From: Adrian Barnett
To: Justine Stansen

Subject: Fwd: Adrian Barnett"s report "Death.Analysis.pdf"

Date: Wednesday, 2 September 2015 4:00:47 PM

Sent from my iPhone

Begin forwarded message:

Thanks Adrian,

I will send this cc to the Age Journalist so they can compare it to the rigour and sophistication of their numbers for Moe.

My message for the media is "Beysian regression analysis is rolled gold cutting edge statistics. In an earlier form it was used by Edward Teller at Los Alamos to model neutron behaviour and develop the H-bomb, how sophisticated do you have to get?"

I also note that the "R" and "jags" software to run it is already installed on my laptop, so now I "only" need to do a 3 year university course in statistics and maths to be able to drive it and understand the validity of the model, which remains a black box to non statisticians like me. Adrian has provided VOTV with his programs, and we are free to share them with a third party such as an independent maths/statistics expert appointed by the coroner or a re-born HMFI. "R" and jags running in a Unix/Linux environment are the normal everyday tools of academic statisticians.

On 14/09/14 10:27, Adrian Barnett wrote:

My report is now publicly available here: <a href="https://fileshare.qut.edu.au/public/barnetta/Death.Analysis.pdf">https://fileshare.qut.edu.au/public/barnetta/Death.Analysis.pdf</a>.

-----Original Message----From: Michael Gunter
Sent: Sunday, 14 September 2014 9:13 AM

To: Adrian Barnett

Cc: Ron Ipsen; Tara Dean

Subject: Re: your report "Death.Analysis.pdf"

Hi Adrian,

May I send a copy to Ron Ipsen please?

It seems fine to me. I printed and annotated it with a reference to BOM station ID 085280 (Latrobe Valley Airport) on page 4. We seem to be about to run with Ron Ipsen's simpler spreadhseet analysis claiming ca. 42 deaths Feb to June, which seems well within the bounds of possibility given the graph (attached).

Thanks for the .csv which (of course!) contained no transcription errors that I could detect.

I have printed a copy of Death.Analysis.pdf, annotated as noted, then in bold biro on the front I've added "DRAFT NOT FOR RELEASE" but can I display it to journalists or politicians if they come back at us with deputy premier Peter Ryan's assertion "there have been no deaths from this fire"?

Best regards,

Michael

On 14/09/14 07:45, Adrian Barnett wrote:

Hi Michael

Here is the csv file. I've also attached a write-up of the results. Can you give it a look over before I share it with others? Thanks,

Adrian

----Original Message----

From: Michael Gunter

Sent: Saturday, 13 September 2014 8:17 PM

To: shaun murray; Adrian Barnett

Subject: Re: Fwd: Media release

Wow!! I though i said I wasn't good at stats!!!

I figured out the "jags" thing just from what was shown on the TV Friday night, by doing a google search for key words off the TV screen.

Anyway the only thing I could check on would be a file not included, namely "Death Data - Voices of the Valley- BDM.csv" as is called from the R program "Quick.Analysis.R"

Even if I downloaded and installed R on my Linux laptop, I would have no idea how to validate the software code in "Quick.Analysis.R" but I guess it is something to put in my report to the Coroner, \*OR\* as it turns out (and I'v only just learned belatedly in tonight's TV news), potentially in a report to a reopened Board of Inquiry!!

So Adrian, if you can send us the file "Death Data - Voices of the Valley- BDM.csv" at least I should be able to cross check that against BDM's .xls spreadsheet easily enough.

Thanks once again.

Michael

On 13/09/14 17:00, shaun murray wrote:

fyi
----- Forwarded message ----From: \*Adrian Barnett\*

Date: 12 September 2014 18:39

Subject: RE: Media release

To: shaun murray
>
Hi Shaun
I used R combined with JAGS. I've also attached one of the results files. Cheers,
Adrian
*From:*shaun murray  *Sent:* Friday, 12 September 2014 3:09
PM *To:* Adrian Barnett
*10: Adrian Barnett
*Subject:* Re: Media release
Could you also please send me your analysis?
Thanks
On 12 September 2014 14:41, shaun murray > wrote:

Awesome, thanks!
On 12 September 2014 14:39, Adrian Barnett wrote:
All fine. I like the idea of having live streaming pollution monitors
*From:*shaun murray
*Sent:* Friday, 12 September 2014 2:23 PM
*To:* Adrian Barnett
*Subject:* Media release
Hi Adrian, here's our media release - any questions/issues?
MEDIA RELEASE – VOICES OF THE VALLEY
*Eleven probable deaths due to mine fire*
*EMBARGOED UNTIL 6am 13^th September*

\_\_\_\_

Latrobe Valley community group Voices of the Valley released data and analysis today indicating that smoke from the Hazelwood mine fire coincided with a 15% increase in the death rate in February and March.\_\_\_\_

\_\_\_\_

Associate Professor Adrian Barnett from Queensland University of Technology analysed data obtained from Births, Deaths and Marriages.\_\_\_\_

\*Associate Professor Adrian Barnett:\*

"There's an estimated 89% probability that the death rate was 15% higher in the period of the mine fire for the four postcodes that we investigated. This translates to approximately eleven premature deaths."\_\_\_\_

"I believe that a thorough investigation is warranted, and the sooner this is done the better. We need to examine cause of death to see if they were related to conditions we know to be associated with air pollution such as respiratory or cardiovascular disease. We need to see where people were living and what they were doing prior to their deaths to determine their level of exposure. It would also be useful to know if they were showing symptoms before their death and what medical help they sought and received. Getting this data

would involve interviewing their relatives and friends."
*Mrs Wendy Farmer, President of Voices of the Valley:*
"The Hazelwood Mine Fire Inquiry found that residents had been exposed to extreme levels of particulate pollution and should have been advised to leave much earlier." (p.342, p.355 Hazelwood Mine Fire Inquiry Report 2014)
"The inquiry also found that this was a preventable disaster. It's clear that GDF was negligent in its fire prevention measures and that the government was negligent in its oversight of the mine. It now seems that they have blood on their hands as a result."
"GDF's arrogance in not accepting their culpability in the fire has been breathtaking. The inquiry found that GDF Suezbreached OHS laws. They didn't even have a risk assessment, let alone a plan to manage a fire in the disused batters."

"Our evidence adds further weight to the inquiry's recommendations and proposals regarding protecting the safety of local residents. We demand a commitment from the state government and opposition to implement the recommendations and proposals from the inquiry, including: that a Health Conservation Zone be established to significantly improve the health of the

independent Health Advocate be appointed to provide a voice for the community on health concerns."
"We also know now that the exposed coal faces in the disused areas of the mine are a hazard to the community. Remediation of the mine must begin in earnest now. Waiting another 14 years is an insult to the community."
"We also need permanent air quality monitoring stations near the power stations which are live streamed, so that the community can make our own judgements about the risk posed by any future incidents."
"While the evidence is less clear, we believe that the elevated death rate for subsequent months may also be attributable to the mine fire. This is based on first-hand accounts of people's health deteriorating after the fire, and this leading to premature death. We demand full support for residents still dealing with heath issues and programs to support their recovery."
*Associate Professor Adrian Barnett:*
"There's some evidence that pollution exposure causes longer term deaths. This can occur months later because of a compromised immune or cardiovascular system."

Based on the evidence, an application has been submitted for a Coronial Investigation
*For comment:*
Associate Professor Adrian Barnett,  QUT:
Mrs Wendy Farmer:
Shaun Murray
Community Organiser
Friends of the Earth Australia

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