



Evaluating the Diffusion of Information from a Federal Research Agency Blog: A Case Study from the National Institutes of Health

Office of Portfolio Analysis Poster Meeting

July 23, 2014

Natcher Conference Center

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Office of Planning, Analysis and Communications
Office of Extramural Research (OER), Office of the Director (OD)
National Institutes of Health (NIH)



- **Background on *Rock Talk* blog**
 - **Blog goals**
 - **Distribution**
 - **Audience**
- **Evaluation Goals**
- **Methods**
- **Results**
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U.S. Department of Health & Human Services



Extramural Nexus

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Rock Talk

Helping connect you with the NIH perspective

Understanding How Funds Expire

2

Posted on [September 9, 2013](#) by [Sally Rockey](#)

I have detected conversation swirling in our community about a rumored change in NIH's policy for granting no-cost extensions. The thought is that no-cost extensions should not be sought because if funds remain at the end of the project period then NIH will take money back from the grantee. [Continue reading](#) →

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Posted in [Rock Talk](#) | Tagged [Budget](#), [Grants policy](#) | [2 Replies](#)

Keeping Up With the Biomedical Research Workforce Initiative

5

Posted on [August 30, 2013](#) by [Sally Rockey](#)

Over the past two years I've frequently discussed the recommendations from the NIH Advisory Committee to the NIH Director (ACD) on the Biomedical Research Workforce. I know there's been loads of information coming from us about how we are implementing these recommendations. I'm happy to share our new website that compiles all of this biomedical workforce initiative information. [Continue reading](#) →



Dr. Sally Rockey is NIH's Deputy Director for Extramural Research, serving as the principal scientific leader and advisor to the NIH Director on the NIH extramural research program.

Blog Policies

Learn More

- [NIH Grants Website](#)
- [Office of Extramural Research](#)

Posts by Month

Archives

2013

- [September 2013](#)
- [August 2013](#)
- [July 2013](#)
- [June 2013](#)

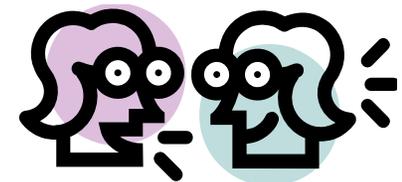


NIH National Institutes of Health
Office of Extramural Research

Data provided by the Division of Statistical Analysis & Reporting (DSAR)/OPAC/OER
Contact: OERStats@mail.nih.gov

Rock Talk Blog Goals

- **Provide visibility into NIH decision-making**
- **Engage, educate, and provide transparency into NIH policy, research investments and workforce**
- **Establish a new avenue for dialogue with the extramural community**





Transparency and Open Government

“My Administration is committed to creating an unprecedented level of openness in Government. We will work together to ensure the public trust and establish a system of transparency, public participation, and collaboration. Openness will strengthen our democracy and promote efficiency and effectiveness in Government.”

Presidential Memorandum on Transparency and Open Government



National Institutes of Health
Office of Extramural Research

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Qualitative Evidence of Achieving Transparency

“Transparency: Two years of blogging the NIH”

Nature 493, 298–299 (17 January 2013)

COMMENT



Two years of blogging the NIH

Sally Rockey, deputy director of extramural research at the US National Institutes of Health, reflects on the second anniversary of her precedent-setting blog.

298 | NATURE | VOL 493 | 17 JANUARY 2013
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In 2010, a few of my staff members began pressuring me to start a blog. Although my friends and colleagues will attest that I'm not a shy or soft-spoken individual, I was, to put it mildly, reticent. Blogging was relatively new territory for government officials at the time. There were some outstanding examples of blogs by science-oriented government officials, such as the White House Office of Science and Technology Policy, which by then had been running for a couple of years (www.whitehouse.gov/administration/eop/ostp/blog). Jeremy Berg, former director of the National Institute of General Medical Sciences, had also successfully established a following on the blog Feedback Loop (<http://blogs.nigms.nih.gov>), so I knew that it could be done well. But how would people respond to a National Institutes of Health (NIH) blog on extramural research policy? And how would it fit in to our work of supporting biomedical research?

My staff knew that I wanted transparency to be a centrepiece of my tenure at the NIH, and felt that the biomedical research community would find it refreshing to hear more from NIH management. Revealing how we do our business as we are developing policies and processes, and presenting data and information that shed light on the impact of our decisions, seemed like the right thing to do.

On 19 January 2011, I launched the Rock Talk blog (<http://news.nih.gov/rock-talk>). Two years later, I'm delighted that I did (even though I have taken heat for using too many exclamation marks). As of 2 January 2013, I've written 107 blog posts, averaging about 40,000 page views a month. A steady stream of comments keeps me on my toes (see “Top ten hits”). For the first time, the NIH was presenting data from all of its institutes and centres, and was sharing its analysis of funding trends on a forum where scientists could give their own opinions and reactions directly.

My first data-sharing post looked at trends in funding at various types of research institution — showing, for instance, that the majority of NIH funds go to medical schools, and that distributions to for-profit institutions have increased since the 1980s. Within two weeks, the post generated nearly 20 comments, about everything from the ethics of training non-US scientists to the importance of including more MD-trained investigators.

A SENSE OF COMMUNITY
We learned a lot about our constituents' interests and needs through the blog, and we have been able to highlight behind-the-scenes data, actively engage the community in policy-making and provide insight into our decisions. Without public input, effective and impactful policy cannot be created. My blogging experience has convinced me that using social-media platforms is one effective way for science-funding agencies

to communicate in real time. For example, when Hurricane Sandy hit the US east coast in October 2012, we posted advice on what awardees should do if their labs were affected by the storm, and highlighted relevant resources and guidance for dealing with natural disasters.

I am often asked whether I really read and respond to comments in person. I do check them every day, on average, some I answer myself and some with the assistance of my blog team (made up of four staff who help regularly, plus five or so who contribute when needed). At times, the criticism of the NIH or even of me is harsh, and can feel personal. But I understand. In this time of tightening budgets, the topic of funding is very personal, and I understand the commenters' frustrations. The blog is moderated and we have had to screen out a very few comments that are off-topic, constitute a personal attack on another

of popular entries on the NIH Rock Talk blog generated many

shows the average age of NIH principal investigators (PI) by members, showing that more scientists are becoming

the relationship between the various scores applicants correlate to success rates.

links on funding for the 2011 fiscal year.

as on the 2011 success rates, and an explanation of how to find this information on

active data on the effect of potential policy changes, and an invitation for scientists to

ment on how best to manage the NIH during times of austerity.

ing rates for NIH applicants with PhDs, MDs or both.

showing that preventing applicants from resubmitting proposals twice enables the

award more proposals earlier in the application process, and doesn't penalize young

passed 2013 budget and follow-up post to “How Do You Think We Should Manage

so in Fiscally Challenging Times?”.

we look at practice support, scientists' salaries and time to first tenure-track job, using

from the US National Science Foundation's Survey of Earned Doctorates.

announcement of the decision to add an extra layer of review for well-funded applicants.

commenter or discuss the details of individual grants or applications (see the commenting

policy at go.nature.com/jpwoap).

The blog post that has received the most comments to date, “How Do You Think We Should Manage Science in Fiscally Challenging Times?”, was also one of the shortest. In fewer than 300 words, it asked scientists for their thoughts on how best to manage the NIH during times of austerity. This level of transparency into our thinking about future funding strategies was a novelty. The post also linked to interactive data charts

that allowed readers to manipulate variables to see how their proposed changes to the size and numbers of grants we fund would affect success rates. We received more than 250 comments, including suggestions to take a closer look at how much funding was being given to individual scientists. We reviewed the suggestions and instituted our new Special Council Review policy to provide additional consideration of applications from principal investigators with existing NIH research project grants of US\$1 million or more in direct costs (see M.Berg.Nature.499.203.2012).

Blog posts containing data have clearly been the most popular (see table). Another common theme of my posts is debunking urban myths about NIH-supported research. Ideas for these posts come from blog readers' comments, grantee e-mails, discussions with attendees at research conferences and more. For example, in “Myth Busting: Number of Grants per Investigator” we showed that the myth that many principal investigators

continuously add to their bounty by piling on more and more NIH awards is untrue. The data we provided showed that the investigators who received the top 20% of funding in 2009 averaged only 2.2 grants each. (This example also illustrates how readers interact with the blog — they noticed that we had posted the wrong information in one of our graphs, which led to a follow-up post correcting the information and elaborating on the data we presented.) Blogging is a lot of work, but it is also fun and enlightening. It would not be possible without the help of my Rock Talk blog and data teams, who provide statistical analyses, help me to decide on which topics to cover and moderate and respond to comments. I encourage others in science policy to get into blogging with their eyes open, recognizing the level of effort required to care for and maintain a blog. Potential bloggers should be aware of the long-term commitment needed to determine which issues are blog-worthy and of interest to the community. Rock Talk has sometimes covered topics that reveal NIH idiosyncrasies. But I think that is what makes the blog real and helps us to connect with the community. If you are not a reader of Rock Talk, I hope you will check it out. If you are, hopefully you know by now that I welcome your ideas, through either commenting on the blog or even starting a blog of your own. Conversation is an integral part of the policy-making process, and helps the biomedical research enterprise to keep on rockin'.

Sally Rockey is deputy director of extramural research at the National Institutes of Health, Bethesda, Maryland 20892, USA. e-mail: sally.rockey@nih.gov

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<http://www.nature.com/nature/journal/v493/n7432/full/493298a.html>



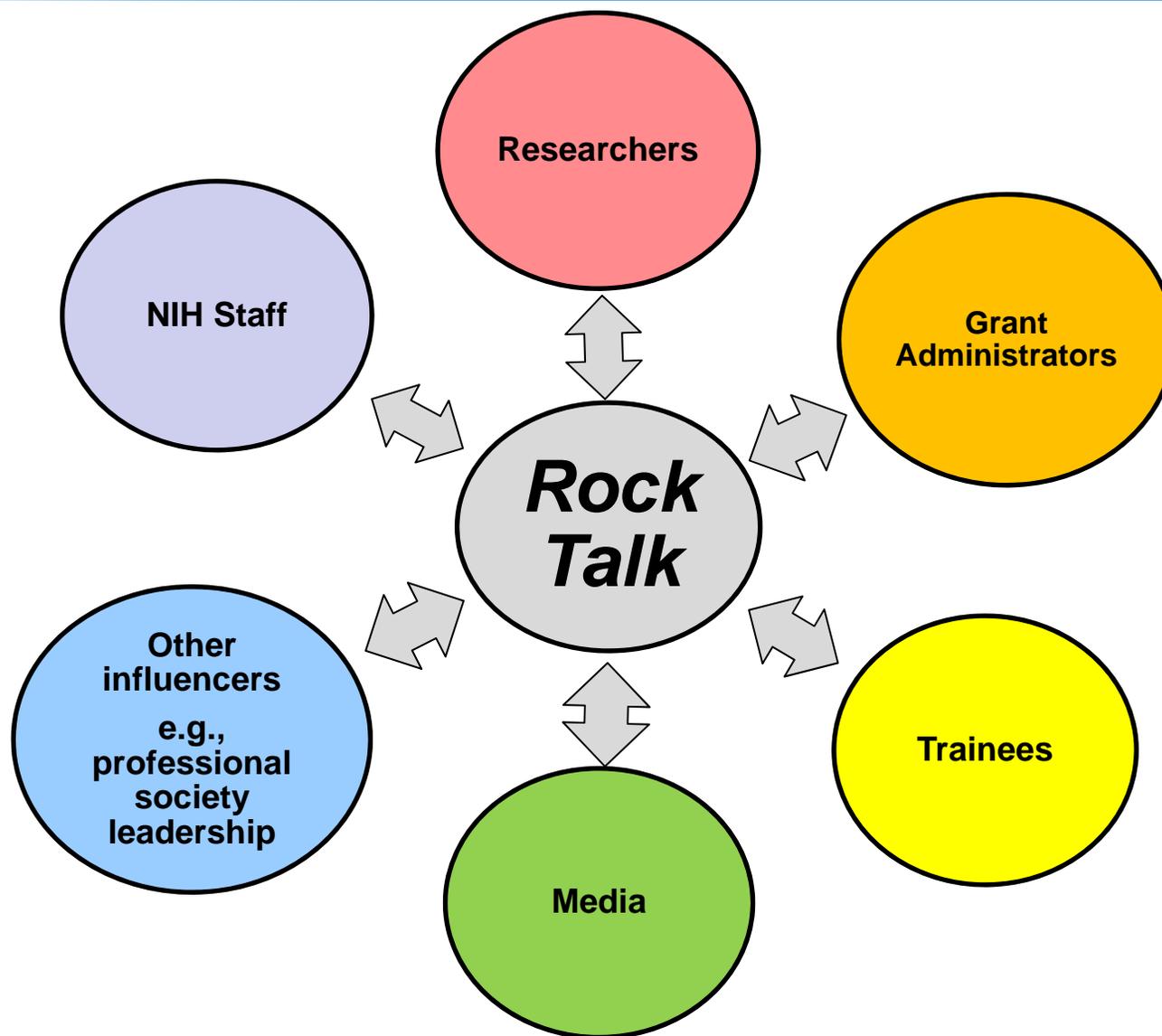
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Rock Talk Distribution

- Average of 1 blog post/week on NIH website
- NIH Extramural *Nexus* monthly email update sent to listserv of ~90,000 email addresses
 - *Nexus* website includes blog posts as well as other news
- NIH also disseminates blog through:
 - RSS feed 
 - Tweets by Dr. Sally Rockey (@RockTalking) and NIH OER communications team (@NIHgrants) 



Blog Audience: Biomedical Research Community





Science Insider

Breaking news and analysis from the world of science policy

JOCELYN KAISER Jocelyn is a staff writer for Science magazine.



NIH Seeks Advice on Budget Crunch

2011-10-18 17:16 | 0 Comments

The grim outlook for biomedical research funding is causing much angst at the \$30.7 billion National Institutes of Health (NIH). In an unusually candid move this week, NIH described some of its tough choices in detail and reached out to the scientific community for advice about how to keep afloat the labs of the investigators it funds.

In a [post](#) yesterday on her Rock Talk blog, NIH Deputy Director for Extramural Research Sally [Rockey](#) explains that NIH's budget has been essentially flat since 2004 and that the agency

Reaching the Media: Initial Evidence of Success

newsblog

Nature brings you breaking news from the world of science



News & Comment News Blog Post

NIH sticks with 'two strikes' grant rule – updated

28 Nov 2012 | 20:52 BST | Posted by Meredith Wadman | Category: Biology & Biotechnology, Health and medicine, Lab life, Policy

The US National Institutes of Health (NIH) will continue a policy that allows grant applicants just one resubmission if their proposal is rejected the first time, the agency announced today.

The policy, launched in 2009 as part of an overhaul of peer review at the NIH, "continues to achieve the stated goals of enabling NIH to fund as much meritorious science as possible in as short a time period as possible," Sally [Rockey](#), the NIH deputy director for extramural research, wrote on her blog [Rock Talk](#).



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JUN 25, 2013

Why medical researchers believe they're in more trouble than we think

By: Alissa Gulin

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applications, the NIH says), whereas all applications, including resubmissions, are included when the percentiles are calculated.

(For more information, see this [blog post](#) by Sally [Rockey](#), deputy director for extramural research at the NIH.)

While these are not encouraging numbers, they don't seem to support the idea that they don't seem to match the doomsday scenario described by many in the research community. But I kept



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Volume 90 Issue 48 | p. 9 | News of The Week

Issue Date: November 26, 2012 | Web Date: November 21, 2012

Strict Enforcement Of Open Access Policy

ral, says Sally [Rockey](#), head of extramural research at NIH. "But our work is not done as there are still and as a consequence, NIH awards—that are not in compliance," she writes on her [Rock Talk blog](#). As a processing of continuation grant awards as soon as next spring if papers stemming from those grants are r



THE ASCB POST

Science news, comment, scientific intelligence, and blogs

Sequestration: The NIH Bookmark You Need Now



If you are among those in the scientific world whose heart goes pit-pat whenever you see an NIH address in your inbox or in the upper left hand corner of an envelope, you might want to add this [bookmark](#) to your browser. It's where NIH will announce the gruesome details of how it will carry out the long threatened federal budget sequestration. Actually you should have this as an all-weather bookmark as it's the "Rock Talk" blog of Sally [Rockey](#), Deputy Director for Extramural Research at NIH and essential reading for grant holders, grant writers, and grant worriers. As with



National Institutes of Health
Office of Extramural Research

Data provided by the Division of Statistical Analysis & Reporting (DSAR)/OPAC/OER
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Evaluation Goals

To complement qualitative evidence of blog success to better understand:

- **How blog topics align with audience interests**
- **What topics inspire reader comments**
- **What drives visits to the blog**



- **Evaluated all blog posts since inception on January 19, 2011 through July 24, 2013 for**
 - **Pageviews**
 - **Defined as an instance of a page being loaded by a browser**
 - **Used Google Analytics to measure pageviews over time starting in late May 2011**
 - see <http://www.google.com/analytics/>
 - **Reader comments**
 - **Comment counts collected manually**
- **Developed topic classification scheme and categorized each blog into main topic area**
- **Analyzed pageviews over time for top 10 viewed blogs**



Summary Statistics

Metric	Result
Number of blog posts	138
Total pageviews to <i>Nexus</i>	1,119,158
Total pageviews to blog posts	631,196 (56% of <i>Nexus</i> pageviews)
Total blog comments	2,253
Top viewed blog post	Paylines, Percentiles and Success Rates 28,705 pageviews (5% of total blog pageviews)
Top commented blog post	“How Do You Think We Should Manage Science in Fiscally Challenging Times” 254 comments (11% of total comments)



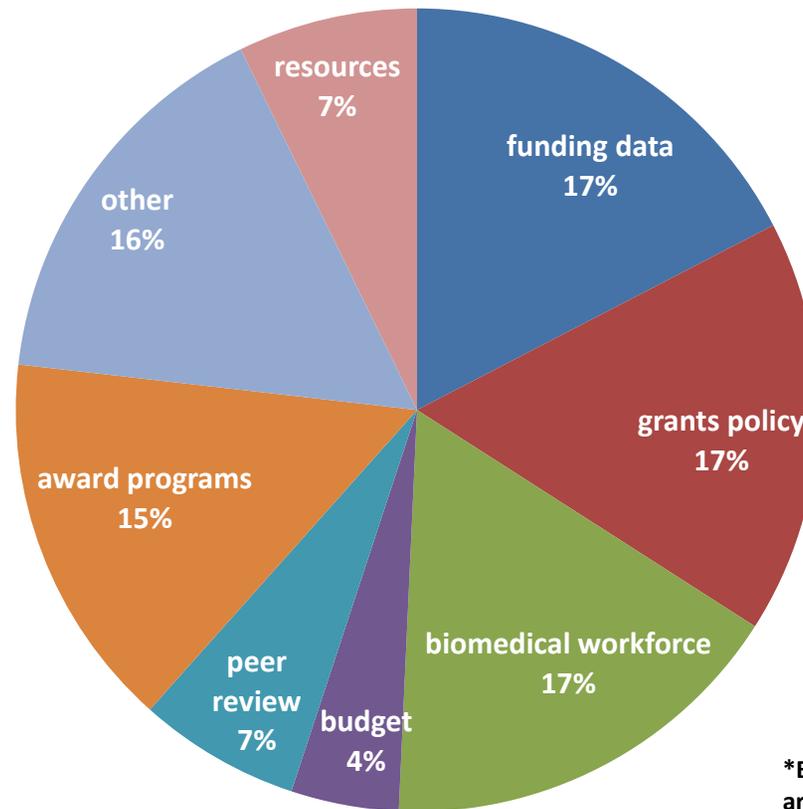
Blog Topic Areas

- **Budget**
 - Overall NIH appropriated budget-related issues
- **Resources**
 - Announcements of new tools, FAQs, etc.
- **Award programs**
 - Specific, high profile and/or trans-NIH programs
- **Grants policy**
 - Changes to grants policies and processes
- **Funding data**
 - Who, what, and how NIH funds
- **Peer review**
 - The review process for NIH grant applications
- **Biomedical workforce**
 - People involved in biomedical research
- **Other**



What Are We Blogging About?

Percentage of Blog Posts in Each Topic Area*

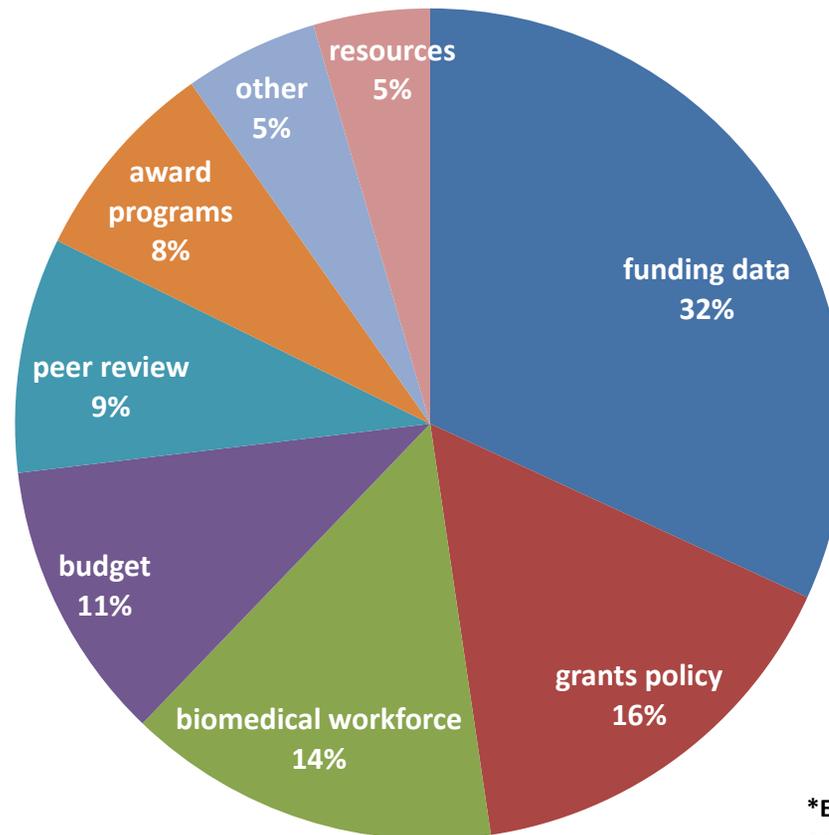


*Each blog is shown under only one topic area. Blogs tagged to more than one topic area were assigned a main topic area.



What Are People Reading?

Percent of Total Pageviews for Each Topic Area*

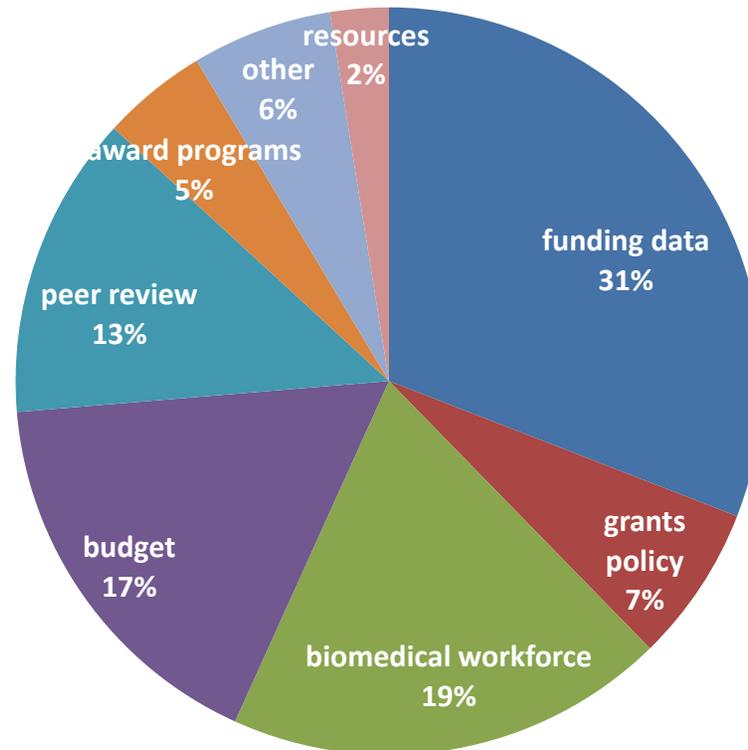


*Each blog is shown under only one topic area. Blogs tagged to more than one topic area were assigned a main topic area.



On Which Topics Do People Comment?

Percent of Total Comments for Each Topic Area*

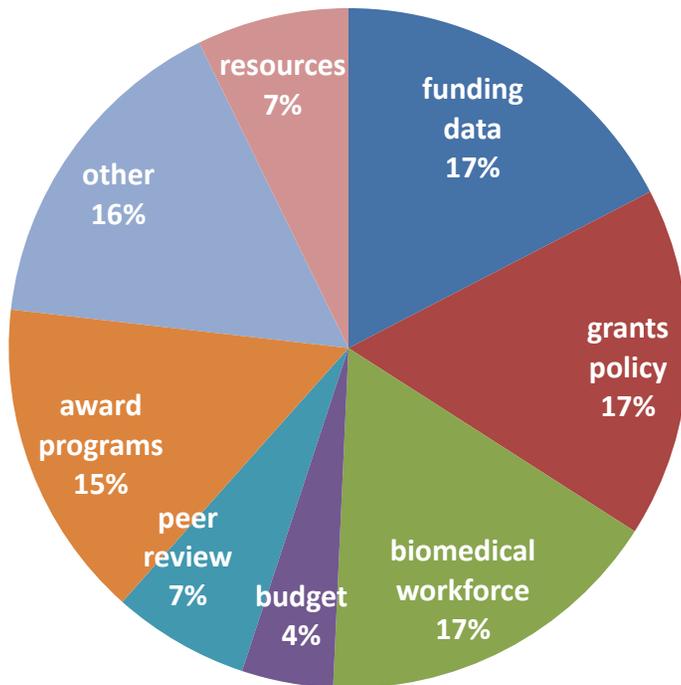


*Each blog is shown under only one topic area. Blogs tagged to more than one topic area were assigned a main topic area.

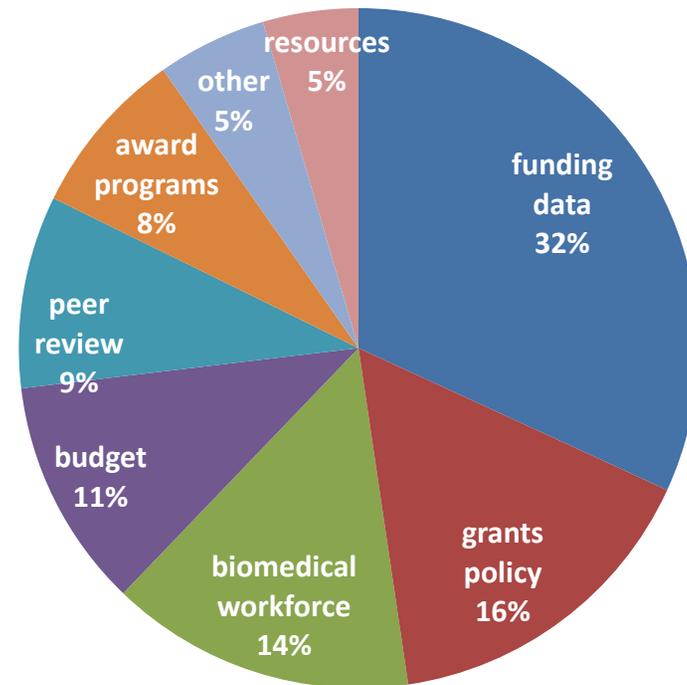


Number of Blog Posts vs. Total Pageviews by Topic Area

Percentage of Blog Posts in Each Topic Area*



Percent of Total Pageviews for Each Topic Area*

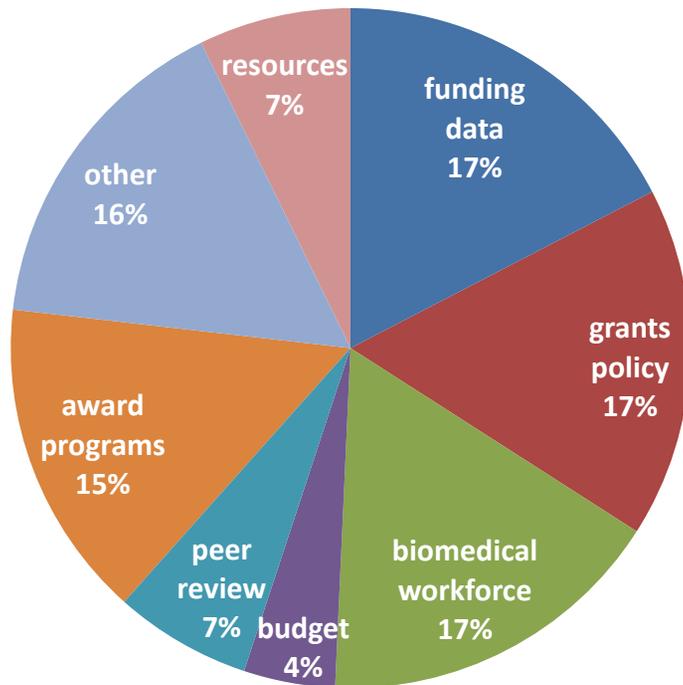


*Each blog is shown under only one topic area. Blogs tagged to more than one topic area were assigned a main topic area.

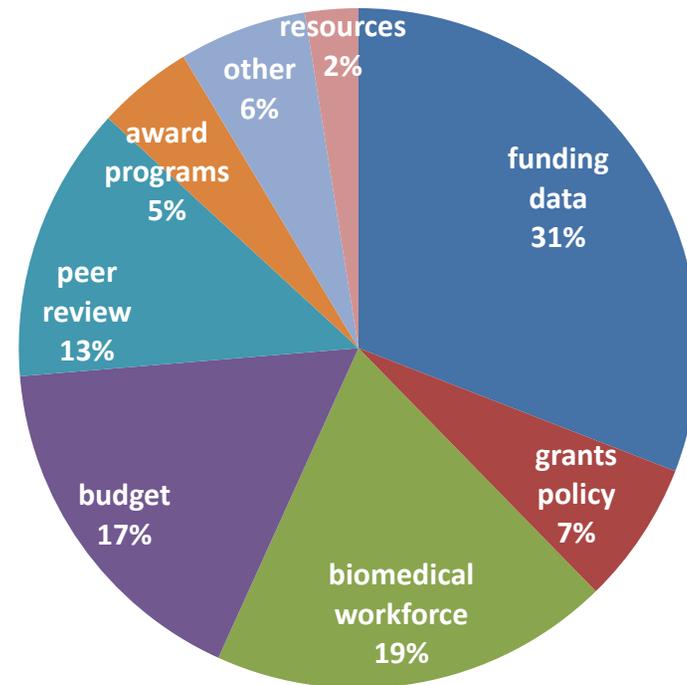


Number of Blog Posts vs. Total Comments by Topic Area

Percentage of Blog Posts in Each Topic Area*



Percent of Total Comments for Each Topic Area*

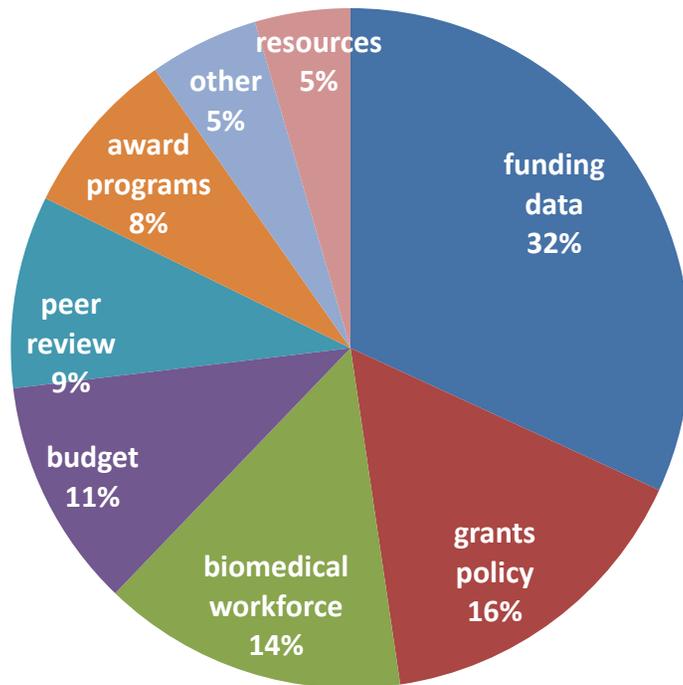


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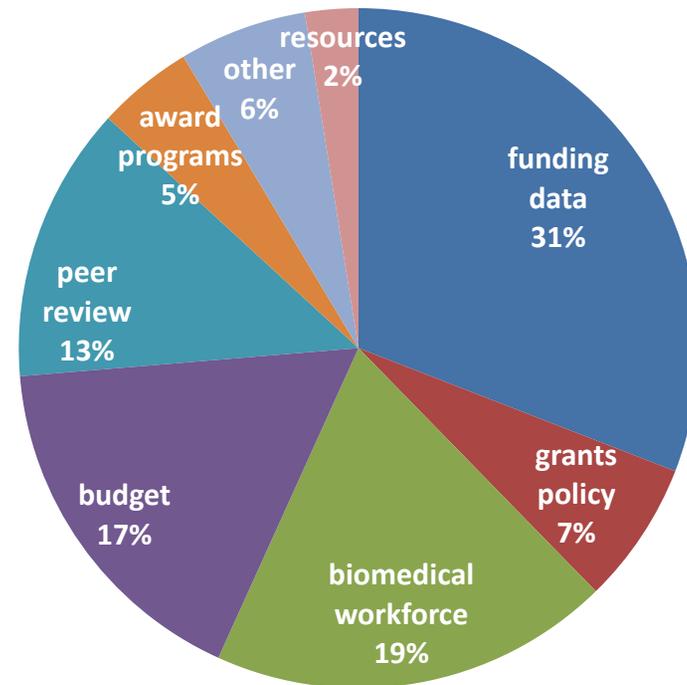


Total Pageviews vs. Total Comments by Topic Area

Percent of Total Pageviews for Each Topic Area*



Percent of Total Comments for Each Topic Area*



*Each blog is shown under only one topic area. Blogs tagged to more than one topic area were assigned a main topic area.

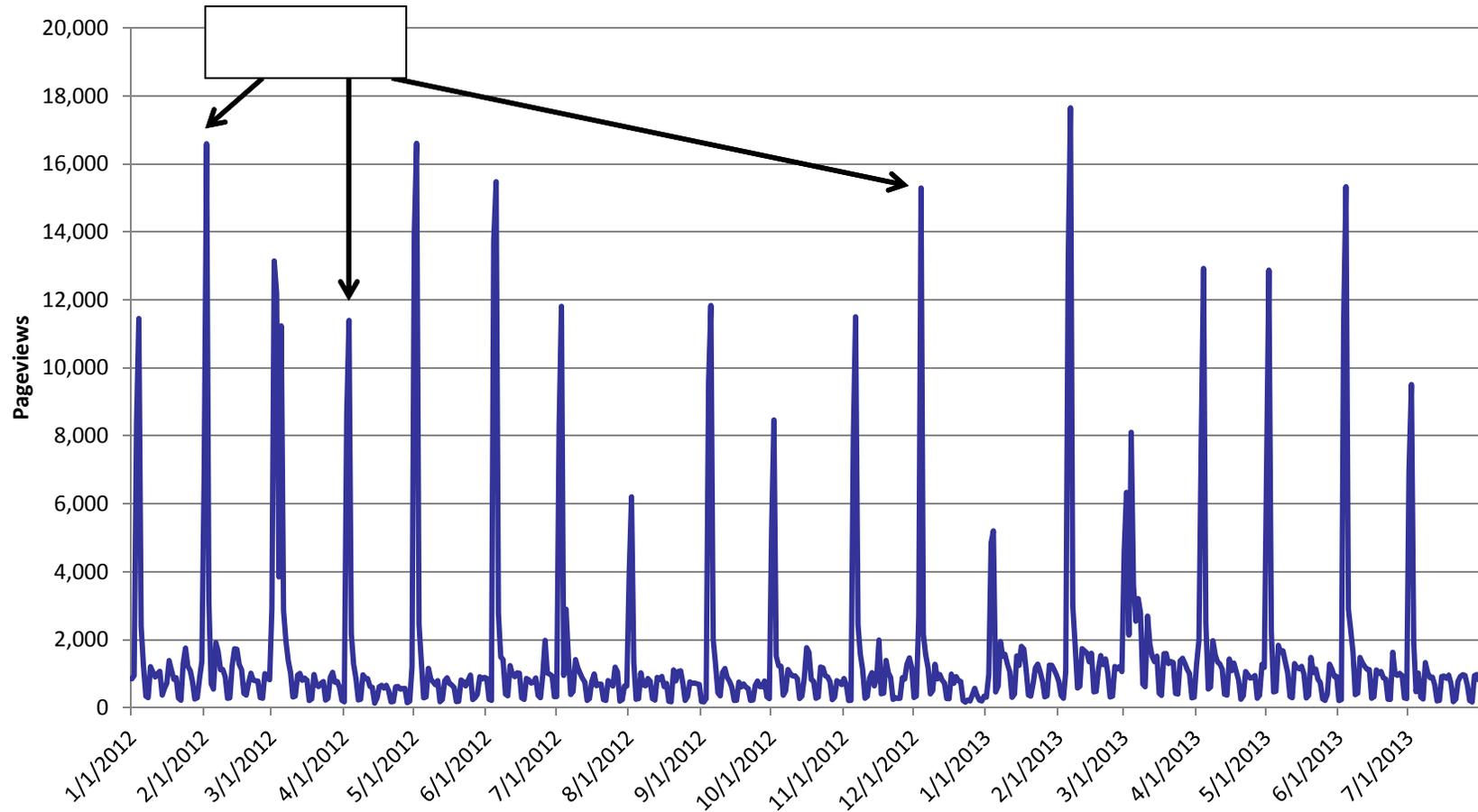


Rock Talk Blog Traffic Drivers

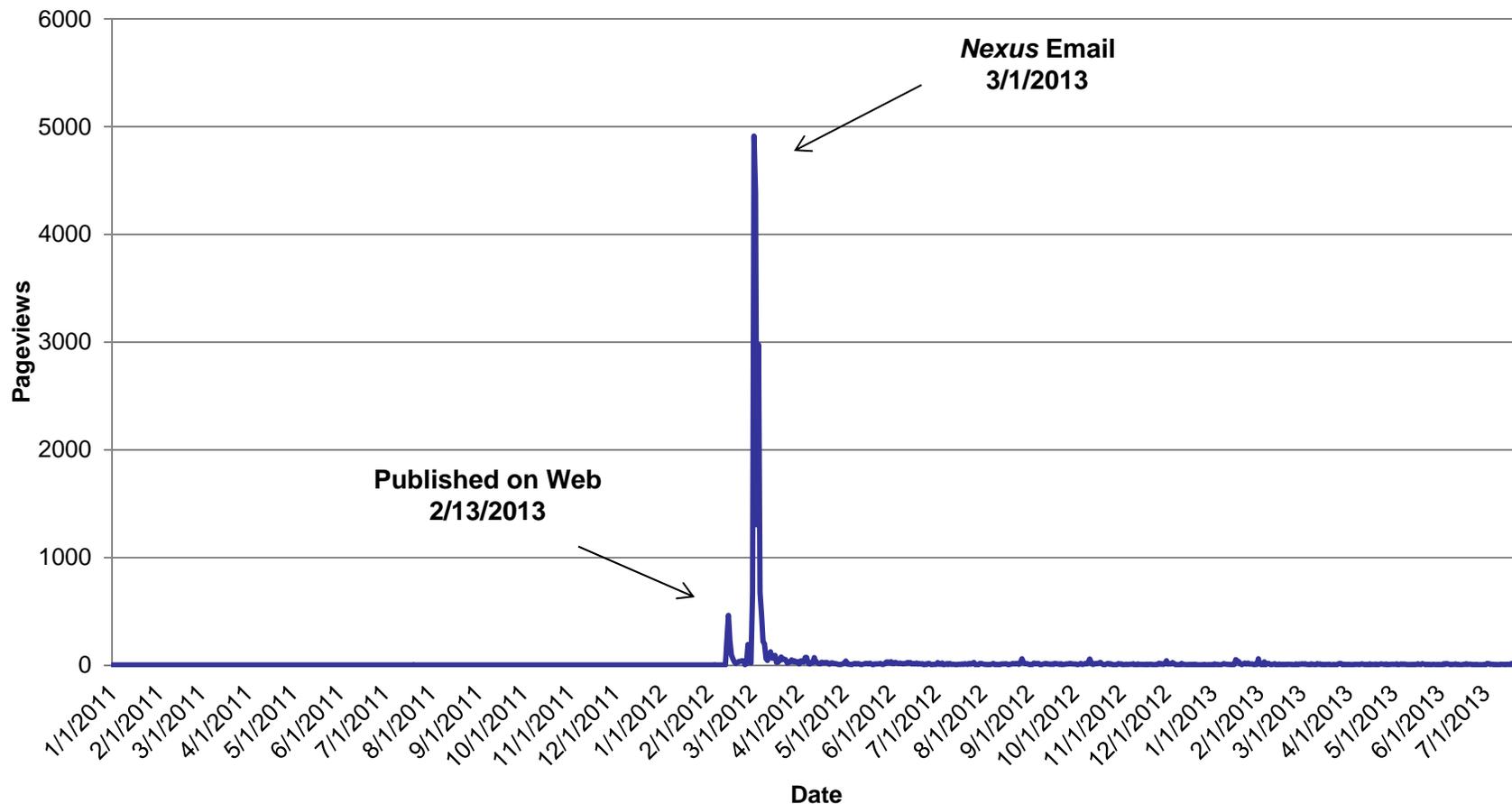


What Drives Visits to the Blog?

Pageviews Over Time for the Entire Nexus Website



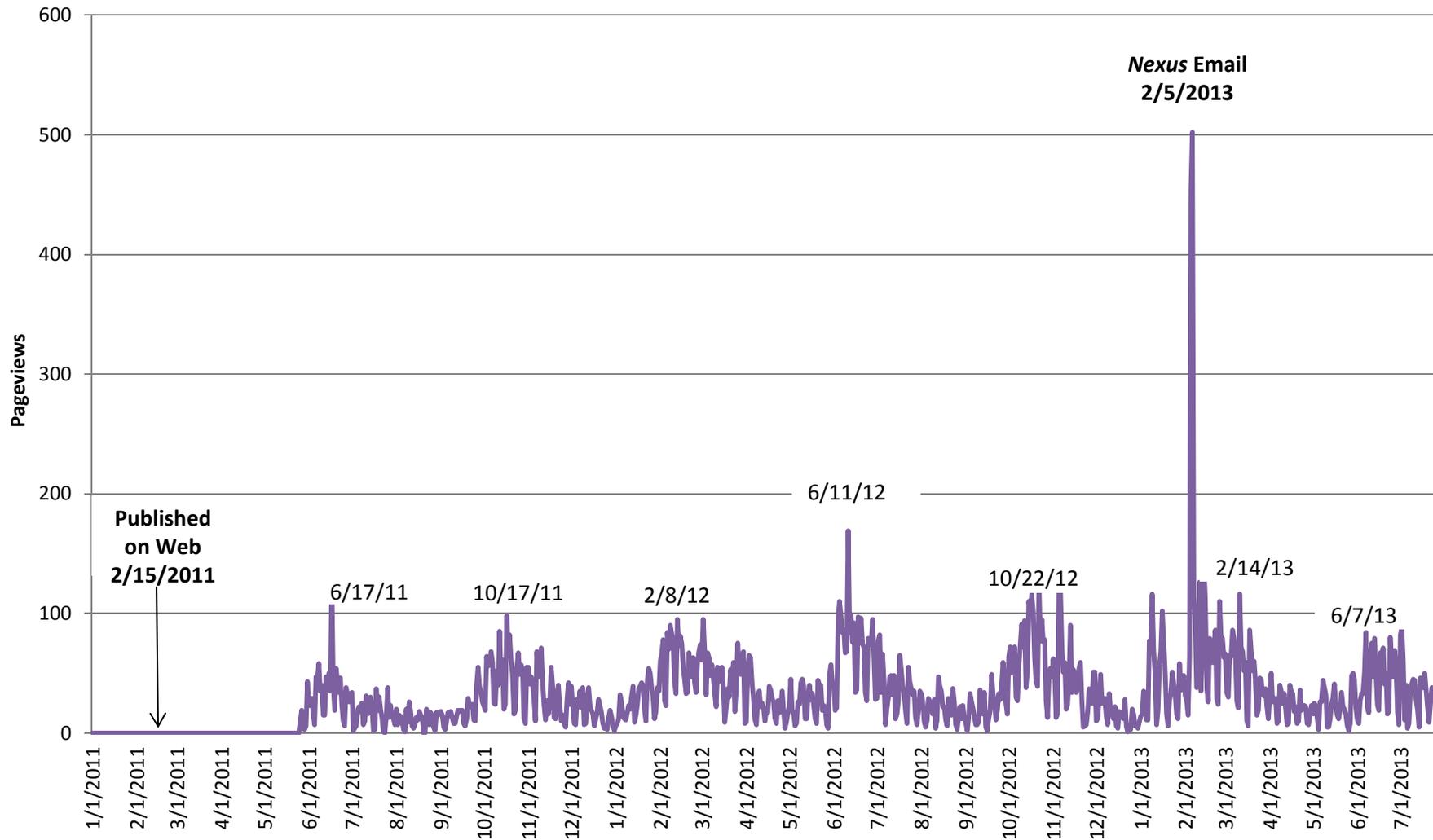
Typical Blog* Reader Behavior for a Post: Single Spike Following *Nexus* Email



*Blog post: "Age Distribution of NIH Principal Investigators and Medical School Faculty"



Atypical Blog* Reader Behavior: Same Post Gets Recurring Hits



*Blog post: "Paylines, Percentiles, and Success Rates"



Conclusions

- **Qualitative evidence suggests we are reaching our target audience**
- **Blog topic areas are relatively evenly distributed**
- **Audience shows greatest interest in funding data, the NIH budget and peer review, as these topics were more highly represented in pageviews and reader comments than in blog posts**
- ***Nexus* email is a much more effective way to disseminate the blog to *our entire audience* than other distribution methods**
 - **However, highly interested influencers monitor blog posts in real time**
- **Some content/data may be more appropriate to post on other NIH web sites, using the blog to point to them**



Limitations

- **Pageview data only available since started using Google Analytics (May 2011)**
- **Comment counts on Google Analytics were not the same as the comment counts on the blog**
- **Could not use average visit duration of individual blog posts due to the way Google Analytics calculates it**
- **Some blog posts were classified to more than one topic, but were reported here under one main topic area due to sparseness of blogs in combined categories**
- **Could not easily characterize readers into different audiences due to the unique source URLs**



Lessons Learned

- **Establish evaluation goals and criteria when setting up blog**
 - **Create custom variables if needed from the beginning**
 - **Additional settings can be added to track reading behavior further**
 - **For example: scrolling on the page or reaching the end of the page**
- **Learn about and understand your audience's interests**
- **Identify what blog content can be reused to strengthen other web resources**
- **Consider additional tools for more comprehensive evaluation**



She [Dr. Rockey] has also won kudos for engaging with the research community through her blog ‘Rock Talk.’ “What a buzz about her blog,” Blum said. “It is the kind of engagement with the community that has done more for NIH in terms of reputation in research administration than anything else.”

Carol Blum, Director of Research Compliance and Administration for the Council on Governmental Relations



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