

### Strange Inquiries at George Mason University

John R. Mashey  
V1.0 12/13/10

#### Executive Summary

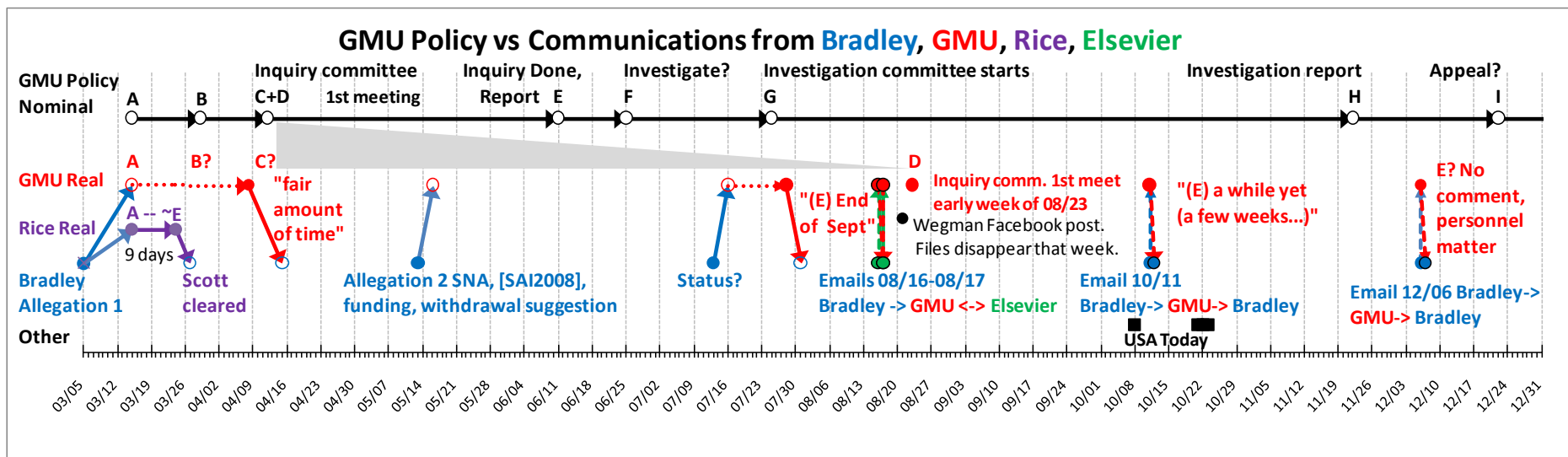
This report chronicles the progress of academic misconduct complaints by UMass Amherst Professor **Raymond S. Bradley** against George Mason University (GMU) Professor **Edward J. Wegman**. The complaints included obvious near-verbatim plagiarism in a high-profile Congressional report led by Wegman. This story was recently covered in USA Today: [www.usatoday.com/weather/climate/globalwarming/2010-11-21-climate-report-questioned\\_N.htm](http://www.usatoday.com/weather/climate/globalwarming/2010-11-21-climate-report-questioned_N.htm)

A university official would most likely examine this obvious complaint, then quickly appoint an **inquiry committee** (or equivalent) to evaluate the substance and either quickly clear the respondent or recommend an **investigation**. Rice University received a similar complaint and acted quickly. Rice reached the equivalent of GMU stage E below in 9 days and cleared David Scott, via evidence that Wegman had taken responsibility.

- GMU has now spent ~9 months without clearly reaching stage E. At least, Bradley has not received a report as of this writing.
- Bradley was essentially told (C?) that it could take a while, was given no expected timeframes, then was sent no updates for almost 4 months.
- The **inquiry** committee first met (D) 5 months after complaint to VP.
- Explanations changed, sometimes inconsistently. Dates slipped.

The chart shown below is copied from §2, which explains the history, excerpting key passages from the full copies in the 20-page Appendix A.2. The first line shows GMU policy intervals adequate for complex cases, unlike this relatively-simple one. The others chronicle back-and-forth letters and emails, plus a few other sources.

Most people might read only the first 16 pages of this report. Keen students of this topic may find Appendix A.2 worth more detailed study.



## Table of Contents

Executive Summary 1

Table of Contents 2

Glossary 2

**1 Plagiarism in and around the Wegman Report 3**

**2 GMU nominal timeline vs real chronology 6**

**3 Possible past concerns with GMU academic integrity 11**

**4 Possible concerns raised by GMU connections 11**

**5 GMU Budget, research funding, organization 12**

**6 Conclusion 12**

**A.1 GMU University Policy 4007, nominal timeline 14**

**A.2 Communications 19**

A.2.1 Bradley letter → President of GMU, Alan C. Merten 20

A.2.2 James S. Coleman (Rice VP Research) letter → Bradley 25

A.2.3 Roger R. Stough (GMU VP Research) letter → Bradley 25

A.2.4 Bradley letter → Stough 26

A.2.5 Bradley letter → Stough 26

A.2.6 Stough letter → Bradley 27

A.2.7 Bradley email → Stough → John Fedor (Elsevier) → Bradley 27

A.2.8 Stough email → Fedor → Stough → Fedor → Bradley 28

A.2.9 Screenshot from Wegman's public Facebook page 29

A.2.14 Bradley email (not shown) → GMU → Bradley 30

**Update History 30**

Given names and titles are generally omitted for brevity, no discourtesy intended to any. Opinions are *Italicized*, **Emboldening** is mine.

## Glossary

DC

Canadian blogger “Deep Climate” (the person)  
<http://deepclimate.org>, “Deep Climate” is the website.

DHHS

US Department of Health and Human Services

DoD

US Department of Defense

GMU

George Mason University, Fairfax, VA

NIAAA

National Institute on Alcohol Abuse and Alcoholism

NSWC

Naval Surface Weapons Center

ORI

Office of Research Integrity (part of DHHS)

SWSR

Said, Wegman, Sharabati, Rigsby (2008)

WR

“Wegman Report” (2006)

## Acknowledgements.

Thanks to Canadian blogger “Deep Climate” (DC) for finding the key plagiarism cases in the first place and for suggestions on this report.

Thanks to Ray Bradley for providing most of the source materials for **A.2**.

Any errors are mine alone, please report if found.

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## 1 Plagiarism in and around the Wegman Report

The “Wegman Report” (WR hereafter) is the common name for: **Edward J. Wegman, David W. Scott, Yasmin H. Said**, “AD HOC COMMITTEE REPORT ON THE ‘HOCKEY STICK’ GLOBAL CLIMATE RECONSTRUCTION” (2006).<sup>1</sup>

Statisticians unfamiliar with climate science attacked not only the work of researchers **Michael Mann, Raymond Bradley** and **Malcom Hughes**, but much of paleoclimatology, the study of climate before modern instruments. Their report was presented in high-profile US House of Representatives hearings. It is still used often in OpEds, articles and books trying to discredit climate science,<sup>2</sup> but rarely cited in peer-reviewed science.

In late 2009, Canadian blogger “**Deep Climate**” (DC) was studying the WR and found plagiarism and distortions<sup>3</sup> of Bradley(1999).<sup>4</sup> DC also showed uncredited use of Wasserman and Faust(1994),<sup>5</sup> a textbook on social network analysis. DC soon created side-by-side comparisons of several pages of the WR with Bradley’s text.<sup>6</sup>

Bradley later learned of DC’s findings.<sup>7</sup> On 03/05 he wrote letters to Rice University for Scott and GMU for Wegman, the senior authors. Rice acted quickly, inquired and satisfactorily cleared Scott in 9 days.

On 04/22, DC showed plagiarism of de Nooy, et al,<sup>8</sup> which combined with Wikipedia, Wasserman and Faust accounted for 5 more pages, on social networks analysis. DC again showed side-by-side comparisons,<sup>9</sup> and noted that a later article, **Said, Wegman, Sharabati, Rigsby (2008)**<sup>10</sup> re-used much of the same text.<sup>11</sup> Bradley passed this along to GMU 05/13.<sup>12</sup>

He also mentioned the issue of possible contract funding oversight, given:

“The work of Dr. Yasmin Said was supported in part by the **National Institutes on Alcohol Abuse and Alcoholism** under grant 1 F32 AA015876-01A1. The work of Dr. Edward Wegman was supported in part by the **Army Research Office** under contract W911NF-04-1-0447. The work of Dr. Said and Dr. Wegman was also supported in part by the **Army Research Laboratory** under contract W911NF-07-1-0059.”

The first contract is covered by the Dept of Health and Human Services (DHHS), whose watchdog is the Office of Research Integrity (ORI). ORI can **debar** individuals or even larger entities, i.e., forbid them from obtaining **any** Federal grants for years, not just those from DHHS:<sup>13</sup>

“Both individuals and entities may be subject to debarment. In the area of grant and cooperative agreement supported research, this includes anyone who participates in the research: the principal investigators, researchers, contractors, students, and technical and support staff. To date, all ORI debarments have involved individuals, not institutions or other entities.”

**The next page illustrates the relative simplicity of this case.**

<sup>1</sup> [republicans.energycommerce.house.gov/108/home/07142006\\_Wegman\\_Report.pdf](http://republicans.energycommerce.house.gov/108/home/07142006_Wegman_Report.pdf)

<sup>2</sup> [deepclimate.org/2010/09/26/strange-scholarship-wegman-report](http://deepclimate.org/2010/09/26/strange-scholarship-wegman-report)

<sup>3</sup> [deepclimate.org/2009/12/17/wegman-report-revisited](http://deepclimate.org/2009/12/17/wegman-report-revisited)

<sup>4</sup> Raymond S. Bradley, *Paleoclimatology – Reconstructing Climates of the Quaternary, 2nd Edition*, Elsevier, 1999. This is a famous textbook

<sup>5</sup> Stanley Wasserman and Katherine Faust, *Social Network Analysis – Methods and Applications*, Cambridge, 1994. This is also a famous book.

<sup>6</sup> [deepclimate.org/2009/12/22/wegman-and-rapp-on-tree-rings-a-divergence-problem-part-1](http://deepclimate.org/2009/12/22/wegman-and-rapp-on-tree-rings-a-divergence-problem-part-1)

[deepclimate.files.wordpress.com/2009/12/wegman-bradley-tree-rings.pdf](http://deepclimate.files.wordpress.com/2009/12/wegman-bradley-tree-rings.pdf)

[deepclimate.org/2010/01/06/wegman-and-rapp-on-proxies-a-divergence-problem-part-2](http://deepclimate.org/2010/01/06/wegman-and-rapp-on-proxies-a-divergence-problem-part-2)

[deepclimate.files.wordpress.com/2010/01/wegman-bradley-ice-cores-corals1.pdf](http://deepclimate.files.wordpress.com/2010/01/wegman-bradley-ice-cores-corals1.pdf)

<sup>7</sup> Although with some initial confusion of source between DC and myself.

<sup>8</sup> Wouter de Nooy, Andrej Mrvar, Vladimir Batagelj, *Exploratory Social Network Analysis with Pajek*, Cambridge, 2005.

<sup>9</sup> [deepclimate.org/2010/04/22/wegman-and-saids-social-network-sources-more-dubious-scholarship](http://deepclimate.org/2010/04/22/wegman-and-saids-social-network-sources-more-dubious-scholarship)

[deepclimate.files.wordpress.com/2010/04/wegman-social-networks1.pdf](http://deepclimate.files.wordpress.com/2010/04/wegman-social-networks1.pdf)

<sup>10</sup> Yasmin H. Said, Edward J. Wegman, Walid K. Sharabati, John T. Rigsby, “Social networks of author–coauthor relationships,” *Computational Statistics & Data Analysis* 52 (2008) 2177 – 2184. Received 8 July 2007; accepted 14 July 2007. CSDA normally averaged ~200 days from Received to accepted.

[web.ics.purdue.edu/~wsharaba/SNA/Author-Coauthor%20Relationships.pdf](http://web.ics.purdue.edu/~wsharaba/SNA/Author-Coauthor%20Relationships.pdf)

Like some other relevant files, this has recently disappeared.

<sup>11</sup> [deepclimate.files.wordpress.com/2010/04/said-et-al-social-networks1.pdf](http://deepclimate.files.wordpress.com/2010/04/said-et-al-social-networks1.pdf)

<sup>12</sup> Anyone can report plagiarism, not just the plagiarized author.

<sup>13</sup> [ori.hhs.gov/misconduct/inquiry\\_issues.shtml#12](http://ori.hhs.gov/misconduct/inquiry_issues.shtml#12)

Shown below is a small sample of DC's early side-by-side presentations, followed by the same texts with July's color updates. Near-verbatim plagiarism is easily recognizable with specific knowledge.<sup>15</sup>

This style of plagiarism does not claim invention or ideas, but adapts near-verbatim text to present an illusion of expertise. Of the WR's 91 pages, 35 were eventually found to resemble this with cut-and-paste, trivial changes and modest paraphrasing.

### Deep Climate Original presentation:

#### Wegman – para 1

A cross section of a temperate forest tree shows variation of lighter and darker bands that are usually continuous around the circumference of the tree. *These bands are the so-called tree rings and are due to seasonal effects.* Each tree ring is composed of large thin-walled cells called early wood and smaller more densely packed thick walled cells called late wood. The average width of a tree ring is

#### Bradley – 10.2

A cross section of most temperate forest trees will show an alternation of lighter and darker bands, each of which is usually continuous around the tree circumference. *These are seasonal growth increments produced by meristematic tissues in the tree's cambium.* When viewed in detail (Fig. 10.1) it is clear that they are made up of sequences of large, thin-walled cells (earlywood) and more densely packed, thick-walled cells (latewood). *Collectively, each couplet of*

### Deep Climate July presentation of same text:

A cross section of a temperate forest tree shows variation of lighter and darker bands that are usually continuous around the circumference of the tree.

These bands are the so-called tree rings and are due to seasonal effects. Each tree ring is composed of large thin-walled cells called early wood and smaller more densely packed thick walled cells called late wood.

A cross section of most temperate forest trees will show an alternation of lighter and darker bands, each of which is usually continuous around the tree circumference.

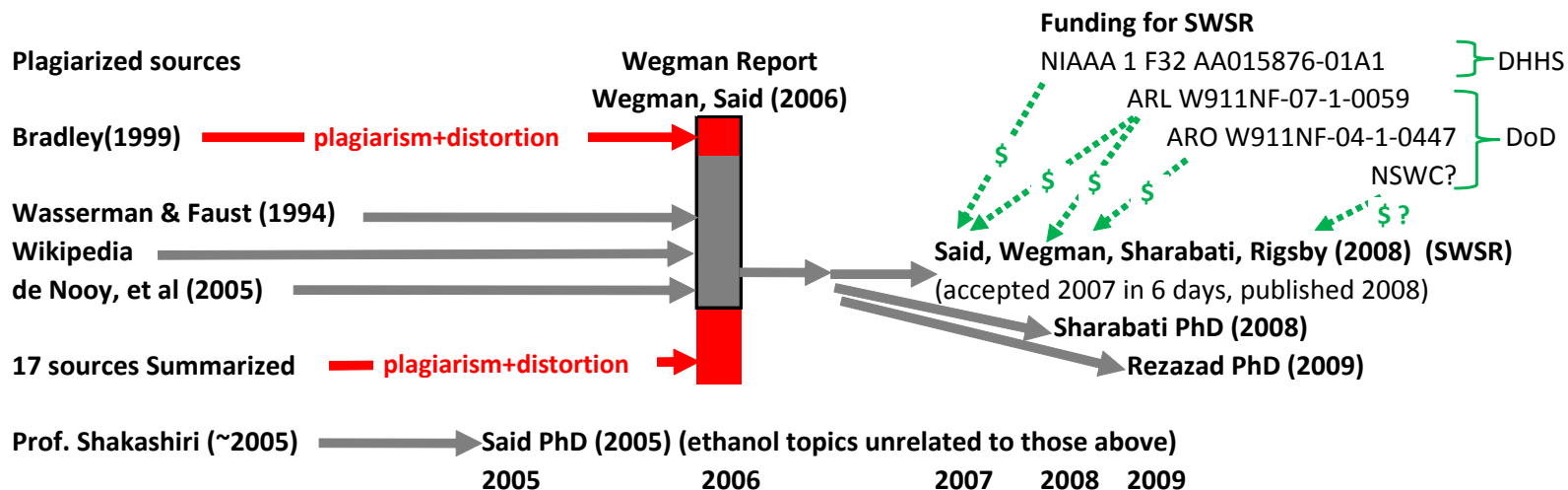
*These are seasonal growth increments produced by meristematic tissues in the tree's cambium. When viewed in detail (Fig. 10.1) it is clear that they are made up of sequences of large, thin-walled cells (earlywood) and more densely packed, thick-walled cells (latewood). Collectively, each couplet of earlywood and latewood comprises an annual growth increment, more commonly called a tree ring.*

As seen on the next page, the early findings comprised a tiny fraction of the complex plagiarism flow that has since emerged, unusual enough to surprise even experienced publishing people. Additional examples have been found recently, but too late to integrate here.

<sup>15</sup>The earlier versions are certainly clear, but color highlighting of identical words (cyan) and trivial changes (yellow) makes the copy and edit processes even clearer.  
[deepclimate.files.wordpress.com/2010/07/wegman-bradley-tree-rings-v20.pdf](http://deepclimate.files.wordpress.com/2010/07/wegman-bradley-tree-rings-v20.pdf)  
[deepclimate.files.wordpress.com/2010/07/wegman-bradley-ice-cores-corals-v2.pdf](http://deepclimate.files.wordpress.com/2010/07/wegman-bradley-ice-cores-corals-v2.pdf)

**Summary of plagiarism flows at GMU in/around Wegman Report**

Simplified from A.O of *Strange Scholarship in the Wegman Report*



*The Said, Wegman, Sharabati, Rigsby(2008) article was very strange. Walid Sharabati had helped with Wegman’s reply to questions in 2006. Rigsby had completed his MS under Wegman in 2005 and was working at the Naval Surface Warfare Center (NSWC). This article used plagiarized text and low-quality social network analysis to make baseless attacks on paleoclimate peer review. It was accepted in 6 days at a statistics journal for which Said was an Associate Editor and Wegman a 20-year advisor. It seems unrelated to any missions of the 3 funding agencies or NSWC.*

In July, DC updated all side-by-sides, added more pages with plagiarism, for a total of 10 pages (pp.13-22) of the WR.<sup>16</sup> DC later found some social networks text in Sharabati’s 2008 dissertation and **Hadi Rezazad**’s (2009). Unrelated plagiarism of U Wisconsin Professor Shakhshiri’s ethanol web page was later discovered in Said’s dissertation (2005). DC consolidated this work in September.<sup>17</sup>

<sup>16</sup> [deepclimate.org/2010/07/29/wegman-report-update-part-1-more-dubious-scholarship-in-full-colour](http://deepclimate.org/2010/07/29/wegman-report-update-part-1-more-dubious-scholarship-in-full-colour)

<sup>17</sup> [deepclimate.org/2010/09/15/wegman-report-update-part-2-gmu-dissertation-review](http://deepclimate.org/2010/09/15/wegman-report-update-part-2-gmu-dissertation-review)

All 3 Wegman PhD students received departmental “best dissertation of year” awards.

My 250-page report<sup>18</sup> referenced all this, added 25 more WR pages with plagiarism to DC’s 10 and exposed pervasive other kinds of problems. The simplified chart above shows the plagiarism flows,<sup>19</sup> a small fraction of the scholarship problems, some of which might even be considered distortion, falsification or fabrication. Since then, “andrewt” and others found a separate plagiarism flow that seems to include at least a 4<sup>th</sup> dissertation, a patent, and a 1996 Wegman-led article with 7 authors and funding by various Federal agencies.<sup>20</sup>

**Discussion now shifts from plagiarism itself to GMU’s handling of it.**

<sup>18</sup> [deepclimate.org/2010/09/26/strange-scholarship-wegman-report](http://deepclimate.org/2010/09/26/strange-scholarship-wegman-report)

<sup>19</sup> Plagiarized texts included 16 papers, a dissertation, 5 books, and Wikipedia pages. Some were minor, not shown. McShane, Wyner (2010) is separate.

<sup>20</sup> [deepclimate.org/2010/11/16/replication-and-due-diligence-wegman-style/#comment-6606](http://deepclimate.org/2010/11/16/replication-and-due-diligence-wegman-style/#comment-6606)

[deepclimate.org/2010/12/02/wegman-et-al-miscellany](http://deepclimate.org/2010/12/02/wegman-et-al-miscellany)

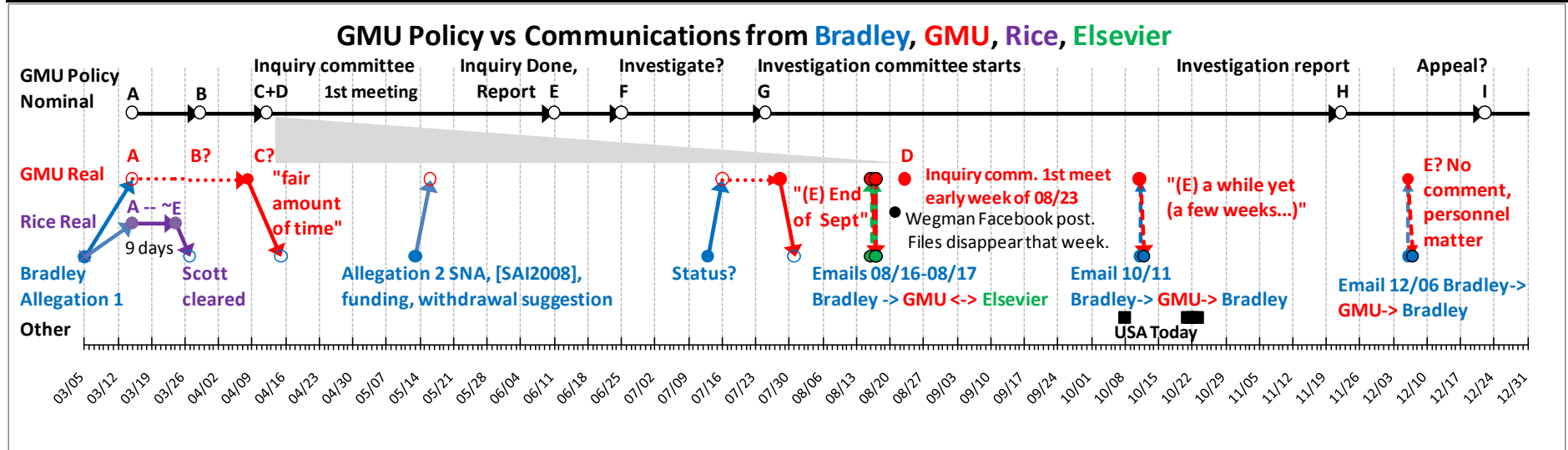


## 2 GMU nominal timeline vs real chronology

This section compares the nominal GMU process from Appendix A.1 with the real chronology detailed on the next page. As of 12/06, the status of GMU stage E was still unclear and GMU allows ~300 days more beyond, even ignoring challenges. **Rice handled equivalent stages A-E in 9 days.**

Bradley wrote 3 letters, was finally told 07/28 that inquiry would finish by end of September. No visible concrete progress occurred until Elsevier's John Fedor wrote firm emails 08/16-08/17, was told that **1<sup>st</sup> meeting of inquiry committee** would be held the following week, 5+ months after 1<sup>st</sup> letter. Wegman seemed surprised, posted an unusual Facebook note 08/21. Several key years-old files disappeared sometime 08/16-08/23.

Derived Date	Elapsed Days	Nominal Interval	Stage	GMU policy timeline, approximate, given (as soon as possible) everywhere, challenges.	Date	Elapsed Days	Stage	GMU Real chronology Events
<b>Derived</b>					03/05/10	-10		Letters sent to <b>GMU, Rice</b>
03/15/10	0	0	A	Allegation	03/15/10	0	A	Allegation 1 received by Rice (+GMU)
03/29/10	14	14	B	See if inquiry warranted	03/24/10	9		Rice inquiry done (E), cleared Scott
04/12/10	28	14	C	If so Provost appoints committee; challenge?*	04/08/10	24	B?	GMU acknowledges
04/12/10	28		D	First meeting of inquiry committee	04/12/10	28	C?	Inquiry committee formed, April ??
06/11/10	88	60	E	Inq. Com. completes report. Investigate? (Y/N)	04/27/10	43		Allegation 2 - SNA, [SAI2008], funding
06/25/10	102	14	F	Dean/Director determines. Investigate? (Y/N)	07/28/10	135		GMU: done by end of Sept
07/25/10	132	30	G	VP convenes investigation committee; challenge?*	08/16/10	154		emails 08/16-08/17, Elsevier (John Fedor)
11/22/10	252	120	H	Invest. Comm reports, try 120 days; VP Y/N	08/23/10	161	D	First inquiry meeting, early in week
12/22/10	282	30	I	Possible appeal	09/30/10	199		Promised on 07/28
04/01/11	382	100	J	President writes decision on appeal	10/11/10	210		Email: "a few weeks"
* Committee members and replacements can be challenged, add 5 days each.					12/06/10	266	E?	Unknown ; no report to Bradley yet



The following chronology is mostly extracted from material provided by Bradley over the last few months. Full texts are given in Appendix A.2.<sup>21</sup>

A university **inquiry** is intended to be a fairly quick process. If a complaint has no substance, it is quickly rejected, else a real investigation is recommended. One short inquiry meeting might suffice to handle near-verbatim cut-and-paste plagiarism shown in side-by-side comparisons. GMU seems to have been unable to notify Bradley of an inquiry report in ~9 months. GMU procedures seem to make complainant notification optional, Appendix A.1. Theoretically GMU might follow their procedures and never notify Bradley of anything. My sample of 6 other universities in A.1 showed all essentially required notification, but that is a small sample. Perhaps more schools make notification optional.

## Chronology

### 12/19/09

DC showed earliest plagiarism in Wegman Report using Bradley(1999) on tree-rings, Wikipedia and Wasserman&Faust(1994).<sup>22</sup>

### 12/22/09

DC showed side-by-side comparisons of WR vs Bradley on tree rings.<sup>23</sup>

### 01/06/10

DC showed side-by-side WR plagiarism of Bradley on ice cores, corals.<sup>24</sup>

### 03/05/10 A.2.1 Bradley letter →President of GMU

#### Bradley letter →President of Rice University

Bradley wrote equivalent letters to GMU President **Alan C. Merten** regarding Wegman and Rice President **David W. Legron** regarding Scott, the senior authors at those schools. (Junior) author Said was also at GMU.

<sup>21</sup> Unlike “ClimateGate,” no email servers have been hacked in making this report.

<sup>22</sup> [deepclimate.org/2009/12/17/wegman-report-revisited](http://deepclimate.org/2009/12/17/wegman-report-revisited)

<sup>23</sup> [deepclimate.org/2009/12/22/wegman-and-rapp-on-tree-rings-a-divergence-problem-part-1](http://deepclimate.org/2009/12/22/wegman-and-rapp-on-tree-rings-a-divergence-problem-part-1)

[deepclimate.files.wordpress.com/2009/12/wegman-bradley-tree-rings.pdf](http://deepclimate.files.wordpress.com/2009/12/wegman-bradley-tree-rings.pdf)

<sup>24</sup> [deepclimate.org/2010/01/06/wegman-and-rapp-on-proxies-a-divergence-problem-part-2](http://deepclimate.org/2010/01/06/wegman-and-rapp-on-proxies-a-divergence-problem-part-2)

[deepclimate.files.wordpress.com/2010/01/wegman-bradley-ice-cores-corals1.pdf](http://deepclimate.files.wordpress.com/2010/01/wegman-bradley-ice-cores-corals1.pdf)

### 03/15/10 [Day 0] A A A

The Rice letter was forwarded to VP Research **James Coleman** the same day, Day 0 common to the timelines. Given a simple complaint based on public information about a high-profile report, a university owes respondents rapid inquiry to clear them, as here when obvious plagiarism has ambiguous. If a complaint has substance, a university owes many people a rapid process, not least for its own credibility. Approximate intervals are shown as [+X] days .

### 03/24/10 [+9] A.2.2 E Rice letter →Bradley

Rice replied to Bradley, having completed its inquiry.<sup>25</sup>

**“During the Inquiry, persuasive evidence was obtained that one of the other authors, Dr. Edward J. Wegman, has taken full responsibility for preparing the allegedly plagiarized text described in the materials you sent to President Leebron. The evidence further indicates that Dr. Scott played no role in preparing or editing the sections that you suggested were allegedly plagiarized and had no knowledge of any such alleged plagiarism, although he was a co-author of the overall report.”**

*Rice acted with alacrity, honor and integrity for both Bradley and Scott.*

### 04/08/10 [+24] A.2.3 GMU letter → Bradley

Dr. Roger Stough (GMU VP for Research) replied to Bradley, receipt slowed slightly by unspecific address. His reply included:

**“I have initiated our policy for handling such matters. This process may have several states and each of these take a fair amount of time unless the initial state comes to an unequivocal conclusion. If the latter occurs I will be in touch with you on the outcome much sooner than if it goes through the full inquiry and investigation stages that of course involve forming peer working groups for completion.**

**I thank you for bringing this our attention. I will communicate the outcome when the process has run its due course.”**

Given nominal intervals shown earlier, a complex case could easily last a year or more. A simple case should go faster. Since the only quick unequivocal answer is “complaint rejected,” Stough seemed to tell Bradley to expect to wait “a fair amount of time” to hear anything, but neither pointed at a copy of the GMU policy nor requested confidentiality.

<sup>25</sup> [professor.rice.edu/professor/Research\\_Misconduct.asp](http://professor.rice.edu/professor/Research_Misconduct.asp)

The Rice process is more streamlined, expects inquiry completion in 60 days.

**04/22/10**

DC showed side-by-sides of plagiarized social networks text from Wikipedia, Wasserman & Faust, and De Nooy, Mrvar, and Batelg. DC also showed re-use of some of that text in Said, Wegman, Sharabati, and Rigsby (2008), which cited research contracts from 3 agencies whose relevance to this topic is unobvious.<sup>26</sup>

**05/13/10 [+59] A.2.4 Bradley letter → GMU**

Bradley wrote 2<sup>nd</sup> letter to Stough, cited the 04/22 post above (Allegation 2) and mentioned the funding oversight issue. He also wrote:

‘Please note that my address is “*Dept of Geosciences, Morrill Science Center...etc*” so that future correspondence will not be delayed.’

**“Let me state that I do not wish to perpetuate this matter unnecessarily or to have it vetted publicly if this can be avoided.** I therefore would consider withdrawing my request for further action on this matter if Dr. Wegman would make a formal written request to Congressmen Waxman and Barton (Chairman and Ranking Minority Member of the House Energy and Commerce Committee, respectively) requesting that the report formally be withdrawn due to these technical errors which seriously compromise its credibility and value in the context of temperature reconstruction and paleoclimatology. **I believe strongly that the report no longer should be part of our Nation’s Congressional Record without some explanation of these technical errors.”**

Bradley kept the complaint quiet, although under no legal obligation to do so, especially as it was based on public information. Bradley on 05/13 made a collegial offer akin to those for similar problems with journals.<sup>27</sup> *His letter did not ask GMU to ignore the plagiarism internally, but offered not to push this or the copyright issue. Of course WR withdrawal would have been very awkward, but likely nowhere near as awkward as the actual sequence of events that have since developed.*

<sup>26</sup> [deepclimate.org/2010/04/22/wegman-and-saids-social-network-sources-more-dubious-scholarship](http://deepclimate.org/2010/04/22/wegman-and-saids-social-network-sources-more-dubious-scholarship)

[deepclimate.files.wordpress.com/2010/04/wegman-social-networks1.pdf](http://deepclimate.files.wordpress.com/2010/04/wegman-social-networks1.pdf)

[deepclimate.files.wordpress.com/2010/04/said-et-al-social-networks1.pdf](http://deepclimate.files.wordpress.com/2010/04/said-et-al-social-networks1.pdf)

<sup>27</sup> [www.elsevier.com/wps/find/intro.cws\\_home/Article%20Withdrawal](http://www.elsevier.com/wps/find/intro.cws_home/Article%20Withdrawal)

This describes typical withdrawal procedures. Since the report had been published, “Retraction” would be the most apt. Of course, reports to Congress are not the same as journals.

*In October, some bloggers, having seen a brief description of this offer, vilified Bradley for deal-making or even “blackmail,” eagerly applauded by many posters.<sup>28</sup>*

**07/13/10 [+120] A.2.5 Bradley letter → GMU**

Bradley wrote 3<sup>rd</sup> letter to Stough, inquiring of progress, 4 months after original complaint, still having heard nothing beyond 04/08 letter.

**07/28/10 [+135] A.2.6 GMU letter → Bradley**

Stough replied (although again to the less-specific address):

“The committee was formed April 2010. **Its work was slowed** with the checkerboard absence of the faculty members constituting the **inquiry committee** from campus. I expect the committee to complete their work by the end of September 2010.”

*This seems inconsistent. Wegman should have been informed in April and not seemed surprised in August. When such committees are formed, near-term availability is thought important. **As seen later, the inquiry committee had not yet actually met for the first time.***

**07/29/10**

DC found more plagiarism, updated the side-by-side comparisons with colored highlighting, making it even easier to recognize.<sup>29</sup> By then, DC had shown 10 WR pages containing substantial plagiarism.

**08/03/10**

In a comment at Deep Climate, “terry” alleged some plagiarism in Said (2005) dissertation,<sup>30</sup> of which 5 pages were confirmed the next day.

<sup>28</sup> [climateaudit.org/2010/10/21/bradley-tries-to-deal-wattsupwiththat.com/2010/10/21/blackmail-or-lets-make-a-deal](http://climateaudit.org/2010/10/21/bradley-tries-to-deal-wattsupwiththat.com/2010/10/21/blackmail-or-lets-make-a-deal)

These followed similarly-bizarre claims of plagiarism of Fritts’ book by Bradley: [climateaudit.org/2010/10/18/bradley-copies-fritts/](http://climateaudit.org/2010/10/18/bradley-copies-fritts/) [climateaudit.org/2010/10/20/bradley-copies-fritts-2/](http://climateaudit.org/2010/10/20/bradley-copies-fritts-2/)

Another odd fantasy appeared. Bradley posted a straightforward explanation, for which he was fiercely attacked (of many examples, Sean Peake’s “Fix bayonets”): [wattsupwiththat.com/2010/11/24/dr-ray-bradleys-amazing-photo/](http://wattsupwiththat.com/2010/11/24/dr-ray-bradleys-amazing-photo/)

<sup>29</sup> [deepclimate.org/2010/07/29/wegman-report-update-part-1-more-dubious-scholarship-in-full-colour](http://deepclimate.org/2010/07/29/wegman-report-update-part-1-more-dubious-scholarship-in-full-colour)

<sup>30</sup> [deepclimate.org/2010/08/03/what-have-wegman-and-said-done-lately/#comment-4755](http://deepclimate.org/2010/08/03/what-have-wegman-and-said-done-lately/#comment-4755)



**08/16/10 [+154] A.2.7 Bradley email → Stough → Fedor (Elsevier)**

- ① Bradley emailed to Stough, copying Fedor, ② Stough replied, “we plan to have a report on this by the end of September.”
- ③ Fedor pressed the issue and emailed to Stough: “unattributed use of Ray Bradley’s content is obvious,” “I will need updates prior to September 30 indicating progress is being made with regard to a response directly from Edward Wegman regarding this issue.”

**08/17/10 [+155] A.2.8 Stough email → Fedor → Stough → Fedor → Bradley**

- ④ (even of 08/16) Stough replied to Fedor: “I will get back to you in a few days after discussing with Mason’s legal department. The issue is that it will be difficult for us to complete our **inquiry** as prescribed by our policy if Dr. Wegman is having communication with you while the **inquiry** is in progress.”
- ⑤ Fedor emailed to Stough: “As long as I have confirmation that progress is being made, that will suffice. I don’t need direct contact with Dr. Wegman at this point.”  
*Apparently Fedor wanted to be sure of actual inquiry progress, for which there yet had been zero visible concrete evidence. Stough seemed to have interpreted that as a request for direct communication with Wegman, but Fedor explained otherwise. However, Wegman’s 08/21 post seems to show that Wegman was newly surprised.*
- ⑥ Stough emailed to Fedor: “Our process involves initially a review by the Dean of the College of Science, the home of Dr. Wegman. The Deans review resulted in a **call for an inquiry**. **Following that a committee was formed but it was not possible to get the very highly qualified team of three on the committee together even for an initial formative meeting due to end of semester congestion and the fact that at least one of the members was away from campus at all times until the end of this week. The initial meeting of the Inquiry meeting is being scheduled for early next week** at which time the Committee will go to work on this matter. The committee has been asked to prepare a report on the **inquiry** with recommendations **before the end of September and sooner if at all possible. So we are moving with dispatch at this point.**”  
Stough wrote **inquiry** 3 times, never **investigation**. The “work slowed” status of 07/28 was now clarified precisely as “not yet really started.”

**08/20/10**

(Friday) Said’s unwittingly-informative 09/07/07 presentation, found long ago by DC,<sup>31</sup> was edited out of the GMU seminar history. Sometime between 08/16 and 08/23, that presentation, her PhD dissertation and Wegman’s C.V. disappeared.<sup>32</sup>

**08/21/10 A.2.9 First public disclosure of plagiarism complaint**

(Saturday) Wegman wrote on his Facebook wall, open to anyone there:<sup>33</sup>

“Edward J. Wegman Want to know a bad week? All in the same week. 1) **accused of plagiarism**, felony, anti-science, misleading Congress because of your climate science testimony, 2) have a rule made up, which only applied to you, that **blocks you from mentoring graduate students**, 3) have a friend tell you he was not happy with you because you were awarded a patent.  
August 21 at 4:17pm”

*That hinted at an August surprise. He should have been informed in April.*

1) Bradley’s complaints covered plagiarism. *The others may have come from my March report that urged investigation of such issues.*<sup>34</sup>

2) *If inquiry committee met for the first time next week, it seems odd that GMU would have already barred Wegman from student supervision, unless for some other independent reason. Perhaps someone had noticed the 08/03-08/04 discussion at Deep Climate on plagiarism in the Said dissertation or 2) may just be coincidence from some other action.*

3) *The mysterious patent comment seems unconnected with any of the rest.*

**08/23/10 [+161] D**

This was the earliest possible “initial formative meeting.”  
From complaint receipt to 1<sup>st</sup> **inquiry** meeting had now taken 5+ months.

<sup>31</sup> <http://deepclimate.org/2010/02/08/steve-mcintyre-and-ross-mckitrick-part-2-barton-wegman/>

<sup>32</sup> [deepclimate.org/2010/09/26/strange-scholarship-wegman-report](http://deepclimate.org/2010/09/26/strange-scholarship-wegman-report), A.11.

<sup>33</sup> [www.facebook.com/edward.j.wegman/posts/153860524630171](http://www.facebook.com/edward.j.wegman/posts/153860524630171), retrieved 10/28/10. This is available to any in Facebook, so might as well be a blog post.

<sup>34</sup> [www.desmogblog.com/crescendo-climategate-cacophony](http://www.desmogblog.com/crescendo-climategate-cacophony) 17 March 2010.

**09/15/10**

DC consolidated scattered discussions of 3 separate Wegman-supervised PhD dissertations:<sup>35</sup> Said (2005) had plagiarized ethanol text. Sharabati (2008), Rezazad (2009) again re-used the social networks text.

**09/26/10**

*Strange Scholarship in the Wegman Report*<sup>36</sup> was posted, to show 25 more pages with plagiarism of a now-familiar style, among a long list of issues.

**09/30/10 [+199]**

As of 07/28 and 08/16 Stough had promised end of September for an inquiry report (E), but this date passed with no further notice to Bradley.

**10/08/10 [+207]**

For 7 months, this had been kept collegially quiet, except for Wegman's Facebook post. USA Today's Dan Vergano researched and wrote: "University investigating prominent climate critic"<sup>38</sup>

His story included a later comment that has confused people:

"Walsch clarified on Sunday that Bradley's complaint is under a formal investigation by the university, and has moved past a preliminary "inquiry" to a committee effort.

*GMU policies say: preliminary assessment, inquiry committee and investigation committee, Appendix A.I. Stough had many times specified inquiry not investigation. Perhaps he and Walsch were not communicating*

**10/11/10 [+210] A.2.14 Bradley email → GMU → Bradley**

Bradley inquired of status. Stough replied the same day:

"...our process has taken a bit longer than expected. So it will be a while yet (a few weeks I would guess) before we have completed the review of your plagerism (sic) allegation."

**12/06/10 [+266] Bradley email → GMU → Bradley**

Bradley asked again, reply from Stough said he can not comment as it was a personnel matter. Hence, an inquiry report promised by end of September has effectively become "no comment."

Under the circumstances, it would seem strange to switch silently from inquiry to investigation, but GMU rules do allow zero notification, one of the reasons for this report.

The **inquiry** committee just needed to check a few pages of side-by-side comparisons. Wegman was ultimately responsible as lead author, so a GMU **inquiry** need not determine the roles of Wegman, Scott, Said or anyone else, merely recommend investigation. In some ways, a GMU **inquiry** should have been simpler than the equivalent effort at Rice, which needed to contact Scott and see the evidence that cleared him. Of course, no further investigation was needed at Rice. It is still unclear when and if Wegman learned of Scott's clearing and its rationale.

If an inquiry committee were formed in April, Wegman should have been told then. *But the combination of Facebook comment and file removals in mid-August seems evidence of surprise. Perhaps the 07/28 letter was incorrect in saying the committee had been formed in April or if it had, and Wegman properly informed, perhaps he did not take any notice seriously.*

Allegation 2 included a Federal contract covered by DHHS ORI, although **an institution need not notify ORI until it completes an inquiry** and determines an investigation is needed.<sup>39</sup> *That makes sense to avoid wasting time on frivolous complaints, although a 7-month inquiry for obvious near-verbatim plagiarism might generate questions.*

This story is obviously not yet complete, so expect updates to this report.

<sup>35</sup> [deepclimate.org/2010/09/15/wegman-report-update-part-2-gmu-dissertation-review](http://deepclimate.org/2010/09/15/wegman-report-update-part-2-gmu-dissertation-review)

<sup>36</sup> [deepclimate.org/2010/09/26/strange-scholarship-wegman-report](http://deepclimate.org/2010/09/26/strange-scholarship-wegman-report)

<sup>38</sup> [content.usatoday.com/communities/sciencefair/post/2010/10/wegman-plagiarism-investigation-/1](http://content.usatoday.com/communities/sciencefair/post/2010/10/wegman-plagiarism-investigation-/1)

<sup>39</sup> [ori.dhhs.gov/misconduct/inquiry\\_issues.shtml](http://ori.dhhs.gov/misconduct/inquiry_issues.shtml) section (11)

### 3 Possible past concerns with GMU academic integrity

The following includes (good) GMU advice from 2001:

**"The major conclusion of the Task Force was that large segments of both students and faculty ignore the Code's provisions.** We need to remedy this. George Mason is, and will remain, an honor code university. The university maintains an active Honor Code committee, and it does take action after appropriate inquiry. ... Finally, it is essential the faculty themselves set a high standard in academic integrity. **We are periodically reminded that researchers and teachers do not always live up to the norms we urge on our students.**"<sup>57</sup>

"Foreign students should be given guidance/direction on the criteria surrounding plagiarism. Explain the differences between plagiarism and reciting. ... One way to assist the international student population is to carefully educate them early in their first semester about American definitions of plagiarism, cheating and academic dishonesty. Teaching students to paraphrase, and to cite all sources, including work found on the Internet, should reduce plagiarism charges."<sup>58</sup>

The accreditation agency for GMU is SACS, whose next on-site accreditation review is Spring 2011.<sup>59</sup>

A review of PhD supervision practices seems in order. It seems odd for a relatively-recent PhD / postdoc (Said) to co-supervise a dissertation. Other potential supervision issues were raised.<sup>61</sup>

### 4 Possible concerns raised by GMU connections

GMU graduates<sup>62</sup> Ken Cuccinelli is now Virginia Attorney General and Wesley Russell is his assistant. They are driving attacks on the University

<sup>57</sup> [provost.gmu.edu/integrity/index.html](http://provost.gmu.edu/integrity/index.html)

<sup>58</sup> [provost.gmu.edu/integrity/reports.html](http://provost.gmu.edu/integrity/reports.html)

Of course, 35 pages of the WR, and 3 Wegman-supervised dissertations violated this good suggestion.

<sup>59</sup> [provost.gmu.edu/accredit](http://provost.gmu.edu/accredit)

<sup>61</sup> [deepclimate.org/2010/09/26/strange-scholarship-wegman-report](http://deepclimate.org/2010/09/26/strange-scholarship-wegman-report), W.5.2, W.5.7, W.5.10. It also seems strange to have a postdoc co-supervising a dissertation.

<sup>62</sup> A possibly-interesting story about them is that of Terry Wolfe in [politics.usnews.com/opinion/blogs/john-farrell/2010/05/18/Virginia-AG-Cuccinellis-Questionable-Campaign-Contributions.html](http://politics.usnews.com/opinion/blogs/john-farrell/2010/05/18/Virginia-AG-Cuccinellis-Questionable-Campaign-Contributions.html)

of Virginia and climate researchers, with the most recent relying heavily on the WR.<sup>63</sup> GMU and its various institutes have many connections with climate anti-science funders and advocates, especially the Koch brothers,<sup>64</sup> who have also provided some funds for Cuccinelli.<sup>65</sup> **Walter E. Williams** of the GMU Economics Department promotes climate anti-science<sup>66</sup> and is heavily involved with Koch-funded groups.<sup>67</sup>

Many organizations and people are covered in *Crescendo to Climategate Cacophony*,<sup>68</sup> which can be consulted for details on any of the following. Foundations controlled by Richard Mellon Scaife and the Kochs fund many organizations involved in climate anti-science advocacy. Table A.6.1(a) includes CEI and GMI,<sup>69</sup> whose efforts led to the WR.

Table A.6.1(b) includes major funding for GMU itself and its Center for Media and Public Affairs. Table A.6.1(c) lists its Institute for Humane Studies (with which Fred Singer was associated), the Mercatus Center, and STATS. Pat Michaels taught a GMU Public Policy course last summer.<sup>70</sup>

*All these connections with climate anti-science may or may not be relevant. The visibly-slow process may be normal at GMU or may not.*<sup>71</sup> *A simple case has taken much longer than a similar one at Rice, or even the much more complex case at Penn State.*<sup>72</sup>

<sup>63</sup> [voices.washingtonpost.com/virginiapolitics/New%20Mann%20CID.PDF](http://voices.washingtonpost.com/virginiapolitics/New%20Mann%20CID.PDF)

Mentions WR 6 times, pp.17-21.

<sup>64</sup> [www.realclimate.org/index.php/archives/2010/10/cuccinelli-goes-fishing-again](http://www.realclimate.org/index.php/archives/2010/10/cuccinelli-goes-fishing-again)

<sup>64</sup> [www.newyorker.com/reporting/2010/08/30/100830fa\\_fact\\_mayer?currentPage=all](http://www.newyorker.com/reporting/2010/08/30/100830fa_fact_mayer?currentPage=all)

<sup>65</sup> [www.vpap.org/committees/profile/money\\_in\\_industry2/2038?end\\_year=2010&filtering\\_period=all&lookup\\_type=year&sector=6&start\\_year=2008](http://www.vpap.org/committees/profile/money_in_industry2/2038?end_year=2010&filtering_period=all&lookup_type=year&sector=6&start_year=2008)

Check Energy (Koch is gas).

<sup>66</sup> [econfaculty.gmu.edu/wew/](http://econfaculty.gmu.edu/wew/) accessed 11/05/10.

<sup>67</sup> [www.everydaycitizen.com/2010/01/under\\_melting\\_ice\\_with\\_walter.html](http://www.everydaycitizen.com/2010/01/under_melting_ice_with_walter.html)

<sup>68</sup> [www.desmogblog.com/crescendo-climategate-cacophony](http://www.desmogblog.com/crescendo-climategate-cacophony), March 15, 2010.

<sup>69</sup> As of 10/05/10, GMI still had a "Koch Foundation Summer Associate."

<sup>70</sup> [policy.gmu.edu/portals/0/syllabi/2010\\_2/PUBP710.pdf](http://policy.gmu.edu/portals/0/syllabi/2010_2/PUBP710.pdf)

This syllabus is interesting. By coincidence, VP Stough is in Public Policy.

<sup>71</sup> Napoleon gave memorable advice on malice versus incompetence.

<sup>72</sup> [www.research.psu.edu/orp/Findings\\_Mann\\_Inquiry.pdf](http://www.research.psu.edu/orp/Findings_Mann_Inquiry.pdf)

## 5 GMU Budget, research funding, organization

About \$100M of \$887M budget<sup>73</sup> is sponsored research,<sup>74</sup> of which \$83M seems from Federal government, p.2. The largest funder is the DHHS, for \$20M, followed by Department of Defense (DoD), \$13M, p.3.

DHHS of course includes the NIAAA, which Said thanked for support. ORI is its research watchdog.<sup>75</sup> The DoD certainly includes the others, ARL and its ARO. No NSF funding was cited in any of this, but GMU<sup>76</sup> does receive funds from NSF, which may want to review GMU processes.

Assuming websites up to date, some key GMU people are listed below, showing Wegman twice due to joint appointment.

Those marked (→) seem required to be involved in the process:

Board of Visitors<sup>77</sup> is led by Rector Ernst Volgenau<sup>78</sup>

→President **Alan G. Merten**<sup>79</sup>

→Provost **Peter Stearns**<sup>80</sup>

→VP for Research and Economic Development **Roger R. Stough**<sup>81</sup>

→Dean, College of Science, **Vikas Chandhoke**<sup>82</sup>  
Dept. Hd, Computational and Data Sci, **D. Papaconstantopoulos**<sup>83</sup>

→Professor **Edward Wegman**<sup>84</sup>

Dean, Volgenau School of Info. Tech. and Engr, **Lloyd J. Griffiths**<sup>85</sup>

Department Chair, Statistics, **William F. Rosenberg**<sup>86</sup>

Professor **Edward Wegman**<sup>87</sup>

<sup>73</sup> [irr.gmu.edu/factbooks/0910/Factbook0910\\_Budget.pdf](http://irr.gmu.edu/factbooks/0910/Factbook0910_Budget.pdf)

<sup>74</sup> [irr.gmu.edu/factbooks/0910/Factbook0910\\_Sponsored.pdf](http://irr.gmu.edu/factbooks/0910/Factbook0910_Sponsored.pdf)

<sup>75</sup> [ori.hhs.gov/about/index.shtml](http://ori.hhs.gov/about/index.shtml)

<sup>76</sup> [www.nsf.gov/statistics/profiles/institu.cfm?fice=3749](http://www.nsf.gov/statistics/profiles/institu.cfm?fice=3749)

<sup>77</sup> [bov.gmu.edu/](http://bov.gmu.edu/)

<sup>78</sup> [bov.gmu.edu/volgenau.html](http://bov.gmu.edu/volgenau.html)

<sup>79</sup> [www.gmu.edu/resources/visitors/bio.html](http://www.gmu.edu/resources/visitors/bio.html)

<sup>80</sup> [provost.gmu.edu/stearns](http://provost.gmu.edu/stearns); [provost.gmu.edu/index.php](http://provost.gmu.edu/index.php);

[provost.gmu.edu/integrity/index.html](http://provost.gmu.edu/integrity/index.html)

<sup>81</sup> [research.gmu.edu/ovprecd.html](http://research.gmu.edu/ovprecd.html)

<sup>82</sup> [cos.gmu.edu/about/administration](http://cos.gmu.edu/about/administration)

<sup>83</sup> [cds.gmu.edu/node/15](http://cds.gmu.edu/node/15)

<sup>84</sup> [cds.gmu.edu/node/40](http://cds.gmu.edu/node/40)

<sup>85</sup> [volgenau.gmu.edu/about\\_ite/dean.php](http://volgenau.gmu.edu/about_ite/dean.php)

<sup>86</sup> [statistics.gmu.edu/pages/people.html](http://statistics.gmu.edu/pages/people.html)

## 6 Conclusion

This investigation was actually revealed by Wegman in August. Bradley had kept it collegially quiet and showed *amazing* patience. That does not last forever and he finally OK'd release of this information.

**No over-generalization should be made about GMU as a whole,**<sup>88</sup> but GMU administrators seemed likely to be aware of this complaint:

- President Merten may or may not have read the original letter, but it certainly went through his office and he was copied by Stough 04/08.
- VP Stough has been the primary contact.
- One of the Deans, presumably Papaconstantopoulos, needed to recommend an inquiry. See Stough's 08/17/10 email.
- Provost Stearns needed to form the inquiry committee.
- GMU Assistant Attorney General **Thomas Mancure** was CC'd, **A.2.14**.

Academics need to evaluate this whole process, *but GMU's response to a similar complaint seems strikingly different from that of Rice. Most puzzling is the seeming lack of action on a Allegation 2 covered by ORI.*

Interesting questions remain unanswered.

Did GMU actually form an inquiry committee in April?

- If so, Was Wegman notified according to procedure?
  - If so, did he take it seriously at that time?
    - Why did August events seem to be a surprise?
  - If not informed, why not? That would seem a rules violation.
- If not in April, was the committee really formed in August in response to Bradley or Elsevier?

When did Wegman first learn about the complaints to GMU?

Scott was cleared in March. When did Wegman learn that?

Did Wegman learn about the reason for Rice's clearing Scott?

How long will this continue? It could easily run 300 days more beyond an **inquiry** report that has not yet been provided to Bradley.

How will this process be viewed by experienced academics elsewhere?

How will this process be viewed by ORI and funding agencies?

<sup>87</sup> [statistics.gmu.edu/people\\_pages/wegman.html](http://statistics.gmu.edu/people_pages/wegman.html)

<sup>88</sup> Unlike the WR, no guilt-by-association whatsoever is implied here.





### A.1 GMU University Policy 4007, nominal timeline

The text<sup>90</sup> is annotated with event labels [A] and nominal elapsed days [+N days], ignoring the many “as soon as possible” notes and possibilities of challenges. For something as simple as a few pages of obvious cut-and-paste plagiarism, one would expect this to go much faster. The rest should be assumed as quoted except for annotations in [brackets]. Bold is mine.

Under “Results of Inquiry” is found:

“(f) A recommendation as to whether the complainant should be notified of the results of the inquiry...”

And under “The committee then prepares a final investigation report to the Vice President” is found:

“(h) Includes a recommendation as to whether the complainant should be notified of the results of the investigation”

*Hence, GMU procedures seem to allow zero notification to a complainant.*

All policies in a quick sample of 6 other universities required that the complainant/whistleblower be notified of the results at each of those stages.<sup>91</sup>

“**Subject:** Misconduct In Research and Scholarship

**Responsible Parties:** Vice President for Research and Economic Development, Deans and Institute Directors, Provost, President  
“

“Research misconduct” means fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results. Research misconduct does not include honest error or differences of opinion.

- (a) Fabrication is making up data or results and recording or reporting them.

<sup>90</sup> [universitypolicy.gmu.edu/4007res.html](http://universitypolicy.gmu.edu/4007res.html)

<sup>91</sup> [guru.psu.edu/policies/Ra10.html](http://guru.psu.edu/policies/Ra10.html) Pennsylvania State U  
[www.upenn.edu/almanac/v49pdf/030506/misconduct.pdf](http://www.upenn.edu/almanac/v49pdf/030506/misconduct.pdf) U Pennsylvania  
[orc.osu.edu/documents/Misconduct\\_Policy.pdf](http://orc.osu.edu/documents/Misconduct_Policy.pdf) Ohio State U  
[www.research.northwestern.edu/ori/misconduct](http://www.research.northwestern.edu/ori/misconduct) Northwestern U  
<https://policy.itc.virginia.edu/policy/policydisplay?id=%27res-004%27> U Virginia  
[www.president.umd.edu/policies/docs/III-110A.pdf](http://www.president.umd.edu/policies/docs/III-110A.pdf) U Maryland

- (b) Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
- (c) Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.’

‘Notifying Federal agencies as required

For proceedings that involve Federal support and research misconduct as defined by the funding agency, the university meets the reporting requirements of the funding agency relating to the decision whether an investigation is warranted. The university may be required to provide the research records and evidence reviewed during the inquiry, transcripts or recordings of any interviews, and copies of all relevant documents, among other materials.

The university also meets the reporting requirements of the funding agency pertaining to –

- (a) Any plans to close a case at the inquiry, investigation, or appeal stage on the basis that the respondent has admitted guilt, a settlement with the respondent has been reached, or for any other reason than a finding that an investigation is not warranted or that no misconduct occurred; and
- (b) The outcome of the investigation and any administrative actions against the respondent.’

### **2. Conduct of research misconduct proceedings.**

**Making an allegation [A] [0 assumed when complaint reaches correct person, can take a week or so]**

An allegation of research misconduct may be made by disclosing the alleged misconduct to the respondent’s Dean or Institute Director, the Vice President for Research and Economic Development, or any other member of the university’s administrative or professional faculty (or, if the allegation involves Federal support and research misconduct as defined by the funding agency, to an official of that agency) through any means of communication. Allegations received by a person other than the respondent’s Dean or Institute Director should be promptly referred to the Dean or Director.

The complainant has a duty to make the allegation in good faith. Bad faith allegations will be treated seriously. If at any point in a research

misconduct proceeding the Vice President or the respondent's Dean or Institute Director believes that the allegation was not made in good faith, that official refers the matter for appropriate handling under existing university procedures. In addition, if the respondent is a member of the faculty, he or she may bring a grievance under the grievance provisions of the Faculty Handbook.

#### Eligibility to conduct a research misconduct proceeding

Only university employees may serve on an inquiry or investigative committee in a research misconduct proceeding. However, the university may obtain the advice of non-employees with relevant expertise at any stage of the proceeding, including the preliminary assessment of the allegation. Except in extraordinary circumstances, the majority of a committee's members are tenured faculty.

#### Preliminary assessment of allegation

**Within 14 days of receiving an allegation of research misconduct** (or as soon as possible if this time limit cannot be met), the respondent's **Dean or Institute Director assesses the allegation to determine if an inquiry is warranted** and notifies the Vice President and the Provost of his or her determination.

#### **[B][+14 days]**

Except in extraordinary circumstances, an allegation that is not made in writing or subsequently reduced to writing and supported by specific evidence does not warrant an inquiry. An inquiry is warranted if the alleged conduct meets the definition of research misconduct in this policy and is sufficiently credible and specific so that potential evidence of research misconduct may be identified. If the alleged conduct fails to meet these criteria, no inquiry is conducted. If the alleged conduct meets these criteria, the Dean or Director determines if it involves Federally-supported research, as described in the regulations of the funding agency, or other support under an agreement between the university and another party. **A research misconduct proceeding is not discontinued as a result of the termination of a respondent's employment or the respondent's refusal to cooperate in the conduct of the proceeding.**

#### Initiation of inquiry

The purpose of an inquiry is to conduct an initial review of the evidence to determine whether to recommend that an investigation be conducted.

**Within 14 days of receiving a determination that an inquiry is warranted** (or as soon as possible if this time limit cannot be met), the **Provost appoints an inquiry committee and a chair of that committee** from among individuals who do not have real or apparent conflicts of interest in the case, are unbiased, and have the necessary expertise to evaluate the evidence and issues related to the allegation. **The Dean or Institute Director then makes a good faith effort to provide notice to the presumed respondent, if any.** This notice includes a statement of the allegation, a description of the inquiry process, the identities of the members of the inquiry committee, and all applicable university policies. **[C][+28 days]**

The respondent may challenge a member of the inquiry committee on the basis of conflict of interest or bias by submitting the challenge in writing to the Provost within five days of receiving the notification. The Provost determines whether and with whom a challenged member is replaced. The respondent may challenge the replacement in the same manner. If the inquiry subsequently identifies additional respondents, the Dean or Director promptly provides notice to them in the same manner.

#### Inquiry process

**[D] [+28 days]At the inquiry committee's first meeting, the Dean or Institute Director reviews the charge with the committee and discusses the allegations, any related issues, the appropriate procedures for conducting the inquiry, and the timeframe for completing it.** The committee reviews the evidence and may interview the complainant, the respondent, and others with knowledge of relevant circumstances. After completing its initial review of the evidence, the committee prepares a draft inquiry report and gives the respondent a reasonable opportunity to provide written comments on it. **The inquiry committee completes the inquiry, including the preparation of a final inquiry report that includes any comments received from the respondent, within 60 days of the committee's first meeting** unless the Dean or Director determines, and documents in the inquiry record, that the circumstances warrant a longer period.

#### **[E] [+88 days]**

Results of inquiry

The inquiry committee prepares an inquiry report to the Dean or Institute Director in which it recommends whether an investigation should be conducted. An investigation is warranted if there is a reasonable basis for concluding that the alleged conduct falls within the definition of research misconduct under this policy and preliminary information-gathering and preliminary fact-finding from the inquiry indicates that the allegation may have substance. The committee's inquiry report contains the following:

- (a) The name and position of the respondent;
- (b) A description of the allegations of research misconduct;
- (c) Any Federal or other external support involved, including, for example, grant numbers, grant applications, contracts, and publications listing that support;
- (d) The basis for recommending that the alleged actions warrant an investigation;
- (e) Any comments on the report by the respondent;
- (f) **A recommendation as to whether the complainant should be notified of the results of the inquiry and, if so, which parts of the report, if any, should be included in the notification and whether the notification should require that the information be maintained confidentially;** and
- (g) Any recommendations the committee may have to refer any of its findings to other university officials for appropriate action, if the committee does not recommend that an investigation be conducted.

University determination based on inquiry

**Within 14 days of receiving the inquiry report (or as soon as possible if this time limit cannot be met), the Dean or Institute Director determines whether to conduct an investigation,** provides notice to the respondent of this determination, provides the respondent a copy of the inquiry report and this policy, acts on the other recommendations of the inquiry committee, and notifies the Vice President of the determination and provides the Vice President with a copy of the documentation. The university counsel reviews the determination for legal sufficiency.

**[F] [+102 days]**

Initiation of Investigation

**The purpose of an investigation is to determine whether research misconduct, as defined in Part II, occurred and, if so, by whom and to what extent. A finding of research misconduct requires that –**

- (a) The misconduct be committed intentionally, knowingly, or recklessly; and
- (b) The allegation be proven by a preponderance of the evidence; and
- (c) There be a significant departure from accepted practices of the relevant research community.

The university has the burden of proof in making a finding of research misconduct. The respondent has the burden of going forward with, and proving by a preponderance of the evidence, any affirmative defenses and any mitigating factors relevant to a decision to impose administrative actions.

**Within 30 days after determining that an investigation is warranted, the Vice President begins the investigation by convening the first meeting of an investigation committee.**

**[G] [+132 days]**

The Vice President appoints the investigation committee and a chair of that committee from among individuals who do not have real or apparent conflicts of interest in the case, are unbiased, and have the necessary expertise to evaluate the evidence and issues related to the allegation.

**Members of the inquiry committee may not serve on the investigation committee unless their expertise is essential.**

The Vice President provides notice of the commencement of the investigation to the respondent within seven days after determining that an investigation is warranted. This notice includes a statement of the allegation, a description of the investigation process, and the identities of the members of the investigation committee. The respondent may challenge a member of the investigation committee on the basis of conflict of interest or bias by submitting the challenge in writing to the Vice President within five days of receiving the notification. The Vice President determines whether and with whom a challenged member is replaced. The respondent may challenge the replacement in the same manner.

Investigation process

**At the investigation committee's first meeting, the Vice President reviews the following: the allegations, the findings of the inquiry, the procedures and standards for conducting the investigation, confidentiality obligations, the need for an investigation plan, the possible penalties for a finding of misconduct, and the timeframe for completing the investigation.** The university counsel accompanies the Vice President at the first meeting of the investigation committee and remains available to advise the committee during its investigation. If the investigation discloses any allegation against the respondent not addressed during the inquiry or in the initial notice of the investigation or any allegation against an additional respondent, the committee reports the allegation to the Vice President, who refers it to the respondent's Dean or Institute Director for a preliminary assessment of the allegation and other appropriate steps as provided in this policy. If that officer finds that the allegation meets the definition of research misconduct in this policy and is sufficiently credible and specific, he or she provides the respondent against whom the allegation is made notice of the decision to pursue the allegation within a reasonable time.

In conducting the investigation, the committee –

(a) Uses diligent efforts to ensure that the investigation is thorough and sufficiently documented and includes examination of all research records and evidence relevant to reaching a decision on the merits of the allegations;

(b) Interviews each respondent, complainant, and any other available person who has been reasonably identified as having information regarding any relevant aspects of the investigation, including witnesses identified by the respondent; and

(c) Pursues diligently all significant issues and leads discovered that are determined relevant to the investigation, including any evidence of additional instances of possible research misconduct, and continues the investigation to completion.

The committee ensures that any interview conducted during the investigation is recorded, that a transcript of the recording is prepared, that the interviewee is provided a copy of the transcript for correction and the opportunity to comment on its contents, and that the transcript and any comments of the interviewee are included in the record of the investigation. The respondent may attend interviews of the complainant and witnesses and direct questions to them. The committee notifies the

respondent at least 14 days in advance of the scheduling of his or her interview and any interview he or she is entitled to attend so that the respondent may prepare for the interview and arrange for the attendance of legal counsel or another authorized representative to advise the respondent at the interview, if the respondent wishes.

#### Results of investigation

After gathering and examining the relevant evidence, the investigation committee –

(a) Prepares a draft investigation report;

(b) Gives the respondent a copy of the draft report, and, concurrently, a copy of, or supervised access to, the evidence on which the report is based; and

(c) Provides notice to the respondent of his or her opportunity to provide written comments on the draft report within 30 days of the date on which he or she received it.

The committee ensures that any comments submitted by the respondent are considered and included in the final investigation report. The committee also gives the university counsel a copy of the draft investigation report to review for legal sufficiency.

**The committee then prepares a final investigation report to the Vice President.** In the report, the committee –

(a) Describes the nature of the allegations of research misconduct;

(b) Describes and documents any Federal or other external support, including, for example any grant numbers, grant applications, contracts, and publications listing that support;

(c) Describes the specific allegations of research misconduct considered in the investigation;

(d) Includes the university policies and procedures under which the investigation was conducted;

(e) Identifies and summarizes the research records and evidence reviewed, identifies any evidence taken into custody but not reviewed, and summarizes the reasons why any evidence was not taken into custody;

(f) Provides a finding as to whether research misconduct did or did not occur for each separate allegation of research misconduct identified during the investigation, and if misconduct was found, (i) identifies it as falsification, fabrication, or plagiarism and whether it was intentional,

knowing, or in reckless disregard; (ii) summarizes the facts and the analysis supporting the conclusion and considers the merits of any reasonable explanation by the respondent and any evidence that rebuts the respondent's explanations; (iii) identifies the specific Federal or other external support, if any; (iv) identifies any publications that need correction or retraction; (v) identifies the person or persons responsible for the misconduct; and (vi) lists any current support or known applications or proposals for support that the respondent or respondents have pending with any Federal agency;

(g) Includes and evaluates any comments made by the respondent on the draft investigation report;

(h) **Includes a recommendation as to whether the complainant should be notified of the results of the investigation and, if so, which parts of the report, if any, should be included in the notification;**

(i) Includes any recommendations it may have for administrative actions relating to the conduct found; and

(j) Includes any recommendations it may have to assist the complainant or any other person who was harmed by the conduct found.

**The committee uses its best efforts to complete the investigation within 120 days of the date on which it began.** For proceedings that involve Federal support and research misconduct as defined by the funding agency, if the committee is unable to complete the investigation within the time prescribed by the funding agency, the Vice President communicates with the agency regarding any requirements relating to an extension. For other proceedings, the Vice President grants an extension for good cause.  
[H] [+252 days]

#### University determination based on investigation

**Upon receiving the final investigation report, the Vice President reviews the report and makes a determination on behalf of the university as to whether research misconduct occurred and, if so, by whom, and whether the university accepts the findings of the investigation.** The Vice President recommends to the Provost what administrative actions, if any, the university should take against the respondent, taking account of the recommendations in the final investigation report. The university counsel reviews the determination and the recommendation of the Vice President for legal sufficiency. **The**

**Provost determines what administrative actions, if any, the university takes against the respondent, except that the provisions of the Faculty Handbook regarding a dismissal for cause apply to that action.**

**The Vice President provides a copy of the final investigation report and the university's decision to the respondent.** If the decision is that the respondent committed research misconduct, the Vice President provides notice to the respondent that he or she may appeal the decision by filing a request for reversal or modification of the decision and grounds for that request with the President within 30 days of receiving the university's decision.

[I] [+282 days]

The President generally issues a written decision on the appeal, including the reasons for the decision, **within 100 days** of the date the appeal is filed. If the university is unable to complete the appeal within the time prescribed by a funding agency, the Vice President communicates with the agency regarding any requirements relating to an extension. The Vice President provides notice of the President's decision to the respondent.

[J] [+382 days]



## A.2 Communications

This PDF gathers various letters and emails primarily involving UMass Amherst Professor Raymond Bradley and George Mason University (GMU), with a few others that help illuminate this process. This was compiled mostly from material provided by Bradley over last few months. Unlike climategate, no email servers were hacked in the process of doing this, and legitimate recipients provided me copies to gather here.

Communications below are given in chronological order, but individual emails include nested chains of forwarded emails, keeping their general appearance and context. They are marked ① upwards in local chronological order, so the reader may easily find the first in the local chronology and read messages in reverse order. In §2 excerpts are discussed in chronological order. Email addresses are elided, as are most mail addresses. Some images have white space removed to help them fit. Redundant addresses and repeated forwarding's of earlier long emails are removed as well for brevity. Bold within emails exists in the originals. The goal is accurate portrayal of the real communications and sequences of replies and forwarding, although it does complexify reading.

A few annotations are included, and my embedded notes are in *Italics*. Bradley's complaints were based entirely on Deep Climate's work.<sup>92</sup>

### Date Description

- 03/05/10** **Bradley letter → President of GMU, Alan C. Merten**  
Equivalent letter sent to **Rice University** (not shown)  
Allegation 1, plagiarism of Bradley(1999)  
Includes attachments already public at Deep Climate blog
- 03/24/10** **James S. Coleman (Rice VP Research) letter → Bradley**  
Clears Scott because Wegman had taken responsibility.
- 04/08/10** **Roger R. Stough (GMU VP Research) letter → Bradley**  
“each of these take a fair amount of time”
- 05/13/10** **Bradley letter → Stough**  
Allegation 2, notes social networks plagiarism, funding oversight
- 07/13/10** **Bradley letter → Stough**
- 07/28/10** **Stough letter → Bradley**
- 08/16/10** **Bradley email → Stough → John Fedor (Elsevier)**
- 08/16/10-** **Stough email → Fedor → Stough → Fedor**
- 08/21/10** **Screenshot from Wegman's public Facebook page**  
“Want to know a bad week” - plagiarism complaint made public
- 10/08/11** **Dan Vergano writes first article for USA Today.**
- 10/11/10** **Bradley email (not shown) → GMU → Bradley**  
“A few more weeks.”
- 12/06/10** **Bradley email → Stough → Bradley**  
Replied that could not comment.

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<sup>92</sup> I often post at Deep Climate and have written reports referencing DC's work. Bradley did not communicate with me until much later, as this was kept very quiet. So some comments have incorrectly mis-ascribed this to me or Richard Littlemore.

A.2.1 Bradley letter →President of GMU, Alan C. Merten



UNIVERSITY of MASSACHUSETTS at Amherst  
Morrill Science Center  
611, North Pleasant Street  
AMHERST, MA 01003-9297

Prof. Raymond S. Bradley

DEPARTMENT OF GEOSCIENCES

Tel: -  
Fax: -

March 5th, 2010

Alan G. Merten, President  
Office of the President  
George Mason University  
4400 University Dr. MSN 3A1  
Fairfax, VA 22030

Dear President Merten,

I am writing to lodge a formal complaint of plagiarism by a senior member of your faculty, Professor Edward Wegman, the Bernard J. Dunn Professor of Information Technology and Applied Statistics, Chair of the Data Sciences Program in the School of Computational Sciences, and the Director of the Center for Computational Statistics.

Dr Wegman was the author of the “Ad Hoc Committee Report on the “Hockey Stick” Global Climate Reconstruction”, which was submitted to the United States Congress and entered into the Congressional Record on July 17<sup>th</sup> 2006, at a hearing of the Sub-Committee on Oversight and Investigations of the Committee on Energy and Commerce, House of Representatives (109<sup>th</sup> Congress, 2<sup>nd</sup> Session). The document states clearly that “*This report was authored by Edward J. Wegman, George Mason University, David W. Scott, Rice University, and Yasmin H. Said, The Johns Hopkins University*”.

It is clear from a comparison of the text in Dr Wegman’s report with the text of my book, Paleoclimatology (Academic Press, 1999) that large sections of my book were plagiarized (see enclosed document that compares my text with that of the Wegman report). By closely paraphrasing without any attribution entire paragraphs from my book, Paleoclimatology, and by copying, *verbatim*, many phrases and words from this work, it is clear that Professor Wegman and his co-authors plagiarized my work.

I note that your Faculty Handbook adopts the American Association of University Professors Statement on Plagiarism, which proscribes that,

*“in his or her own work, the professor must scrupulously acknowledge every intellectual debt for ideas, methods, and expressions by means appropriate to the form of communication.”*

The Statement on Plagiarism further states that

*“taking over the ideas, methods, or written words of another, without acknowledgment and with the intention that they be taken as the work of the deceiver, is plagiarism. It is theft of a special kind, for the true author still retains the original ideas and words, yet they are diminished as that author’s property and a fraud is committed upon the audience that believes those ideas and words originated with the deceiver. Plagiarism is not limited to the academic community but has perhaps its most pernicious effect in that setting. It is the antithesis of the honest labor that characterizes true scholarship and without which mutual trust and respect among scholars is impossible.”*

Given the unequivocal stance which you have correctly adopted on this matter, and the unequivocal evidence I have presented in the enclosed document, I have no doubt that you will investigate this matter expeditiously and with due care. I will look forward to hearing from you in the near future.

Sincerely,

Raymond S. Bradley  
Distinguished Professor  
Director, Climate System Research Center

cc. Peter Fontaine Esquire: Cozen, O’Connor  
Clare Truer, Rights Manager, Elsevier Ltd.

A comparison of *Ad Hoc Committee Report* (Wegman, Scott, Said) section 2.1, p.13-4  
and *Paleoclimatology: Reconstructing Climates of the Quaternary* (Bradley) section 10.2

Regular font indicates substantially close wording between the two sources, *italic* represent paraphrased sections, **bold** represents significant departures of Wegman et al from Bradley, and ***bold italic*** represent points of outright contradiction between the two. Paragraphs have been reformatted for easy comparison.

**Wegman – para 1**

A cross section of a temperate forest tree shows variation of lighter and darker bands that are usually continuous around the circumference of the tree. *These bands are the so-called tree rings and are due to seasonal effects.* Each tree ring is composed of large thin-walled cells called early wood and smaller more densely packed thick walled cells called late wood. The average width of a tree ring is a function of many variables including the tree species, tree age, stored carbohydrates in the tree, nutrients in the soil, and climatic factors including sunlight, precipitation, temperature, wind speed, humidity, **and even carbon dioxide availability in the atmosphere.** **Obviously there are many confounding factors** so the problem is to extract the temperature signal and to distinguish the temperature signal from the noise caused by **the many confounding factors.**

*Temperature information is usually derived from interannual variations in the ring width as well as interannual and intra-annual density variations.* Density variations are valuable in paleoclimatic temperature reconstructions because they have a relatively simple growth function that, in mature trees, is approximately linear with age. The density variations have been shown empirically to contain a strong climatic temperature signal. Two values of density are measured within each growth ring: minimum density representing early wood and maximum density representing late wood. *Maximum density values are strongly correlated with April to August mean temperatures in trees across the boreal forest from Alaska to Labrador, Schweingruber et al., (1993).* Both tree ring width and density data are used in combination to extract the maximal climatic temperature

**Bradley – 10.2**

A cross section of most temperate forest trees will show an alternation of lighter and darker bands, each of which is usually continuous around the tree circumference. *These are seasonal growth increments produced by meristematic tissues in the tree's cambium.* When viewed in detail (Fig. 10.1) it is clear that they are made up of sequences of large, thin-walled cells (earlywood) and more densely packed, thick-walled cells (latewood). *Collectively, each couplet of earlywood and latewood comprises an annual growth increment, more commonly called a tree ring.* The mean width of a ring in any one tree is a function of many variables, including the tree species, tree age, availability of stored food within the tree and of important nutrients in the soil, and a whole complex of climatic factors (sunshine, precipitation, temperature, wind speed, humidity, and their distribution throughout the year). The problem facing dendroclimatologists is to extract whatever climatic signal is available in the tree ring data and to distinguish this signal from the background noise.

*Climatic information has most often been gleaned from interannual variations in ring width, but there has also been a great deal of work carried out on the use of density variations, both inter- and intra-annually (densitometric dendroclimatology).* ... It has also been shown empirically that density variations contain a strong climatic signal and can be used to estimate long-term climatic variations over wide areas (Schweingruber et al., 1979,1993). ... Density variations are particularly valuable in dendroclimatology because they have a relatively simple growth function (often close to linear with age). ... Generally, two values are measured in each growth ring: minimum density and maximum density (representing locations within the earlywood and latewood layers, respectively), *although maximum density values seem to be a better climatic indicator than minimum density values.* For example, Schweingruber et al. (1993) showed that maximum density values were strongly correlated with April-August mean temperature in trees across the entire boreal forest, from Alaska to Labrador, whereas minimum and mean density values and ring widths had a much less consistent relationship with summer temperature at the sites sampled (D'Arrigo et al.,1992). ... However, optimum climatic reconstructions may be achieved by using both ring widths and densitometric data to maximize the climatic signal in each sample (Briffa et al., 1995).



**Wegman, para 2**

*Climate signal is strongest in trees that are under stress. Trees growing in sites where climate does not limit growth tend to produce rings that are uniform. Trees that are growing close to their extreme ecological range are greatly influenced by climate. Climate variations strongly influence annual growth increments.*

Two types of stress are commonly recognized, moisture stress and temperature stress. Trees growing in semiarid regions are limited by water availability and thus variations in ring width reflect this climatic moisture signal. Trees growing near to their ecological limits either in terms of latitude or altitude show growth limitations imposed by temperature and thus ring width variations in such trees contain a relatively strong temperature signal.

*However, the biological processes are extremely complex so that very different combinations of climatic conditions may cause similar ring width increments.*

**Photosynthetic processes are accelerated with the increased availability of carbon dioxide in the atmosphere and, hence, it is conjectured that ring growth would also be correlated with atmospheric carbon dioxide; see Graybill and Idso (1993). In addition, oxides of nitrogen are formed in internal combustion engines that can be deposited as nitrates also contributing to fertilization of plant materials. It is clear that while there are temperature signals in the tree rings, the temperature signals are confounded with many other factors including fertilization effects due to use of fossil fuels**

**Bradley - 10.2.1 Sample Selection**

*In conventional dendroclimatological studies, where ring-width variations are the source of climatic information, trees are sampled in sites where they are under stress; commonly, this involves selection of trees that are growing close to their extreme ecological range. In such situations, climatic variations will greatly influence annual growth increments and the trees are said to be sensitive. In more beneficent situations, perhaps nearer the middle of a species range, or in a site where the tree has access to abundant groundwater, tree growth may not be noticeably influenced by climate, and this will be reflected in the low interannual variability of ring widths (Fig. 10.3)...*

In marginal environments, two types of climatic stress are commonly recognized, moisture stress and temperature stress. Trees growing in semiarid areas are frequently limited by the availability of water, and ring-width variations primarily reflect this variable. Trees growing near to the latitudinal or altitudinal treeline are mainly under growth limitations imposed by temperature and hence ring-width variations in such trees contain a strong temperature signal.

*However, other climatic factors may be indirectly involved. Biological processes within the tree are extremely complex (Fig. 10.4) and similar growth increments may result from quite different combinations of climatic conditions. Furthermore, climatic conditions prior to the growth period may "precondition" physiological processes within the tree and hence strongly influence subsequent growth (Fig. 10.5). For the same reason, tree growth and food production in one year may influence growth in the following year, and lead to a strong serial correlation or autocorrelation in the tree-ring record....*

**Wegman – para. 3**

*Wider rings are frequently produced during the early life of a tree. Thus the tree rings frequently contain a low frequency signal that is unrelated to climate or, at least, confounded with climatic effects such as temperature. In order to use tree rings as a temperature signal successfully, this low frequency component must be removed. This is typically done by a nonlinear parametric trend fit using a polynomial or modified exponential curve.*

*Because the early history of tree rings confounds climatic signal with low frequency specimen specific signal, tree rings are not usually effective for accurately determining low frequency, longer-term effects.*

[Note: Wegman fails to distinguish here between individual sample and site chronology.]

**Once there is reasonable confidence that the tree ring signal reflects a temperature signal, and then a calibration is performed using the derived tree ring data and instrumented temperature data. The assumption in this inference is that when tree ring structure observed during the instrumented period that is similar to tree ring structure observed in the past, both will have correspondingly similar temperature profiles. As pointed out earlier, many different sets of climatic conditions can and do yield similar tree ring profiles. Thus tree ring proxy data alone is not sufficient to determine past climate variables. See Bradley (1999) for a discussion of the fitting and calibration process for dendritic-based temperature reconstruction.**

**Bradley 10.2.3**

...It is common for time series of ring widths to contain a low frequency component resulting entirely from the tree growth itself, with wider rings generally produced during the early life of the tree. In order that ring-width variations from different cores can be compared, it is first necessary to remove the growth function peculiar to that particular tree. Only then can a master chronology be constructed from multiple cores. Growth functions are removed by fitting a curve to the data and dividing each measured ring-width value by the "expected" value on the growth curve (Fig. 10.9). Commonly, a negative exponential function, or a lowpass digital filter is applied to the data. ...

*... The resulting "regional curve" provided a target for deriving a mean growth function, which could be applied to all of the individual core segments regardless of length (Fig. 10.13). Averaging together the core segments, standardized in this way by the regional curve, produced the record shown in Fig. 10.12b. This has far more low frequency information than the record produced from individually standardized cores (Fig. 10.12~) and retains many of the characteristics seen in the original data (Fig. 10.12a).*

**10.2.4**

Once a master chronology of standardized ring-width indices has been obtained, the next step is to develop a model relating variations in these indices to variations in climatic data. This process is known as calibration, whereby a statistical procedure is used to find the optimum solution for converting growth measurements into climatic estimates. If an equation can be developed that accurately describes instrumentally observed climatic variability in terms of tree growth over the same interval, then paleoclimatic reconstructions can be made using only the tree-ring data. In this section, a brief summary of the methods used in tree-ring calibration is given.



The following is an example of source confusion:<sup>95</sup>

The comparison of texts shown above was kindly provided by Richard Littlemore:  
<http://deepclimate.files.wordpress.com/2009/12/wegman-bradley-tree-rings.pdf>

In addition, the following highlighted sections in the Wegman et al (2006) report are directly plagiarized, from R.S. Bradley's *Paleoclimatology* (Academic Press, 1999). (Note that much of the text which is *not* highlighted is also closely paraphrased from *Paleoclimatology*, without attribution).

+++++  
**Corals** – The term “coral” refers to the biological order *Scleractinia*, which have hard calcium-based skeletons supporting softer tissues. An important subgroup for paleoclimate studies is the reef-building corals in which the coral polyp lives symbiotically with single-celled algae. These algae produce carbohydrates by means of photosynthesis and are affected by water depth, water turbidity, and cloudiness. Much of the carbohydrates diffuse away from the algae providing food to the coral polyp, which in turn provide a protective environment for the algae. Reef-building corals are strongly affected by temperature and, as temperature drops, the rate of calcification drops with lower temperature potentially presaging the death of the colony. Coral growth rates vary over a year and can be sectioned and x-rayed to reveal high- and low-density bands. High density layers are produced during times of higher sea surface temperatures. Thus not unlike tree rings, data on corals also can be calibrated to estimate (sea) surface temperatures.

**Ice Cores** – The accumulated past snowfall in the polar caps and ice sheets provide a very useful record for paleoclimate reconstruction. We shall refer to ice cores in this section even though strictly speaking there is a combination of snow and ice. Somewhat compressed old snow is called a firn. The transition from snow to firn to ice occurs as the weight of overlying material causes the snow crystals to compress, deform and recrystallize in more compact form. As firn is buried beneath subsequent snowfalls, density is increased as air spaces are compressed due to mechanical packing as well as plastic deformation. Interconnected air passages may then be sealed and appear as individual air bubbles. At this point the firn becomes ice. Paleoclimatic information derived from ice cores is obtained from four principal mechanisms: 1) analysis of stable isotopes of water and atmospheric oxygen; 2) analysis of other gases in the air bubbles in the ice; 3) analysis of dissolved and particulate matter in the firn and ice; and 4) analysis of other physical properties such as thickness of the firn and ice.

The mechanism by which stable isotopes of oxygen and hydrogen carry a temperature signal is as follows. An oxygen atom can exist in three stable forms with atomic weights of 16, 17 or 18. Oxygen with an atomic weight of 16 makes up 99.76% of all oxygen atoms. Similarly, hydrogen can exist in two stable forms with atomic weights of one or two, the latter being called deuterium. Hydrogen with atomic weight of one comprises 99.984% of all hydrogen. Thus water molecules can exist in several heavy forms when compared with normal water, which is made up of two atomic-weight-1 hydrogen atoms and one atomic-weight-16 oxygen atom. The vapor pressure of normal water is higher than the heavier forms of water with evaporation resulting in a vapor that is relatively speaking poor in the heavier forms of water. Conversely, the remaining water will be enriched in water containing the heavier isotopes. When condensation occurs, the lower

vapor pressure of water containing the heavier isotopes will cause that water to condense more rapidly than normal water. The greater the fall in temperature, the more condensation will occur; hence, the water vapor will exhibit less heavy isotope concentration when compared to the original (sea) water. Thus the relative isotope concentrations in the condensate will be a direct indicator of the temperature at which condensation occurred.

In addition to the relative heavy/light isotope ratios, the trapped bubbles in ice cores provide a record of atmospheric concentrations of trace gases including greenhouse gases such as carbon dioxide, methane and nitrous oxide. In addition the ice cores contain record of aerosols and dust content resulting from volcanic eruptions and other changes in particulate content in the atmosphere. The relative atmospheric concentrations of greenhouse gases as well as aerosol and particulate content coupled with other climate information gives insight into both the importance of these as drivers of temperature as well as how these drivers might couple in either a positive or negative feedback sense.

<sup>95</sup> The file mentioned above was part of Deep Climate's first discovery of plagiarism in the Wegman Report, reported 09/22/09 at:  
[deepclimate.org/2009/12/22/wegman-and-rapp-on-tree-rings-a-divergence-problem-part-1/](http://deepclimate.org/2009/12/22/wegman-and-rapp-on-tree-rings-a-divergence-problem-part-1/)

The reference to Richard Littlemore likely arises from Bradley seeing:  
[www.desmogblog.com/plagiarism-conspiracies-felonies-breaking-out-wegman-file](http://www.desmogblog.com/plagiarism-conspiracies-felonies-breaking-out-wegman-file), an early version of:

[www.desmogblog.com/crescendo-climategate-cacophony](http://www.desmogblog.com/crescendo-climategate-cacophony)

Littlemore wrote short introductions to my long reports that integrated the DC Wegman Report discussions as parts into more extensive histories. They heavily cited Deep Climate's work, but that distinction got lost in all this. Of course, plagiarism is obvious enough not to depend on the original discoveries.

The corals and ice cores discussion was likely inspired by DC's 01/06/10 work, although in different format:

[deepclimate.org/2010/01/06/wegman-and-rapp-on-proxies-a-divergence-problem-part-2/](http://deepclimate.org/2010/01/06/wegman-and-rapp-on-proxies-a-divergence-problem-part-2/)

[deepclimate.files.wordpress.com/2010/01/wegman-bradley-ice-cores-corals1.pdf](http://deepclimate.files.wordpress.com/2010/01/wegman-bradley-ice-cores-corals1.pdf)

**A.2.2 James S. Coleman (Rice VP Research) letter → Bradley**



Office of Research

March 24, 2010

Dr. Raymond Bradley  
Distinguished Professor and Director Climate Systems Research Center  
Department of Geosciences  
Morrill Science Center  
611 North Pleasant Street  
University of Massachusetts  
Amherst, MA 01000-9297

Dear Dr. Bradley,

Your letter of March 5, 2010 to President David Leebron was received on March 15, 2010 and on that same date was referred by him to me in my role as Rice University's Research Integrity Officer. In that letter, you allege plagiarism of your text book titled "Paleoclimatology" by Rice University faculty member Dr. David Scott in relation to a report titled "Ad hoc Committee Report on the 'Hockey Stick' Global Climate Reconstruction" that was presented to a Subcommittee of the US House of Representatives' Committee on Energy and Commerce on July 17, 2006. Dr. Scott was a co-author on the report, with Dr. Edward Wegman of George Mason University (lead author) and Dr. Yasmin Said of Johns Hopkins University.

Rice University started an Inquiry into your allegations as outlined in the Rice Research Misconduct Policy [University Policy No. 324 00] ([http://professor.rice.edu/professor/Research\\_Misconduct.asp](http://professor.rice.edu/professor/Research_Misconduct.asp)) including examining your textbook and the report submitted by Drs. Wegman, Scott and Yasmin in order to confirm the information you sent along with your letter. The Inquiry also examined what role Dr. Scott had in preparing the document that was placed into the Congressional Record. During the Inquiry, persuasive evidence was obtained that one of the other authors, Dr. Edward J. Wegman, has taken full responsibility for preparing the allegedly plagiarized text described in the materials you sent to President Leebron. The evidence further indicates that Dr. Scott played no role in preparing or editing the sections that you suggested were allegedly plagiarized and had no knowledge of any such alleged plagiarism, although he was a co-author of the overall report. Therefore, pursuant to Rice University research misconduct policy, Rice University has determined that a formal investigation of the charge against Dr. Scott is not warranted at this time. We will, however, cooperate with research misconduct proceedings that may occur at George Mason University or Johns Hopkins University if asked to do so. Additionally, if we receive new evidence suggesting any misconduct by Dr. Scott with respect to the report in question, or other written materials, we may choose to open an Inquiry.

Page 2 of 2

Thank you very much for your letter. Rice University takes research misconduct seriously and appreciates the concerns you raised.

Sincerely,

James S. Coleman  
Vice Provost for Research

Cc: D. Leebron  
E. Levy

**A.2.3 Roger R. Stough (GMU VP Research) letter → Bradley**



Office of the Vice President  
Research and Economic Development

April 8, 2010

Professor Raymond S. Bradley  
Morrill Science Center  
611, North Pleasant Street  
Amherst, MA 01003-9297

Dear Professor Bradley:

President Alan Merten sent me your letter in which you make a formal complaint of plagiarism by a member of the faculty at Mason. It was sent to me because I am the senior official responsible for processing complaints of this type.

I have initiated our policy for handling such matters. The process may have several stages and each of these take a fair amount of time unless the initial stage comes to an unequivocal conclusion. If the latter occurs I will be in touch with you on the outcome much sooner than if it goes through the full inquiry and investigation stages that of course involve forming peer working groups for completion.

I thank you for bringing this to our attention. I will communicate the outcome when the process runs its due course.

Sincerely,

Roger R. Stough  
Vice President for Research & Economic Development

cc. Alan Merten, President

**A.2.4 Bradley letter → Stough**



**UNIVERSITY of MASSACHUSETTS at Amherst**  
 Morrill Science Center  
 611, North Pleasant Street  
 AMHERST, MA 01003-9297

**DEPARTMENT OF GEOSCIENCES**

**Prof. Raymond S. Bradley**

May 13th, 2010

Dr Roger R. Stough  
 Vice-President for Research & Economic Development  
 Office of the Vice-President  
 George Mason University  
 4400 University Drive, MS 6D5  
 Fairfax, VA 22030

Dear Vice-President Stough,

Thank you for your letter of April 8<sup>th</sup>, in response to my formal complaint of plagiarism by Professor Edward Wegman, Bernard J. Dunn Professor of Information Technology and Applied Statistics. Please note that my address is “*Dept of Geosciences, Morrill Science Center...etc*” so that future correspondence will not be delayed.

I would like to draw your attention to further evidence that other sections of the Wegman Report also appear to have been plagiarized from Stanley Wasserman and Katherine Faust, **Social Network Analysis: Methods and Applications** (New York, Cambridge University Press, 1994): Section 1.3 – Fundamental Concepts in network analysis.

This was reported on the web site:  
<http://deepclimate.org/2010/04/22/wegman-and-saids-social-network-sources-more-dubious-scholarship/>

I enclose a copy of their extensive analysis.

The reported plagiarism also points to a number of federal grants that may be implicated in this matter, which raises a whole set of additional oversight concerns of which you should be aware.

Let me state that I do not wish to perpetuate this matter unnecessarily or to have it vetted publicly if this can be avoided. I therefore would consider withdrawing my request for further action on this matter if Dr. Wegman would make a formal written request to Congressmen Waxman and Barton (Chairman and Ranking Minority Member of the House Energy and Commerce Committee, respectively) requesting that the report formally be withdrawn due to these technical errors which seriously compromise its credibility and value in the context of temperature reconstruction and paleoclimatology. I believe strongly that the report no longer should be part of our Nation’s Congressional Record without some explanation of these technical errors.

Thank you for taking this matter seriously, and I look forward to learning what action you will take.

Sincerely,

Raymond S. Bradley  
 Distinguished Professor  
 Director, Climate System Research Center

**A.2.5 Bradley letter → Stough**



**UNIVERSITY of MASSACHUSETTS at Amherst**  
 Morrill Science Center  
 611, North Pleasant Street  
 AMHERST, MA 01003-9297

**DEPARTMENT OF GEOSCIENCES**

**Prof. Raymond S. Bradley**

Tel:  
 Fax:

[EMAIL](#)

July 13th, 2010

Dr Roger R. Stough  
 Vice-President for Research & Economic Development  
 Office of the Vice-President  
 George Mason University  
 4400 University Drive, MS 6D5  
 Fairfax, VA 22030

Dear Vice-President Stough,

On April 8<sup>th</sup> 2010, you responded to my formal complaint of plagiarism by Professor Edward Wegman, by saying that an inquiry had been initiated, but that this might involve several steps which could take some time. On May 13<sup>th</sup>, I sent additional information showing the plagiarism by Dr Wegman is more widespread than I had originally realized.

Can give me an update on where your inquiry now stands and what action you propose to take on this matter?

I appreciate that you are taking this matter seriously.

Sincerely,

Raymond S. Bradley  
 Distinguished Professor  
 Director, Climate System Research Center

“*Their extensive analysis*” references DC’s work.

**A.2.6 Stough letter → Bradley**



Office of the Vice President  
Research and Economic Development

July 28, 2010

Raymond S. Bradley  
University of Massachusetts at Amherst  
Morrill Science Center  
611 North Pleasant Street  
Amherst, MA 01003-9297

Dear Professor Bradley,

Thank you for your letter dated July 13, 2010 in which you ask for an update on Mason's inquiry into your formal complaint of plagiarism.

The committee was formed in April 2010. Its work has been slowed with the checkerboard summer absence of the faculty members constituting the inquiry committee from campus. I expect the committee to complete their work by the end of September, 2010.

Thank you again for your inquiry.

Sincerely,

Roger R. Stough  
Vice President for Research & Economic Development

**A.2.7 Bradley email → Stough → John Fedor (Elsevier) → Bradley**  
*For chronological order, read next two messages from ① to ⑦.*

③ From: **Fedor, John** (ELS-BUR) <[FEDOR EMAIL](#)>  
Date: Mon, Aug 16, 2010 at 7:17 PM  
Subject: RE: Wegman, plagiarism & Elsevier  
To: [STOUGH EMAIL](#), "raymond s. bradley" <[BRADLEY EMAIL](#)>  
Hi Roger,  
Thank you for confirming that a report will be submitted to Elsevier by the end of September. However, I will need updates prior to September 30 indicating that progress is being made with regard to a response directly from Edward Wegman regarding this issue. This is extremely important and I will continue to follow up with you until I have evidence that you and your team are looking into this matter. The unattributed use of Ray Bradley's content is obvious, and I will continue to reach out to you until we have an indication that you are taking this matter as seriously as Elsevier.

Best,  
John

② -----Original Message-----  
From: [STOUGH EMAIL](#) [mailto:[STOUGH EMAIL](#)]  
Sent: Monday, August 16, 2010 3:44 PM  
To: raymond s. bradley  
Cc: Fedor, John (ELS-BUR)  
Subject: Re: Wegman, plagiarism & Elsevier

John, yes we plan to have a report on this matter by end of September.  
Roger

① raymond s. bradley wrote:  
> Dear Dr Stough,  
> Please feel free to discuss this matter with John Fedor of Elsevier or  
> any member of the Elsevier Legal Department.  
> Sincerely  
> Ray Bradley



**A.2.8 Stough email → Fedor → Stough → Fedor → Bradley**

⑦ From: **Fedor, John (ELS-BUR)** <[FEDOR EMAIL](#)>  
 Date: Tue, Aug 17, 2010 at 9:50 PM  
 Subject: FW: RE: RE: Wegman, plagiarism & Elsevier  
 To: "raymond s. bradley" <[BRADLEY EMAIL](#)>

Hi Ray,  
 FYI from Roger Stough. I told him I'd remain in contact until the matter is resolved.  
 Best,  
 John

⑥ -----Original Message-----  
 From: Roger Stough [mailto:[STOUGH EMAIL](#)]  
 Sent: Tuesday, August 17, 2010 9:29 PM  
 To: Fedor, John (ELS-BUR)  
 Subject: Re: RE: RE: Wegman, plagiarism & Elsevier  
 Our process involves initially a review by the Dean of the College of Science, the home of Dr. Wegman. The Deans review resulted in a call for an inquiry. Following that a committee was formed but it was not possible to get the very highly qualified team of three on the committee together even for an initial formative meeting due to end of semester congestion and the fact that at least one of the members was away from campus at all times until the end of this week. The initial meeting of the Inquiry meeting is being scheduled for early next week at which time the Committee will go to work on this matter. The committee has been asked to prepare a report on the inquiry with recommendations before the end of September and sooner if at all possible. So we are moving with dispatch at this point. Roger

=====

Newly published books

1. Acs/Stough (Eds.) Public Policy in an Entrepreneurial Economy (2008), Springer, Heidelberg, Germany.
2. Button/Stough Telecommunications, Transportation, and Location (2006), Edgar Elgar, MA, USA.
3. Rietveld/Stough (Eds.) Barriers to Sustainable Transport(2005), Spon Press, NY, NY.

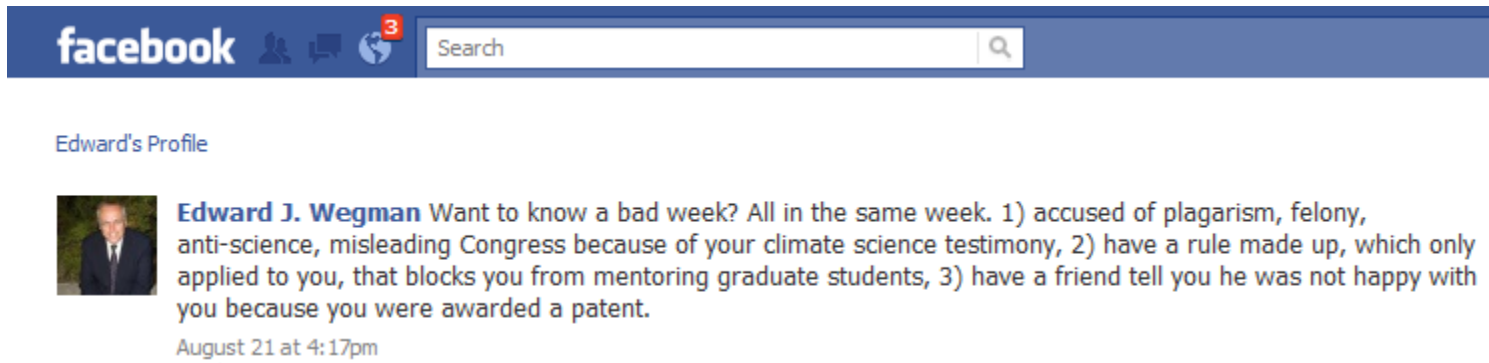
⑤ ----- Original Message -----  
 From: "Fedor, John (ELS-BUR)" <[FEDOR EMAIL](#)>  
 Date: Tuesday, August 17, 2010 10:12 am  
 Subject: RE: RE: Wegman, plagiarism & Elsevier

> Thanks, Roger. As long as I have confirmation that progress is being  
 > made, that will suffice. I don't need direct contact with Dr.  
 > Wegman at  
 > this point.  
 >  
 > Best,  
 >  
 > John

④ > -----Original Message-----  
 > From: Roger Stough [mailto:[STOUGH EMAIL](#)]  
 > Sent: Monday, August 16, 2010 8:46 PM  
 > To: Fedor, John (ELS-BUR)  
 > Subject: Re: RE: Wegman, plagiarism & Elsevier  
 >  
 > I will get back to you in a few days after discussing with Mason's  
 > legal department. The issue is that it will be difficult for us to  
 > complete our inquiry as prescribed by our policy if Dr. Wegman is  
 > having communication with you while the inquiry is in progress.  
 >  
 > Please advise if you want to talk directly with our legal department  
 > on this matter. Roger Stough  
 >

*(Forwarded copy of the mail on A.2.7 has been deleted.)*

### A.2.9 Screenshot from Wegman's public Facebook page



This post was discovered in October.<sup>96</sup>

It seems to contradict the 07/28/10 comment by GMU's Roger Stough that an inquiry Committee had been formed in April 2010. GMU Policy 4007 requires that the respondent be notified at that time:<sup>97</sup>

“Initiation of inquiry The purpose of an inquiry is to conduct an initial review of the evidence to determine whether to recommend that an investigation be conducted. Within 14 days of receiving a determination that an inquiry is warranted (or as soon as possible if this time limit cannot be met), the Provost appoints an inquiry committee and a chair of that committee from among individuals who do not have real or apparent conflicts of interest in the case, are unbiased, and have the necessary expertise to evaluate the evidence and issues related to the allegation. **The Dean or Institute Director then makes a good faith effort to provide notice to the presumed respondent, if any.** This notice includes a statement of the allegation, a description of the inquiry process, the identities of the members of the inquiry committee, and all applicable university policies.

The respondent may challenge a member of the inquiry committee on the basis of conflict of interest or bias by submitting the challenge in writing to the Provost within five days of receiving the notification.”

<sup>96</sup> Thanks to Derecho64:

[deepclimate.org/2010/10/08/wegman-under-investigation-by-george-mason-university/#comment-6005](http://deepclimate.org/2010/10/08/wegman-under-investigation-by-george-mason-university/#comment-6005)

<sup>97</sup> [universitypolicy.gmu.edu/4007res.html](http://universitypolicy.gmu.edu/4007res.html)

- 1) Plagiarism charges must arise from Bradley's complaint. The other comments likely derive from my March report that suggested such be investigated, as Bradley does not mention them.
- 2) It seems odd that GMU would take this action before an inquiry committee first meets, so this seems unrelated to Bradley's complaint.
- 3) The patent issue seems unrelated, so far.

Sometime between 08/16/10 and 08/23/10, some relevant files disappeared from a GMU server ([www.galaxy.edu](http://www.galaxy.edu)) and a reference to one was edited out of the Fall 2007 GMU seminar history Friday 08/20/10 at 6:56 AM.<sup>98</sup>

IF GMU formed the committee in April, THEN EITHER:

- GMU did not notify Wegman
- OR
- GMU did notify Wegman, but he did not react strongly then.

IF GMU did not form the committee in April, THEN

- perhaps it was actually formed the week of August 16.

From outside GMU, it is of course impossible to know.

<sup>98</sup> This is discussed in detail in Appendix A.11 in:

[deepclimate.org/2010/09/26/strange-scholarship-wegman-report](http://deepclimate.org/2010/09/26/strange-scholarship-wegman-report)



**A.2.10 Bradley email (not shown) → GMU → Bradley**

*Thomas Moncure is an Assistant Attorney General at GMU.*

**① Subject: Fwd: Re: Wegman, plagiarism & Elsevier**

Date: Mon, 11 Oct 2010 15:24:45 -0400

From: Roger Stough <[STOUGH EMAIL](#)>

Subject: Re: Wegman, plagiarism & Elsevier

Sender: [STOUGH EMAIL](#)

To: "raymond s. bradley" <[BRADLEY EMAIL](#)>

Cc: Thomas M Moncure <[MONCURE EMAIL](#)>

Dear Dr. Bradley, our process has taken a bit longer than expected. So it will be a while yet (a few weeks I would guess) before we have completed the review of your plagerism allegation. Thanks, Roger

**Update History**

V1.0 12/xx/10 Original release.