
  - Model Averaging
  - Model Selection
  - Cross-Validation

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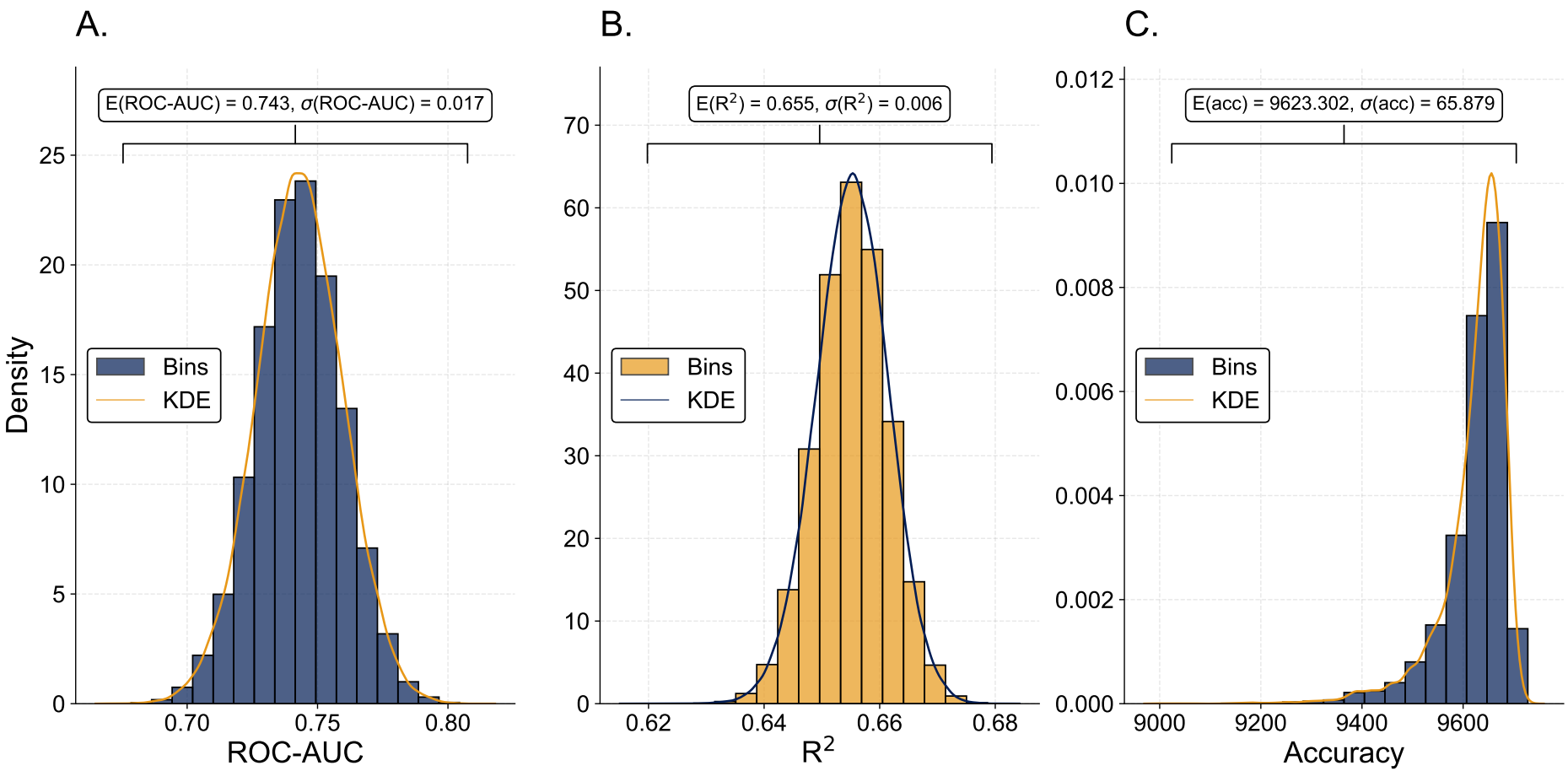
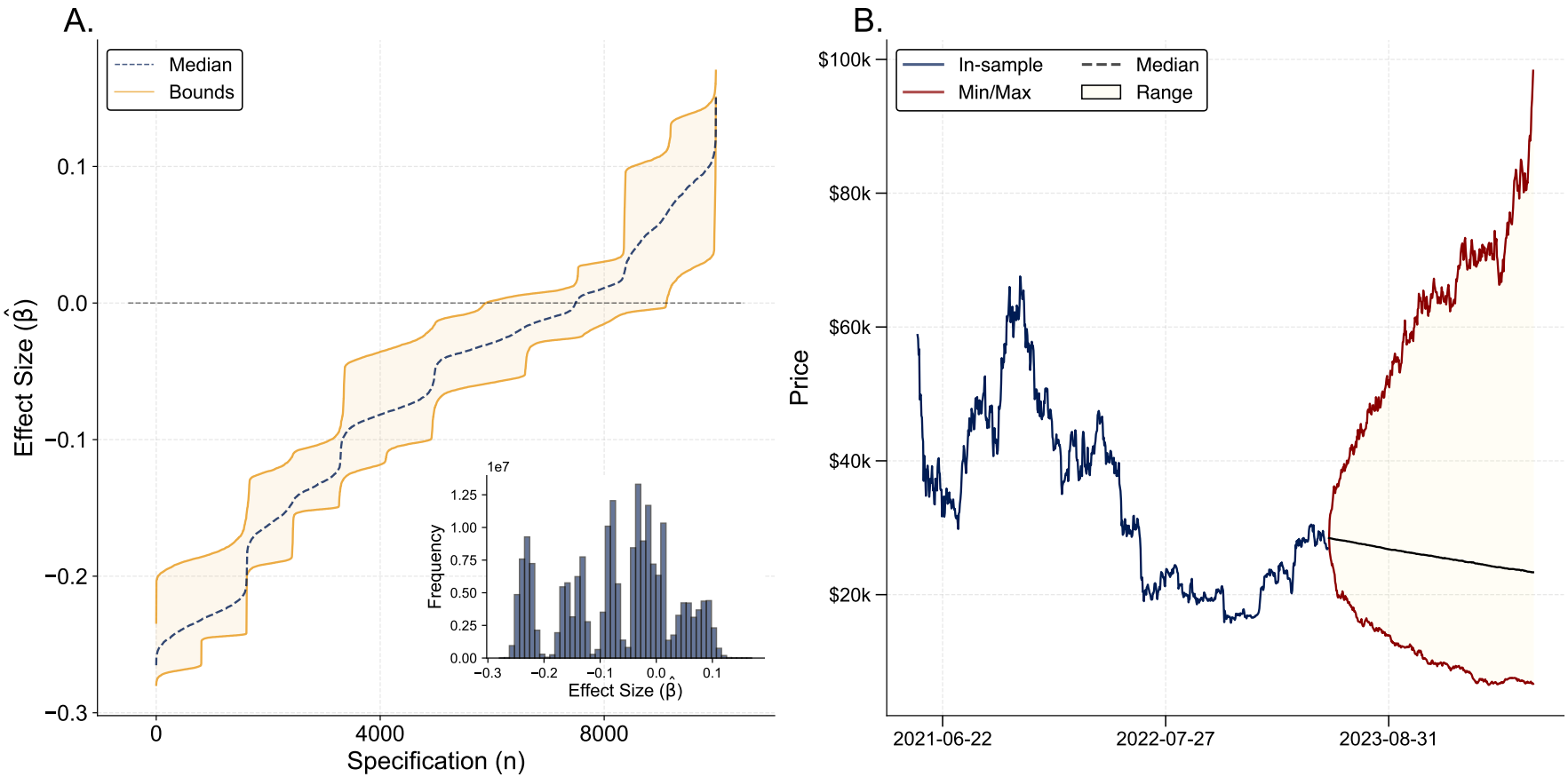
- We bring attention to this through multiple types of replications.
  - Simulations, machine learning, and inferential research.



'From a Seed of Doubt Grows a Forest of Uncertainty'

With Arun Frey, Jiani Yan and Mark Verhagen



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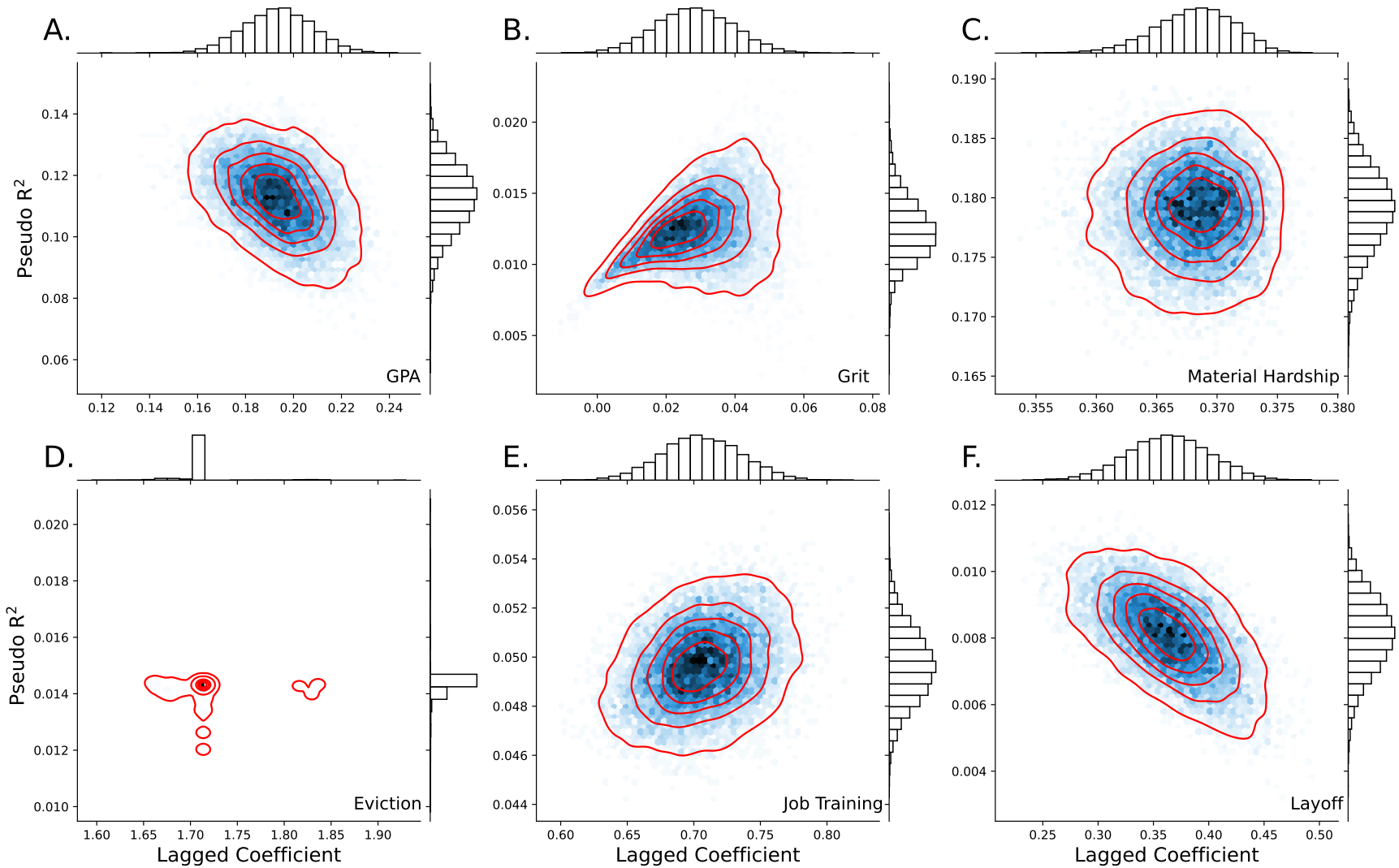

‘From a Seed of Doubt Grows a Forest of Uncertainty’

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What's Next? Indexing Seed Variability

- The next thing to do is to formalize the replication project.
  - Does anyone have ideas for other types of seed variability?
- We are seeking to make a project website, two functions:
  1. People pre-register a project, receive a (set of) seeds.
  2. Index examples of seed variability in existent papers.
- The first improves the future of the scientific record.
- The second makes the historic scientific record more robust.

‘The future of mankind surely relies on reformulating existing challenges as predictive problems’

Avi Goldfarb at Said Business School, 2017

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'The future of mankind surely relies on reformulating existing challenges as predictive problems'

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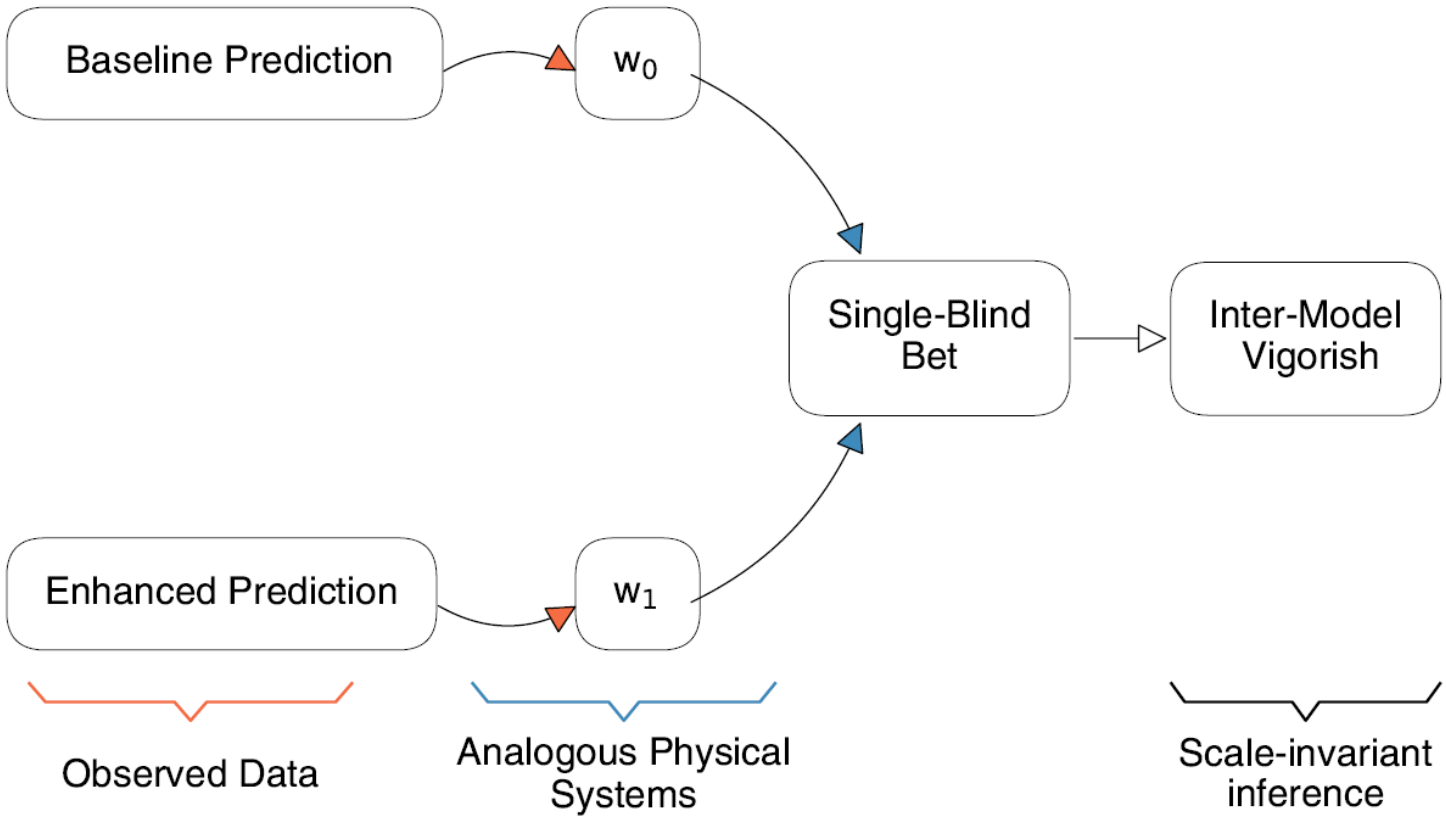
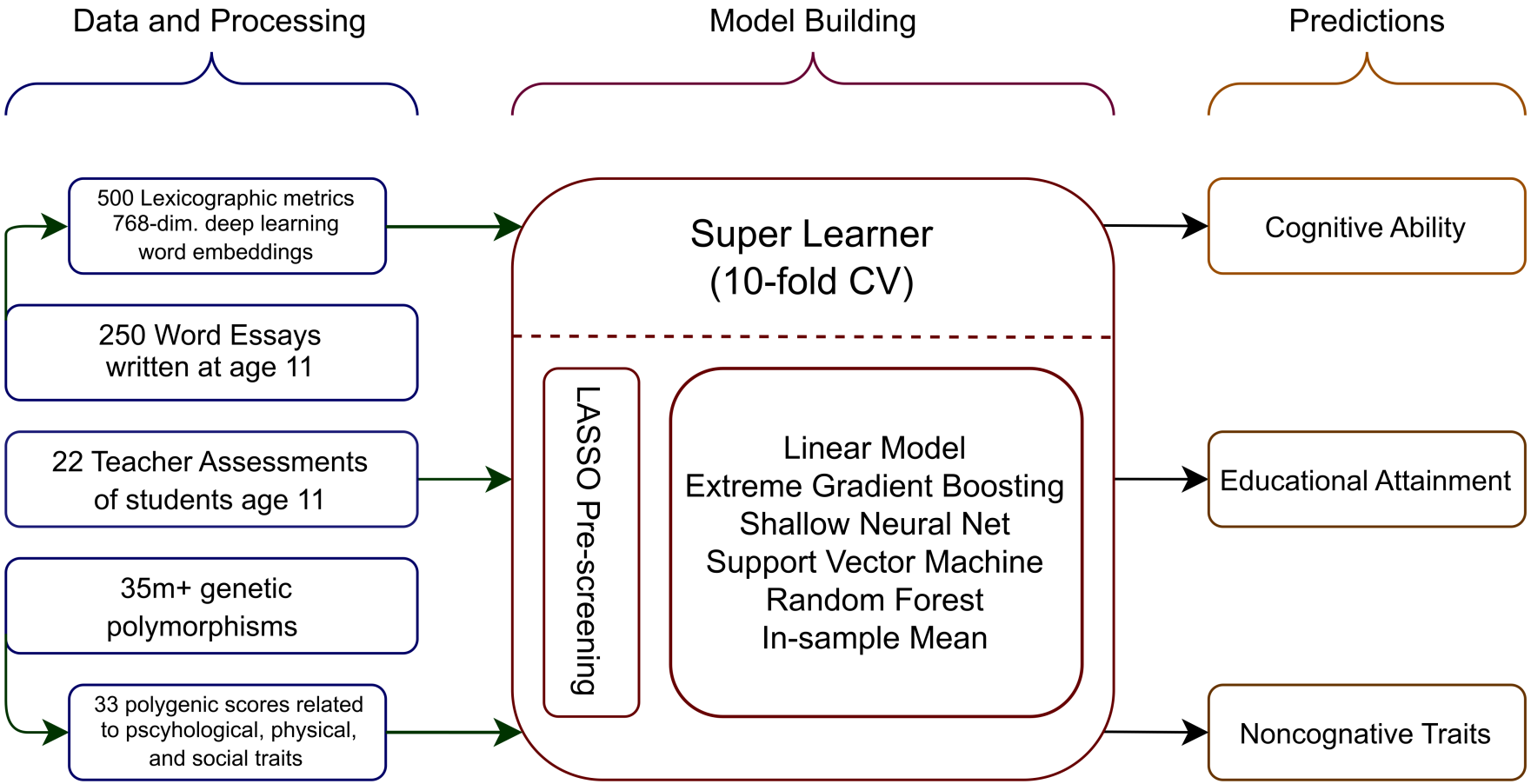
- In addition to being interested in STS...
- I am an active Machine/Deep Learning researcher!
  - I have a longstanding interest in forecasting and prediction.
- My work in this area is currently split into two aspects:
  1. The development of new methods and metrics.
  2. The application of frontier-level techniques to social problems.

Introducing the InterModel Vigorish



'The InterModel Vigorish (IMV): A novel approach for quantifying predictive accuracy when outcomes are binary'

With Ben Domingue, Alex Rigos, Jeremy Frees *et al.*



'Short Essays Written During Childhood Predict Cognition and Educational Attainment'

with Felix Tropf and Tobias Wolfram

What's Next? Deep Learning for Social Care

One particular interest: predicting urgent care need in real-time.

- This is made possible by 'Technology Enabled Care'.
- We are in the process of mapping TEC ecosystems.
- The core idea: Use sensor data to predict emergencies.
- We are currently scoping, and undertaking ethical reviews.
- Data available through bespoke agreements with councils.
- We are planning to develop deep survival based models.

What's Next? Indexing Social Prediction

- Society is increasingly interested in 'how predictable' things are.
- This generates multiple interesting research questions:
  1. What are the predictive limits of health/social systems?
  2. With more HPCs/data, how much irreducible error remains?
  3. How can we incorporate a large number of small signals?
     - Are 'SWAS' **ethically** or practically viable?
  4. How can we ensure social prediction is undertaken ethically?

Conclusion: **Thank you for attending!**

I hope I've been able confer my enthusiasm for:

- Robust and 'assumption free' social science.
- 'Semi-structured' data which is found 'in the wild'.
- Open, Responsible, and Reproducible Research.

Please don't hesitate to get in touch at:
charles.rahal@demography.ox.ac.uk
and/or
github.com/crahal!